



Plant and Soil Sciences

2021

Herbicide Evaluation Trials

Dr. Travis Legleiter and Sara Carter

Acknowledgements

Chemicals Used

Definitions

Climatology

Trials

UKREC

21-2	21-4	21-8	21-9	21-10	21-11	21-12
21-13	21-14	21-16	21-17	21-22	21-27	21-28
21-34	21-35					

Spindletop

21-18	21-19	21-20	21-23	21-24	21-32	21-33
21-34-LEX	21-35-LEX	21-36	21-37	21-38		

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PESTICIDES USED

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY</u>
A23372		SYNGENTA
AATREX	ATRAZINE	SYNGENTA
ACURON	S-METOLACHLOR + ATRAZINE + MESOTRIONE + BICYCLOPYRONE	SYNGENTA
ACURON GT	S-METOLACHLOR + ATRAZINE + MESOTRIONE + BICYCLOPYRONE + GLYPHOSATE	SYNGENTA
ACURON XR	S-METOLACHLOR + ATRAZINE + MESOTRIONE + BICYCLOPYRONE	SYNGENTA
ACTIVATOR 90	NON-IONIC SURFACTANT	LOVELAND
AMS	AMMONIUM SULFATE	CLEAN CROP
AMSOL	AMMONIUM SULFATE	WINFIELD
ANTHEM ATZ	ATRAZINE + FLUTHIACET-METHYL + PYROXASULFONE	FMC
ANTHEM MAXX	PYROXASULFONT + FLUTHIACET-METHYL	FMC
ARMEZON PRO	DIMETHENAMID-P + TOPRAMEZONE	BASF
ASSURE II	QUIZALOFOP P-ETHYL	AMVAC
ATRAZINE		VARIOUS
AUTHORITY FIRST	SULFENTRAZONE + CLORANSULAM-METHYL	FMC
AUTHORITY MTZ	METRIBUZIN + SULFENTRAZONE	FMC
AUTHORITY XL	SULFENTRAZONE + CHLORIMURON-ETHYL	FMC
BCS-720	3 WAY MIX	BAYER
BICEP II MAGNUM	ATRAZINE + S-METOLACHLOR	SYNGENTA
BOUNDARY	S-METOLACHLOR + METRIBUZIN	SYNGENTA
BROADAXE XC	SULFENTRAZONE + S-METOLACHLOR	SYNGENTA
CANOPY	METRIBUZIN + CHLORIMURON ETHLY	CORTEVA
CAPRENO	THIENCARBOZONE + TEMBOTRIONE	BAYER
CLASS ACT RIDION	WATER CONDITIONER + SURFACTANT	WINFIELD
CLASSIC	CHLORIMUORN	DUPONT
CORVUS	ISOXAFLUTOLE + THIENCARBAZONE-METHYL	BAYER
CROP OIL CONCENTRATE (COC)		LOVELAND
DELTAFORCE	DRA	LOVELAND
DELTALOCK	PH BUFFER	LOVELAND
DIMETRIC LIQUID	METRIBUZIN	WINFIELD
DRIFT X	DEPOSITOIN AND DRIFT MANAGEMENT	COSTAL AGROBUSINESS
DUAL II MAGNUM	S-METOLACHLOR	SYNGENTA
ENGENIA	DICAMBA	BASF
ENLIST DUO	2,4-D(CHOLINE) + GLYPHOSATE	CORTEVA
ENLIST ONE	2,4-D(CHOLINE)	CORTEVA

PESTICIDES USED (CONTINUED)

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY</u>
EVERPREX	S-METOLACHLOR	CORTEVA
FIERCE EZ	FLUMIOXAZIN + PYROXASULFONE	VALENT
FIERCE MTZ	FLUMIOXAZIN + PYROXASULFONE + METRIBUZIN	VALENT
FIRSTRATE	CLORNSULAM-METHYL	CORTEVA
GLORY	METRIBUZIN	AMVAC
GRAMOXONE	PARAQUAT	SYNGENTA
HARNESS XTRA	ACETOCHLOR + ATRAZINE	BAYER
HARNESS MAX	ACETOCHLOR + MESOTRIONE	BAYER
INDUCE	NONIONIC SURFACTANT	HELENA
INTACT	DRIFT CONTROL + DEPOSITION AID	PRECISION LABS
INTERLINE	GLUFOSINATE	UPI
KYBER	FLUMIOXAZIN + PYROXASULFONE + METRIBUZIN	CORTEVA
LAUDIS	TEMBOTRIONE	BAYER
LIBERTY 280	GLUFOSINATE AMMONIUM	BASF
MAULER	METRIBUZIN	VALENT
MOCCASIN MTZ	METRIBUZIN + S-METOLACHLOR	UPI
MON 301668	ENCAPSULATED ACETOCHLOR	BAYER
MON 51817		BAYER
MSO	METHYLATED SEED OIL	LOVELAND
NIS	NON-IONIC SURFACTANT	VARIOUS
NPAK AMS LIQUID	AMMONIUM SULFATE	WINFIELD
PERPETUO	FLUMICLORAC + PYROXASULFURON	VALENT
PREFIX	S-METOLACHLOR + BENOXACOR	SYNGENTA
PYTHON	FLUMETSULAM	AMVAC
REFLEX	FOMESAFEN	SYNGENTA
RESICORE	ACETOCHLOR + CLOPYRALID + MESOTRIONE	CORTEVA
REVULIN Q	NICOSULFURON + MESOTRIONE	CORTEVA
ROUNDUP POWERMAX	GLYPHOSATE (POTASSIUM SALT)	BAYER
ROUNDUP POWERMAX 3	GLYPHOSATE (POTASSIUM SALT)	BAYER
ROUNDUP WEATHERMAX	GLYPHOSATE (POTASSIUM SALT)	BAYER

PESTICIDES USED (CONTINUED)

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY</u>
SCEPTER	IMAZIQUIN	AMVAC
SCOUT	GLUFOSINATE	VALENT
SELECT MAX	CLETHODIM	VALENT
SENCOR	METRIBUZIN	BAYER
SUPERB HC	CROP OIL CONCENTRATE	AGRSOLUTIONS
SURESTART II	ACETOCHLOR + CLOPYRALID + FLUMETSULAM	CORTEVA
TAVIUM PLUS VAPORGRIP	S-METOLACHLOR + DICAMBA	SYNGENTA
TRIPZIN	PENDIMETHALIN + METRIBUZIN	UPI
TRIVENCE	CHLORIMURON + FLUMIOXAZIN + METRIBUZIN	DUPONT
V-10494		VALENT
VALOR EZ	FLUMIOXAZIN	VALENT
VALOR XLT	FLUMIOXAZIN + CHLORIMURON	VALENT
VERDICT	DIMETHENAMID-P + SAFLUFENACIL	BASF
VOLT EDGE	PH BUFFER	WINFIELD
WARRANT ULTRA	ACETOCHLOR + FOMESAFEN	BAYER
XTENDIMAX WITH VAPORGRIP	DICAMBA + VAPROGRIP TECHNOLOGY	BAYER
ZIDUA PRO	PYROXASULFONE + SAFLUFENACIL + IMAZETHAPYR	BASF

APPLICATION TIMING

PREEMERGENCE

14DPP	14 DAYS PREPLANT
EARPRE	2 WK PREPLANT
PRE, PREEM	PREEMERGENCE
PREMLA	DELAYED PREEMERGENCE
VA	PREEMERGENCE

POSTEMERGENCE

EAPOOCR	V1-V2 CORN; 2-3" WEEDS
EARLY SPRING	EARLY SPRING APPLICATION
EP	EARLY POSTEMERGENCE, WEEDS 0-2"
EPOST	3-5" WEEDS
LAPOCR	>12" CORN, 4-6" WEEDS
LP	LATE POSTEMERGENCE, WEEDS 4-6"
MIPOWE	3-4" WEEDS
MP	MID-POSTEMERGENCE, WEEDS 2-4"
NA1	EARLYPOST-UNIFOLIATE SOYBEAN
NA2	21 DAYS AFTER "A"
POEMAE	3-4 LF WHEAT
POEMSE	SPRING GREENUP
POSPOS	8-11" CORN
POST	3-4" WEEDS, 1-2 TILLERS
SPRING	SPRING APPLICATION
V1	FIRST TRIFOLIATE (SOYBEAN), ONE LEAF WITH COLLAR VISABLE CORN
V2	SECOND TRIFOLIATE (SOYBEAN), 2 COLLAR CORN
V3	THIRD TRIFOLIATE (SOYBEAN), 3 COLLAR CORN
V4	FOURTH TRIFOLIATE (SOYBEAN), 4 COLLAR CORN
V6	SIX TRIFOLIATE (SOYBEAN), 6 COLLAR CORN
1-4 LF	WEEDS
1-2+L	RYEGRASS
25-30DAA	25-30 DAYS AFTER APPLICATION TIMING "A"
42 DAP	42 DAYS AFTER PLANTING (OR PRE)

ACCOS	Hop-hornbeam copperleaf	<i>Acalypha ostryfolia</i>
ALLVI	Wild (field) garlic	<i>Allium vineale</i>
AMACH	Smooth(Green) pigweed	<i>Amaranthus hybridus</i>
AMAPA	Palmer Amaranth	<i>Amaranthus palmeri</i>
AMATA	Common waterhemp	<i>Amaranthus rudis</i>
AMATU	tall waterhemp	<i>Amaranthus tuberculatus</i>
AMBEL	Common ragweed	<i>Ambrosia artemisiifolia</i>
AMBTR	Giant ragweed	<i>Ambrosia trifida</i>
BROTE	Cheatgrass	<i>Bromus tectorum</i>
CAPBP	Shepherd's purse	<i>Capsella bursa-pastori</i>
CARHI	Hairy (bristly) bittercress	<i>Cardamine hirsuta</i>
CERAR	Field chickweed	<i>Cerastium arvense</i>
CERSS	Chickweed	<i>Cerastium sp</i>
CERVU	Mouse ear chickweed	<i>Cerastium fontanum vulgare</i>
CHEAL	Common Lambsquarter	<i>Chenopodium album</i>
CONAR	field bindweed	<i>Convolvulus arvensis</i>
CYPES	Yellow nutsedge	<i>Cyperus esculentus</i>
DIGSA	large crabgrass	<i>Digitaria sanguinalis</i>
DIGSS	Crabgrass	<i>Digitaria sp</i>
ELEIN	Goosegrass	<i>Eleusine indica</i>
EPHHT	Prostrate spurge	<i>Chamaesyce humistrata</i>
EPHNU	Nodding spurge	<i>Chamaesyce nutans</i>
ERIAN	annual fleabane	<i>Erigeron annuus</i>
ERICA	Canada horseweed/marestail/hogweed	<i>Erigeron canadensis (Conyza</i>
ERPVE	Spring whitlowgrass	<i>Draba verna</i>
GERCA	Carolina geranium	<i>Geranium carolinanum</i>
GERSS	Cranesbill	<i>Geranium sp</i>
GLXMA	Soybean	<i>Glycine max</i>
IPOHE	Ivyleaf morningglory	<i>Ipomoea hederacea</i>
IPOSS	Morningglory	<i>Ipomoea sp</i>
LAMAM	Henbit	<i>Lamium amplexicaule</i>
LAMPU	Purple deadnettle/archangel	<i>Lamium purpureum</i>
LAMSS	deadnettle	<i>Lamium sp.</i>
LOLMG	Annual ryegrass	<i>Lolium multiflorum</i>
LOLMU	Italian ryegrass	<i>Lolium perenne</i>
OXAST	European wood sorrel/yellow/upright	<i>Oxalis stricta</i>
POAAN	annual bluegrass	<i>Poa annua</i>
RUMCR	Curly dock	<i>Rumex crispus</i>
SENGL	Cressleaf groundsel	<i>Packera glabella</i>
SETFA	Giant foxtail	<i>Setaria faberi</i>
SIDSP	Prickly sida	<i>Sida spinosa</i>
SORHA	Johnsongrass	<i>Sorghum halepense</i>
STEME	Common chickweed	<i>Stellaria media</i>
TAROF	Blowball/dandelion	<i>Taraxacum officinale</i>
THLAR	Fanweed/Field pennycress	<i>Thlaspi arvense</i>
TRFPR	Red clover	<i>Trifolium pratense</i>
TRFRE	White clover	<i>Trifolium reoens</i>
TRZAW	Winter wheat	<i>Triticum aestivum</i>
VERAR	Corn speedwell	<i>Veronica arvensis</i>
VIORA	violet, field	<i>Viola arvensis</i>
ZEAMX	Corn	<i>Zea mays</i>

Princeton Climate Data, March

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP			EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX		MN
03-01-2021	56	32	44		94	46	52	45		
03-02-2021	51	28	39		95	38	51	40		
03-03-2021	63	27	45		98	33	52	40		
03-04-2021	65	33	49		97	29	54	42		
03-05-2021	46	34	40		75	38	52	42		
03-06-2021	54	28	41		86	27	50	39		
03-07-2021	61	26	43		93	26	53	39		
03-08-2021	66	30	48		90	24	53	41		
03-09-2021	69	36	52		78	32	54	43		
03-10-2021	70	51	60		66	44	55	47		
03-11-2021	71	60	65	0.01	98	56	57	52		
03-12-2021	60	50	55	0.52	100	85	57	53		
03-13-2021	56	46	51	0.16	95	55	54	51		
03-14-2021	58	48	53		63	27	52	48		
03-15-2021	69	48	58	0.53	99	49	57	48		
03-16-2021	72	44	58		97	35	60	49		
03-17-2021	62	48	55	1.11	99	84	58	51		
03-18-2021	62	42	52	0.08	99	75	56	53		
03-19-2021	54	39	46		92	31	53	47		
03-20-2021	64	34	49		82	34	58	44		
03-21-2021	67	31	49		87	22	59	46		
03-22-2021	70	43	56		86	41	59	49		
03-23-2021	66	58	62		82	52	58	53		
03-24-2021	73	51	62		95	38	63	53		
03-25-2021	70	48	59	0.78	100	76	61	54		
03-26-2021	67	52	59		87	44	65	55		
03-27-2021	72	45	58		98	68	64	54		
03-28-2021	66	37	51	0.01	92	34	63	57		
03-29-2021	63	31	47		93	36	61	49		
03-30-2021	75	44	59	2.15	100	32	61	51		
03-31-2021	61	41	51		100	28	59	53		

Summary for the period 3-1-2021 through 3-31-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP			TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX		MN
	64	41	52	5.35	91	43	57	48		
(Deviation from normal)	+3	+5	+4	+0.41						

Princeton Climate Data, April

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
04-01-2021	46	29	37		82	38	51	49			
04-02-2021	51	23	37		87	26	56	44			
04-03-2021	66	37	51		82	25	58	46			
04-04-2021	73	37	55		89	29	62	48			
04-05-2021	76	44	60		87	38	64	51			
04-06-2021	79	52	65		88	36	66	56			
04-07-2021	81	61	71	0.12	96	44	68	58			
04-08-2021	68	55	61	0.47	99	50	66	61			
04-09-2021	82	54	68	0.07	96	28	69	57			
04-10-2021	69	54	61		94	49	67	61			
04-11-2021	70	49	59		78	28	64	57			
04-12-2021	74	43	58		87	31	69	55			
04-13-2021	70	54	62		80	42	69	59			
04-14-2021	59	44	51	0.06	95	53	66	59			
04-15-2021	60	39	49		97	41	64	54			
04-16-2021	62	35	48		97	40	64	53			
04-17-2021	59	44	51	0.07	96	59	63	56			
04-18-2021	63	36	49	0.19	100	47	64	52			
04-19-2021	67	42	54		100	39	67	54			
04-20-2021	70	32	51	0.19	100	41	58	51			
04-21-2021	52	32	42	0.09	100	32	63	51			
04-22-2021	57	37	47		95	34	65	52			
04-23-2021	63	45	54	0.01	87	45	63	55			
04-24-2021	56	50	53	1.52	100	64	60	55			
04-25-2021	68	47	57		100	37	65	53			
04-26-2021	77	42	59		98	34	64	56			
04-27-2021	81	59	70		75	31	71	59			
04-28-2021	78	66	72	0.62	100	68	69	64			
04-29-2021	70	52	61	1.32	100	82	69	66			
04-30-2021	76	48	62		100	30	71	59			

Summary for the period 4-1-2021 through 4-30-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
	67	45	56	4.73	93	41	64	55			
(Deviation from normal)	-4	-2	-3	-0.07							

Princeton Climate Data, May

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP			
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	EVAP
05-01-2021	77	45	61		91	38	72	58		
05-02-2021	72	58	65	0.40	100	49	71	61		
05-03-2021	80	63	71	0.05	100	64	73	63		
05-04-2021	76	58	67	1.90	100	66	70	64		
05-05-2021	64	46	55		98	48	72	62		
05-06-2021	68	42	55	0.29	100	50	69	57		
05-07-2021	69	40	54		100	35	69	54		
05-08-2021	64	52	58		89	58	66	58		
05-09-2021	70	49	59	0.30	100	71	65	58		
05-10-2021	61	47	54		90	55	66	55		
05-11-2021	66	44	55		95	45	68	56		
05-12-2021	65	45	55		81	31	69	56		
05-13-2021	67	42	54		91	30	68	55		
05-14-2021	71	39	55		96	26	74	55		
05-15-2021	71	42	56	0.01	96	36	71	58		
05-16-2021	76	57	66	0.24	100	61	71	61		
05-17-2021	75	60	67		92	56	71	62		
05-18-2021	76	62	69	0.13	94	60	71	64		
05-19-2021	80	66	73	0.09	93	53	73	65		
05-20-2021	84	68	76		70	42	78	65		
05-21-2021	82	63	72		88	37	78	66		
05-22-2021	85	58	71		97	36	82	66		
05-23-2021	85	58	71		100	36	85	67		
05-24-2021	86	60	73		100	38	87	70		
05-25-2021	88	62	75		97	43	85	72		
05-26-2021	77	66	71	0.06	100	68	83	73		
05-27-2021	84	61	72	0.81	100	60	83	69		
05-28-2021	77	53	65	0.04	100	74	82	71		
05-29-2021	57	51	54		98	73	73	63		
05-30-2021	70	45	57		100	37	76	58		
05-31-2021	75	47	61		99	40	81	61		

Summary for the period 5-1-2021 through 5-31-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP			
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	TOTAL EVAP
	74	53	64	4.32	95	49	74	62		
(Deviation from normal)	-6	-3	-5	-0.64						

Princeton Climate Data, June

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
06-01-2021	69	59	64	0.59	100	73	78	67			
06-02-2021	72	64	68	0.96	100	79	71	66			
06-03-2021	77	60	68	0.06	100	55	77	67			
06-04-2021	82	56	69		100	43	82	65			
06-05-2021	86	60	73		100	40	84	69			
06-06-2021	79	69	74	0.47	100	74	81	73			
06-07-2021	81	69	75	0.01	100	69	79	71			
06-08-2021	78	71	74		99	76	78	72			
06-09-2021	83	70	76	0.01	100	65	82	72			
06-10-2021	82	72	77	1.12	100	79	80	74			
06-11-2021	88	71	79		100	66	84	76			
06-12-2021	92	71	81		100	54	88	76			
06-13-2021	90	71	80		100	58	89	77			
06-14-2021	90	67	78		97	37	87	75			
06-15-2021	84	59	71		93	37	80	75			
06-16-2021	86	59	72		100	44	83	71			
06-17-2021	88	62	75		100	37	86	73			
06-18-2021	90	71	80		90	52	85	76			
06-19-2021	86	70	78		93	59	85	76			
06-20-2021	89	69	79		99	54	86	76			
06-21-2021	84	63	73	3.61	100	74	83	75			
06-22-2021	74	56	65		98	44	80	69			
06-23-2021	80	52	66		100	41	80	68			
06-24-2021	83	61	72		94	56	80	70			
06-25-2021	84	75	79		89	75	80	75			
06-26-2021	86	71	78		93	63	82	75			
06-27-2021	88	71	79		96	58	84	75			
06-28-2021	90	72	81		97	56	87	76			
06-29-2021	89	71	80		100	56	86	78			
06-30-2021	86	68	77	0.06	100	65	86	77			

Summary for the period 6-1-2021 through 6-30-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
	84	66	75	6.89	98	58	82	73			
(Deviation from normal)	-3	+3	-0	+3.04							

Princeton Climate Data, July

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	EVAP
07-01-2021	78	70	74	0.70	100	85	82	77			
07-02-2021	78	62	70		100	58	82	74			
07-03-2021	79	58	68		97	50	82	72			
07-04-2021	83	58	70		100	50	83	72			
07-05-2021	87	63	75		100	52	84	74			
07-06-2021	89	69	79		100	51	85	77			
07-07-2021	86	67	76		100	60	83	76			
07-08-2021	89	71	80		100	58	79	76			
07-09-2021	87	70	78		100	56	80	76			
07-10-2021	86	69	77	1.94	100	67	79	75			
07-11-2021	79	68	73	1.62	100	77	78	75			
07-12-2021	82	70	76	0.30	100	76	78	76			
07-13-2021	84	69	76		100	63	80	76			
07-14-2021	86	68	77		100	57	79	75			
07-15-2021	88	70	79		100	59	80	76			
07-16-2021	86	72	79	0.09	99	64	79	75			
07-17-2021	85	72	78	0.02	99	67	79	75			
07-18-2021	78	68	73	1.89	100	85	76	74			
07-19-2021	83	69	76		100	60	78	74			
07-20-2021	84	67	75		98	55	78	74			
07-21-2021	85	66	75		100	58	85	76			
07-22-2021	85	66	75		100	63	86	76			
07-23-2021	86	67	76		100	61	80	74			
07-24-2021	89	67	78		100	64	88	77			
07-25-2021	92	73	82	0.17	100	63	84	78			
07-26-2021	90	71	80		100	64	89	79			
07-27-2021	90	70	80		100	49	82	79			
07-28-2021	90	68	79		100	56	85	76			
07-29-2021	90	69	79		100	66	83	77			
07-30-2021	87	70	78	0.02	100	68	83	78			
07-31-2021	85	66	75	0.28	100	66	84	78			

Summary for the period 7-1-2021 through 7-31-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	TOTAL EVAP
	85	68	77	7.03	100	62	82	76			
(Deviation from normal)	-4	+2	-1	+2.74							

Princeton Climate Data, September

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
09-01-2021	83	63	73	0.26	100	55	81	74			
09-02-2021	81	60	70		99	49	82	71			
09-03-2021	81	56	68		100	49	79	71			
09-04-2021	81	58	69		100	58	80	71			
09-05-2021	78	59	68	0.22	100	60	78	74			
09-06-2021	84	54	69		100	40	80	69			
09-07-2021	84	54	69		100	39	80	70			
09-08-2021	83	57	70		98	36	78	70			
09-09-2021	80	50	65		100	41	78	69			
09-10-2021	81	51	66		100	41	78	69			
09-11-2021	82	60	71		95	54	78	71			
09-12-2021	85	63	74		99	57	80	71			
09-13-2021	89	63	76		100	48	82	72			
09-14-2021	87	70	78		100	59	82	75			
09-15-2021	83	66	74	0.06	100	66	80	75			
09-16-2021	84	66	75		100	58	80	75			
09-17-2021	79	65	72	0.46	100	80	77	72			
09-18-2021	84	68	76		100	66	80	74			
09-19-2021	76	67	71	0.01	100	82	78	74			
09-20-2021	84	69	76		99	66	80	74			
09-21-2021	78	63	70	0.94	100	79	79	75			
09-22-2021	65	50	57	0.59	100	67	76	70			
09-23-2021	70	44	57		100	41	73	64			
09-24-2021	76	45	60		100	43	73	63			
09-25-2021	74	48	61	0.05	100	34	74	66			
09-26-2021	78	44	61		100	32	76	68			
09-27-2021	84	55	69		97	47	75	66			
09-28-2021	85	59	72		100	49	77	67			
09-29-2021	86	58	72		100	51	77	69			
09-30-2021	85	62	73		100	49	77	70			

Summary for the period 9-1-2021 through 9-30-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	81	58	70	2.59	100	53	78	71			
(Deviation from normal)	-0	+0	+0	-0.74							

Princeton Climate Data, October

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	EVAP
10-01-2021	85	66	75		100	54	78	72			
10-02-2021	73	65	69	0.26	100	91	76	71			
10-03-2021	81	62	71	0.08	100	57	76	72			
10-04-2021	80	58	69		100	53	76	69			
10-05-2021	80	57	68	0.07	100	57	74	68			
10-06-2021	77	65	71	0.26	100	71	76	70			
10-07-2021	79	62	70	0.02	100	60	76	70			
10-08-2021	82	58	70		100	55	76	69			
10-09-2021	86	64	75		100	49	76	70			
10-10-2021	85	66	75		100	54	75	70			
10-11-2021	83	66	74	0.05	100	56	76	71			
10-12-2021	76	57	66		100	55	72	68			
10-13-2021	80	56	68	0.02	100	73	73	68			
10-14-2021	84	67	75		100	64	76	70			
10-15-2021	82	56	69	0.11	100	59	76	72			
10-16-2021	66	42	54		100	31	74	65			
10-17-2021	69	36	52		100	31	66	60			
10-18-2021	71	38	54		100	36	67	58			
10-19-2021	72	40	56		100	38	67	58			
10-20-2021	75	46	60		100	45	65	58			
10-21-2021	72	48	60	0.02	98	45	68	63			
10-22-2021	65	44	54		97	49	66	61			
10-23-2021	63	41	52	0.01	100	69	64	58			
10-24-2021	81	58	69		89	47	74	60			
10-25-2021	68	53	60	0.39	97	61	66	61			
10-26-2021	62	43	52		95	44	64	57			
10-27-2021	68	43	55		95	32	63	55			
10-28-2021	66	52	59	0.72	98	51	62	57			
10-29-2021	60	53	56	0.20	100	77	62	59			
10-30-2021	55	51	53	0.13	98	85	61	58			
10-31-2021	66	42	54		100	49	62	55			

Summary for the period 10-1-2021 through 10-31-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	TOTAL EVAP
	74	53	64	2.34	99	55	70	64			
(Deviation from normal)	+2	+5	+4	-0.71							

Monthly Climate Data, Princeton

----- AIR TEMPERATURE -----											-- SOD --	
YEAR	MONTH	AVERAGE			EXTREME		AVG DEPART FROM NORM	NO. OF DAYS		4" TEMP AVERAGE		
		MAX	MIN	AVG	MAX	MIN		MAX	MIN	MAX	MIN	
2021	Jan	45	30	38	65	19	+4	0	19	43	38	
2021	Feb	39	24	32	69	1	-6	0	22	38	35	
2021	Mar	64	41	52	75	26	+5	0	8	57	48	
2021	Apr	67	45	56	82	23	-3	0	4	64	55	
2021	May	74	53	64	88	39	-3	0	0	74	62	
2021	Jun	84	66	75	92	52	-0	5	0	82	73	
2021	Jul	85	68	77	92	58	-1	5	0	82	76	
2021	Aug	86	68	77	92	56	+0	10	0	84	77	
2021	Sep	81	58	70	89	44	-1	0	0	78	71	
2021	Oct	74	53	64	86	36	+5	0	0	70	64	
2021	Nov	56	32	44	71	20	-3	0	18	53	46	
2021	Dec	61	39	50	75	24	+11	0	11	52	47	

----- PRECIPITATION -----										
YEAR	MONTH	DEPARTURE		CUMULATIVE		GREATEST		% RAIN DAYS	NO. DAYS >=.01	
		TOTAL	FROM NORMAL	TOTAL	DEPARTURE	TOTAL	24 HOUR			
2021	Jan	5.02	+1.22	5.02	+1.22	3.13	45	14		
2021	Feb	3.64	-0.79	8.66	+0.43	1.75	57	16		
2021	Mar	5.35	+0.41	14.01	+0.84	2.15	29	9		
2021	Apr	4.73	-0.07	18.74	+0.77	1.52	40	12		
2021	May	4.32	-0.64	23.06	+0.13	1.90	39	12		
2021	Jun	6.89	+3.04	29.95	+3.17	3.61	30	9		
2021	Jul	7.03	+2.74	36.98	+5.91	1.94	32	10		
2021	Aug	3.08	-0.93	40.06	+4.98	1.13	35	11		
2021	Sep	2.59	-0.74	42.65	+4.24	0.94	27	8		
2021	Oct	2.34	-0.71	44.99	+3.53	0.72	45	14		
2021	Nov	1.86	-2.77	46.85	+0.76	0.50	30	9		
2021	Dec	4.67	-0.37	51.52	+0.39	1.18	42	13		

Spindletop Climate Data, April

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
04-01-2021	40	29	34		69	47	51	49			
04-02-2021	45	24	34		84	34	55	47			
04-03-2021	60	27	43		80	23	58	57			
04-04-2021	69	46	57		51	32	52	47			
04-05-2021	72	44	58		80	34	54	49			
04-06-2021	75	47	61		82	40	56	51			
04-07-2021	79	54	66		83	44	58	53			
04-08-2021	67	59	63	0.17	97	59	57	56			
04-09-2021	77	50	63		92	30	58	55			
04-10-2021	66	57	61	0.70	99	47	58	56			
04-11-2021	57	49	53	0.01	91	63	57	55			
04-12-2021	67	45	56		98	42	57	54			
04-13-2021	65	50	57	0.02	82	51	57	54			
04-14-2021	58	45	51	0.40	95	58	57	55			
04-15-2021	53	39	46		94	51	55	53			
04-16-2021	58	35	46		92	47	65	55			
04-17-2021	59	42	50		94	52	55	51			
04-18-2021	62	39	50		100	41	54	51			
04-19-2021	65	44	54		93	40	55	52			
04-20-2021	68	43	55		83	36	55	53			
04-21-2021	44	32	38	0.15	100	52	55	51			
04-22-2021	52	31	41		92	35	52	49			
04-23-2021	59	32	45		88	42	51	48			
04-24-2021	52	47	49	0.71	99	58	52	50			
04-25-2021	59	45	52		100	58	53	51			
04-26-2021	73	40	56		100	34	55	51			
04-27-2021	79	57	68		79	40	58	54			
04-28-2021	78	64	71	0.05	99	55	60	57			
04-29-2021	68	55	61	0.51	100	79	60	59			
04-30-2021	71	49	60		100	30	60	58			

Summary for the period 4-1-2021 through 4-30-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
	63	44	54	2.72	90	45	56	53			
(Deviation from normal)	-2	-1	-2	-1.16							

Spindletop Climate Data, May

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP			
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	EVAP
05-01-2021	69	39	54		71	34	60	56		
05-02-2021	74	52	63	0.03	91	38	59	57		
05-03-2021	73	58	65	0.57	100	73	61	59		
05-04-2021	76	61	68	1.24	99	65	63	60		
05-05-2021	63	48	55	0.39	100	50	63	61		
05-06-2021	63	41	52		89	45	61	57		
05-07-2021	63	43	53	0.05	93	40	60	58		
05-08-2021	61	41	51		91	38	60	58		
05-09-2021	68	45	56	0.28	93	50	60	59		
05-10-2021	60	42	51		90	44	61	58		
05-11-2021	62	42	52		87	45	61	58		
05-12-2021	62	46	54		61	37	61	58		
05-13-2021	64	45	54		66	29	61	58		
05-14-2021	68	46	57		61	23	61	57		
05-15-2021	71	44	57		78	30	61	57		
05-16-2021	66	54	60	0.05	93	50	61	60		
05-17-2021	72	58	65		90	65	62	60		
05-18-2021	77	61	69	0.02	96	52	64	62		
05-19-2021	81	58	69		96	46	65	62		
05-20-2021	82	60	71		91	44	66	63		
05-21-2021	83	60	71		86	39	67	63		
05-22-2021	85	61	73		90	37	67	64		
05-23-2021	84	63	73		86	40	67	65		
05-24-2021	87	66	76		81	39	68	65		
05-25-2021	88	63	75		93	38	68	66		
05-26-2021	83	66	74	0.48	100	50	68	67		
05-27-2021	81	65	73		100	41	69	67		
05-28-2021	75	54	64	1.22	99	71	69	68		
05-29-2021	54	47	50	0.01	98	80	68	63		
05-30-2021	62	47	54		92	60	63	62		
05-31-2021	73	46	59		100	46	64	61		

Summary for the period 5-1-2021 through 5-31-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP			
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	TOTAL EVAP
	72	52	62	4.34	89	46	64	61		
(Deviation from normal)	-4	-3	-3	-0.13						

Spindletop Climate Data, June

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	
06-01-2021	73	56	64	0.01	95	56	64	63			
06-02-2021	68	62	65	0.22	99	85	65	64			
06-03-2021	73	61	67	0.90	99	73	65	64			
06-04-2021	82	60	71		100	42	68	65			
06-05-2021	84	59	71		99	45	69	66			
06-06-2021	80	65	72	0.05	97	68	69	68			
06-07-2021	78	70	74	0.12	99	76	70	69			
06-08-2021	84	68	76	1.41	100	62	71	69			
06-09-2021	78	69	73	0.39	100	79	71	70			
06-10-2021	82	68	75	0.03	100	72	72	70			
06-11-2021	84	68	76	0.79	100	65	73	71			
06-12-2021	87	66	76	0.19	100	55	74	71			
06-13-2021	87	67	77	0.08	98	60	75	72			
06-14-2021	87	65	76		97	43	76	72			
06-15-2021	79	59	69		85	44	74	72			
06-16-2021	78	60	69		86	38	74	71			
06-17-2021	82	58	70		91	40	73	70			
06-18-2021	87	63	75		88	57	74	71			
06-19-2021	84	66	75	0.10	98	58	74	72			
06-20-2021	86	68	77		92	58	76	72			
06-21-2021	81	64	72	1.72	100	75	76	73			
06-22-2021	70	58	64	0.01	98	42	73	71			
06-23-2021	76	50	63		90	41	73	69			
06-24-2021	82	58	70		84	52	73	70			
06-25-2021	83	68	75		89	66	74	71			
06-26-2021	85	68	76		91	54	75	72			
06-27-2021	87	69	78		91	47	76	72			
06-28-2021	89	70	79		97	53	78	73			
06-29-2021	89	72	80		97	49	79	75			
06-30-2021	86	70	78	0.24	96	60	79	76			

Summary for the period 6-1-2021 through 6-30-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	
	82	64	73	6.26	95	57	73	70			
(Deviation from normal)	-1	+2	+0	+2.60							

Spindletop Climate Data, July

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	
07-01-2021	72	66	69	3.43	100	90	78	74			
07-02-2021	77	63	70		100	47	76	73			
07-03-2021	77	56	66		95	49	76	72			
07-04-2021	84	63	73		87	62	76	72			
07-05-2021	87	69	78		98	58	78	74			
07-06-2021	85	71	78		98	60	78	75			
07-07-2021	86	72	79	0.07	96	59	77	75			
07-08-2021	85	71	78		98	58	78	75			
07-09-2021	81	69	75	0.04	100	58	77	74			
07-10-2021	83	64	73	0.25	99	68	78	74			
07-11-2021	81	66	73	0.37	100	68	78	74			
07-12-2021	82	70	76	0.15	100	70	78	75			
07-13-2021	78	69	73	0.94	98	75	77	74			
07-14-2021	83	68	75		100	57	78	74			
07-15-2021	86	68	77	0.30	98	63	79	74			
07-16-2021	86	69	77	0.03	98	64	79	74			
07-17-2021	82	70	76	0.14	98	62	78	74			
07-18-2021	80	69	74		95	56	78	74			
07-19-2021	82	67	74		89	55	78	74			
07-20-2021	83	67	75		89	58	78	74			
07-21-2021	84	65	74		97	50	78	75			
07-22-2021	80	65	72		87	45	78	75			
07-23-2021	82	63	72		94	47	78	74			
07-24-2021	85	62	73		98	44	78	74			
07-25-2021	89	71	80	0.15	96	60	79	76			
07-26-2021	90	73	81		100	50	80	77			
07-27-2021	89	70	79		82	41	80	76			
07-28-2021	88	67	77		93	48	80	76			
07-29-2021	86	70	78		95	62	79	76			
07-30-2021	84	72	78	0.03	100	58	80	78			
07-31-2021	78	67	72		90	66	80	76			

Summary for the period 7-1-2021 through 7-31-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	TOTAL EVAP
	83	67	75	5.90	96	58	78	75			
(Deviation from normal)	-3	+3	-0	+0.90							

Spindletop Climate Data, August

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
08-01-2021	80	65	72		92	49	78	75			
08-02-2021	79	61	70		83	45	80	74			
08-03-2021	80	62	71		86	43	76	73			
08-04-2021	79	62	70		85	61	76	72			
08-05-2021	84	62	73		99	45	76	71			
08-06-2021	84	63	73		97	53	76	74			
08-07-2021	85	68	76		99	51	76	73			
08-08-2021	86	65	75		100	49	77	74			
08-09-2021	77	69	73	0.72	100	83	77	73			
08-10-2021	85	69	77	0.46	99	69	79	74			
08-11-2021	89	74	81		98	62	82	76			
08-12-2021	90	73	81		95	62	80	78			
08-13-2021	88	70	79	1.00	100	61	80	76			
08-14-2021	82	69	75	0.06	100	68	79	76			
08-15-2021	77	67	72	0.08	99	80	77	74			
08-16-2021	79	69	74	0.20	100	75	77	75			
08-17-2021	80	71	75		100	70	78	74			
08-18-2021	86	68	77		100	58	79	76			
08-19-2021	78	69	73	1.33	100	78	77	73			
08-20-2021	84	67	75		100	55	79	74			
08-21-2021	85	66	75		100	55	78	76			
08-22-2021	87	69	78		98	47	80	76			
08-23-2021	88	69	78		98	52	80	76			
08-24-2021	89	71	80		96	55	82	78			
08-25-2021	89	72	80		99	53	80	76			
08-26-2021	88	69	78		98	54	80	76			
08-27-2021	88	71	79	0.68	100	64	80	77			
08-28-2021	88	68	78		100	56	80	76			
08-29-2021	86	70	78		100	62	80	78			
08-30-2021	79	67	73	0.80	100	81	79	76			
08-31-2021	70	68	69	0.83	100	96	78	76			

Summary for the period 8-1-2021 through 8-31-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP			
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN
	84	68	76	6.16	97	61	79	75		
(Deviation from normal)	-0	+5	+2	+2.23						

Spindletop Climate Data, September

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
09-01-2021	79	67	73	0.17	100	57	78	76			
09-02-2021	75	60	67		91	48	76	72			
09-03-2021	77	58	67		93	48	75	69			
09-04-2021	80	63	71		95	59	76	72			
09-05-2021	73	66	69	0.29	100	77	74	72			
09-06-2021	79	58	68		100	34	76	70			
09-07-2021	80	58	69		99	41	76	68			
09-08-2021	73	64	68	0.21	98	73	74	68			
09-09-2021	75	56	65		94	49	74	68			
09-10-2021	76	56	66		95	46	74	66			
09-11-2021	79	55	67		100	54	74	66			
09-12-2021	82	63	72		92	60	76	68			
09-13-2021	83	64	73		100	60	75	70			
09-14-2021	85	67	76		99	59	76	70			
09-15-2021	74	65	69	1.00	100	85	74	72			
09-16-2021	81	62	71		100	61	76	70			
09-17-2021	83	65	74		100	57	76	70			
09-18-2021	84	67	75		100	57	76	72			
09-19-2021	83	70	76	0.07	100	66	76	72			
09-20-2021	75	67	71	0.16	100	82	74	72			
09-21-2021	74	66	70	0.04	99	89	74	72			
09-22-2021	70	53	61	1.06	100	92	73	68			
09-23-2021	65	50	57		100	49	68	64			
09-24-2021	70	46	58		97	42	69	62			
09-25-2021	68	51	59	0.03	95	56	67	64			
09-26-2021	72	46	59		99	42	72	66			
09-27-2021	79	53	66		92	54	69	64			
09-28-2021	81	60	70		97	57	74	66			
09-29-2021	82	63	72		96	52	74	65			
09-30-2021	79	62	70		99	41	72	66			

Summary for the period 9-1-2021 through 9-30-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
	77	60	69	3.03	98	58	74	69			
(Deviation from normal)	-0	+4	+2	-0.17							

Spindletop Climate Data, October

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS		BARE		
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
10-01-2021	75	57	66		86	38	70	66			
10-02-2021	81	57	69		93	61	70	66			
10-03-2021	72	63	67	0.94	100	88	70	66			
10-04-2021	74	62	68	0.08	100	70	71	67			
10-05-2021	76	59	67		100	68	70	65			
10-06-2021	75	64	69	0.90	100	78	71	69			
10-07-2021	76	61	68	0.49	100	69	72	67			
10-08-2021	77	62	69		100	60	71	68			
10-09-2021	78	58	68		100	63	71	67			
10-10-2021	80	62	71		100	59	71	68			
10-11-2021	79	61	70		100	61	71	68			
10-12-2021	78	61	69		92	51	71	68			
10-13-2021	76	57	66	0.07	100	76	70	67			
10-14-2021	80	65	72		100	65	72	69			
10-15-2021	72	65	68	0.37	100	83	72	68			
10-16-2021	68	47	57	0.42	100	43	70	66			
10-17-2021	64	42	53		89	39	62	60			
10-18-2021	68	43	55		94	41	64	58			
10-19-2021	69	43	56		99	45	62	58			
10-20-2021	70	47	58		98	52	62	58			
10-21-2021	73	50	61		96	52	64	61			
10-22-2021	55	46	50		96	78	62	58			
10-23-2021	62	46	54	0.04	100	64	61	57			
10-24-2021	75	53	64	0.02	100	64	63	60			
10-25-2021	66	50	58	0.28	97	64	62	59			
10-26-2021	56	44	50		99	55	61	59			
10-27-2021	57	38	47		93	57	60	55			
10-28-2021	55	44	49	0.07	100	80	59	56			
10-29-2021	61	50	55	0.44	100	76	61	58			
10-30-2021	56	51	53	0.54	100	86	59	58			
10-31-2021	60	49	54	0.01	100	67	59	57			

Summary for the period 10-1-2021 through 10-31-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS		BARE		
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
	70	53	62	4.67	98	63	66	63			
(Deviation from normal)	+2	+8	+5	+2.10							

Spindletop Climate Data, November

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
11-01-2021	55	40	47		100	48	58	56			
11-02-2021	49	36	42	0.05	95	53	57	54			
11-03-2021	47	30	38		89	48	55	50			
11-04-2021	49	31	40		85	38	53	49			
11-05-2021	52	32	42		84	42	51	46			
11-06-2021	58	30	44		88	33	52	46			
11-07-2021	60	33	46		91	36	53	46			
11-08-2021	68	34	51		96	37	52	47			
11-09-2021	68	40	54		92	37	52	48			
11-10-2021	69	47	58		89	41	53	49			
11-11-2021	66	48	57	0.58	99	60	54	51			
11-12-2021	55	38	46		100	45	53	48			
11-13-2021	40	34	37		90	64	51	48			
11-14-2021	45	33	39	0.04	89	67	51	48			
11-15-2021	41	28	34		90	58	48	44			
11-16-2021	66	34	50		93	60	51	46			
11-17-2021	68	56	62		90	60	56	54			
11-18-2021	61	34	47	0.32	99	54	53	51			
11-19-2021	40	24	32		87	53	51	46			
11-20-2021	56	29	42		84	30	49	45			
11-21-2021	48	44	46	0.96	100	52	49	47			
11-22-2021	45	28	36		99	57	48	46			
11-23-2021	40	22	31		88	43	46	41			
11-24-2021	55	26	40		81	34	46	41			
11-25-2021	49	38	43	0.18	100	45	46	44			
11-26-2021	38	26	32		92	57	46	41			
11-27-2021	51	28	39		80	42	45	41			
11-28-2021	49	32	40		84	44	45	42			
11-29-2021	42	24	33		83	35	44	40			
11-30-2021	56	36	46		85	49	45	42			

Summary for the period 11-1-2021 through 11-30-2021:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS MX	GRASS MN	BARE MX	BARE MN	
	53	34	43	2.13	91	47	50	47			
(Deviation from normal)	-3	+0	-2	-1.26							

Spindletop Monthly Climate Data

----- AIR TEMPERATURE -----										-- SOD --	
YEAR	MONTH	AVERAGE			EXTREME		AVG DEPART FROM NORM	NO. OF DAYS		4" TEMP AVERAGE	
		MAX	MIN	AVG	MAX	MIN		MAX	MIN	MAX	MIN
2021	Jan	40	28	34	64	16	+3	0	24	41	38
2021	Feb	38	25	31	66	6	-4	0	21	39	35
2021	Mar	60	39	50	73	25	+6	0	9	56	50
2021	Apr	63	44	54	79	24	-1	0	6	56	53
2021	May	72	52	62	88	39	-2	0	0	64	61
2021	Jun	82	64	73	89	50	+1	0	0	73	70
2021	Jul	83	67	75	90	56	-1	1	0	78	75
2021	Aug	84	68	76	90	61	+1	1	0	79	75
2021	Sep	77	60	69	85	46	+1	0	0	74	69
2021	Oct	70	53	62	81	38	+5	0	0	66	63
2021	Nov	53	34	43	69	22	-2	0	14	50	47
2021	Dec	57	38	47	69	23	+11	0	14	50	46

----- PRECIPITATION -----								
YEAR	MONTH	DEPARTURE		CUMULATIVE		GREATEST		NO. DAYS >=.01
		TOTAL	FROM NORMAL	TOTAL	DEPARTURE	24 HOUR TOTAL	% RAIN DAYS	
2021	Jan	4.51	+1.65	4.51	+1.65	2.15	45	14
2021	Feb	4.60	+1.39	9.11	+3.04	2.11	46	13
2021	Mar	5.12	+0.72	14.23	+3.76	1.02	29	9
2021	Apr	2.72	-1.16	16.95	+2.60	0.71	30	9
2021	May	4.34	-0.13	21.29	+2.47	1.24	35	11
2021	Jun	6.26	+2.60	27.55	+5.07	1.72	50	15
2021	Jul	5.90	+0.90	33.45	+5.97	3.43	39	12
2021	Aug	6.16	+2.23	39.61	+8.20	1.33	32	10
2021	Sep	3.03	-0.17	42.64	+8.03	1.06	30	9
2021	Oct	4.67	+2.10	47.31	+10.13	0.94	45	14
2021	Nov	2.13	-1.26	49.44	+8.87	0.96	20	6
2021	Dec	4.41	+0.43	53.85	+9.30	2.46	29	9

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.564 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Other Rate	Other Rate	Other Unit	Appl Timing	Appl Code	Appl Description	Amt Product to Measure	Rep 1	2	3	4
1	NO HERBICIDE												101	204	309	403
2	ROUNDUP POWERMAX ANTHEM FLEX	5.5 LB/GAL 4 LB/GAL	SL SE		32 fl oz/a 3.2 fl oz/a	1.38 lb ai/a 0.1 lb ai/a			EARPRE EARPRE	A A	2 WK PREPLANT 2 WK PREPLANT	33.33 mL/mx 3.333 mL/mx	102	207	306	408
3	ROUNDUP POWERMAX ANTHEM FLEX	5.5 LB/GAL 4 LB/GAL	SL SE		32 fl oz/a 3.5 fl oz/a	1.38 lb ai/a 0.109 lb ai/a			EARPRE EARPRE	A A	2 WK PREPLANT 2 WK PREPLANT	33.33 mL/mx 3.646 mL/mx	103	202	307	409
4	ROUNDUP POWERMAX FINESSE (0.4 oz/A) ANTHEM FLEX	5.5 LB/GAL 4 LB/GAL	SL SE		32 fl oz/a 3.2 fl oz/a	1.38 lb ai/a 0.1 lb ai/a			EARPRE EARPRE	A A	2 WK PREPLANT 2 WK PREPLANT	33.33 mL/mx 3.333 mL/mx	104	206	305	406
5	ROUNDUP POWERMAX ANTHEM FLEX	5.5 LB/GAL 4 LB/GAL	SL SE		32 fl oz/a 3.2 fl oz/a	1.38 lb ai/a 0.1 lb ai/a			PREEM PREEM	B B	PRE PRE	33.33 mL/mx 3.333 mL/mx	105	209	301	407
6	ROUNDUP POWERMAX ANTHEM FLEX	5.5 LB/GAL 4 LB/GAL	SL SE		32 fl oz/a 3.5 fl oz/a	1.38 lb ai/a 0.109 lb ai/a			PREEM PREEM	B B	PRE PRE	33.33 mL/mx 3.646 mL/mx	106	201	303	401
7	ROUNDUP POWERMAX ANTHEM FLEX	5.5 LB/GAL 4 LB/GAL	SL SE		32 fl oz/a 3.2 fl oz/a	1.38 lb ai/a 0.1 lb ai/a			PREMLA PREMLA	C C	DPRE DPRE	33.33 mL/mx 3.333 mL/mx	107	208	304	405
8	ROUNDUP POWERMAX ANTHEM FLEX	5.5 LB/GAL 4 LB/GAL	SL SE		32 fl oz/a 3.5 fl oz/a	1.38 lb ai/a 0.109 lb ai/a			PREMLA PREMLA	C C	DPRE DPRE	33.33 mL/mx 3.646 mL/mx	108	205	302	404
9	ROUNDUP POWERMAX ANTHEM FLEX HARMONY EXTRA (0.6 oz/A) QUELEX NIS	5.5 LB/GAL 4 LB/GAL 20 % 100 %W/W	SL SE WG SL		32 fl oz/a 3.2 fl oz/a 0.75 oz/a 4.8 fl oz/a	1.38 lb ai/a 0.1 lb ai/a 0.0094 lb ai/a 0.25 % v/v			PREMLA PREMLA POEMAL POEMSE POEMSE	C C D D D	DPRE DPRE SPRING GREENUP SPRING GREENUP SPRING GREENUP	33.33 mL/mx 3.333 mL/mx 0.7489 g/mx 5.0 mL/mx	109	203	308	402

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
333.333	mL	ROUNDUP POWERMAX	5.5	LB/GAL	SL	
34.505	mL	ANTHEM FLEX	4	LB/GAL	SE	
0.936	g	QUELEX	20	%	WG	
6.250	mL	NIS	100	%W/W	SL	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.

General Trial Information
Study Director: LEON, C.
Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established
ARM Trial Created On: Sep-30-2020

Trial Location
City: Princeton **Country:** USA United States
State/Prov.: Kentucky
Postal Code: 42445

Latitude of LL Corner °: 37.097402 N
Longitude of LL Corner °: -87.85718 W

Conducted Under GLP: No
Conducted Under GEP: No

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Contacts

Role: STYDIR study director
Study Director: LEON, C.
Role: INVEST investigator
Investigator: Travis Legleiter **Title:** Assistant Extension Professor
Organization: University of Kentucky
Address 1: 348 University Drive **Phone No.:** 859-562-1323
Country: USA United States **E-mail:** Travis.Legleiter@uky.edu
City: Princeton, KY **Postal Code:** 42445

Crop Description

Crop 1: C TRZAW Triticum aestivum Winter wheat **BBCH Scale:** BCER
Entry Date: Sep-16-2021 **Stage Scale:** BBCH
Variety: 26R10
Planting Date: Oct-22-2021 **Planting Rate:** 156 LB/A
Depth: 1 IN
Row Spacing: 7.5 IN **Planting Equipment:** DD disc drill
Soil Temperature: 64 F **Soil Moisture:** WET wet
Emergence Date: Nov-2-2020
Harvest Date: Jun-25-2021
Harvested Width: 5 FT
% Standard Moisture: 13.5

Pest Description

Pest 1 Type: W **Code:** LAMAM Lamium amplexicaule **Entry Date:** Sep-23-2021
Common Name: Henbit deadnettle **Stage Scale:** BBCH

Pest 2 Type: W **Code:** THLAR Thlaspi arvense **Entry Date:** Sep-23-2021
Common Name: Field pennycress **Stage Scale:** BBCH

Pest 3 Type: W **Code:** STEME Stellaria media **Entry Date:** Sep-23-2021
Common Name: chickweed, common **Stage Scale:** BBCH

Pest 4 Type: W **Code:** LOLMU Lolium perenne **Entry Date:** Sep-23-2021
Common Name: ryegrass, Italian **Stage Scale:** BBCH

Pest 5 Type: W **Code:** LAMPU Lamium purpureum **Entry Date:** Sep-23-2021
Common Name: purple deadnettle **Stage Scale:** BBCH

Pest 6 Type: W **Code:** GERCA Geranium carolinianum **Entry Date:** Sep-23-2021
Common Name: Carolina geranium **Stage Scale:** BBCH

Pest 7 Type: W **Code:** CARHI Cardamine hirsuta **Entry Date:** Sep-23-2021
Common Name: bittercress, hairy **Stage Scale:** BBCH

Pest 8 Type: W **Code:** CERVU Cerastium fontanum ssp. vulgare **Entry Date:** Sep-23-2021
Common Name: chickweed, mouseear **Stage Scale:** BBCH

Pest 9 Type: W **Code:** VIOAR Viola arvensis **Entry Date:** Sep-23-2021
Common Name: violet, field **Stage Scale:** BBCH

Pest10 Type: W **Code:** ERICA Conyza canadensis **Entry Date:** Sep-23-2021
Common Name: horseweed **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300.0 FT² **Treatments:** 9 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Soil Description

Description Name: 201-AB
 % Sand: 7.2 % OM: 2.6 Texture: SIL silt loam
 % Silt: 77.9 pH: 5.29 Soil Name: Crider Silt loam
 % Clay: 14.9 CEC: 13.81

Application Description

	A	B	C	D
Application Date	Oct-8-2020	Oct-22-2020	Oct-26-2020	Mar-8-2021
Appl. Start Time	11:19 AM	2:00 PM		2:14 PM
Appl. Stop Time	11:25 AM	2:05 PM		2:16 PM
Application Method	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing	14 DPP	PRE	DELAYED PRE	SPRING GREEN
Application Placement	FOLIAR	FOLIAR	FOLIAR	FOLIAR
Applied By	JLG	JLG	JLG	JLG
Appl. Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021	Sep-23-2021
Air Temperature Start, Stop	78.6, - F	84, - F	53, - F	71, - F
% Relative Humidity Start, Stop	62, -	46, -	80.6, -	28, -
Wind Velocity+Dir. Start	1.7 MPH, S	2.3 MPH, S	1.1 MPH, N	5.2 MPH, SW
Wind Velocity+Dir. Max	3.4 MPH, S	7.1 MPH, S	2.4 MPH, N	10.4 MPH, SW
Wet Leaves (Y/N)	N, no	N, no	N, no	N, no
Soil Temperature	64 F	64 F	56 F	49 F
Soil Moisture	DRY	WET	WET	DRY
% Cloud Cover	75	35	100	55

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale	TRZAW, BCER	TRZAW, BCER	TRZAW, BCER	TRZAW, BCER
Days after Emergence	-25	-11	-7	126

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale	LAMAM, W, BBCH	LAMAM, W, BBCH	LAMAM, W, BBCH	LAMAM, W, BBCH
Height Average	0.3 IN	0.5 IN	0.5 IN	1 IN
Height Minimum, Maximum	0.25, 0.5	0.25, 0.75	0.25, 0.75	0.5, 1.25
Density Average	38.5 FT2	30 FT2	69 FT2	1 FT2
Density Minimum, Maximum	2, 94	5, 81	2, 165	0, 2
Pest 2 Code, Type, Scale	THLAR, W, BBCH	THLAR, W, BBCH	THLAR, W, BBCH	THLAR, W, BBCH
Height Average	0.3 IN	0.5 IN	0.5 IN	2 IN
Height Minimum, Maximum	0.25, 0.5	0.25, 0.75	0.25, 1	0.75, 3
Density Average	12.25 FT2	7 FT2	22 FT2	5.25 FT2
Density Minimum, Maximum	0, 40	3, 15	0, 52	0, 18
Pest 3 Code, Type, Scale	STEME, W, BBCH	STEME, W, BBCH	STEME, W, BBCH	STEME, W, BBCH
Height Average	0.25 IN	0.5 IN	0.25 IN	1 IN
Height Minimum, Maximum	0.25, 0.25	0.5, 0.5	0.25, 0.5	0.75, 1.5
Density Average	4 FT2	0.25 FT2	0.25 FT2	0.75 FT2

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control				
Trial ID: 21-2_WHT-REC		Location: Princeton, KY		Trial Year: 2021
Protocol ID: USA-20-740		Investigator (Creator): Travis Legleiter		
Project ID:		Study Director: LEON, C.		
Sponsor Contact:				
Density Minimum, Maximum	0, 8	0, 1	0, 1	0, 2
Pest 4 Code, Type, Scale	LOLMU, W, BBCH	LOLMU, W, BBCH	LOLMU, W, BBCH	LOLMU, W, BBCH
Height Average	1 IN	2 IN	2 IN	2 IN
Height Minimum, Maximum	0.75, 1.5	0.25, 3.75	1, 3.5	1.25, 3.75
Density Average	2 FT2	55 FT2	209 FT2	18.25 FT2
Density Minimum, Maximum	0, 8	23, 100	136, 338	4, 33
Pest 5 Code, Type, Scale	LAMPU, W, BBCH	LAMPU, W, BBCH	LAMPU, W, BBCH	LAMPU, W, BBCH
Height Average		2 IN		1 IN
Height Minimum, Maximum		1.5, 2.25		0.5, 1.75
Density Average		0.75 FT2		0.5 FT2
Density Minimum, Maximum		0, 3		0, 2
Pest 6 Code, Type, Scale	GERCA, W, BBCH	GERCA, W, BBCH	GERCA, W, BBCH	GERCA, W, BBCH
Height Average		1 IN	0.6 IN	1.5 IN
Height Minimum, Maximum		0.5, 1.75	0.5, 0.75	1, 2.25
Density Average		8.25 FT2	1.25 FT2	1.5 FT2
Density Minimum, Maximum		0, 23	0, 3	0, 6
Pest 7 Code, Type, Scale	CARHI, W, BBCH	CARHI, W, BBCH	CARHI, W, BBCH	CARHI, W, BBCH
Height Average				0.75 IN
Height Minimum, Maximum				0.5, 1
Density Average				2 FT2
Density Minimum, Maximum				0, 4
Pest 8 Code, Type, Scale	CERVU, W, BBCH	CERVU, W, BBCH	CERVU, W, BBCH	CERVU, W, BBCH
Height Average				1 IN
Height Minimum, Maximum				0.75, 1.25
Density Average				0.75 FT2
Density Minimum, Maximum				0, 3
Pest 9 Code, Type, Scale	VIOAR, W, BBCH	VIOAR, W, BBCH	VIOAR, W, BBCH	VIOAR, W, BBCH
Height Average				1 IN
Height Minimum, Maximum				0.75, 1.5
Density Average				2.25 FT2
Density Minimum, Maximum				0, 4
Pest10 Code, Type, Scale	ERICA, W, BBCH	ERICA, W, BBCH	ERICA, W, BBCH	ERICA, W, BBCH
Height Average				0.8 IN
Height Minimum, Maximum				0.75, 1
Density Average				0.5 FT2
Density Minimum, Maximum				0, 2

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Application Equipment

	A	B	C	D
Equipment Type	BACCAI	BACCAI	BACCAI	BACCAI
Operation Pressure	32 PSI	32 PSI	32 PSI	32 PSI
Nozzle Model	XR11002	XR11002	XR11002	XR11002
Nozzle Type	FLAFXR	FLAFXR	FLAFXR	FLAFXR
Nozzle TradeName	XR TeeJet	XR TeeJet	XR TeeJet	XR TeeJet
Nozzle Tip Size, Color	02, Yellow	02, Yellow	02, Yellow	02, Yellow
Nozzle Spacing	20.0 IN	20.0 IN	20.0 IN	20.0 IN
Boom ID	BLUE	BLUE	BLUE	BLUE
Boom Length	10.0 FT	10.0 FT	10.0 FT	10.0 FT
Boom Height	18.0 IN	18.0 IN	18.0 IN	18.0 IN
Ground Speed	3 MPH	3 MPH	3 MPH	3 MPH
Carrier	WATER	WATER	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size	2.0 L	2.0 L	2.0 L	2.0 L
Propellant	COMCO2	COMCO2	COMCO2	COMCO2

Notes

Context	Date	By	Notes
STATUS	Sep-30-2020	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Sep-16-2021	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

Instructions:

DATA TO COLLECT:

STAND COUNTS - 14 AND 28 DAYS AFTER EMERGENCE

WEED CONTROL - 14, 28, AND 42 DAYS AFTER EMERGENCE; 35, 42, 56 DAYS AFTER GREEN UP TIMING

CROP INJURY - RECORD ANY STUNTING, CHLOROSIS, NECROSIS - 14, 28, AND 42 DAYS AFTER EMERGENCE; 35, 42, 56 DAYS AFTER GREEN UP TIMING

PANICLE COUNT - PRIOR TO HARVEST (#/M²)

YIELD - BU/A

KEY WEEDS TO TARGET:

ANNUAL RYEGRASS, ANNUAL BLUEGRASS, HENBIT, CHICKWEED SSP., FIELD PANSY, SHEPEARDS PURSE, CRESS, GOUNDSSEL, AND ANY OTHER RATEABLE WINTER-ANNUAL WEED

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control			
Trial ID: 21-2_WHT-REC	Location: Princeton, KY	Trial Year: 2021	
Protocol ID: USA-20-740	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: LEON, C.		
Sponsor Contact:			

Pest Type				
Pest Code				
Pest Name				
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW	
BBCH Scale	BCER	BCER	BCER	
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>	
Crop Name	Winter wheat	Winter wheat	Winter wheat	
Description				
Rating Date	Nov-17-2020	Nov-17-2020	Nov-17-2020	
Part Rated	PLANT, C	PLANT, C	PLANT, C	
Rating Type	PHYGEN	PHYST	PHYNEC	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	
Collection Basis				
Reporting Basis				
Number of Subsamples	1	1	1	
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021	
Days After First/Last Applic.	40, 22	40, 22	40, 22	
Days After Emergence	15 DE-1	15 DE-1	15 DE-1	
ARM Action Codes				
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	1	2
			3	
1 NO HERBICIDE		101	0.0	0.0
		204	0.0	0.0
		309	0.0	0.0
		403	0.0	0.0
		Mean =	0.0	0.0
2 ROUNDUP POWERMAX	32 fl oz/a A	102	0.0	0.0
ANTHEM FLEX	3.2 fl oz/a A	207	0.0	0.0
		306	0.0	0.0
		408	0.0	0.0
		Mean =	0.0	0.0
3 ROUNDUP POWERMAX	32 fl oz/a A	103	0.0	0.0
ANTHEM FLEX	3.5 fl oz/a A	202	0.0	0.0
		307	0.0	0.0
		409	0.0	0.0
		Mean =	0.0	0.0
4 ROUNDUP POWERMAX	32 fl oz/a A	104	0.0	0.0
FINESSE (0.4 oz/A)	A	206	0.0	0.0
ANTHEM FLEX	3.2 fl oz/a A	305	0.0	0.0
		406	0.0	0.0
		Mean =	0.0	0.0
5 ROUNDUP POWERMAX	32 fl oz/a B	105	0.0	0.0
ANTHEM FLEX	3.2 fl oz/a B	209	0.0	0.0
		301	0.0	0.0
		407	0.0	0.0
		Mean =	0.0	0.0
6 ROUNDUP POWERMAX	32 fl oz/a B	106	0.0	0.0
ANTHEM FLEX	3.5 fl oz/a B	201	0.0	0.0
		303	0.0	0.0
		401	0.0	0.0
		Mean =	0.0	0.0

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control			
Trial ID: 21-2_WHT-REC	Location: Princeton, KY	Trial Year: 2021	
Protocol ID: USA-20-740	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: LEON, C.		
Sponsor Contact:			

Pest Type			
Pest Code			
Pest Name			
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW
BBCH Scale	BCER	BCER	BCER
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>
Crop Name	Winter wheat	Winter wheat	Winter wheat
Description			
Rating Date	Nov-17-2020	Nov-17-2020	Nov-17-2020
Part Rated	PLANT, C	PLANT, C	PLANT, C
Rating Type	PHYGEN	PHYST	PHYNEC
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Collection Basis			
Reporting Basis			
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	40, 22	40, 22	40, 22
Days After Emergence	15 DE-1	15 DE-1	15 DE-1
ARM Action Codes			
Number of Decimals			
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			1
			2
			3
7 ROUNDUP POWERMAX	32 fl oz/a C	107	0.0
ANTHEM FLEX	3.2 fl oz/a C	208	0.0
		304	0.0
		405	0.0
		Mean =	0.0
8 ROUNDUP POWERMAX	32 fl oz/a C	108	0.0
ANTHEM FLEX	3.5 fl oz/a C	205	0.0
		302	0.0
		404	0.0
		Mean =	0.0
9 ROUNDUP POWERMAX	32 fl oz/a C	109	0.0
ANTHEM FLEX	3.2 fl oz/a C	203	0.0
HARMONY EXTRA (0.6 oz/A)		D 308	0.0
QUELEX	0.75 oz/a	D 402	0.0
NIS	4.8 fl oz/a	D	0.0
		Mean =	0.0

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type	C, TRZAW	C, TRZAW	W, Weed
Pest Code			LOLMU
Pest Name			Bearded ryegrass
Crop Type, Code	C, TRZAW	C, TRZAW	
BBCH Scale	BCER	BCER	
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	
Crop Name	Winter wheat	Winter wheat	
Description			
Rating Date	Nov-17-2020	Nov-17-2020	Nov-17-2020
Part Rated	PLANT, C	PLANT, C	PLANT, P
Rating Type	PHYCHL	COUPLA	CONTRO
Rating Unit/Min/Max	%, 0, 100		%, 0, 100
Collection Basis		1 FT2	
Reporting Basis		1 FT2	
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	40, 22	40, 22	40, 22
Days After Emergence	15 DE-1	15 DE-1	15 DE-1
ARM Action Codes			ER3
Number of Decimals			
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			4 5 6
1 NO HERBICIDE		101	0.0 40.0 0.0
		204	0.0 31.0 0.0
		309	0.0 32.0 0.0
		403	0.0 51.0 0.0
		Mean =	0.0 38.5 0.0
2 ROUNDUP POWERMAX	32 fl oz/a A	102	0.0 29.0 60.0
ANTHEM FLEX	3.2 fl oz/a A	207	0.0 34.0 70.0
		306	0.0 43.0 0.0
		408	0.0 39.0 20.0
		Mean =	0.0 36.3 50.0
3 ROUNDUP POWERMAX	32 fl oz/a A	103	0.0 38.0 20.0
ANTHEM FLEX	3.5 fl oz/a A	202	0.0 33.0 0.0
		307	0.0 38.0 0.0
		409	0.0 43.0 50.0
		Mean =	0.0 38.0 23.3
4 ROUNDUP POWERMAX	32 fl oz/a A	104	0.0 35.0 20.0
FINESSE (0.4 oz/A)	A	206	0.0 38.0 80.0
ANTHEM FLEX	3.2 fl oz/a A	305	0.0 34.0 0.0
		406	0.0 36.0 60.0
		Mean =	0.0 35.8 53.3
5 ROUNDUP POWERMAX	32 fl oz/a B	105	0.0 33.0 100.0
ANTHEM FLEX	3.2 fl oz/a B	209	0.0 21.0 100.0
		301	0.0 46.0 0.0
		407	0.0 31.0 70.0
		Mean =	0.0 32.8 90.0
6 ROUNDUP POWERMAX	32 fl oz/a B	106	0.0 32.0 80.0
ANTHEM FLEX	3.5 fl oz/a B	201	0.0 45.0 70.0
		303	0.0 32.0 0.0
		401	0.0 36.0 70.0
		Mean =	0.0 36.3 73.3

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control			
Trial ID: 21-2_WHT-REC	Location: Princeton, KY	Trial Year: 2021	
Protocol ID: USA-20-740	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: LEON, C.		
Sponsor Contact:			

Pest Type			
Pest Code			
Pest Name			
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW
BBCH Scale	BCER	BCER	BCER
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>
Crop Name	Winter wheat	Winter wheat	Winter wheat
Description			
Rating Date	Dec-2-2020	Dec-3-2020	Dec-3-2020
Part Rated	PLANT, C	PLANT, C	PLANT, C
Rating Type	COUPLA	PHYGEN	PHYST
Rating Unit/Min/Max		%, 0, 100	%, 0, 100
Collection Basis	1 FT2		
Reporting Basis	1 FT2		
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	55, 37	56, 38	56, 38
Days After Emergence	30 DE-1	31 DE-1	31 DE-1
ARM Action Codes			
Number of Decimals			
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			7
			8
			9
1 NO HERBICIDE		101	26.0
		204	35.0
		309	43.0
		403	40.0
		Mean =	36.0
2 ROUNDUP POWERMAX	32 fl oz/a A	102	47.0
ANTHEM FLEX	3.2 fl oz/a A	207	31.0
		306	40.0
		408	40.0
		Mean =	39.5
3 ROUNDUP POWERMAX	32 fl oz/a A	103	41.0
ANTHEM FLEX	3.5 fl oz/a A	202	32.0
		307	40.0
		409	31.0
		Mean =	36.0
4 ROUNDUP POWERMAX	32 fl oz/a A	104	46.0
FINESSE (0.4 oz/A)	A	206	46.0
ANTHEM FLEX	3.2 fl oz/a A	305	29.0
		406	42.0
		Mean =	40.8
5 ROUNDUP POWERMAX	32 fl oz/a B	105	32.0
ANTHEM FLEX	3.2 fl oz/a B	209	33.0
		301	42.0
		407	32.0
		Mean =	34.8
6 ROUNDUP POWERMAX	32 fl oz/a B	106	38.0
ANTHEM FLEX	3.5 fl oz/a B	201	31.0
		303	32.0
		401	37.0
		Mean =	34.5

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type				
Pest Code				
Pest Name				
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW	
BBCH Scale	BCER	BCER	BCER	
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>	
Crop Name	Winter wheat	Winter wheat	Winter wheat	
Description				
Rating Date	Dec-2-2020	Dec-3-2020	Dec-3-2020	
Part Rated	PLANT, C	PLANT, C	PLANT, C	
Rating Type	COUPLA	PHYGEN	PHYST	
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	
Collection Basis	1 FT2			
Reporting Basis	1 FT2			
Number of Subsamples	1	1	1	
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021	
Days After First/Last Applic.	55, 37	56, 38	56, 38	
Days After Emergence	30 DE-1	31 DE-1	31 DE-1	
ARM Action Codes				
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	7	8
7 ROUNDUP POWERMAX	32 fl oz/a C	107	29.0	0.0
ANTHEM FLEX	3.2 fl oz/a C	208	33.0	0.0
		304	36.0	0.0
		405	31.0	0.0
		Mean =	32.3	0.0
8 ROUNDUP POWERMAX	32 fl oz/a C	108	40.0	0.0
ANTHEM FLEX	3.5 fl oz/a C	205	28.0	0.0
		302	47.0	0.0
		404	31.0	0.0
		Mean =	36.5	0.0
9 ROUNDUP POWERMAX	32 fl oz/a C	109	32.0	0.0
ANTHEM FLEX	3.2 fl oz/a C	203	30.0	0.0
HARMONY EXTRA (0.6 oz/A)		D 308	33.0	0.0
QUELEX	0.75 oz/a	D 402	46.0	0.0
NIS	4.8 fl oz/a D			
		Mean =	35.3	0.0

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type	C, TRZAW	C, TRZAW	W, Weed
Pest Code			LOLMU
Pest Name			Bearded ryegrass
Crop Type, Code	C, TRZAW	C, TRZAW	
BBCH Scale	BCER	BCER	
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	
Crop Name	Winter wheat	Winter wheat	
Description			
Rating Date	Dec-3-2020	Dec-3-2020	Dec-3-2020
Part Rated	PLANT, C	PLANT, C	PLANT, P
Rating Type	PHYNEC	PHYCHL	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Collection Basis			
Reporting Basis			
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	56, 38	56, 38	56, 38
Days After Emergence	31 DE-1	31 DE-1	31 DE-1
ARM Action Codes			ER3
Number of Decimals			
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			10 11 12
1 NO HERBICIDE		101	0.0
		204	0.0
		309	0.0
		403	0.0
		Mean =	0.0
2 ROUNDUP POWERMAX	32 fl oz/a A	102	0.0
ANTHEM FLEX	3.2 fl oz/a A	207	0.0
		306	0.0
		408	0.0
		Mean =	0.0
3 ROUNDUP POWERMAX	32 fl oz/a A	103	0.0
ANTHEM FLEX	3.5 fl oz/a A	202	0.0
		307	0.0
		409	0.0
		Mean =	0.0
4 ROUNDUP POWERMAX	32 fl oz/a A	104	0.0
FINESSE (0.4 oz/A)		A 206	0.0
ANTHEM FLEX	3.2 fl oz/a A	305	0.0
		406	0.0
		Mean =	0.0
5 ROUNDUP POWERMAX	32 fl oz/a B	105	0.0
ANTHEM FLEX	3.2 fl oz/a B	209	0.0
		301	0.0
		407	0.0
		Mean =	0.0
6 ROUNDUP POWERMAX	32 fl oz/a B	106	0.0
ANTHEM FLEX	3.5 fl oz/a B	201	0.0
		303	0.0
		401	0.0
		Mean =	0.0

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control			
Trial ID: 21-2_WHT-REC	Location: Princeton, KY	Trial Year: 2021	
Protocol ID: USA-20-740	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: LEON, C.		
Sponsor Contact:			

Pest Type	C, WHEAT	C, WHEAT	C, WHEAT	C, WHEAT
Pest Code				
Pest Name				
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Description				
Rating Date	Apr-14-2021	Apr-14-2021	Apr-14-2021	Apr-14-2021
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	PHYGEN	PHYST	PHYNEC	PHYCHL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Collection Basis				
Reporting Basis				
Number of Subsamples	1	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	188, 37	188, 37	188, 37	188, 37
Days After Emergence	163 DE-1	163 DE-1	163 DE-1	163 DE-1
ARM Action Codes				
Number of Decimals				
Trt Treatment	13	14	15	16
No. Name				
Rate				
Appl				
Code Plot				
1 NO HERBICIDE	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
Mean =	0.0	0.0	0.0	0.0
2 ROUNDUP POWERMAX	0.0	0.0	0.0	0.0
ANTHEM FLEX	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
Mean =	0.0	0.0	0.0	0.0
3 ROUNDUP POWERMAX	0.0	0.0	0.0	0.0
ANTHEM FLEX	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
Mean =	0.0	0.0	0.0	0.0
4 ROUNDUP POWERMAX	0.0	0.0	0.0	0.0
FINESSE (0.4 oz/A)	0.0	0.0	0.0	0.0
ANTHEM FLEX	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
Mean =	0.0	0.0	0.0	0.0
5 ROUNDUP POWERMAX	0.0	0.0	0.0	0.0
ANTHEM FLEX	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
Mean =	0.0	0.0	0.0	0.0
6 ROUNDUP POWERMAX	0.0	0.0	0.0	0.0
ANTHEM FLEX	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0
Mean =	0.0	0.0	0.0	0.0

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

	W, Weed LOLMU Bearded ryegrass	W, Weed THLAR Field pennycress	W, Weed LOLMU Bearded ryegrass
Pest Type			
Pest Code			
Pest Name			
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Description			
Rating Date	Apr-14-2021	Apr-14-2021	Apr-20-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Collection Basis			
Reporting Basis			
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	188, 37	188, 37	194, 43
Days After Emergence	163 DE-1	163 DE-1	169 DE-1
ARM Action Codes		ET8	
Number of Decimals			
Trt Treatment			
No. Name	17	18	19
1 NO HERBICIDE	101 204 309 403 Mean =	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0
2 ROUNDUP POWERMAX ANTHEM FLEX	32 fl oz/a A 102 3.2 fl oz/a A 207 306 408 Mean =	20.0 0.0 0.0 0.0 5.0	0.0 0.0 0.0 100.0 25.0
3 ROUNDUP POWERMAX ANTHEM FLEX	32 fl oz/a A 103 3.5 fl oz/a A 202 307 409 Mean =	0.0 0.0 10.0 60.0 17.5	25.0 0.0 0.0 1.6* 6.6
4 ROUNDUP POWERMAX FINESSE (0.4 oz/A) ANTHEM FLEX	32 fl oz/a A 104 A 206 3.2 fl oz/a A 305 406 Mean =	20.0 50.0 10.0 10.0 22.5	90.0 100.0 100.0 100.0 97.5
5 ROUNDUP POWERMAX ANTHEM FLEX	32 fl oz/a B 105 3.2 fl oz/a B 209 301 407 Mean =	80.0 90.0 40.0 50.0 65.0	0.0 100.0 0.0 80.0 45.0
6 ROUNDUP POWERMAX ANTHEM FLEX	32 fl oz/a B 106 3.5 fl oz/a B 201 303 401 Mean =	50.0 15.0 50.0 0.0 28.8	70.0 0.0 0.0 100.0 42.5
			50.0 15.0 40.0 45.0 37.5

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type	W, Weed LOLMU	W, Weed THLAR	W, Weed LOLMU
Pest Code	Bearded ryegrass	Field pennycress	Bearded ryegrass
Pest Name			
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Description			
Rating Date	Apr-14-2021	Apr-14-2021	Apr-20-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100
Collection Basis			
Reporting Basis			
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	188, 37	188, 37	194, 43
Days After Emergence	163 DE-1	163 DE-1	169 DE-1
ARM Action Codes		ET8	
Number of Decimals			
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			17
			18
			19
7 ROUNDUP POWERMAX	32 fl oz/a C	107	70.0
ANTHEM FLEX	3.2 fl oz/a C	208	70.0
		304	20.0
		405	20.0
		Mean =	45.0
8 ROUNDUP POWERMAX	32 fl oz/a C	108	70.0
ANTHEM FLEX	3.5 fl oz/a C	205	30.0
		302	60.0
		404	30.0
		Mean =	47.5
9 ROUNDUP POWERMAX	32 fl oz/a C	109	90.0
ANTHEM FLEX	3.2 fl oz/a C	203	40.0
HARMONY EXTRA (0.6 oz/A)		D 308	70.0
QUELEX	0.75 oz/a	D 402	65.0
NIS	4.8 fl oz/a	D	100.0
		Mean =	66.3
			100.0
			65.0

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type		W, Weed THLAR	W, Weed LOLMU	W, Weed THLAR
Pest Code		Field pennycress	Bearded ryegrass	Field pennycress
Pest Name				
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Description				
Rating Date		Apr-20-2021	Apr-27-2021	Apr-27-2021
Part Rated		PLANT, P	PLANT, P	PLANT, P
Rating Type		CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100
Collection Basis				
Reporting Basis				
Number of Subsamples		1	1	1
Data Entry Date		Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.		194, 43	201, 50	201, 50
Days After Emergence		169 DE-1	176 DE-1	176 DE-1
ARM Action Codes		ER3	AL	ER3
Number of Decimals				
Trt No.	Treatment Name	Rate	Appl	
		Rate Unit	Code Plot	
				20
				21
				22
1	NO HERBICIDE			0.0
				100.0
				0.0
				90.0
	Mean =			63.3
2	ROUNDUP POWERMAX	32 fl oz/a A	102	50.0
	ANTHEM FLEX	3.2 fl oz/a A	207	0.0
			306	0.0
			408	100.0
	Mean =			50.0
3	ROUNDUP POWERMAX	32 fl oz/a A	103	100.0
	ANTHEM FLEX	3.5 fl oz/a A	202	100.0
			307	10.0
			409	1.4*
	Mean =			100.0
4	ROUNDUP POWERMAX	32 fl oz/a A	104	100.0
	FINESSE (0.4 oz/A)		A 206	100.0
	ANTHEM FLEX	3.2 fl oz/a A	305	10.0
			406	100.0
	Mean =			100.0
5	ROUNDUP POWERMAX	32 fl oz/a B	105	0.0
	ANTHEM FLEX	3.2 fl oz/a B	209	100.0
			301	80.0
			407	90.0
	Mean =			40.0
				50.0
				100.0
	Mean =			66.7
6	ROUNDUP POWERMAX	32 fl oz/a B	106	0.0
	ANTHEM FLEX	3.5 fl oz/a B	201	0.0
			303	50.0
			401	100.0
	Mean =			33.3

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

	W, Weed THLAR Field pennycress	W, Weed LOLMU Bearded ryegrass	W, Weed THLAR Field pennycress
Pest Type			
Pest Code			
Pest Name			
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Description			
Rating Date	Apr-20-2021	Apr-27-2021	Apr-27-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Collection Basis			
Reporting Basis			
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	194, 43	201, 50	201, 50
Days After Emergence	169 DE-1	176 DE-1	176 DE-1
ARM Action Codes	ER3	AL	ER3
Number of Decimals			
Trt Treatment			
No. Name	20	21	22
7 ROUNDUP POWERMAX	0.0	75.0	0.0
ANTHEM FLEX	0.0	60.0	0.0
		20.0	
		10.0	100.0
Mean =	33.3	31.2d	33.3
8 ROUNDUP POWERMAX	100.0	70.0	100.0
ANTHEM FLEX	0.0	10.0	0.0
		60.0	
	90.0	10.0	90.0
Mean =	63.3	25.9d	63.3
9 ROUNDUP POWERMAX	100.0	85.0	100.0
ANTHEM FLEX	100.0	30.0	100.0
HARMONY EXTRA (0.6 oz/A)		75.0	
QUELEX	100.0	60.0	100.0
NIS			
Mean =	100.0	58.3d	100.0

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type	W, Weed		
Pest Code	LOLMU		
Pest Name	Bearded ryegrass		
Crop Type, Code		C, TRZAW	C, TRZAW
BBCH Scale		BCER	BCER
Crop Scientific Name		Triticum aestiv>	Triticum aestiv>
Crop Name		Winter wheat	Winter wheat
Description	Panicle Count	Plot Length	Plot Weight
Rating Date	Jun-8-2021	Jun-25-2021	Jun-25-2021
Part Rated	PLANT, P	PLANT, C	GRAIN, C
Rating Type	COPLPA	LENGTH	WEIGHT
Rating Unit/Min/Max		FT, -, -	lb/plot, -, -
Collection Basis	1 m2	1 PLOT	1 PLOT
Reporting Basis	1 m2	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	243, 92	260, 109	260, 109
Days After Emergence	218 DE-1	235 DE-1	235 DE-1
ARM Action Codes	ET2		
Number of Decimals			
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			23
			24
			25
1 NO HERBICIDE		101	63.0
		204	139.0
		309	362.0
		403	350.0
		Mean =	228.5
2 ROUNDUP POWERMAX	32 fl oz/a A	102	127.0
ANTHEM FLEX	3.2 fl oz/a A	207	130.0
		306	195.0
		408	163.0
		Mean =	153.8
3 ROUNDUP POWERMAX	32 fl oz/a A	103	173.0
ANTHEM FLEX	3.5 fl oz/a A	202	102.0
		307	167.0
		409	284.0
		Mean =	181.5
4 ROUNDUP POWERMAX	32 fl oz/a A	104	334.0
FINESSE (0.4 oz/A)	A	206	232.0
ANTHEM FLEX	3.2 fl oz/a A	305	364.0
		406	211.0
		Mean =	285.3
5 ROUNDUP POWERMAX	32 fl oz/a B	105	116.0
ANTHEM FLEX	3.2 fl oz/a B	209	10.0
		301	334.0
		407	101.0
		Mean =	140.3
6 ROUNDUP POWERMAX	32 fl oz/a B	106	82.0
ANTHEM FLEX	3.5 fl oz/a B	201	166.0
		303	90.0
		401	91.0
		Mean =	107.3
			25.30
			26.50
			25.90
			25.50
			25.80
			4.430
			6.390
			3.410
			3.990
			25.60
			26.20
			26.00
			26.03
			1.480
			4.600
			4.310
			10.310
			5.175
			3.560
			10.400
			7.680
			7.240
			7.220
			13.090
			19.710
			6.670
			11.520
			12.748
			8.860
			7.390
			8.110
			6.610
			7.743

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control			
Trial ID: 21-2_WHT-REC	Location: Princeton, KY	Trial Year: 2021	
Protocol ID: USA-20-740	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: LEON, C.		
Sponsor Contact:			

Pest Type	C, TRZAW	C, TRZAW	C, TRZAW
Pest Code			
Pest Name			
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW
BBCH Scale	BCER	BCER	BCER
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>
Crop Name	Winter wheat	Winter wheat	Winter wheat
Description	Moisture	Test Weight	Plot Weight
Rating Date	Jun-25-2021	Jun-25-2021	Jun-25-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	MOICON	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	LB, -, -	BU, -, -
Collection Basis	1 PLOT		1 PLOT
Reporting Basis	1 PLOT		
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	
Days After First/Last Applic.	260, 109	260, 109	260, 109
Days After Emergence	235 DE-1	235 DE-1	235 DE-1
ARM Action Codes		EC	TY1
Number of Decimals			1
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			26
			27
			28
1 NO HERBICIDE		101	14.6000
		204	15.1250
		309	17.0000
		403	17.8000
		Mean =	16.1313
2 ROUNDUP POWERMAX	32 fl oz/a A	102	14.7000
ANTHEM FLEX	3.2 fl oz/a A	207	14.9000
		306	16.6000
		408	15.0000
		Mean =	15.3000
3 ROUNDUP POWERMAX	32 fl oz/a A	103	15.1250
ANTHEM FLEX	3.5 fl oz/a A	202	16.1000
		307	14.6000
		409	15.0000
		Mean =	15.2063
4 ROUNDUP POWERMAX	32 fl oz/a A	104	17.3000
FINESSE (0.4 oz/A)		A 206	14.6000
ANTHEM FLEX	3.2 fl oz/a A	305	14.7000
		406	15.4000
		Mean =	15.5000
5 ROUNDUP POWERMAX	32 fl oz/a B	105	14.8000
ANTHEM FLEX	3.2 fl oz/a B	209	14.5000
		301	15.7000
		407	15.4000
		Mean =	15.1000
6 ROUNDUP POWERMAX	32 fl oz/a B	106	14.9000
ANTHEM FLEX	3.5 fl oz/a B	201	14.7000
		303	14.8000
		401	14.7000
		Mean =	14.7750
			50.30
			34.80
			46.30
			29.60
			40.25
			54.10
			53.80
			54.60
			52.20
			53.68
			37.90
			48.10
			54.10
			55.70
			48.95
			55.50
			56.00
			54.30
			56.20
			55.50
			56.60
			58.50
			53.60
			55.80
			56.13
			54.80
			51.20
			56.30
			51.90
			53.55
			14.2
			9.7
			23.8
			6.4
			13.6
			25.8
			35.7
			18.2
			21.9
			25.4
			8.3
			24.9
			23.5
			55.7
			28.1
			18.6
			57.3
			42.1
			40.5
			39.6
			70.9
			111.8
			36.9
			62.9
			70.6
			47.9
			39.9
			44.8
			36.5
			42.3

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type			
Pest Code			
Pest Name			
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW
BBCH Scale	BCER	BCER	BCER
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>
Crop Name	Winter wheat	Winter wheat	Winter wheat
Description	Moisture	Test Weight	Plot Weight
Rating Date	Jun-25-2021	Jun-25-2021	Jun-25-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	MOICON	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	LB, -, -	BU, -, -
Collection Basis	1 PLOT		1 PLOT
Reporting Basis	1 PLOT		
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	
Days After First/Last Applic.	260, 109	260, 109	260, 109
Days After Emergence	235 DE-1	235 DE-1	235 DE-1
ARM Action Codes		EC	TY1
Number of Decimals			1
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			26
			27
			28
7 ROUNDUP POWERMAX	32 fl oz/a C	107	15.1000
ANTHEM FLEX	3.2 fl oz/a C	208	14.7000
		304	15.9000
		405	14.3000
		Mean =	15.0000
8 ROUNDUP POWERMAX	32 fl oz/a C	108	14.6000
ANTHEM FLEX	3.5 fl oz/a C	205	15.0000
		302	11.5000
		404	14.5000
		Mean =	13.9000
9 ROUNDUP POWERMAX	32 fl oz/a C	109	14.4000
ANTHEM FLEX	3.2 fl oz/a C	203	14.6000
HARMONY EXTRA (0.6 oz/A)		D 308	14.5000
QUELEX	0.75 oz/a	D 402	14.3000
NIS	4.8 fl oz/a	D	
		Mean =	14.4500
			56.80
			57.00
			52.40
			52.50
			54.68
			56.40
			56.30
			45.30
			54.30
			53.08
			58.60
			53.70
			57.60
			57.90
			70.1

d=Means are reported in de-transformed data units

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

LOLMU, Lolium multiflorum, Bearded ryegrass = US

THLAR, Thlaspi arvense, Field pennycress = US

Crop Type, Code

C = EPPO species (Bayer) codes

TRZAW, BCER, Triticum aestivum, Winter wheat = US

Part Rated

PLANT = plant

GRAIN = grain

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

PHYNEC = phytotoxicity - necrosis /burn

PHYCHL = phytotoxicity - chlorosis

COUPLA = count - plant / emergence - objective

CONTRO = control / burndown or knockdown

COPLPA = count - plant part

LENGTH = length

WEIGHT = weight

MOICON = moisture content

WEITES = weight - test

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

FT, , = foot

lb/plot, , = pounds per plot

LB, , = pound

BU, , = bushel

FT2 = square foot

m2 = square meter

PLOT = total plot

FT2 = square foot

m2 = square meter

PLOT = total plot

ARM Action Codes

ER3 = Excluded replicate 3

ET8 = Excluded treatment 8

AL = Automatic log transformation of X+1

ET2 = Excluded treatment 2

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

TY1 = $(726/(5*[24]))*[25]*(100-[26])/86.5$

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control				
Trial ID: 21-2_WHT-REC		Location: Princeton, KY		Trial Year: 2021
Protocol ID: USA-20-740		Investigator (Creator): Travis Legleiter		
Project ID:		Study Director: LEON, C.		
Sponsor Contact:				

Pest Type				
Pest Code				
Pest Name				
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW	C, TRZAW
BBCH Scale	BCER	BCER	BCER	BCER
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>
Crop Name	Winter wheat	Winter wheat	Winter wheat	Winter wheat
Description				
Rating Date	Nov-17-2020	Nov-17-2020	Nov-17-2020	Nov-17-2020
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	PHYGEN	PHYST	PHYNEC	PHYCHL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Collection Basis				
Reporting Basis				
Number of Subsamples	1	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	40, 22	40, 22	40, 22	40, 22
Days After Emergence	15 DE-1	15 DE-1	15 DE-1	15 DE-1
ARM Action Codes				
Number of Decimals				
Trt Treatment	1	2	3	4
No. Name				
Rate				
Appl Code				
1 NO HERBICIDE	0.0 a	0.0 a	0.0 a	0.0 a
2 ROUNDUP POWERMAX ANTHEM FLEX	0.0 a	0.0 a	0.0 a	0.0 a
3 ROUNDUP POWERMAX ANTHEM FLEX	0.0 a	0.0 a	0.0 a	0.0 a
4 ROUNDUP POWERMAX FINESSE (0.4 oz/A) ANTHEM FLEX	0.0 a	0.0 a	0.0 a	0.0 a
5 ROUNDUP POWERMAX ANTHEM FLEX	0.0 a	0.0 a	0.0 a	0.0 a
6 ROUNDUP POWERMAX ANTHEM FLEX	0.0 a	0.0 a	0.0 a	0.0 a
7 ROUNDUP POWERMAX ANTHEM FLEX	0.0 a	0.0 a	0.0 a	0.0 a
8 ROUNDUP POWERMAX ANTHEM FLEX	0.0 a	0.0 a	0.0 a	0.0 a
9 ROUNDUP POWERMAX ANTHEM FLEX HARMONY EXTRA (0.6 oz/A) QUELEX NIS	0.0 a	0.0 a	0.0 a	0.0 a
LSD P=.05	.	.	.	.
Standard Deviation	0.00	0.00	0.00	0.00
CV	0.0	0.0	0.0	0.0
Levene's F^	.	.	.	.
Levene's Prob(F)	.	.	.	.
Skewness^	.	.	.	.
Kurtosis^	.	.	.	.
Replicate F	0.000	0.000	0.000	0.000
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000
Treatment F	0.000	0.000	0.000	0.000
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Trt No.	Treatment Name	Rate	Appl Code	5	6	7	8
1	NO HERBICIDE			38.5 a	0.0 c	36.0 a	0.0 a
2	ROUNDUP POWERMAX ANTHEM FLEX	32 fl oz/a A 3.2 fl oz/a A		36.3 a	50.0 ab	39.5 a	0.0 a
3	ROUNDUP POWERMAX ANTHEM FLEX	32 fl oz/a A 3.5 fl oz/a A		38.0 a	23.3 bc	36.0 a	0.0 a
4	ROUNDUP POWERMAX FINESSE (0.4 oz/A) ANTHEM FLEX	32 fl oz/a A A 3.2 fl oz/a A		35.8 a	53.3 ab	40.8 a	0.0 a
5	ROUNDUP POWERMAX ANTHEM FLEX	32 fl oz/a B 3.2 fl oz/a B		32.8 a	90.0 a	34.8 a	0.0 a
6	ROUNDUP POWERMAX ANTHEM FLEX	32 fl oz/a B 3.5 fl oz/a B		36.3 a	73.3 a	34.5 a	0.0 a
7	ROUNDUP POWERMAX ANTHEM FLEX	32 fl oz/a C 3.2 fl oz/a C		33.5 a	91.7 a	32.3 a	0.0 a
8	ROUNDUP POWERMAX ANTHEM FLEX	32 fl oz/a C 3.5 fl oz/a C		38.5 a	95.7 a	36.5 a	0.0 a
9	ROUNDUP POWERMAX ANTHEM FLEX HARMONY EXTRA (0.6 oz/A) QUELEX NIS	32 fl oz/a C 3.2 fl oz/a C D 0.75 oz/a D 4.8 fl oz/a D		39.3 a	90.0 a	35.3 a	0.0 a
LSD P=.05				9.85	33.29	9.31	.
Standard Deviation				6.75	19.24	6.38	0.00
CV				18.47	30.51	17.63	0.0
Levene's F^				1.617	1.675	0.416	.
Levene's Prob(F)				0.167	0.151	0.901	.
Skewness^				0.3033	-0.6519	-0.3126	.
Kurtosis^				-0.4264	0.1538	0.1517	.
Replicate F				2.283	0.134	0.933	0.000
Replicate Prob(F)				0.1047	0.8755	0.4398	1.0000
Treatment F				0.456	9.383	0.655	0.000
Treatment Prob(F)				0.8743	0.0001	0.7249	1.0000

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Trt No.	Treatment Name	Rate	Appl Unit	Code	9	10	11	12
	Pest Type							W, Weed
	Pest Code							LOLMU
	Pest Name							Bearded ryegrass
	Crop Type, Code				C, TRZAW	C, TRZAW	C, TRZAW	
	BBCH Scale				BCER	BCER	BCER	
	Crop Scientific Name				Triticum aestiv>	Triticum aestiv>	Triticum aestiv>	
	Crop Name				Winter wheat	Winter wheat	Winter wheat	
	Description							
	Rating Date				Dec-3-2020	Dec-3-2020	Dec-3-2020	Dec-3-2020
	Part Rated				PLANT, C	PLANT, C	PLANT, C	PLANT, P
	Rating Type				PHYST	PHYNEC	PHYCHL	CONTRO
	Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
	Collection Basis							
	Reporting Basis							
	Number of Subsamples				1	1	1	1
	Data Entry Date				Sep-23-2021	Sep-23-2021	Sep-23-2021	Sep-23-2021
	Days After First/Last Applic.				56, 38	56, 38	56, 38	56, 38
	Days After Emergence				31 DE-1	31 DE-1	31 DE-1	31 DE-1
	ARM Action Codes							ER3
	Number of Decimals							
	LSD P=.05							31.30
	Standard Deviation				0.00	0.00	0.00	18.09
	CV				0.0	0.0	0.0	27.46
	Levene's F^				.	.	.	1.171
	Levene's Prob(F)				.	.	.	0.352
	Skewness^				.	.	.	-0.8265
	Kurtosis^				.	.	.	2.3818*
	Replicate F				0.000	0.000	0.000	0.267
	Replicate Prob(F)				1.0000	1.0000	1.0000	0.7692
	Treatment F				0.000	0.000	0.000	10.660
	Treatment Prob(F)				1.0000	1.0000	1.0000	0.0001

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type				
Pest Code				
Pest Name				
Crop Type, Code	C, WHEAT	C, WHEAT	C, WHEAT	C, WHEAT
BBCH Scale				
Crop Scientific Name				
Crop Name				
Description				
Rating Date	Apr-14-2021	Apr-14-2021	Apr-14-2021	Apr-14-2021
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	PHYGEN	PHYST	PHYNEC	PHYCHL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Collection Basis				
Reporting Basis				
Number of Subsamples	1	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	188, 37	188, 37	188, 37	188, 37
Days After Emergence	163 DE-1	163 DE-1	163 DE-1	163 DE-1
ARM Action Codes				
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	13	14
1 NO HERBICIDE			0.0 a	0.0 a
2 ROUNDUP POWERMAX	32 fl oz/a A		0.0 a	0.0 a
ANTHEM FLEX	3.2 fl oz/a A		0.0 a	0.0 a
3 ROUNDUP POWERMAX	32 fl oz/a A		0.0 a	0.0 a
ANTHEM FLEX	3.5 fl oz/a A		0.0 a	0.0 a
4 ROUNDUP POWERMAX	32 fl oz/a A		0.0 a	0.0 a
FINESSE (0.4 oz/A)	A		0.0 a	0.0 a
ANTHEM FLEX	3.2 fl oz/a A		0.0 a	0.0 a
5 ROUNDUP POWERMAX	32 fl oz/a B		0.0 a	0.0 a
ANTHEM FLEX	3.2 fl oz/a B		0.0 a	0.0 a
6 ROUNDUP POWERMAX	32 fl oz/a B		0.0 a	0.0 a
ANTHEM FLEX	3.5 fl oz/a B		0.0 a	0.0 a
7 ROUNDUP POWERMAX	32 fl oz/a C		0.0 a	0.0 a
ANTHEM FLEX	3.2 fl oz/a C		0.0 a	0.0 a
8 ROUNDUP POWERMAX	32 fl oz/a C		0.0 a	0.0 a
ANTHEM FLEX	3.5 fl oz/a C		0.0 a	0.0 a
9 ROUNDUP POWERMAX	32 fl oz/a C		0.0 a	0.0 a
ANTHEM FLEX	3.2 fl oz/a C		0.0 a	0.0 a
HARMONY EXTRA (0.6 oz/A)	D		0.0 a	0.0 a
QUELEX	0.75 oz/a D		0.0 a	0.0 a
NIS	4.8 fl oz/a D		0.0 a	0.0 a
LSD P=.05			.	.
Standard Deviation			0.00	0.00
CV			0.0	0.0
Levene's F^			.	.
Levene's Prob(F)			.	.
Skewness^			.	.
Kurtosis^			.	.
Replicate F			0.000	0.000
Replicate Prob(F)			1.0000	1.0000
Treatment F			0.000	0.000
Treatment Prob(F)			1.0000	1.0000

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	LOLMU	THLAR	LOLMU
Pest Name	Bearded ryegrass	Field pennycress	Bearded ryegrass
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Description			
Rating Date	Apr-14-2021	Apr-14-2021	Apr-20-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Collection Basis			
Reporting Basis			
Number of Subsamples	1	1	1
Data Entry Date	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.	188, 37	188, 37	194, 43
Days After Emergence	163 DE-1	163 DE-1	169 DE-1
ARM Action Codes		ET8	
Number of Decimals			
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			17
			18
			19
1 NO HERBICIDE			0.0 b
2 ROUNDUP POWERMAX	32 fl oz/a A		5.0 b
ANTHEM FLEX	3.2 fl oz/a A		25.0 b
3 ROUNDUP POWERMAX	32 fl oz/a A		17.5 b
ANTHEM FLEX	3.5 fl oz/a A		100.0 a
4 ROUNDUP POWERMAX	32 fl oz/a A		22.5 ab
FINESSE (0.4 oz/A)	A		97.5 a
ANTHEM FLEX	3.2 fl oz/a A		19.0 bc
5 ROUNDUP POWERMAX	32 fl oz/a B		65.0 a
ANTHEM FLEX	3.2 fl oz/a B		45.0 ab
6 ROUNDUP POWERMAX	32 fl oz/a B		28.8 ab
ANTHEM FLEX	3.5 fl oz/a B		42.5 ab
7 ROUNDUP POWERMAX	32 fl oz/a C		45.0 ab
ANTHEM FLEX	3.2 fl oz/a C		25.0 b
8 ROUNDUP POWERMAX	32 fl oz/a C		47.5 ab
ANTHEM FLEX	3.5 fl oz/a C		47.5
9 ROUNDUP POWERMAX	32 fl oz/a C		66.3 a
ANTHEM FLEX	3.2 fl oz/a C		100.0 a
HARMONY EXTRA (0.6 oz/A)	D		65.0 a
QUELEX	0.75 oz/a D		
NIS	4.8 fl oz/a D		
LSD P=.05			30.89
Standard Deviation			21.17
CV			64.04
Levene's F^			1.12
Levene's Prob(F)			0.381
Skewness^			0.6078
Kurtosis^			0.3605
Replicate F			1.308
Replicate Prob(F)			0.2948
Treatment F			5.273
Treatment Prob(F)			0.0007
			45.85
			31.18
			57.34
			0.699
			0.672
			0.4156
			-0.4692
			3.452
			0.0292
			6.428
			0.0004

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type		W, Weed	W, Weed	W, Weed
Pest Code		THLAR	LOLMU	THLAR
Pest Name		Field pennycress	Bearded ryegrass	Field pennycress
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Description				
Rating Date		Apr-20-2021	Apr-27-2021	Apr-27-2021
Part Rated		PLANT, P	PLANT, P	PLANT, P
Rating Type		CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100
Collection Basis				
Reporting Basis				
Number of Subsamples		1	1	1
Data Entry Date		Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.		194, 43	201, 50	201, 50
Days After Emergence		169 DE-1	176 DE-1	176 DE-1
ARM Action Codes		ER3	AL	ER3
Number of Decimals				
Trt Treatment	Rate	20	21	22
No. Name	Rate Unit Code		dAL	
1 NO HERBICIDE		63.3 a	0.0 d	63.3 a
2 ROUNDUP POWERMAX	32 fl oz/a A	50.0 a	1.1 cd	50.0 a
ANTHEM FLEX	3.2 fl oz/a A			
3 ROUNDUP POWERMAX	32 fl oz/a A	100.0 a	3.1 bcd	100.0 a
ANTHEM FLEX	3.5 fl oz/a A			
4 ROUNDUP POWERMAX	32 fl oz/a A	100.0 a	8.9 abc	100.0 a
FINESSE (0.4 oz/A)	A			
ANTHEM FLEX	3.2 fl oz/a A			
5 ROUNDUP POWERMAX	32 fl oz/a B	66.7 a	61.7 a	66.7 a
ANTHEM FLEX	3.2 fl oz/a B			
6 ROUNDUP POWERMAX	32 fl oz/a B	33.3 a	15.1 abc	33.3 a
ANTHEM FLEX	3.5 fl oz/a B			
7 ROUNDUP POWERMAX	32 fl oz/a C	33.3 a	31.2 ab	33.3 a
ANTHEM FLEX	3.2 fl oz/a C			
8 ROUNDUP POWERMAX	32 fl oz/a C	63.3 a	25.9 ab	63.3 a
ANTHEM FLEX	3.5 fl oz/a C			
9 ROUNDUP POWERMAX	32 fl oz/a C	100.0 a	58.3 a	100.0 a
ANTHEM FLEX	3.2 fl oz/a C			
HARMONY EXTRA (0.6 oz/A)	D			
QUELEX	0.75 oz/a D			
NIS	4.8 fl oz/a D			
LSD P=.05		70.83	9.53 - 51.17	70.83
Standard Deviation		40.70	0.50t	40.70
CV		60.05	46.93t	60.05
Levene's F^		1.281	0.761	1.281
Levene's Prob(F)		0.296	0.639	0.296
Skewness^		0.2351	-0.7315	0.2351
Kurtosis^		-0.3824	1.7613*	-0.3824
Replicate F		3.710	1.351	3.710
Replicate Prob(F)		0.0491	0.2826	0.0491
Treatment F		1.323	6.438	1.323
Treatment Prob(F)		0.3045	0.0002	0.3045

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type		W, Weed			
Pest Code		LOLMU			
Pest Name		Bearded ryegrass			
Crop Type, Code			C, TRZAW	C, TRZAW	C, TRZAW
BBCH Scale			BCER	BCER	BCER
Crop Scientific Name			Triticum aestiv>	Triticum aestiv>	Triticum aestiv>
Crop Name			Winter wheat	Winter wheat	Winter wheat
Description		Panicle Count	Plot Length	Plot Weight	Moisture
Rating Date		Jun-8-2021	Jun-25-2021	Jun-25-2021	Jun-25-2021
Part Rated		PLANT, P	PLANT, C	GRAIN, C	GRAIN, C
Rating Type		COPLPA	LENGTH	WEIGHT	MOICON
Rating Unit/Min/Max			FT, -, -	lb/plot, -, -	%, 0, 100
Collection Basis		1 m2	1 PLOT	1 PLOT	1 PLOT
Reporting Basis		1 m2	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples		1	1	1	1
Data Entry Date		Sep-23-2021	Sep-23-2021	Sep-23-2021	Sep-23-2021
Days After First/Last Applic.		243, 92	260, 109	260, 109	260, 109
Days After Emergence		218 DE-1	235 DE-1	235 DE-1	235 DE-1
ARM Action Codes		ET2			
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	23	24	25
1 NO HERBICIDE			228.5 a	25.80 a	2.485 c
2 ROUNDUP POWERMAX	32 fl oz/a A		153.8	25.60 a	4.555 bc
ANTHEM FLEX	3.2 fl oz/a A				15.3000 a
3 ROUNDUP POWERMAX	32 fl oz/a A		181.5 a	26.03 a	5.175 bc
ANTHEM FLEX	3.5 fl oz/a A				15.2063 a
4 ROUNDUP POWERMAX	32 fl oz/a A		285.3 a	26.03 a	7.220 abc
FINESSE (0.4 oz/A)		A			15.5000 a
ANTHEM FLEX	3.2 fl oz/a A				
5 ROUNDUP POWERMAX	32 fl oz/a B		140.3 a	25.83 a	12.748 a
ANTHEM FLEX	3.2 fl oz/a B				15.1000 a
6 ROUNDUP POWERMAX	32 fl oz/a B		107.3 a	26.18 a	7.743 abc
ANTHEM FLEX	3.5 fl oz/a B				14.7750 a
7 ROUNDUP POWERMAX	32 fl oz/a C		100.8 a	25.50 a	9.168 abc
ANTHEM FLEX	3.2 fl oz/a C				15.0000 a
8 ROUNDUP POWERMAX	32 fl oz/a C		76.0 a	25.70 a	10.230 ab
ANTHEM FLEX	3.5 fl oz/a C				13.9000 a
9 ROUNDUP POWERMAX	32 fl oz/a C		156.8 a	26.03 a	12.670 a
ANTHEM FLEX	3.2 fl oz/a C				14.4500 a
HARMONY EXTRA (0.6 oz/A)		D			
QUELEX	0.75 oz/a	D			
NIS	4.8 fl oz/a	D			
LSD P=.05			134.87	0.777	4.4772
Standard Deviation			91.71	0.533	3.0678
CV			57.49	2.06	38.35
Levene's F^			1.547	0.573	0.978
Levene's Prob(F)			0.199	0.791	0.474
Skewness^			0.2866	-0.2587	0.0146
Kurtosis^			-0.5021	-0.5708	0.7062
Replicate F			1.154	0.455	0.754
Replicate Prob(F)			0.3508	0.7161	0.5309
Treatment F			2.350	0.719	5.399
Treatment Prob(F)			0.0613	0.6730	0.0006

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type			
Pest Code			
Pest Name			
Crop Type, Code		C, TRZAW	C, TRZAW
BBCH Scale		BCER	BCER
Crop Scientific Name		Triticum aestiv>	Triticum aestiv>
Crop Name		Winter wheat	Winter wheat
Description		Test Weight	Plot Weight
Rating Date		Jun-25-2021	Jun-25-2021
Part Rated		GRAIN, C	GRAIN, C
Rating Type		WEITES	YIELD
Rating Unit/Min/Max		LB, -, -	BU, -, -
Collection Basis			1 PLOT
Reporting Basis			
Number of Subsamples		1	1
Data Entry Date		Sep-23-2021	
Days After First/Last Applic.		260, 109	260, 109
Days After Emergence		235 DE-1	235 DE-1
ARM Action Codes		EC	TY1
Number of Decimals			1
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
		27	28
1 NO HERBICIDE		40.25	13.6 c
2 ROUNDUP POWERMAX	32 fl oz/a A	53.68 a	25.4 bc
ANTHEM FLEX	3.2 fl oz/a A		
3 ROUNDUP POWERMAX	32 fl oz/a A	48.95 a	28.1 bc
ANTHEM FLEX	3.5 fl oz/a A		
4 ROUNDUP POWERMAX	32 fl oz/a A	55.50 a	39.6 abc
FINESSE (0.4 oz/A)	A		
ANTHEM FLEX	3.2 fl oz/a A		
5 ROUNDUP POWERMAX	32 fl oz/a B	56.13 a	70.6 a
ANTHEM FLEX	3.2 fl oz/a B		
6 ROUNDUP POWERMAX	32 fl oz/a B	53.55 a	42.3 abc
ANTHEM FLEX	3.5 fl oz/a B		
7 ROUNDUP POWERMAX	32 fl oz/a C	54.68 a	51.1 abc
ANTHEM FLEX	3.2 fl oz/a C		
8 ROUNDUP POWERMAX	32 fl oz/a C	53.08 a	57.4 ab
ANTHEM FLEX	3.5 fl oz/a C		
9 ROUNDUP POWERMAX	32 fl oz/a C	56.95 a	70.1 a
ANTHEM FLEX	3.2 fl oz/a C		
HARMONY EXTRA (0.6 oz/A)	D		
QUELEX	0.75 oz/a D		
NIS	4.8 fl oz/a D		
LSD P=.05		5.940	25.08
Standard Deviation		4.039	17.19
CV		7.47	38.84
Levene's F^		2.246	0.904
Levene's Prob(F)		0.066	0.527
Skewness^		-1.1047*	0.0551
Kurtosis^		3.0352*	0.8836
Replicate F		0.108	0.747
Replicate Prob(F)		0.9547	0.5347
Treatment F		1.491	5.363
Treatment Prob(F)		0.2243	0.0006

University of Kentucky

Finesse and Anthem Flex Herbicides Use in Winter Wheat for Grass and Broadleaf Weed Control

Trial ID: 21-2_WHT-REC Location: Princeton, KY Trial Year: 2021
 Protocol ID: USA-20-740 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: LEON, C.
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

LOLMU, Lolium multiflorum, Bearded ryegrass = US

THLAR, Thlaspi arvense, Field pennycress = US

Crop Type, Code

C = EPPO species (Bayer) codes

TRZAW, BCER, Triticum aestivum, Winter wheat = US

Part Rated

PLANT = plant

GRAIN = grain

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

PHYNEC = phytotoxicity - necrosis /burn

PHYCHL = phytotoxicity - chlorosis

COUPLA = count - plant / emergence - objective

CONTRO = control / burndown or knockdown

COPLPA = count - plant part

LENGTH = length

WEIGHT = weight

MOICON = moisture content

WEITES = weight - test

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

FT, , = foot

lb/plot, , = pounds per plot

LB, , = pound

BU, , = bushel

FT2 = square foot

m2 = square meter

PLOT = total plot

FT2 = square foot

m2 = square meter

PLOT = total plot

ARM Action Codes

ER3 = Excluded replicate 3

ET8 = Excluded treatment 8

AL = Automatic log transformation of X+1

ET2 = Excluded treatment 2

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

TY1 = $(726/(5*[24]))*[25]*(100-[26])/86.5$

University of Kentucky

Herbicide programs for control of annual ryegrass and broadleaves in Kentucky no-till wheat			
Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020	
Protocol ID:	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Travis Legleiter		
Sponsor Contact:			

Reps: 4 Plots: 10 by 30 feet
 Mix Size: 2 L

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Appl Amount	Amount Unit	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Roundup PowerMax	4.5	LBAE/GAL	SL	32 fl oz/a		1.13	lbae/a	14 DPP	A	15	GAL/AC	33.33 mL/mx	101	202	306	402
	Fierce EZ	3.04	LBA/GAL	SC	6 fl oz/a		0.143	lba/a	14 DPP	A	15	GAL/AC	6.25 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	5 % v/v		17	lba/100gal	14DPP	A	15	GAL/AC	99.99 mL/mx				
	Axial Bold	0.685	LBA/GAL	EC	15 fl oz/a		0.08	lba/a	1-2TL LOLMU	D	10	GAL/AC	23.44 mL/mx				
	Harmony Extra (0.6 oz/a) NIS	100 %		SL	0.5 % v/v		2	qt/100gal	Spring Spring	E E	15	GAL/AC	9.999 mL/mx				
2	Roundup PowerMax	4.5	LBAE/GAL	SL	32 fl oz/a		1.13	lbae/a	14 DPP	A	15	GAL/AC	33.33 mL/mx	102	207	303	401
	Fierce EZ	3.04	LBA/GAL	SC	6 fl oz/a		0.143	lba/a	14 DPP	A	15	GAL/AC	6.25 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	5 % v/v		17	lba/100gal	14DPP	A	15	GAL/AC	99.99 mL/mx				
	Axial Bold	0.685	LBA/GAL	EC	15 fl oz/a		0.08	lba/a	1-2TL LOLMU	D	10	GAL/AC	23.44 mL/mx				
	Gramoxone	2	LBA/GAL	L	3.5 pt/a		0.875	lba/a	14DPP	A	15	GAL/AC	58.33 mL/mx				
3	Fierce EZ	3.04	LBA/GAL	SC	6 fl oz/a		0.143	lba/a	14 DPP	A	15	GAL/AC	6.25 mL/mx	103	206	307	405
	NIS	100 %		SL	0.25 % v/v		2	pt/100gal	14 DPP	A	15	GAL/AC	4.999 mL/mx				
	Axial Bold	0.685	LBA/GAL	EC	15 fl oz/a		0.08	lba/a	1-2TL LOLMU	D	10	GAL/AC	23.44 mL/mx				
	Roundup PowerMax	4.5	LBAE/GAL	SL	32 fl oz/a		1.13	lbae/a	PRE	B	15	GAL/AC	33.33 mL/mx				
	Finesse Cereal&Fallow(0.4oz/A)	75 %	AW/W	DF	0.333 oz/a		0.0156	lba/a	PRE	B	15	GAL/AC	0.3325 g/mx				
4	Glean XP	3.4	lba/gal	SL	5 % v/v		17	lba/100gal	PRE	B	15	GAL/AC	99.99 mL/mx	104	203	308	404
	Amsol AMS	3.4	lba/gal	SL	5 % v/v		17	lba/100gal	PRE	B	15	GAL/AC	99.99 mL/mx				
	Axial Bold	0.685	LBA/GAL	EC	15 fl oz/a		0.08	lba/a	1-2TL LOLMU	D	10	GAL/AC	23.44 mL/mx				
	Gramoxone	2	LBA/GAL	L	3.5 pt/a		0.875	lba/a	PRE	B	15	GAL/AC	58.33 mL/mx				
	Finesse Cereal&Fallow(0.4oz/A)	4	LBA/GAL	SE	3.2 fl oz/a		0.1	lba/a	PRE	B	15	GAL/AC	3.333 mL/mx				
5	Anthem Flex	100 %		SL	0.25 % v/v		2	pt/100gal	PRE	B	15	GAL/AC	4.999 mL/mx	105	208	305	408
	NIS	100 %		SL	0.25 % v/v		2	pt/100gal	PRE	B	15	GAL/AC	4.999 mL/mx				
	Axial Bold	0.685	LBA/GAL	EC	15 fl oz/a		0.08	lba/a	1-2TL LOLMU	D	10	GAL/AC	23.44 mL/mx				
	Roundup PowerMax	4.5	LBAE/GAL	SL	32 fl oz/a		1.13	lbae/a	PRE	B	15	GAL/AC	33.33 mL/mx				
	Finesse Cereal&Fallow(0.4oz/A)	75 %	AW/W	DF	0.333 oz/a		0.0156	lba/a	PRE	B	15	GAL/AC	0.3325 g/mx				
6	Glean XP	3.4	lba/gal	SL	5 % v/v		17	lba/100gal	PRE	B	15	GAL/AC	99.99 mL/mx	106	201	302	407
	Zidua	4.17	LBA/GAL	SC	3 fl oz/a		0.098	lba/a	2-3 LF WHT	C	15	GAL/AC	3.125 mL/mx				
	Metribuzin	75 %		D	2 oz/a		0.094	lba/a	2-3 LF WHT	C	15	GAL/AC	1.997 g/mx				
	NIS	100 %		SL	0.25 % v/v		1	qt/100gal	2-3 LF WHT	C	15	GAL/AC	4.999 mL/mx				
	Axial Bold	0.685	LBA/GAL	EC	15 fl oz/a		0.08	lba/a	Spring	E	10	GAL/AC	23.44 mL/mx				
	Roundup PowerMax	4.5	LBAE/GAL	SL	32 fl oz/a		1.13	lbae/a	PRE	B	15	GAL/AC	33.33 mL/mx				
	Finesse Cereal&Fallow(0.4oz/A)	75 %	AW/W	DF	0.333 oz/a		0.0156	lba/a	PRE	B	15	GAL/AC	0.3325 g/mx				
7	Amsol AMS	3.4	lba/gal	SL	5 % v/v		17	lba/100gal	PRE	B	15	GAL/AC	99.99 mL/mx	107	205	304	403
	Fierce EZ	3.04	LBA/GAL	SC	3 fl oz/a		0.071	lba/a	2-3 LF WHT	C	15	GAL/AC	3.125 mL/mx				
	Axial Bold	0.685	LBA/GAL	EC	15 fl oz/a		0.08	lba/a	Spring	E	10	GAL/AC	23.44 mL/mx				
	Gramoxone	2	LBA/GAL	L	3.5 pt/a		0.875	lba/a	PRE	B	15	GAL/AC	58.33 mL/mx				
	Finesse Cereal&Fallow(0.4oz/A)	4	LBA/GAL	SE	3.2 fl oz/a		0.1	lba/a	PRE	B	15	GAL/AC	3.333 mL/mx				
8	Untreated												108	204	301	406	

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
208.333	mL	Roundup PowerMax	4.5	LBAE/GAL	SL	
27.344	mL	Fierce EZ	3.04	LBA/GAL	SC	
624.932	mL	Amsol AMS	3.4	lba/gal	SL	
205.078	mL	Axial Bold	.685	LBA/GAL	EC	
31.247	mL	NIS	100	%	SL	
145.833	mL	Gramoxone	2	LBA/GAL	L	
0.416	g	Glean XP	75	%AW/W	DF	
4.167	mL	Anthem Flex	4	LBA/GAL	SE	
3.906	mL	Zidua	4.17	LBA/GAL	SC	
2.496	g	Metribuzin	75	%	D	

* 'Per area' calculations based on application amount= 15,10 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15,10 GAL/AC, mix size= 2 L.

University of Kentucky

Herbicide programs for control of annual ryegrass and broadleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC Location: UKREC Trial Year: 2020
 Protocol ID: Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Travis Legleiter
 Sponsor Contact:

General Trial Information

Study Director: Travis Legleiter **Title:** Assistant Professor
Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established
ARM Trial Created On: Oct-2-2020

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Role: STYDIR study director
Study Director: Travis Legleiter **Title:** Assistant Professor
Organization: University of Kentucky
Address 1: 348 University Drive

City: Princeton, KY **E-mail:** Travis.Legleiter@uky.edu
 Postal Code: 42445
Role: INVEST investigator
Investigator: Travis Legleiter **Title:** Assistant Extension Professor
Organization: University of Kentucky
Address 1: 348 University Drive **Phone No.:** 859-562-1323
Country: USA United States **E-mail:** Travis.Legleiter@uky.edu
City: Princeton, KY **Postal Code:** 42445

Crop Description

Crop 1: C TRZAX Triticum aestivum Soft wheat
Entry Date: Oct-15-2021 **Stage Scale:** BBCH
Variety: 26R10
Planting Date: Oct-22-2020 **Planting Rate:** 155.9 LB/A
Depth: 1 IN

Row Spacing: 7.5 IN **Planting Method:** DRILLE drilled
Soil Temperature: 64 F **Planting Equipment:** DRILL
 Soil Moisture: WET wet
 Harvested Width: 5 FT

% Standard Moisture: 13.5

University of Kentucky

Herbicide programs for control of annual ryegrass and broadleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC Location: UKREC Trial Year: 2020
 Protocol ID: Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Travis Legleiter
 Sponsor Contact:

Pest Description

Pest 1 Type: W	Code: LAMAM Lamium amplexicaule	Entry Date: Oct-15-2021
	Common Name: Henbit deadnettle	Stage Scale: BBCH
Pest 2 Type: W	Code: STEME Stellaria media	Entry Date: Oct-15-2021
	Common Name: chickweed	Stage Scale: BBCH
Pest 3 Type: W	Code: GERCA Geranium carolinianum	Entry Date: Oct-15-2021
	Common Name: Carolina geranium	Stage Scale: BBCH
Pest 4 Type: W	Code: LOLMU Lolium multiflorum	Entry Date: Oct-15-2021
	Common Name: Bearded ryegrass	Stage Scale: BBCH
Pest 5 Type: W	Code: LAMPU Lamium purpureum	Entry Date: Oct-15-2021
	Common Name: purple deadnettle	Stage Scale: BBCH
Pest 6 Type: W	Code: ZEAMX Zea mays	Entry Date: Oct-15-2021
	Common Name: Corn	Stage Scale: BBCH
Pest 7 Type: W	Code: STEME Stellaria media	Entry Date: Oct-15-2021
	Common Name: chickweed	Stage Scale: BBCH
Pest 8 Type: W	Code: THLAR Thlaspi arvense	Entry Date: Oct-15-2021
	Common Name: Field pennycress	Stage Scale: BBCH
Pest 9 Type: W	Code: BROTE Bromus tectorum	Entry Date: Oct-15-2021
	Common Name: Cheatgrass	Stage Scale: BBCH

Site and Design

Treated Plot Width: 10 FT
Treated Plot Length: 30 FT
Treated Plot Area: 300.0 FT² **Treatments:** 8
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B	C	D	E
Application Date	Oct-8-2020	Oct-22-2020	Nov-21-2020	Mar-8-2021	Mar-8-2021
Appl. Start Time	11:30 AM	2:15 PM	9:50 AM	2:40 PM	2:40 PM
Appl. Stop Time	11:40 AM	2:24 PM	10:00 AM	3:00 PM	3:00 PM
Appl. Entry Date	Oct-15-2021	Oct-15-2021	Oct-15-2021	Oct-15-2021	Oct-15-2021
Air Temperature Start, Stop	78.6, - F	84, - F	61.5, 62.3 F	70.6, - F	70.6, - F
% Relative Humidity Start, Stop	61.9, -	46.4, -	79.7, 68.9	27.7, -	27.7, -
Wind Velocity+Dir. Start	1.7 S, MPH	2.3 MPH, S	0.6 MPH, NW	5.2 MPH, SW	5.2 MPH, SW
Wind Velocity+Dir. Stop			0.7 MPH, NW		
Wind Velocity+Dir. Max	3.4 S, MPH	7.1 MPH, S	2.1 MPH, NW	10.4 MPH, SW	10.4 MPH, SW
Wet Leaves (Y/N)	N, no	N, no	Y, yes	N, no	N, no
Soil Temperature	64.5 F	64 F	50 F	49 F	49 F
Soil Moisture	DRY	WET	DRY	DRY	DRY
% Cloud Cover	75	35	100	55	55

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC Location: UKREC Trial Year: 2020
 Protocol ID: Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Travis Legleiter
 Sponsor Contact:

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale	TRZAX, BCER	TRZAX, BCER	TRZAX, BCER	TRZAX, BCER	TRZAX, BCER
Height Average			4.125 IN	3.625 IN	3.625 IN
Height Minimum, Maximum			2.5, 5.75	2, 5.25	2, 5.25

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020
Protocol ID:	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Travis Legleiter	
	Sponsor Contact:	

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale	LAMAM, W, BBCH	LAMAM, W, BBCH	LAMAM, W, BBCH	LAMAM, W, BBCH
Height Average	0.125 IN	0.625 IN	0.375 IN	
Height Minimum, Maximum	-, 0.25	0.25, 1	0.25, 0.5	
Density Average	30.25 FT2	33.75 FT2	6.75 FT2	
Density Minimum, Maximum	23, 40	10, 97	5, 15	
Pest 2 Code, Type, Scale	STEME, W, BBCH	STEME, W, BBCH	STEME, W, BBCH	STEME, W, BBCH
Height Average	0.125 IN	0.5 IN		
Height Minimum, Maximum	-, 0.25	0.25, 0.75		
Density Average	1.25 FT2	0.5 FT2		
Density Minimum, Maximum	0, 5	-, 1		
Pest 3 Code, Type, Scale	GERCA, W, BBCH	GERCA, W, BBCH	GERCA, W, BBCH	GERCA, W, BBCH
Height Average	0.125 IN	1 IN	0.375 IN	0.875 IN
Height Minimum, Maximum	-, 0.25	0.5, 1.5	0.25, 0.5	0.75, 1
Density Average	12 FT2	34.5 FT2	5.75 FT2	0.38 FT2
Density Minimum, Maximum	0, 48	4, 65	3, 18	1, 2
Pest 4 Code, Type, Scale	LOLMU, W, BBCH	LOLMU, W, BBCH	LOLMU, W, BBCH	LOLMU, W, BBCH
Height Average		2 IN	2.125 IN	2.75 IN
Height Minimum, Maximum		0.75, 3.25	0.75, 3.5	1.5, 4
Density Average		26.25 FT2	68 FT2	28 FT2
Density Minimum, Maximum		13, 45	35, 102	1, 75
Pest 5 Code, Type, Scale	LAMPU, W, BBCH	LAMPU, W, BBCH	LAMPU, W, BBCH	LAMPU, W, BBCH
Height Average		0.75 IN		
Height Minimum, Maximum		-, 1.25		
Density Average		0.25 FT2		
Density Minimum, Maximum		-, 1		
Pest 6 Code, Type, Scale	ZEAMX, W, BBCH	ZEAMX, W, BBCH	ZEAMX, W, BBCH	ZEAMX, W, BBCH
Height Average		0.875 IN		
Height Minimum, Maximum		-, 1.75		
Density Average		0.25 FT2		
Density Minimum, Maximum		-, 1		
Pest 7 Code, Type, Scale	STEME, W, BBCH	STEME, W, BBCH	STEME, W, BBCH	STEME, W, BBCH
Pest 8 Code, Type, Scale	THLAR, W, BBCH	THLAR, W, BBCH	THLAR, W, BBCH	THLAR, W, BBCH
Height Average			0.375 IN	1.75 IN
Height Minimum, Maximum			0.25, 0.5	0.75, 2.75
Density Average			1.5 FT2	0.75 FT2
Density Minimum, Maximum			2, 4	1, 3
Pest 9 Code, Type, Scale	BROTE, W, BBCH	BROTE, W, BBCH	BROTE, W, BBCH	BROTE, W, BBCH
Height Average			2.375 IN	
Height Minimum, Maximum			1.75, 3	
Density Average			2.75 FT2	
Density Minimum, Maximum			4, 7	

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020
Protocol ID:	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Travis Legleiter	
	Sponsor Contact:	

	E
Pest 1 Code, Type, Scale	LAMAM, W, BBCH
Height Average	
Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	
Pest 2 Code, Type, Scale	STEME, W, BBCH
Height Average	
Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	
Pest 3 Code, Type, Scale	GERCA, W, BBCH
Height Average	
Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	
Pest 4 Code, Type, Scale	LOLMU, W, BBCH
Height Average	
Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	
Pest 5 Code, Type, Scale	LAMPU, W, BBCH
Height Average	
Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	
Pest 6 Code, Type, Scale	ZEAMX, W, BBCH
Height Average	
Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	
Pest 7 Code, Type, Scale	STEME, W, BBCH
Pest 8 Code, Type, Scale	THLAR, W, BBCH
Height Average	
Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	
Pest 9 Code, Type, Scale	BROTE, W, BBCH
Height Average	
Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat			
Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020	
Protocol ID:	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Travis Legleiter		
Sponsor Contact:			

Pest Type		W, Weed		W, Weed
Pest Code		LOLMU		LOLMU
Pest Name		ryegrass, Itali>		ryegrass, Itali>
Crop Type, Code	C, TRZAW		C, TRZAW	
Crop Name	Winter wheat		Winter wheat	
Rating Date	Nov-17-2020	Nov-17-2020	Dec-3-2020	Dec-3-2020
Part Rated	PLANT, C	PLANT, P	PLANT, C	PLANT, P
Rating Type	PHYGEN	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	40, 26	40, 26	56, 12	56, 12
ARM Action Codes				ET8
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	1	2
			3	4
4 Roundup PowerMax	32 fl oz/a B	104	0.0	95.0
Finesse Cereal&Fallow(0.4oz/A)	B	203	0.0	90.0
Glean XP	0.333 oz/a B	308	0.0	60.0
Amsol AMS	5 % v/v B	404	0.0	70.0
Axial Bold	15 fl oz/a D			
	Mean =		0.0	78.8
5 Gramoxone	3.5 pt/a B	105	0.0	97.0
Finesse Cereal&Fallow(0.4oz/A)	B	208	0.0	90.0
Anthem Flex	3.2 fl oz/a B	305	0.0	97.0
NIS	0.25 % v/v B	408	0.0	95.0
Axial Bold	15 fl oz/a D			
	Mean =		0.0	94.8
6 Roundup PowerMax	32 fl oz/a B	106	0.0	60.0
Finesse Cereal&Fallow(0.4oz/A)	B	201	0.0	75.0
Amsol AMS	5 % v/v B	302	0.0	90.0
Zidua	3 fl oz/a C	407	0.0	50.0
Metribuzin	2 oz/a C			
NIS	0.25 % v/v C			
Axial Bold	15 fl oz/a E			
	Mean =		0.0	68.8
7 Roundup PowerMax	32 fl oz/a B	107	0.0	20.0
Finesse Cereal&Fallow(0.4oz/A)	B	205	0.0	70.0
Amsol AMS	5 % v/v B	304	0.0	70.0
Fierce EZ	3 fl oz/a C	403	0.0	96.0
Axial Bold	15 fl oz/a E			
	Mean =		0.0	64.0
8 Untreated		108	0.0	0.0
		204	0.0	0.0
		301	0.0	0.0
		406	0.0	0.0
	Mean =		0.0	0.0

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020
Protocol ID:	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Travis Legleiter	
	Sponsor Contact:	

Pest Type	W, Weed LOLMU	W, Weed THLAR	W, Weed LOLMU			
Pest Code	ryegrass, Itali>	Field pennycress	ryegrass, Itali>			
Pest Name						
Crop Type, Code						
Crop Name						
Rating Date	Apr-14-2021	Apr-14-2021	Apr-27-2021			
Part Rated	PLANT, P	PLANT, P	PLANT, P			
Rating Type	CONTRO	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1			
Days After First/Last Applic.	188, 37	188, 37	201, 50			
ARM Action Codes						
Number of Decimals						
Trt Treatment No. Name	Rate	Appl Code	Plot	5	6	7
1 Roundup PowerMax	32 fl oz/a	A	101	95.0	100.0	90.0
Fierce EZ	6 fl oz/a	A	202	100.0	100.0	90.0
Amsol AMS	5 % v/v	A	306	75.0	100.0	80.0
Axial Bold	15 fl oz/a	D	402	80.0	100.0	100.0
Harmony Extra (0.6 oz/a)		E				
NIS	0.5 % v/v	E				
			Mean =	87.5	100.0	90.0
2 Roundup PowerMax	32 fl oz/a	A	102	80.0	80.0	80.0
Fierce EZ	6 fl oz/a	A	207	100.0	50.0	97.0
Amsol AMS	5 % v/v	A	303	95.0	50.0	97.0
Axial Bold	15 fl oz/a	D	401	90.0	80.0	100.0
			Mean =	91.3	65.0	93.5
3 Gramoxone	3.5 pt/a	A	103	95.0	100.0	90.0
Fierce EZ	6 fl oz/a	A	206	85.0	80.0	100.0
NIS	0.25 % v/v	A	307	100.0	0.0	100.0
Axial Bold	15 fl oz/a	D	405	92.1*	25.0	0.0
			Mean =	93.0	51.3	72.5

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020
Protocol ID:	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Travis Legleiter	
	Sponsor Contact:	

Pest Type	W, Weed LOLMU	W, Weed THLAR	W, Weed LOLMU
Pest Code	ryegrass, Itali>	Field pennycress	ryegrass, Itali>
Pest Name			
Crop Type, Code			
Crop Name			
Rating Date	Apr-14-2021	Apr-14-2021	Apr-27-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1
Days After First/Last Applic.	188, 37	188, 37	201, 50
ARM Action Codes			
Number of Decimals			
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			5
			6
			7
4 Roundup PowerMax	32 fl oz/a B	104	100.0
Finesse Cereal&Fallow(0.4oz/A)	B	203	100.0
Glean XP	0.333 oz/a B	308	90.0
Amsol AMS	5 % v/v B	404	100.0
Axial Bold	15 fl oz/a D		
	Mean =		97.5
5 Gramoxone	3.5 pt/a B	105	100.0
Finesse Cereal&Fallow(0.4oz/A)	B	208	100.0
Anthem Flex	3.2 fl oz/a B	305	100.0
NIS	0.25 % v/v B	408	100.0
Axial Bold	15 fl oz/a D		
	Mean =		100.0
6 Roundup PowerMax	32 fl oz/a B	106	100.0
Finesse Cereal&Fallow(0.4oz/A)	B	201	100.0
Amsol AMS	5 % v/v B	302	100.0
Zidua	3 fl oz/a C	407	100.0
Metribuzin	2 oz/a C		
NIS	0.25 % v/v C		
Axial Bold	15 fl oz/a E		
	Mean =		95.0
7 Roundup PowerMax	32 fl oz/a B	107	100.0
Finesse Cereal&Fallow(0.4oz/A)	B	205	100.0
Amsol AMS	5 % v/v B	304	100.0
Fierce EZ	3 fl oz/a C	403	100.0
Axial Bold	15 fl oz/a E		
	Mean =		100.0
8 Untreated		108	0.0
		204	0.0
		301	0.0
		406	0.0
	Mean =		0.0

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat			
Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020	
Protocol ID:	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Travis Legleiter		
Sponsor Contact:			

Pest Type	W, Weed	W, Weed		
Pest Code	THLAR	LOLMU		
Pest Name	Field pennycress	ryegrass, Itali>		
Crop Type, Code			C, TRZAW	C, TRZAW
Crop Name			Winter wheat	Winter wheat
Rating Date	Apr-27-2021	Jun-8-2021	Jun-25-2021	Jun-25-2021
Part Rated	PLANT, P	SEEDHE, P	PLOT, C	GRAIN, C
Rating Type	CONTRO	COU/m2	LENGTH	WEIGHT
Rating Unit/Min/Max	%, 0, 100		FT, -, -	LB, -, -
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	201, 50	243, 92	260, 109	260, 109
ARM Action Codes	AL	ET8		
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	8	9
1 Roundup PowerMax	32 fl oz/a A	101	100.0	2.0
Fierce EZ	6 fl oz/a A	202	100.0	10.0
Amsol AMS	5 % v/v A	306	100.0	20.0
Axial Bold	15 fl oz/a D	402	100.0	5.0
Harmony Extra (0.6 oz/a)		E		
NIS	0.5 % v/v E			
Mean =			100.0d	9.3
2 Roundup PowerMax	32 fl oz/a A	102	100.0	6.0
Fierce EZ	6 fl oz/a A	207	100.0	9.0
Amsol AMS	5 % v/v A	303	100.0	5.0
Axial Bold	15 fl oz/a D	401	100.0	9.0
Mean =			100.0d	7.3
3 Gramoxone	3.5 pt/a A	103	100.0	0.0
Fierce EZ	6 fl oz/a A	206	90.0	0.0
NIS	0.25 % v/v A	307	50.0	4.0
Axial Bold	15 fl oz/a D	405	0.0	17.0
Mean =			25.2d	5.3
				26.10
				16.570
				25.60
				19.030
				26.10
				17.140
				26.60
				19.360
				26.10
				18.025
				26.60
				13.840
				25.70
				16.260
				26.70
				17.760
				26.50
				18.880
				26.38
				16.685
				26.20
				15.940
				25.40
				15.220
				26.50
				17.700
				25.40
				10.430
				25.88
				14.823

University of Kentucky

Herbicide programs for control of annual ryegrass and broadleaves in Kentucky no-till wheat				
Trial ID: 21-4_WHT-REC		Location: UKREC		Trial Year: 2020
Protocol ID:		Investigator (Creator): Travis Legleiter		
Project ID:		Study Director: Travis Legleiter		
Sponsor Contact:				
Pest Type		W, Weed	W, Weed	
Pest Code		THLAR	LOLMU	
Pest Name		Field pennycress	ryegrass, Itali>	
Crop Type, Code				C, TRZAW
Crop Name				Winter wheat
Rating Date		Apr-27-2021	Jun-8-2021	Jun-25-2021
Part Rated		PLANT, P	SEEDHE, P	PLOT, C
Rating Type		CONTRO	COU/m2	LENGTH
Rating Unit/Min/Max		%, 0, 100		FT, -, -
Number of Subsamples		1	1	1
Days After First/Last Applic.		201, 50	243, 92	260, 109
ARM Action Codes		AL	ET8	
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	8	9
4 Roundup PowerMax	32 fl oz/a B	104	100.0	0.0
Finesse Cereal&Fallow(0.4oz/A)	B	203	100.0	0.0
Glean XP	0.333 oz/a B	308	100.0	5.0
Amsol AMS	5 % v/v B	404	100.0	4.0
Axial Bold	15 fl oz/a D			
	Mean =		100.0d	2.3
5 Gramoxone	3.5 pt/a B	105	100.0	0.0
Finesse Cereal&Fallow(0.4oz/A)	B	208	100.0	0.0
Anthem Flex	3.2 fl oz/a B	305	100.0	0.0
NIS	0.25 % v/v B	408	50.0	0.0
Axial Bold	15 fl oz/a D			
	Mean =		84.1d	0.0
6 Roundup PowerMax	32 fl oz/a B	106	100.0	1.0
Finesse Cereal&Fallow(0.4oz/A)	B	201	100.0	0.0
Amsol AMS	5 % v/v B	302	100.0	0.0
Zidua	3 fl oz/a C	407	95.0	0.0
Metribuzin	2 oz/a C			
NIS	0.25 % v/v C			
Axial Bold	15 fl oz/a E			
	Mean =		98.7d	0.3
7 Roundup PowerMax	32 fl oz/a B	107	100.0	2.0
Finesse Cereal&Fallow(0.4oz/A)	B	205	100.0	1.0
Amsol AMS	5 % v/v B	304	100.0	0.0
Fierce EZ	3 fl oz/a C	403	100.0	0.0
Axial Bold	15 fl oz/a E			
	Mean =		100.0d	0.8
8 Untreated		108	0.0	333.0
		204	0.0	215.0
		301	0.0	355.0
		406	0.0	133.0
	Mean =		0.0d	259.0
				25.10
				25.40
				26.10
				26.10
				26.10
				25.50
				25.53
				0.450
				6.780
				1.020
				7.930
				4.045

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020
Protocol ID:	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Travis Legleiter	
	Sponsor Contact:	

Pest Type				
Pest Code				
Pest Name				
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW	C, TRZAW
Crop Name	Winter wheat	Winter wheat	Winter wheat	Winter wheat
Rating Date	Jun-25-2021	Jun-25-2021	Jun-25-2021	Jun-25-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	MOICON	WEITES	YIELD	YIELD
Rating Unit/Min/Max	%, 0, 100	LB/BU, -, -	BU, -, -	KG, -, -
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	260, 109	260, 109	260, 109	260, 109
ARM Action Codes	ET8	ET8	TY1	TY2
Number of Decimals			1	1
Trt Treatment No. Name	Rate	Appl Unit	Code Plot	
				12
				13
				14
				15
1 Roundup PowerMax	32 fl oz/a	A	101	14.20
Fierce EZ	6 fl oz/a	A	202	14.20
Amsol AMS	5 % v/v	A	306	14.20
Axial Bold	15 fl oz/a	D	402	14.40
Harmony Extra (0.6 oz/a)		E		
NIS	0.5 % v/v	E		
Mean =				14.25
2 Roundup PowerMax	32 fl oz/a	A	102	14.50
Fierce EZ	6 fl oz/a	A	207	14.00
Amsol AMS	5 % v/v	A	303	14.30
Axial Bold	15 fl oz/a	D	401	15.40
Mean =				14.55
3 Gramoxone	3.5 pt/a	A	103	14.40
Fierce EZ	6 fl oz/a	A	206	14.20
NIS	0.25 % v/v	A	307	14.30
Axial Bold	15 fl oz/a	D	405	15.50
Mean =				14.60
				59.20
				59.50
				59.20
				59.40
				99.4
				6685.8
				58.10
				59.30
				59.70
				59.20
				90.7
				6100.9
				58.80
				59.20
				59.40
				56.90
				82.0
				58.58

University of Kentucky

Herbicide programs for control of annual ryegrass and broadleaves in Kentucky no-till wheat				
Trial ID: 21-4_WHT-REC		Location: UKREC		Trial Year: 2020
Protocol ID:		Investigator (Creator): Travis Legleiter		
Project ID:		Study Director: Travis Legleiter		
Sponsor Contact:				
Pest Type				
Pest Code				
Pest Name				
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW	C, TRZAW
Crop Name	Winter wheat	Winter wheat	Winter wheat	Winter wheat
Rating Date	Jun-25-2021	Jun-25-2021	Jun-25-2021	Jun-25-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	MOICON	WEITES	YIELD	YIELD
Rating Unit/Min/Max	%, 0, 100	LB/BU, -, -	BU, -, -	KG, -, -
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	260, 109	260, 109	260, 109	260, 109
ARM Action Codes	ET8	ET8	TY1	TY2
Number of Decimals			1	1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	12	13
4 Roundup PowerMax	32 fl oz/a B	104	14.30	58.80
Finesse Cereal&Fallow(0.4oz/A)	B	203	14.00	59.90
Glean XP	0.333 oz/a B	308	14.50	59.70
Amsol AMS	5 % v/v B	404	14.40	59.70
Axial Bold	15 fl oz/a D			
	Mean =		14.30	59.53
5 Gramoxone	3.5 pt/a B	105	14.20	59.60
Finesse Cereal&Fallow(0.4oz/A)	B	208	14.40	59.40
Anthem Flex	3.2 fl oz/a B	305	14.30	59.30
NIS	0.25 % v/v B	408	14.50	59.20
Axial Bold	15 fl oz/a D			
	Mean =		14.35	59.38
6 Roundup PowerMax	32 fl oz/a B	106	14.30	59.00
Finesse Cereal&Fallow(0.4oz/A)	B	201	14.10	59.50
Amsol AMS	5 % v/v B	302	14.40	59.30
Zidua	3 fl oz/a C	407	14.30	59.30
Metribuzin	2 oz/a C			
NIS	0.25 % v/v C			
Axial Bold	15 fl oz/a E			
	Mean =		14.28	59.28
7 Roundup PowerMax	32 fl oz/a B	107	14.30	59.20
Finesse Cereal&Fallow(0.4oz/A)	B	205	14.20	59.40
Amsol AMS	5 % v/v B	304	14.20	59.50
Fierce EZ	3 fl oz/a C	403	14.40	59.50
Axial Bold	15 fl oz/a E			
	Mean =		14.28	59.40
8 Untreated		108	16.30	11.60
		204	14.10	57.10
		301	20.90	26.00
		406	14.20	57.90
	Mean =		16.38	38.15
				2.5
				38.5
				5.2
				44.8
				22.7
				169.4
				2588.4
				349.0
				3012.1
				1529.7

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Herbicide programs for control of annual ryegrass and broadleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC Location: UKREC Trial Year: 2020
 Protocol ID: Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Travis Legleiter
 Sponsor Contact:

Pest Type
 W, Weed = Weed or volunteer crop

Pest Code
 LOLMU, Lolium perenne, ryegrass, Italian = US
 THLAR, Thlaspi arvense, Field pennycress = US

Crop Type, Code
 C = EPPO species (Bayer) codes
 TRZAW, BCER, Triticum aestivum, Winter wheat = US

Part Rated
 PLANT = plant
 SEEDHE = seedhead
 PLOT = plot
 GRAIN = grain
 C = Crop is Part Rated
 P = Pest is Part Rated

Rating Type
 PHYGEN = phytotoxicity - general / injury
 CONTRO = control / burndown or knockdown
 COU/m2 = count per square meter
 LENGTH = length
 WEIGHT = weight
 MOICON = moisture content
 WEITES = weight - test
 YIELD = yield

Rating Unit/Min/Max
 %, 0, 100 = percent
 FT, , = foot
 LB, , = pound
 BU, , = bushel
 KG, , = kilogram

ARM Action Codes
 ET8 = Excluded treatment 8
 AL = Automatic log transformation of X+1
 $TY1 = (726/(5*[10]))*[11]*(100-[12])/86.5$
 $TY2 = (48824.0930776624/(5*[10]))*[11]*(100-[12])/86.5$

Pest Type		W, Weed LOLMU ryegrass, Itali>		W, Weed LOLMU ryegrass, Itali>
Pest Code				
Pest Name				
Crop Type, Code	C, TRZAW		C, TRZAW	
Crop Name	Winter wheat		Winter wheat	
Rating Date	Nov-17-2020	Nov-17-2020	Dec-3-2020	Dec-3-2020
Part Rated	PLANT, C	PLANT, P	PLANT, C	PLANT, P
Rating Type	PHYGEN	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	40, 26	40, 26	56, 12	56, 12
ARM Action Codes				ET8
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	1	2
1 Roundup PowerMax	32 fl oz/a	A	0.0 a	75.0 a
Fierce EZ	6 fl oz/a	A		0.0 a
Amsol AMS	5 % v/v	A		
Axial Bold	15 fl oz/a	D		
Harmony Extra (0.6 oz/a)		E		
NIS	0.5 % v/v	E		73.8 ab

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat			
Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020	
Protocol ID:	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Travis Legleiter		
Sponsor Contact:			

		W, Weed LOLMU ryegrass, Itali>	C, TRZAW Winter wheat Nov-17-2020 PLANT, C PHYGEN %, 0, 100 1 40, 26	W, Weed LOLMU ryegrass, Itali>	
		C, TRZAW Winter wheat Dec-3-2020 PLANT, C PHYGEN %, 0, 100 1 56, 12	C, TRZAW Winter wheat Nov-17-2020 PLANT, P CONTRO %, 0, 100 1 40, 26	W, Weed LOLMU ryegrass, Itali>	
		Dec-3-2020 PLANT, P CONTRO %, 0, 100 1 56, 12 ET8			
Trt Treatment No. Name	Rate Rate	Appl Unit Code	1	2	3
2 Roundup PowerMax Fierce EZ Amsol AMS Axial Bold	32 fl oz/a A 6 fl oz/a A 5 % v/v A 15 fl oz/a D	A	0.0 a	65.0 a	0.0 a
3 Gramoxone Fierce EZ NIS Axial Bold	3.5 pt/a A 6 fl oz/a A 0.25 % v/v A 15 fl oz/a D	A	0.0 a	60.0 a	0.0 a
4 Roundup PowerMax Finesse Cereal&Fallow(0.4oz/A) Glean XP Amsol AMS Axial Bold	32 fl oz/a B B 0.333 oz/a B 5 % v/v B 15 fl oz/a D	B	0.0 a	78.8 a	0.0 a
5 Gramoxone Finesse Cereal&Fallow(0.4oz/A) Anthem Flex NIS Axial Bold	3.5 pt/a B B 3.2 fl oz/a B 0.25 % v/v B 15 fl oz/a D	B	0.0 a	94.8 a	0.0 a
6 Roundup PowerMax Finesse Cereal&Fallow(0.4oz/A) Amsol AMS Zidua Metribuzin NIS Axial Bold	32 fl oz/a B B 5 % v/v B 3 fl oz/a C 2 oz/a C 0.25 % v/v C 15 fl oz/a E	B	0.0 a	68.8 a	0.0 a
7 Roundup PowerMax Finesse Cereal&Fallow(0.4oz/A) Amsol AMS Fierce EZ Axial Bold	32 fl oz/a B B 5 % v/v B 3 fl oz/a C 15 fl oz/a E	B	0.0 a	64.0 a	0.0 a

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Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC Location: UKREC Trial Year: 2020
 Protocol ID: Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Travis Legleiter
 Sponsor Contact:

Pest Type		W, Weed		W, Weed
Pest Code		LOLMU		LOLMU
Pest Name		ryegrass, Itali>		ryegrass, Itali>
Crop Type, Code	C, TRZAW		C, TRZAW	
Crop Name	Winter wheat		Winter wheat	
Rating Date	Nov-17-2020	Nov-17-2020	Dec-3-2020	Dec-3-2020
Part Rated	PLANT, C	PLANT, P	PLANT, C	PLANT, P
Rating Type	PHYGEN	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	40, 26	40, 26	56, 12	56, 12
ARM Action Codes				ET8
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	1	2
8 Untreated			3	4
			0.0 a	0.0 b
			0.0 a	0.0
LSD P=.05			26.44	27.93
Standard Deviation	0.00		17.98	18.80
CV	0.0		28.42	25.21
Levene's F^	.		1.234	1.697
Levene's Prob(F)	.		0.324	0.171
Skewness^	.		-0.4981	-0.6023
Kurtosis^	.		1.3461	0.1012
Replicate F	0.000		0.167	0.440
Replicate Prob(F)	1.0000		0.9177	0.7271
Treatment F	0.000		9.570	3.185
Treatment Prob(F)	1.0000		0.0001	0.0261

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Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020
Protocol ID:	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Travis Legleiter	
	Sponsor Contact:	

	W, Weed LOLMU	W, Weed THLAR	W, Weed LOLMU	W, Weed THLAR
Pest Type	ryegrass, Itali>	Field pennycress	ryegrass, Itali>	Field pennycress
Pest Code				
Pest Name				
Crop Type, Code				
Crop Name				
Rating Date	Apr-14-2021	Apr-14-2021	Apr-27-2021	Apr-27-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	188, 37	188, 37	201, 50	201, 50
ARM Action Codes				AL
Number of Decimals				
Trt Treatment	5	6	7	8
No. Name	Rate	Unit	Code	dAL
1 Roundup PowerMax	32 fl oz/a	A		
Fierce EZ	6 fl oz/a	A		
Amsol AMS	5 % v/v	A		
Axial Bold	15 fl oz/a	D		
Harmony Extra (0.6 oz/a)		E		
NIS	0.5 % v/v	E		
	87.5 a	100.0 a	90.0 a	100.0 a

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Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat							
Trial ID: 21-4_WHT-REC		Location: UKREC		Trial Year: 2020			
Protocol ID:		Investigator (Creator): Travis Legleiter					
Project ID:		Study Director: Travis Legleiter					
Sponsor Contact:							
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code		LOLMU	THLAR	LOLMU	THLAR		
Pest Name		ryegrass, Itali>	Field pennycress	ryegrass, Itali>	Field pennycress		
Crop Type, Code							
Crop Name							
Rating Date		Apr-14-2021	Apr-14-2021	Apr-27-2021	Apr-27-2021		
Part Rated		PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples		1	1	1	1		
Days After First/Last Applic.		188, 37	188, 37	201, 50	201, 50		
ARM Action Codes					AL		
Number of Decimals							
Trt No.	Treatment Name	Rate	Appl Unit Code	5	6	7	8
							dAL
2	Roundup PowerMax	32 fl oz/a	A	91.3 a	65.0 ab	93.5 a	100.0 a
	Fierce EZ	6 fl oz/a	A				
	Amsol AMS	5 % v/v	A				
	Axial Bold	15 fl oz/a	D				
3	Gramoxone	3.5 pt/a	A	93.0 a	51.3 b	72.5 a	25.2 a
	Fierce EZ	6 fl oz/a	A				
	NIS	0.25 % v/v	A				
	Axial Bold	15 fl oz/a	D				
4	Roundup PowerMax	32 fl oz/a	B	97.5 a	77.5 ab	98.0 a	100.0 a
	Finesse Cereal&Fallow(0.4oz/A)		B				
	Glean XP	0.333 oz/a	B				
	Amsol AMS	5 % v/v	B				
	Axial Bold	15 fl oz/a	D				
5	Gramoxone	3.5 pt/a	B	100.0 a	97.5 a	98.0 a	84.1 a
	Finesse Cereal&Fallow(0.4oz/A)		B				
	Anthem Flex	3.2 fl oz/a	B				
	NIS	0.25 % v/v	B				
	Axial Bold	15 fl oz/a	D				
6	Roundup PowerMax	32 fl oz/a	B	100.0 a	95.0 a	100.0 a	98.7 a
	Finesse Cereal&Fallow(0.4oz/A)		B				
	Amsol AMS	5 % v/v	B				
	Zidua	3 fl oz/a	C				
	Metribuzin	2 oz/a	C				
	NIS	0.25 % v/v	C				
	Axial Bold	15 fl oz/a	E				
7	Roundup PowerMax	32 fl oz/a	B	100.0 a	100.0 a	98.8 a	100.0 a
	Finesse Cereal&Fallow(0.4oz/A)		B				
	Amsol AMS	5 % v/v	B				
	Fierce EZ	3 fl oz/a	C				
	Axial Bold	15 fl oz/a	E				

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat					
Trial ID: 21-4_WHT-REC		Location: UKREC		Trial Year: 2020	
Protocol ID:		Investigator (Creator): Travis Legleiter			
Project ID:		Study Director: Travis Legleiter			
Sponsor Contact:					
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		LOLMU	THLAR	LOLMU	THLAR
Pest Name		ryegrass, Itali>	Field pennycress	ryegrass, Itali>	Field pennycress
Crop Type, Code					
Crop Name					
Rating Date		Apr-14-2021	Apr-14-2021	Apr-27-2021	Apr-27-2021
Part Rated		PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples		1	1	1	1
Days After First/Last Applic.		188, 37	188, 37	201, 50	201, 50
ARM Action Codes					AL
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate	Unit	Code		
8 Untreated					
LSD P=.05					
Standard Deviation					
CV					
Levene's F^					
Levene's Prob(F)					
Skewness^					
Kurtosis^					
Replicate F					
Replicate Prob(F)					
Treatment F					
Treatment Prob(F)					

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Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC Location: UKREC Trial Year: 2020
 Protocol ID: Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Travis Legleiter
 Sponsor Contact:

Pest Type Pest Code Pest Name Crop Type, Code Crop Name Rating Date Part Rated Rating Type Rating Unit/Min/Max Number of Subsamples Days After First/Last Applic. ARM Action Codes Number of Decimals	W, Weed LOLMU ryegrass, Itali> Jun-8-2021 SEEDHE, P COU/m2 1 243, 92 ET8	C, TRZAW Winter wheat Jun-25-2021 PLOT, C LENGTH FT, -, - 1 260, 109	C, TRZAW Winter wheat Jun-25-2021 GRAIN, C WEIGHT LB, -, - 1 260, 109	C, TRZAW Winter wheat Jun-25-2021 GRAIN, C MOICON %, 0, 100 1 260, 109 ET8	
Trt Treatment No. Name	Rate Unit Code	9	10	11	12
1 Roundup PowerMax Fierce EZ Amsol AMS Axial Bold Harmony Extra (0.6 oz/a) NIS	32 fl oz/a A 6 fl oz/a A 5 % v/v A 15 fl oz/a D E 0.5 % v/v E	9.3 a	26.10 ab	18.025 a	14.25 a

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat			
Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020	
Protocol ID:	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Travis Legleiter		
Sponsor Contact:			

Pest Type	W, Weed	C, TRZAW	C, TRZAW	C, TRZAW			
Pest Code	LOLMU						
Pest Name	ryegrass, Itali>						
Crop Type, Code		Winter wheat	Winter wheat	Winter wheat			
Crop Name							
Rating Date	Jun-8-2021	Jun-25-2021	Jun-25-2021	Jun-25-2021			
Part Rated	SEEDHE, P	PLOT, C	GRAIN, C	GRAIN, C			
Rating Type	COU/m2	LENGTH	WEIGHT	MOICON			
Rating Unit/Min/Max		FT, -, -	LB, -, -	%, 0, 100			
Number of Subsamples	1	1	1	1			
Days After First/Last Applic.	243, 92	260, 109	260, 109	260, 109			
ARM Action Codes	ET8			ET8			
Number of Decimals							
Trt Treatment No. Name	Rate Rate	Appl Unit	Code	9	10	11	12
2 Roundup PowerMax	32 fl oz/a	A		7.3 a	26.38 a	16.685 a	14.55 a
Fierce EZ	6 fl oz/a	A					
Amsol AMS	5 % v/v	A					
Axial Bold	15 fl oz/a	D					
3 Gramoxone	3.5 pt/a	A		5.3 a	25.88 ab	14.823 a	14.60 a
Fierce EZ	6 fl oz/a	A					
NIS	0.25 % v/v	A					
Axial Bold	15 fl oz/a	D					
4 Roundup PowerMax	32 fl oz/a	B		2.3 a	26.13 ab	18.640 a	14.30 a
Finesse Cereal&Fallow(0.4oz/A)		B					
Glean XP	0.333 oz/a	B					
Amsol AMS	5 % v/v	B					
Axial Bold	15 fl oz/a	D					
5 Gramoxone	3.5 pt/a	B		0.0 a	25.75 ab	18.333 a	14.35 a
Finesse Cereal&Fallow(0.4oz/A)		B					
Anthem Flex	3.2 fl oz/a	B					
NIS	0.25 % v/v	B					
Axial Bold	15 fl oz/a	D					
6 Roundup PowerMax	32 fl oz/a	B		0.3 a	25.73 ab	18.233 a	14.28 a
Finesse Cereal&Fallow(0.4oz/A)		B					
Amsol AMS	5 % v/v	B					
Zidua	3 fl oz/a	C					
Metribuzin	2 oz/a	C					
NIS	0.25 % v/v	C					
Axial Bold	15 fl oz/a	E					
7 Roundup PowerMax	32 fl oz/a	B		0.8 a	26.05 ab	17.523 a	14.28 a
Finesse Cereal&Fallow(0.4oz/A)		B					
Amsol AMS	5 % v/v	B					
Fierce EZ	3 fl oz/a	C					
Axial Bold	15 fl oz/a	E					

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat					
Trial ID: 21-4_WHT-REC		Location: UKREC		Trial Year: 2020	
Protocol ID:		Investigator (Creator): Travis Legleiter			
Project ID:		Study Director: Travis Legleiter			
Sponsor Contact:					
Pest Type		W, Weed			
Pest Code		LOLMU			
Pest Name		ryegrass, Itali>			
Crop Type, Code			C, TRZAW	C, TRZAW	C, TRZAW
Crop Name			Winter wheat	Winter wheat	Winter wheat
Rating Date		Jun-8-2021	Jun-25-2021	Jun-25-2021	Jun-25-2021
Part Rated		SEEDHE, P	PLOT, C	GRAIN, C	GRAIN, C
Rating Type		COU/m2	LENGTH	WEIGHT	MOICON
Rating Unit/Min/Max			FT, -, -	LB, -, -	%, 0, 100
Number of Subsamples		1	1	1	1
Days After First/Last Applic.		243, 92	260, 109	260, 109	260, 109
ARM Action Codes		ET8			ET8
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate	Unit	Code		
8 Untreated					
	259.0			25.53 b	4.045 b
					16.38
LSD P=.05	6.65			0.497	3.0038
Standard Deviation	4.48			0.338	2.0427
CV	125.41			1.3	12.94
Levene's F^	1.244			0.191	3.601
Levene's Prob(F)	0.324			0.985	0.009*
Skewness^	1.2085*			0.131	-0.689
Kurtosis^	2.3794*			-0.9143	1.9186*
Replicate F	0.954			3.369	2.906
Replicate Prob(F)	0.4355			0.0378	0.0587
Treatment F	2.728			2.598	23.038
Treatment Prob(F)	0.0459			0.0425	0.0001

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Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat		
Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020
Protocol ID:	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Travis Legleiter	
	Sponsor Contact:	

Pest Type			
Pest Code			
Pest Name			
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW
Crop Name	Winter wheat	Winter wheat	Winter wheat
Rating Date	Jun-25-2021	Jun-25-2021	Jun-25-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	WEITES	YIELD	YIELD
Rating Unit/Min/Max	LB/BU, -, -	BU, -, -	KG, -, -
Number of Subsamples	1	1	1
Days After First/Last Applic.	260, 109	260, 109	260, 109
ARM Action Codes	ET8	TY1	TY2
Number of Decimals		1	1
Trt Treatment No. Name	Rate Appl Rate Unit Code	13	14
1 Roundup PowerMax	32 fl oz/a A	59.33 a	6685.8 a
Fierce EZ	6 fl oz/a A		
Amsol AMS	5 % v/v A		
Axial Bold	15 fl oz/a D		
Harmony Extra (0.6 oz/a)	E		
NIS	0.5 % v/v E		

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020
Protocol ID:	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Travis Legleiter	
	Sponsor Contact:	

Pest Type	C, TRZAW	C, TRZAW	C, TRZAW
Pest Code			
Pest Name			
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW
Crop Name	Winter wheat	Winter wheat	Winter wheat
Rating Date	Jun-25-2021	Jun-25-2021	Jun-25-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	WEITES	YIELD	YIELD
Rating Unit/Min/Max	LB/BU, -, -	BU, -, -	KG, -, -
Number of Subsamples	1	1	1
Days After First/Last Applic.	260, 109	260, 109	260, 109
ARM Action Codes	ET8	TY1	TY2
Number of Decimals		1	1
Trt Treatment No. Name	Rate Rate	Appl Unit Code	
13			
14			
15			
2 Roundup PowerMax	32 fl oz/a	A	59.08 a
Fierce EZ	6 fl oz/a	A	
Amsol AMS	5 % v/v	A	
Axial Bold	15 fl oz/a	D	90.7 a
3 Gramoxone	3.5 pt/a	A	58.58 a
Fierce EZ	6 fl oz/a	A	
NIS	0.25 % v/v	A	
Axial Bold	15 fl oz/a	D	82.0 a
4 Roundup PowerMax	32 fl oz/a	B	59.53 a
Finesse Cereal&Fallow(0.4oz/A)		B	
Glean XP	0.333 oz/a	B	
Amsol AMS	5 % v/v	B	
Axial Bold	15 fl oz/a	D	102.7 a
5 Gramoxone	3.5 pt/a	B	59.38 a
Finesse Cereal&Fallow(0.4oz/A)		B	
Anthem Flex	3.2 fl oz/a	B	
NIS	0.25 % v/v	B	
Axial Bold	15 fl oz/a	D	102.3 a
6 Roundup PowerMax	32 fl oz/a	B	59.28 a
Finesse Cereal&Fallow(0.4oz/A)		B	
Amsol AMS	5 % v/v	B	
Zidua	3 fl oz/a	C	
Metribuzin	2 oz/a	C	
NIS	0.25 % v/v	C	
Axial Bold	15 fl oz/a	E	102.0 a
7 Roundup PowerMax	32 fl oz/a	B	59.40 a
Finesse Cereal&Fallow(0.4oz/A)		B	
Amsol AMS	5 % v/v	B	
Fierce EZ	3 fl oz/a	C	
Axial Bold	15 fl oz/a	E	96.8 a
			6507.4 a

University of Kentucky

Herbicide programs fro control of annual ryegrass and boradleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC	Location: UKREC	Trial Year: 2020
Protocol ID:	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Travis Legleiter	
	Sponsor Contact:	

Pest Type			
Pest Code			
Pest Name			
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW
Crop Name	Winter wheat	Winter wheat	Winter wheat
Rating Date	Jun-25-2021	Jun-25-2021	Jun-25-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	WEITES	YIELD	YIELD
Rating Unit/Min/Max	LB/BU, -, -	BU, -, -	KG, -, -
Number of Subsamples	1	1	1
Days After First/Last Applic.	260, 109	260, 109	260, 109
ARM Action Codes	ET8	TY1	TY2
Number of Decimals		1	1
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
8 Untreated			
	38.15	22.7 b	1529.7 b
LSD P=.05	0.777	16.18	1088.01
Standard Deviation	0.523	11.00	739.89
CV	0.88	12.6	12.6
Levene's F^	0.536	3.542	3.542
Levene's Prob(F)	0.775	0.009*	0.009*
Skewness^	-1.5834*	-0.691	-0.691
Kurtosis^	4.282*	2.1368*	2.1368*
Replicate F	1.805	3.470	3.470
Replicate Prob(F)	0.1823	0.0344	0.0344
Treatment F	1.464	24.192	24.192
Treatment Prob(F)	0.2459	0.0001	0.0001

University of Kentucky

Herbicide programs for control of annual ryegrass and broadleaves in Kentucky no-till wheat

Trial ID: 21-4_WHT-REC Location: UKREC Trial Year: 2020
 Protocol ID: Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Travis Legleiter
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

LOLMU, Lolium perenne, ryegrass, Italian = US

THLAR, Thlaspi arvense, Field pennycress = US

Crop Type, Code

C = EPPO species (Bayer) codes

TRZAW, BCER, Triticum aestivum, Winter wheat = US

Part Rated

PLANT = plant

SEEDHE = seedhead

PLOT = plot

GRAIN = grain

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

COU/m2 = count per square meter

LENGTH = length

WEIGHT = weight

MOICON = moisture content

WEITES = weight - test

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

FT, , = foot

LB, , = pound

BU, , = bushel

KG, , = kilogram

ARM Action Codes

ET8 = Excluded treatment 8

AL = Automatic log transformation of X+1

TY1 = $(726/(5*[10]))*[11]*(100-[12])/86.5$

TY2 = $(48824.0930776624/(5*[10]))*[11]*(100-[12])/86.5$

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Reps: 4

Plots: 10 by 30 feet

Appl. Amount: 15 GAL/AC

Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Other Rate Rate Unit	Other Rate Rate Unit	Appl Timing	Appl Code	Amt Product to Measure	Rep 1	2	3	4
1	Untreated										101	205	304	407
2	Leopard COC	33.4 % 100 %		WDG SL	1.5 oz/a 1 % v/v	0.0313 lbai/a		Early Spring A Early Spring A		1.498 g/mx 20.0 mL/mx	102	201	308	405
3	Credit Xtreme Weedone LV4 Amsol AMS NIS	4.5 LBAE/GAL 3.84 lbae/gal 3.4 lba/gal 100 %		SL EC SL SL	22 fl oz/a 24 fl oz/a 2.5 % v/v 0.25 % v/v	0.77 lbai/a 0.72 lbai/a 8.5 lbai/100gal		Early Spring A Early Spring A Early Spring A Early Spring A		22.92 mL/mx 25.0 mL/mx 49.99 mL/mx 4.999 mL/mx	103	202	305	402
4	Credit Xtreme NFA-0020104 Amsol AMS NIS	4.5 LBAE/GAL 6 lbae/gal 3.4 lba/gal 100 %		SL SL SL SL	22 fl oz/a 16 fl oz/a 2.5 % v/v 0.25 % v/v	0.77 lbai/a 0.75 lbae/a 8.5 lbai/100gal		Early Spring A Early Spring A Early Spring A Early Spring A		22.92 mL/mx 16.67 mL/mx 49.99 mL/mx 4.999 mL/mx	104	209	302	404
5	Leopard Credit Xtreme Weedone LV4 COC Amsol AMS	33.4 % 4.5 LBAE/GAL 3.84 lbae/gal 100 % 3.4 lba/gal		WDG SL EC SL SL	1.5 oz/a 22 fl oz/a 24 fl oz/a 1 % v/v 2.5 % v/v	0.0313 lbai/a 0.77 lbai/a 0.72 lbai/a		Early Spring A Early Spring A Early Spring A Early Spring A Early Spring A		1.498 g/mx 22.92 mL/mx 25.0 mL/mx 20.0 mL/mx 49.99 mL/mx	105	210	309	401
6	Panther SC Credit Xtreme Weedone LV4 COC Amsol AMS	4 lba/gal 4.5 LBAE/GAL 3.84 lbae/gal 100 % 3.4 lba/gal		SC SL EC SL SL	2 fl oz/a 22 fl oz/a 24 fl oz/a 1 % v/v 2.5 % v/v	0.0625 lbai/a 0.77 lbai/a 0.72 lbai/a		Early Spring A Early Spring A Early Spring A Early Spring A Early Spring A		2.083 mL/mx 22.92 mL/mx 25.0 mL/mx 20.0 mL/mx 49.99 mL/mx	106	203	307	406
7	Panther MTZ Credit Xtreme Weedone LV4 COC Amsol AMS	3.67 lba/gal 4.5 LBAE/GAL 3.84 lbae/gal 100 % 3.4 lba/gal		L SL EC SL SL	12 fl oz/a 22 fl oz/a 24 fl oz/a 1 % v/v 2.5 % v/v	0.344 lbai/a 0.77 lbai/a 0.72 lbai/a		Early Spring A Early Spring A Early Spring A Early Spring A Early Spring A		12.5 mL/mx 22.92 mL/mx 25.0 mL/mx 20.0 mL/mx 49.99 mL/mx	107	206	301	410
8	Weedone LV4 Cheetah COC Amsol AMS	3.84 lbae/gal 2.34 lba/gal 100 % 3.4 lba/gal		EC L SL SL	24 fl oz/a 29 fl oz/a 1 % v/v 0.44 % v/v	0.72 lbai/a 0.53 lbai/a		Early Spring A Early Spring A Early Spring A Early Spring A		25.0 mL/mx 30.21 mL/mx 20.0 mL/mx 8.799 mL/mx	108	207	306	408
9	Panther SC Weedone LV4 Cheetah COC Amsol AMS	4 lba/gal 3.84 lbae/gal 2.34 lba/gal 100 % 3.4 lba/gal		SC EC L SL SL	1.5 fl oz/a 24 fl oz/a 29 fl oz/a 1 % v/v 0.44 % v/v	0.047 lbai/a 0.72 lbai/a 0.53 lbai/a		Early Spring A Early Spring A Early Spring A Early Spring A Early Spring A		1.562 mL/mx 25.0 mL/mx 30.21 mL/mx 20.0 mL/mx 8.799 mL/mx	109	204	310	403
10	Leopard Weedone LV4 Cheetah COC Amsol AMS	33.4 % 3.84 lbae/gal 2.34 lba/gal 100 % 3.4 lba/gal		WDG EC L SL SL	1.5 oz/a 24 fl oz/a 29 fl oz/a 1 % v/v 0.44 % v/v	0.0313 lbai/a 0.72 lbai/a 0.53 lbai/a		Early Spring A Early Spring A Early Spring A Early Spring A Early Spring A		1.498 g/mx 25.0 mL/mx 30.21 mL/mx 20.0 mL/mx 8.799 mL/mx	110	208	303	409

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
5.617	g	Leopard	33.4	%	WDG	
174.981	mL	COC	100	%	SL	
143.229	mL	Credit Xtreme	4.5	LBAE/GAL	SL	

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
218.750	mL	Weedone LV4	3.84	lbae/gal	EC	
345.462	mL	Amsol AMS	3.4	lba/gal	SL	
12.499	mL	NIS	100	%	SL	
20.833	mL	NFA-0020104	6	lbae/gal	SL	
4.557	mL	Panther SC	4	lba/gal	SC	
15.625	mL	Panther MTZ	3.67	lba/gal	L	
113.281	mL	Cheetah	2.34	lba/gal	L	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

General Trial Information

Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established

ARM Trial Created On: Mar-4-2021

Trial Location

City: Princeton **Country:** USA United States

State/Prov.: Kentucky

Postal Code: 42445

Conducted Under GLP: No

Conducted Under GEP: No

Role: INVEST investigator

Investigator: Travis Legleiter

Title: Assistant Extension Professor

Organization: University of Kentucky

Address 1: 348 University Drive

Phone No.: 859-562-1323

Country: USA United States

E-mail: Travis.Legleiter@uky.edu

City: Princeton, KY

Postal Code: 42445

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Description

Pest 1 Type: W	Code: TAROF <i>Taraxacum officinale</i>	Stage Scale: BBCH
	Common Name: dandelion	
Pest 2 Type: W	Code: CERVU <i>Cerastium fontanum ssp. vulgare</i>	Stage Scale: BBCH
	Common Name: chickweed, mouseear	
Pest 3 Type: W	Code: THLAR <i>Thlaspi arvense</i>	Stage Scale: BBCH
	Common Name: pennycress, field	
Pest 4 Type: W	Code: LAMPU <i>Lamium purpureum</i>	Stage Scale: BBCH
	Common Name: deadnettle, purple	
Pest 5 Type: W	Code: LAMAM <i>Lamium amplexicaule</i>	Stage Scale: BBCH
	Common Name: Henbit	
Pest 6 Type: W	Code: VERAR <i>Veronica arvensis</i>	Stage Scale: BBCH
	Common Name: speedwell, corn	
Pest 7 Type: W	Code: OXAST <i>Oxalis stricta</i>	Stage Scale: BBCH
	Common Name: woodsorrel, yellow	
Pest 8 Type: W	Code: CARHI <i>Cardamine hirsuta</i>	Stage Scale: BBCH
	Common Name: bittercress, hairy	
Pest 9 Type: W	Code: VIOAR <i>Viola arvensis</i>	Stage Scale: BBCH
	Common Name: violet, field	
Pest10 Type: W	Code: ALLVI <i>Allium vineale</i>	Stage Scale: BBCH
	Common Name: garlic, wild	
Pest11 Type: W	Code: STEME <i>Stellaria media</i>	Stage Scale: BBCH
	Common Name: chickweed, common	
Pest12 Type: W	Code: TRFRE <i>Trifolium repens</i>	Stage Scale: BBCH
	Common Name: clover, white	

Site and Design

Treated Plot Width: 10 FT	Site Type: FIELD field
Treated Plot Length: 30 FT	Experimental Unit: 1 PLOT plot
Treated Plot Area: 300.0 FT ²	Tillage Type: NOTILL no-till
Treatments: 10	Study Design: RACOB� Randomized Complete Block (RCB)
Replications: 4	

Soil Description

Description Name: K200A

% Sand: 6.1	% OM: 3	Texture: SIL silt loam
% Silt: 83.4	pH: 6.09	Soil Name: Crider Silt Loam
% Clay: 10.4	CEC: 13.18	

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Application Description

	A
Application Date	Mar-16-2021
Appl. Start Time	2:54 PM
Appl. Stop Time	3:13 PM
Application Method	SPRAY
Application Timing	PREPOS
Application Placement	FOLIAR
Applied By	JLG
Air Temperature Start, Stop	77.9, -
% Relative Humidity Start, Stop	35.1, -
Wind Velocity+Dir. Start	1.6 MPH, NW
Wind Velocity+Dir. Max	2.6 MPH, NW
Wet Leaves (Y/N)	N, no
Soil Temperature	54 F
Soil Moisture	wet
% Cloud Cover	75

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	TAROF, W, BBCH
Diameter Average	9.5 IN
Diameter Minimum, Maximum	5.25, 8.5
Density Average	2 FT2
Density Minimum, Maximum	1, 5
Pest 2 Code, Type, Scale	CERVU, W, BBCH
Diameter Average	1.75 IN
Diameter Minimum, Maximum	0.25, 3.25
Density Average	3.88 FT2
Density Minimum, Maximum	2, 14
Pest 3 Code, Type, Scale	THLAR, W, BBCH
Diameter Average	2.875 IN
Diameter Minimum, Maximum	0.25, 5.5
Density Average	9.88 FT2
Density Minimum, Maximum	6, 36
Pest 4 Code, Type, Scale	LAMPU, W, BBCH
Diameter Average	3.125 IN
Diameter Minimum, Maximum	0.5, 5.75
Density Average	6 FT2
Density Minimum, Maximum	4, 11
Pest 5 Code, Type, Scale	LAMAM, W, BBCH
Diameter Average	3 IN
Diameter Minimum, Maximum	0.5, 5.5
Density Average	3.5 FT2

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Density Minimum, Maximum	2, 6
Pest 6 Code, Type, Scale	VERAR, W, BBCH
Diameter Average	2.125 IN
Diameter Minimum, Maximum	0.5, 1.75
Density Average	0.38 FT2
Density Minimum, Maximum	1, 2
Pest 7 Code, Type, Scale	OXAST, W, BBCH
Diameter Average	3 IN
Diameter Minimum, Maximum	1, 5
Density Average	1.5 FT2
Density Minimum, Maximum	2, 5
Pest 8 Code, Type, Scale	CARHI, W, BBCH
Diameter Average	1.875 IN
Diameter Minimum, Maximum	0.5, 3.25
Density Average	2 FT2
Density Minimum, Maximum	2, 6
Pest 9 Code, Type, Scale	VIOAR, W, BBCH
Diameter Average	0.375 IN
Diameter Minimum, Maximum	-, 0.75
Density Average	0.13 FT2
Density Minimum, Maximum	-, 1
Pest10 Code, Type, Scale	ALLVI, W, BBCH
Diameter Average	6.5 IN
Diameter Minimum, Maximum	5, 8
Density Average	0.5 FT2
Density Minimum, Maximum	1, 3
Pest11 Code, Type, Scale	STEME, W, BBCH
Diameter Average	3.125 IN
Diameter Minimum, Maximum	3, 3.25
Density Average	0.25 FT2
Density Minimum, Maximum	1, 1
Pest12 Code, Type, Scale	TRFRE, W, BBCH
Diameter Average	1.75 IN
Diameter Minimum, Maximum	-, 3.5
Density Average	0.13 FT2
Density Minimum, Maximum	-, 1

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed				
Pest Code	THLAR	LAMPU	CERVU	TAROF				
Pest Scientific Name	Thlaspi arvense	Lamium purpureum	Cerastium fonta>	Taraxacum offic>				
Pest Name	pennycress, fie>	deadnettle, pur>	common mouse-ear>	dandelion				
Rating Date	Apr-2-2021	Apr-2-2021	Apr-2-2021	Apr-2-2021				
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100				
Number of Subsamples	1	1	1	1				
Assessed By	TL	TL						
Days After First/Last Applic.	17, 17	17, 17	17, 17	17, 17				
Trt-Eval Interval	17 DA-A	17 DA-A	17 DA-A	17 DA-A				
Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4
9	Panther SC	1.5 fl oz/a	A	109	98.0	70.0	98.0	50.0
	Weedone LV4	24 fl oz/a	A	204	98.0	85.0	98.0	60.0
	Cheetah	29 fl oz/a	A	310	98.0	75.0	98.0	50.0
	COC	1 % v/v	A	403	98.0	75.0	97.0	60.0
	Amsol AMS	0.44 % v/v	A					
				Mean =	98.0	76.5d	97.8	55.0
10	Leopard	1.5 oz/a	A	110	98.0	85.0	98.0	70.0
	Weedone LV4	24 fl oz/a	A	208	98.0	70.0	98.0	70.0
	Cheetah	29 fl oz/a	A	303	98.0	90.0	98.0	45.0
	COC	1 % v/v	A	409	98.0	98.0	98.0	75.0
	Amsol AMS	0.44 % v/v	A					
				Mean =	98.0	87.6d	98.0	65.0

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC	Location: UKREC K-200A	Trial Year: 2021
Protocol ID: H 2021 201 KY	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director:	
	Sponsor Contact:	

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	THLAR	LAMPU	CERVU	TAROF
Pest Scientific Name	Thlaspi arvense	Lamium purpureum	Cerastium fonta>	Taraxacum offic>
Pest Name	Field pennycress	deadnettle, pur>	common mouse-ear>	dandelion
Rating Date	Apr-14-2021	Apr-14-2021	Apr-14-2021	Apr-14-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Assessed By				
Days After First/Last Applic.	29, 29	29, 29	29, 29	29, 29
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A	29 DA-A
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	5	6
1 Untreated		101	0.0	0.0
		205	0.0	0.0
		304	0.0	0.0
		407	0.0	0.0
		Mean =	0.0	0.0d

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed					
Pest Code	THLAR	LAMPU	CERVU	TAROF					
Pest Scientific Name	Thlaspi arvense	Lamium purpureum	Cerastium fontana	Taraxacum officinale					
Pest Name	Field pennycress	deadnettle, purple	common mouse-ear	dandelion					
Rating Date	Apr-14-2021	Apr-14-2021	Apr-14-2021	Apr-14-2021					
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100					
Number of Subsamples	1	1	1	1					
Assessed By									
Days After First/Last Applic.	29, 29	29, 29	29, 29	29, 29					
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A	29 DA-A					
Trt No.	Treatment Name	Rate	Appl Unit	Code	Plot	5	6	7	8
9	Panther SC	1.5 fl oz/a	A	109		100.0	50.0	100.0	10.0
	Weedone LV4	24 fl oz/a	A	204		100.0	20.0	100.0	0.0
	Cheetah	29 fl oz/a	A	310		100.0	75.0	100.0	0.0
	COC	1 % v/v	A	403		100.0	50.0	100.0	0.0
	Amsol AMS	0.44 % v/v	A						
				Mean =		100.0	48.5d	100.0d	0.8d
10	Leopard	1.5 oz/a	A	110		100.0	90.0	100.0	90.0
	Weedone LV4	24 fl oz/a	A	208		100.0	70.0	100.0	70.0
	Cheetah	29 fl oz/a	A	303		100.0	90.0	97.0	90.0
	COC	1 % v/v	A	409		100.0	90.0	100.0	90.0
	Amsol AMS	0.44 % v/v	A						
				Mean =		100.0	85.8d	99.8d	84.5d

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	LOLMU	LAMPU	TAROF	LOLMU
Pest Scientific Name	Lolium perenne	Lamium purpureum	Taraxacum offic>	Lolium perenne
Pest Name	ryegrass, Itali>	deadnettle, pur>	dandelion	ryegrass, Itali>
Rating Date	Apr-14-2021	May-7-2021	May-7-2021	May-7-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1
Assessed By				
Days After First/Last Applic.	29, 29	52, 52	52, 52	52, 52
Trt-Eval Interval	29 DA-A	52 DA-A	52 DA-A	52 DA-A
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot		
1 Untreated		101	9	10
		205		11
		304		12
		407		
		Mean =		
			0.0	0.0
			100.0	0.0
			100.0	0.0
			100.0	0.0
			100.0	0.0
			75.0	0.0d
				0.0d
				0.0
				0.0
				0.0
				0.0

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type				W, Weed LOLMU	W, Weed LAMPU	W, Weed TAROF	W, Weed LOLMU
Pest Code				Lolium perenne	Lamium purpureum	Taraxacum offic>	Lolium perenne
Pest Scientific Name				ryegrass, Itali>	deadnettle, pur>	dandelion	ryegrass, Itali>
Pest Name				Apr-14-2021	May-7-2021	May-7-2021	May-7-2021
Rating Date				PLANT, P	PLANT, P	PLANT, P	PLANT, P
Part Rated				CONTRO	CONTRO	CONTRO	CONTRO
Rating Type				% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Rating Unit/Min/Max				1	1	1	1
Number of Subsamples				29, 29	52, 52	52, 52	52, 52
Assessed By				29 DA-A	52 DA-A	52 DA-A	52 DA-A
Days After First/Last Applic.							
Trt-Eval Interval							
Trt No.	Treatment Name	Rate	Appl Code	9	10	11	12
2	Leopard	1.5 oz/a	A	100.0	0.0	0.0	100.0
	COC	1 % v/v	A	100.0	50.0	0.0	100.0
				100.0	70.0	0.0	100.0
				100.0	25.0	0.0	100.0
				100.0	29.6d	0.0d	100.0
				Mean =			
3	Credit Xtreme	22 fl oz/a	A	100.0	100.0	0.0	100.0
	Weedone LV4	24 fl oz/a	A	100.0	100.0	50.0	100.0
	Amsol AMS	2.5 % v/v	A	100.0	100.0	0.0	100.0
	NIS	0.25 % v/v	A	100.0	100.0	70.0	100.0
				100.0	100.0d	6.8d	100.0
				Mean =			
4	Credit Xtreme	22 fl oz/a	A	100.0	100.0	0.0	90.0
	NFA-0020104	16 fl oz/a	A	100.0	100.0	0.0	100.0
	Amsol AMS	2.5 % v/v	A	100.0	80.0	0.0	100.0
	NIS	0.25 % v/v	A	100.0	100.0	50.0	100.0
				100.0	98.7d	1.7d	96.7
				Mean =			
5	Leopard	1.5 oz/a	A	100.0	95.0	100.0	100.0
	Credit Xtreme	22 fl oz/a	A	100.0	100.0	50.0	100.0
	Weedone LV4	24 fl oz/a	A	100.0	100.0	50.0	100.0
	COC	1 % v/v	A	100.0	100.0	70.0	100.0
	Amsol AMS	2.5 % v/v	A	100.0	100.0	70.0	100.0
				100.0	99.7d	64.7d	100.0
				Mean =			
6	Panther SC	2 fl oz/a	A	100.0	95.0	0.0	100.0
	Credit Xtreme	22 fl oz/a	A	100.0	100.0	0.0	100.0
	Weedone LV4	24 fl oz/a	A	100.0	100.0	0.0	100.0
	COC	1 % v/v	A	100.0	100.0	0.0	100.0
	Amsol AMS	2.5 % v/v	A	100.0	100.0	0.0	100.0
				100.0	99.7d	0.0d	100.0
				Mean =			
7	Panther MTZ	12 fl oz/a	A	100.0	100.0	0.0	90.0
	Credit Xtreme	22 fl oz/a	A	100.0	100.0	0.0	100.0
	Weedone LV4	24 fl oz/a	A	100.0	100.0	0.0	100.0
	COC	1 % v/v	A	100.0	100.0	0.0	90.0
	Amsol AMS	2.5 % v/v	A	100.0	100.0	0.0	90.0
				100.0	100.0d	0.0d	93.3
				Mean =			
8	Weedone LV4	24 fl oz/a	A	0.0	20.0	0.0	50.0
	Cheetah	29 fl oz/a	A	0.0	50.0	0.0	90.0
	COC	1 % v/v	A	0.0	50.0	60.0	100.0
	Amsol AMS	0.44 % v/v	A	0.0	20.0	0.0	0.0
				0.0	34.2d	1.8d	46.7
				Mean =			

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed				
Pest Code	LOLMU	LAMPU	TAROF	LOLMU				
Pest Scientific Name	Lolium perenne	Lamium purpureum	Taraxacum offic>	Lolium perenne				
Pest Name	ryegrass, Itali>	deadnettle, pur>	dandelion	ryegrass, Itali>				
Rating Date	Apr-14-2021	May-7-2021	May-7-2021	May-7-2021				
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100				
Number of Subsamples Assessed By	1	1	1	1				
Days After First/Last Applic.	29, 29	52, 52	52, 52	52, 52				
Trt-Eval Interval	29 DA-A	52 DA-A	52 DA-A	52 DA-A				
Trt No.	Treatment Name	Rate	Appl Code	Plot	9	10	11	12
9	Panther SC	1.5 fl oz/a	A	109	100.0	50.0	0.0	100.0
	Weedone LV4	24 fl oz/a	A	204	100.0	50.0	0.0	100.0
	Cheetah	29 fl oz/a	A	310	100.0	80.0	0.0	
	COC	1 % v/v	A	403	100.0	50.0	0.0	100.0
	Amsol AMS	0.44 % v/v	A					
	Mean =				100.0	58.0d	0.0d	100.0
10	Leopard	1.5 oz/a	A	110	100.0	90.0	50.0	100.0
	Weedone LV4	24 fl oz/a	A	208	100.0	90.0	20.0	0.0
	Cheetah	29 fl oz/a	A	303	100.0	100.0	0.0	
	COC	1 % v/v	A	409	100.0	90.0	50.0	95.0
	Amsol AMS	0.44 % v/v	A					
	Mean =				100.0	94.3d	14.3d	65.0

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W, Weed
Pest Code	DIGSA
Pest Scientific Name	Digitaria sangu>
Pest Name	crabgrass, large
Rating Date	May-7-2021
Part Rated	PLANT, P
Rating Type	CONTRO
Rating Unit/Min/Max	%, 0, 100
Number of Subsamples	1
Assessed By	
Days After First/Last Applic.	52, 52
Trt-Eval Interval	52 DA-A
Trt Treatment	Rate Appl
No. Name	Rate Unit Code Plot
1 Untreated	101 0.0
	205 0.0
	304 0.0
	407 0.0
	Mean = 0.0d

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type				W, Weed
Pest Code				DIGSA
Pest Scientific Name				Digitaria sangu>
Pest Name				crabgrass, large
Rating Date				May-7-2021
Part Rated				PLANT, P
Rating Type				CONTRO
Rating Unit/Min/Max				%, 0, 100
Number of Subsamples				1
Assessed By				
Days After First/Last Applic.				52, 52
Trt-Eval Interval				52 DA-A
Trt No.	Treatment Name	Rate	Appl Code	
		Rate Unit		Plot
				13
2	Leopard	1.5 oz/a	A	102
	COC	1 % v/v	A	201
				308
				405
				Mean =
				14.8*
				14.8*
				50.0
				0.0
				14.8d
3	Credit Xtreme	22 fl oz/a	A	103
	Weedone LV4	24 fl oz/a	A	202
	Amsol AMS	2.5 % v/v	A	305
	NIS	0.25 % v/v	A	402
				Mean =
				0.0
				0.0
				0.0
				0.0
				0.0d
4	Credit Xtreme	22 fl oz/a	A	104
	NFA-0020104	16 fl oz/a	A	209
	Amsol AMS	2.5 % v/v	A	302
	NIS	0.25 % v/v	A	404
				Mean =
				0.0
				0.0
				0.0
				0.0
				0.0d
5	Leopard	1.5 oz/a	A	105
	Credit Xtreme	22 fl oz/a	A	210
	Weedone LV4	24 fl oz/a	A	309
	COC	1 % v/v	A	401
	Amsol AMS	2.5 % v/v	A	
				Mean =
				0.0
				0.0
				95.0
				90.0
				26.3d
6	Panther SC	2 fl oz/a	A	106
	Credit Xtreme	22 fl oz/a	A	203
	Weedone LV4	24 fl oz/a	A	307
	COC	1 % v/v	A	406
	Amsol AMS	2.5 % v/v	A	
				Mean =
				0.0
				50.0
				50.0
				0.0
				14.8d
7	Panther MTZ	12 fl oz/a	A	107
	Credit Xtreme	22 fl oz/a	A	206
	Weedone LV4	24 fl oz/a	A	301
	COC	1 % v/v	A	410
	Amsol AMS	2.5 % v/v	A	
				Mean =
				0.0
				0.0
				0.0
				0.0
				0.0d
8	Weedone LV4	24 fl oz/a	A	108
	Cheetah	29 fl oz/a	A	207
	COC	1 % v/v	A	306
	Amsol AMS	0.44 % v/v	A	408
				Mean =
				0.0
				0.0
				0.0
				0.0
				0.0d

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type		W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code		THLAR	LAMPU	CERVU	TAROF		
Pest Scientific Name		Thlaspi arvense	Lamium purpureum	Cerastium fontana	Taraxacum officinale		
Pest Name		pennycress, field	deadnettle, purple	common mouse-ear	dandelion		
Rating Date		Apr-2-2021	Apr-2-2021	Apr-2-2021	Apr-2-2021		
Part Rated		PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples		1	1	1	1		
Assessed By		TL	TL				
Days After First/Last Applic.		17, 17	17, 17	17, 17	17, 17		
Trt-Eval Interval		17 DA-A	17 DA-A	17 DA-A	17 DA-A		
Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4
		Rate Unit			dAA		
7	Panther MTZ	12 fl oz/a	A	97.8 a	96.2 a	97.8 a	51.3 a
	Credit Xtreme	22 fl oz/a	A				
	Weedone LV4	24 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	2.5 % v/v	A				
8	Weedone LV4	24 fl oz/a	A	98.0 a	75.2 bc	98.0 a	57.5 a
	Cheetah	29 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	0.44 % v/v	A				
9	Panther SC	1.5 fl oz/a	A	98.0 a	76.5 bc	97.8 a	55.0 a
	Weedone LV4	24 fl oz/a	A				
	Cheetah	29 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	0.44 % v/v	A				
10	Leopard	1.5 oz/a	A	98.0 a	87.6 ab	98.0 a	65.0 a
	Weedone LV4	24 fl oz/a	A				
	Cheetah	29 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	0.44 % v/v	A				
LSD	P=.05			16.86	11.99 - 19.32	14.10	14.49
	Standard Deviation			11.62	8.63t	9.71	9.99
	CV			15.78	17.24t	14.36	31.1
	Levene's F^			1.978	1.54	3.005	1.634
	Levene's Prob(F)			0.078	0.179	0.011*	0.15
	Skewness^			0.5443	0.6654	-0.3945	0.7451
	Kurtosis^			2.3078*	1.087	1.6126*	4.0593*
	Replicate F			1.481	0.566	0.825	0.207
	Replicate Prob(F)			0.2420	0.6421	0.4918	0.8909
	Treatment F			31.190	33.647	59.368	28.936
	Treatment Prob(F)			0.0001	0.0001	0.0001	0.0001

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type		W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code		THLAR	LAMPU	CERVU	TAROF		
Pest Scientific Name		Thlaspi arvense	Lamium purpureum	Cerastium fonta>	Taraxacum offic>		
Pest Name		Field pennycress	deadnettle, pur>	common mouse-ear>	dandelion		
Rating Date		Apr-14-2021	Apr-14-2021	Apr-14-2021	Apr-14-2021		
Part Rated		PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max		% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples		1	1	1	1		
Assessed By							
Days After First/Last Applic.		29, 29	29, 29	29, 29	29, 29		
Trt-Eval Interval		29 DA-A	29 DA-A	29 DA-A	29 DA-A		
Trt No.	Treatment Name	Rate	Appl Code	5	6	7	8
		Rate Unit			dAA	dAA	dAL
1	Untreated			0.0 c	0.0 e	0.0 d	0.0 b
2	Leopard COC	1.5 oz/a A 1 % v/v A		67.5 b	17.2 d	80.3 c	0.0 b
3	Credit Xtreme Weedone LV4 Amsol AMS NIS	22 fl oz/a A 24 fl oz/a A 2.5 % v/v A 0.25 % v/v A		94.3 a	51.6 cd	99.7 a	1.1 b
4	Credit Xtreme NFA-0020104 Amsol AMS NIS	22 fl oz/a A 16 fl oz/a A 2.5 % v/v A 0.25 % v/v A		92.5 a	36.6 cd	91.4 b	0.0 b
5	Leopard Credit Xtreme Weedone LV4 COC Amsol AMS	1.5 oz/a A 22 fl oz/a A 24 fl oz/a A 1 % v/v A 2.5 % v/v A		98.0 a	65.8 bc	99.8 a	9.9 b
6	Panther SC Credit Xtreme Weedone LV4 COC Amsol AMS	2 fl oz/a A 22 fl oz/a A 24 fl oz/a A 1 % v/v A 2.5 % v/v A		100.0 a	98.1 a	99.9 a	0.0 b

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type		W, Weed THLAR	W, Weed LAMPJ	W, Weed CERVU	W, Weed TAROF		
Pest Code		THLAR	LAMPJ	CERVU	TAROF		
Pest Scientific Name		Thlaspi arvense	Lamium purpureum	Cerastium fonta>	Taraxacum offic>		
Pest Name		Field pennycress	deadnettle, pur>	common mouse-ear>	dandelion		
Rating Date		Apr-14-2021	Apr-14-2021	Apr-14-2021	Apr-14-2021		
Part Rated		PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples Assessed By		1	1	1	1		
Days After First/Last Applic.		29, 29	29, 29	29, 29	29, 29		
Trt-Eval Interval		29 DA-A	29 DA-A	29 DA-A	29 DA-A		
Trt No.	Treatment Name	Rate	Appl Code	5	6 dAA	7 dAA	8 dAL
7	Panther MTZ	12 fl oz/a	A	100.0 a	99.4 a	100.0 a	0.0 b
	Credit Xtreme	22 fl oz/a	A				
	Weedone LV4	24 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	2.5 % v/v	A				
8	Weedone LV4	24 fl oz/a	A	100.0 a	17.2 d	100.0 a	1.7 b
	Cheetah	29 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	0.44 % v/v	A				
9	Panther SC	1.5 fl oz/a	A	100.0 a	48.5 cd	100.0 a	0.8 b
	Weedone LV4	24 fl oz/a	A				
	Cheetah	29 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	0.44 % v/v	A				
10	Leopard	1.5 oz/a	A	100.0 a	85.8 ab	99.8 a	84.5 a
	Weedone LV4	24 fl oz/a	A				
	Cheetah	29 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	0.44 % v/v	A				
LSD P=.05		12.45		13.63 - 27.75		1.57 - 8.94	6.36 - 66.48
Standard Deviation		8.58		12.13t		4.97t	0.45t
CV		10.07		26.02t		6.57t	112.75t
Levene's F^		1.335		2.635		1.061	1.01
Levene's Prob(F)		0.261		0.022*		0.419	0.454
Skewness^		1.7472*		0.0402		-0.6621	1.1422*
Kurtosis^		11.0521*		0.5786		3.6915*	2.803*
Replicate F		0.032		0.610		0.362	0.958
Replicate Prob(F)		0.9921		0.6146		0.7809	0.4268
Treatment F		54.133		19.707		126.916	7.870
Treatment Prob(F)		0.0001		0.0001		0.0001	0.0001

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type		W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code		LOLMU	LAMPU	TAROF	LOLMU		
Pest Scientific Name		Lolium perenne	Lamium purpureum	Taraxacum offic>	Lolium perenne		
Pest Name		ryegrass, Itali>	deadnettle, pur>	dandelion	ryegrass, Itali>		
Rating Date		Apr-14-2021	May-7-2021	May-7-2021	May-7-2021		
Part Rated		PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max		% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples		1	1	1	1		
Assessed By							
Days After First/Last Applic.		29, 29	52, 52	52, 52	52, 52		
Trt-Eval Interval		29 DA-A	52 DA-A	52 DA-A	52 DA-A		
Trt No.	Treatment Name	Rate	Appl Code	9	10 dAA	11 dAL	12
1	Untreated			75.0 a	0.0 c	0.0 b	0.0 b
2	Leopard COC	1.5 oz/a A 1 % v/v A		100.0 a	29.6 b	0.0 b	100.0 a
3	Credit Xtreme Weedone LV4 Amsol AMS NIS	22 fl oz/a A 24 fl oz/a A 2.5 % v/v A 0.25 % v/v A		100.0 a	100.0 a	6.8 ab	100.0 a
4	Credit Xtreme NFA-0020104 Amsol AMS NIS	22 fl oz/a A 16 fl oz/a A 2.5 % v/v A 0.25 % v/v A		100.0 a	98.7 a	1.7 b	96.7 a
5	Leopard Credit Xtreme Weedone LV4 COC Amsol AMS	1.5 oz/a A 22 fl oz/a A 24 fl oz/a A 1 % v/v A 2.5 % v/v A		100.0 a	99.7 a	64.7 a	100.0 a
6	Panther SC Credit Xtreme Weedone LV4 COC Amsol AMS	2 fl oz/a A 22 fl oz/a A 24 fl oz/a A 1 % v/v A 2.5 % v/v A		100.0 a	99.7 a	0.0 b	100.0 a

University of Kentucky

Early preplant herbicides for marestail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type		W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code		LOLMU	LAMPU	TAROF	LOLMU		
Pest Scientific Name		Lolium perenne	Lamium purpureum	Taraxacum offic>	Lolium perenne		
Pest Name		ryegrass, Itali>	deadnettle, pur>	dandelion	ryegrass, Itali>		
Rating Date		Apr-14-2021	May-7-2021	May-7-2021	May-7-2021		
Part Rated		PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max		% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples		1	1	1	1		
Assessed By							
Days After First/Last Applic.		29, 29	52, 52	52, 52	52, 52		
Trt-Eval Interval		29 DA-A	52 DA-A	52 DA-A	52 DA-A		
Trt No.	Treatment Name	Rate	Appl Code	9	10 dAA	11 dAL	12
7	Panther MTZ	12 fl oz/a	A	100.0 a	100.0 a	0.0 b	93.3 a
	Credit Xtreme	22 fl oz/a	A				
	Weedone LV4	24 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	2.5 % v/v	A				
8	Weedone LV4	24 fl oz/a	A	0.0 b	34.2 b	1.8 b	46.7 a
	Cheetah	29 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	0.44 % v/v	A				
9	Panther SC	1.5 fl oz/a	A	100.0 a	58.0 b	0.0 b	100.0 a
	Weedone LV4	24 fl oz/a	A				
	Cheetah	29 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	0.44 % v/v	A				
10	Leopard	1.5 oz/a	A	100.0 a	94.3 a	14.3 ab	65.0 a
	Weedone LV4	24 fl oz/a	A				
	Cheetah	29 fl oz/a	A				
	COC	1 % v/v	A				
	Amsol AMS	0.44 % v/v	A				
LSD P=.05		22.94		6.35 - 24.85		15.63 - 56.12	41.29
Standard Deviation		15.81		10.06t		0.58t	24.07
CV		18.07		15.93t		120.88t	30.02
Levene's F^		0.711		1.532		1.427	2.205
Levene's Prob(F)		0.694		0.182		0.221	0.051
Skewness^		-3.2005*		-1.0193*		0.6827	-0.9867*
Kurtosis^		18.2785*		3.2935*		1.87*	7.6887*
Replicate F		1.000		2.320		0.830	0.105
Replicate Prob(F)		0.4079		0.0977		0.4889	0.9009
Treatment F		16.111		39.381		4.835	5.864
Treatment Prob(F)		0.0001		0.0001		0.0007	0.0007

University of Kentucky

Early preplant herbicides for marehail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W, Weed		
Pest Code	DIGSA		
Pest Scientific Name	Digitaria sangu>		
Pest Name	crabgrass, large		
Rating Date	May-7-2021		
Part Rated	PLANT, P		
Rating Type	CONTRO		
Rating Unit/Min/Max	%, 0, 100		
Number of Subsamples	1		
Assessed By			
Days After First/Last Applic.	52, 52		
Trt-Eval Interval	52 DA-A		
Trt No.	Treatment Name	Rate Unit	Appl Code
			13 dAS
1	Untreated		0.0 a
2	Leopard COC	1.5 oz/a A 1 % v/v A	14.8 a
3	Credit Xtreme Weedone LV4 Amsol AMS NIS	22 fl oz/a A 24 fl oz/a A 2.5 % v/v A 0.25 % v/v A	0.0 a
4	Credit Xtreme NFA-0020104 Amsol AMS NIS	22 fl oz/a A 16 fl oz/a A 2.5 % v/v A 0.25 % v/v A	0.0 a
5	Leopard Credit Xtreme Weedone LV4 COC Amsol AMS	1.5 oz/a A 22 fl oz/a A 24 fl oz/a A 1 % v/v A 2.5 % v/v A	26.3 a
6	Panther SC Credit Xtreme Weedone LV4 COC Amsol AMS	2 fl oz/a A 22 fl oz/a A 24 fl oz/a A 1 % v/v A 2.5 % v/v A	14.8 a

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Early preplant herbicides for marehail and other winter annual weed control in no-till corn, soybean or cotton rotations

Trial ID: 21-8_SOY-REC Location: UKREC K-200A Trial Year: 2021
 Protocol ID: H 2021 201 KY Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W, Weed		
Pest Code	DIGSA		
Pest Scientific Name	Digitaria sangu>		
Pest Name	crabgrass, large		
Rating Date	May-7-2021		
Part Rated	PLANT, P		
Rating Type	CONTRO		
Rating Unit/Min/Max	%, 0, 100		
Number of Subsamples	1		
Assessed By			
Days After First/Last Applic.	52, 52		
Trt-Eval Interval	52 DA-A		
Trt No.	Treatment Name	Rate	Appl Code
		Rate Unit	
			13 dAS
7	Panther MTZ	12 fl oz/a A	0.0 a
	Credit Xtreme	22 fl oz/a A	
	Weedone LV4	24 fl oz/a A	
	COC	1 % v/v A	
	Amsol AMS	2.5 % v/v A	
8	Weedone LV4	24 fl oz/a A	0.0 a
	Cheetah	29 fl oz/a A	
	COC	1 % v/v A	
	Amsol AMS	0.44 % v/v A	
9	Panther SC	1.5 fl oz/a A	0.0 a
	Weedone LV4	24 fl oz/a A	
	Cheetah	29 fl oz/a A	
	COC	1 % v/v A	
	Amsol AMS	0.44 % v/v A	
10	Leopard	1.5 oz/a A	39.1 a
	Weedone LV4	24 fl oz/a A	
	Cheetah	29 fl oz/a A	
	COC	1 % v/v A	
	Amsol AMS	0.44 % v/v A	
LSD P=.05	33.03 - 42.99		
Standard Deviation	2.56t		
CV	108.75t		
Levene's F^	7.737		
Levene's Prob(F)	0.00*		
Skewness^	-0.1793		
Kurtosis^	0.1938		
Replicate F	1.076		
Replicate Prob(F)	0.3771		
Treatment F	3.028		
Treatment Prob(F)	0.0137		

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Evaluation of Reviton herbicide in preplant burndown programs (University)

Trial ID: 2021-H-US12 Location: UKREC K200-A Trial Year: 2021
 Protocol ID: 2021-H-US12 Investigator (Creator): Travis Legleiter
 Project ID: 2021-H-US12 Study Director: Scott Akin, PhD
 Sponsor Contact:

Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.564 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	Reviton MSO	2.83 LB/GAL		SC	2 FL OZ/A				SPRING A		2.083 mL/mx		101	203	304	402
					1 % V/V				SPRING A		20.0 mL/mx					
2	Reviton Roundup PowerMax MSO	2.83 LB/GAL		SC	1 FL OZ/A				SPRING A		1.042 mL/mx		102	201	306	405
		4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 LB AI/A		SPRING A		29.63 mL/mx					
					1 % V/V				SPRING A		20.0 mL/mx					
3	Sharpen Roundup PowerMax MSO	2.85 LB/GAL		SC	1 FL OZ/A				SPRING A		1.042 mL/mx		103	206	307	403
		4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 LB AI/A		SPRING A		29.63 mL/mx					
					1 % V/V				SPRING A		20.0 mL/mx					
4	Reviton Roundup PowerMax Valor EZ MSO	2.83 LB/GAL		SC	1 FL OZ/A				SPRING A		1.042 mL/mx		104	207	303	407
		4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 LB AI/A		SPRING A		29.63 mL/mx					
		4 lba/gal		L	2.5 FL OZ/A		0.078 LB AI/A		SPRING A		2.6 mL/mx					
					1 % V/V				SPRING A		20.0 mL/mx					
5	Reviton Roundup PowerMax Authority First MSO	2.83 LB/GAL		SC	1 FL OZ/A				SPRING A		1.042 mL/mx		105	204	301	404
		4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 LB AI/A		SPRING A		29.63 mL/mx					
		70 %		WDG	6.45 OZ/A		0.282 LB AI/A		SPRING A		6.436 g/mx					
					1 % V/V				SPRING A		20.0 mL/mx					
6	Roundup PowerMax 2,4-D LV6 Amsol AMS	4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 LB AI/A		SPRING A		29.63 mL/mx		106	202	305	401
		6 LBAE/GAL		SL	11 FL OZ/A		0.516 LB AI/A		SPRING A		11.47 mL/mx					
		3.4 lba/gal		SL	2.5 % V/V		8.5 lb ai/100gal		SPRING A		49.99 mL/mx					
7	Untreated												107	205	302	406

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
6.510 mL		Reviton	2.83	LB/GAL	SC	
124.986 mL		MSO				
185.165 mL		Roundup PowerMax	4.5	LBAE/GAL	SL	
1.302 mL		Sharpen	2.85	LB/GAL	SC	
3.250 mL		Valor EZ	4	lba/gal	L	
8.045 g		Authority First	70	%	WDG	
14.332 mL		2,4-D LV6	6	LBAE/GAL	SL	
62.493 mL		Amsol AMS	3.4	lba/gal	SL	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

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Product quantities required for listed treatments and applications of trials included in this table:

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

General Trial Information

Study Director: Scott Akin, PhD **Title:** Technical Service
Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established
ARM Trial Created On: 3-4-2021 **Planned Completion Date:** 7-30-2021

Trial Location

City: Princeton **Country:** USA United States
State/Prov.: Kentucky
Postal Code: 42445

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Role: STYDIR study director
Study Director: Scott Akin, PhD **Title:** Technical Service
Organization: Helm Agro **Mobile No.:** 270-227-8843
Address 1: 5426 State Route 121 NORTH **E-mail:** sakin@helmagro.com
City: Murray, KY
Role: INVEST investigator
Investigator: Travis Legleiter **Title:** Assistant Extension Professor
Organization: University of Kentucky
Address 1: 348 University Drive **Phone No.:** 859-562-1323
Country: USA United States **E-mail:** Travis.Legleiter@uky.edu
City: Princeton, KY **Postal Code:** 42445

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Pest Description

- Pest 1 Type:** W **Code:** SENGL *Packera glabella* **Entry Date:** 7-8-2021
Common Name: Cressleaf groundsel **Stage Scale:** BBCH
- Pest 2 Type:** W **Code:** CERVU *Cerastium fontanum vulgare* **Entry Date:** 7-8-2021
Common Name: common mouse-ear chickweed **Stage Scale:** BBCH
- Pest 3 Type:** W **Code:** CARHI *Cardamine hirsuta* **Entry Date:** 7-8-2021
Common Name: bristly bittercress **Stage Scale:** BBCH
- Pest 4 Type:** W **Code:** LAMAM *Lamium amplexicaule* **Entry Date:** 7-8-2021
Common Name: Henbit deadnettle **Stage Scale:** BBCH
- Pest 5 Type:** W **Code:** THLAR *Thlaspi arvense* **Entry Date:** 7-8-2021
Common Name: Field pennycress **Stage Scale:** BBCH
- Pest 6 Type:** W **Code:** OXAST *Oxalis stricta* **Entry Date:** 7-8-2021
Common Name: upright wood sorrel **Stage Scale:** BBCH
- Pest 7 Type:** W **Code:** STEME *Stellaria media* **Entry Date:** 7-8-2021
Common Name: chickweed **Stage Scale:** BBCH
- Pest 8 Type:** W **Code:** LAMPU *Lamium purpureum* **Entry Date:** 7-8-2021
Common Name: purple archangel **Stage Scale:** BBCH
- Pest 9 Type:** W **Code:** GERCA *Geranium carolinianum* **Entry Date:** 7-8-2021
Common Name: Carolina geranium **Stage Scale:** BBCH
- Pest10 Type:** W **Code:** LOLMG *Lolium multiflorum gaudini* **Entry Date:** 7-8-2021
Common Name: Annual ryegrass **Stage Scale:** BBCH
- Pest11 Type:** W **Code:** TAROF *Taraxacum officinale* **Entry Date:** 7-8-2021
Common Name: dandelion **Stage Scale:** BBCH
- Pest12 Type:** W **Code:** ALLVI *Allium vineale* **Entry Date:** 7-8-2021
Common Name: Field garlic **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300.0 FT² **Treatments:** 7 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB Randomized Complete Block (RCB)

Soil Description

Description Name: 108-C4
% Sand: 4.2 **% OM:** 2.6 **Texture:** SIL silt loam
% Silt: 80.8 **pH:** 5.25 **Soil Name:** Crider Silt Loam
% Clay: 15.1 **CEC:** 12.7

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Application Description

A

Application Date	3-16-2021
Appl. Start Time	3:15 PM
Appl. Stop Time	3:30 PM
Application Method	SPRAY
Application Timing	PREPLA
Application Placement	BROADC
Applied By	JLG
Appl. Entry Date	7-8-2021
Air Temperature Start, Stop	77.9, - F
% Relative Humidity Start, Stop	35.1, -
Wind Velocity+Dir. Start	- MPH, -
Wind Velocity+Dir. Max	2.6 MPH, NW
Wet Leaves (Y/N)	N, no
Soil Temperature	54 F
Soil Moisture	wet
% Cloud Cover	75

Pest Stage At Each Application

A

Pest 1 Code, Type, Scale	SENGL, W, BBCH
Diameter Average	3 IN
Diameter Minimum, Maximum	1, 6
Density Average	0.25 FT2
Density Minimum, Maximum	0, 1
Pest 2 Code, Type, Scale	CERVU, W, BBCH
Diameter Average	3.25 IN
Diameter Minimum, Maximum	0.5, 6
Density Average	3.25 FT2
Density Minimum, Maximum	2, 8
Pest 3 Code, Type, Scale	CARHI, W, BBCH
Diameter Average	1 IN
Diameter Minimum, Maximum	0.5, 1.5
Density Average	1.25 FT2
Density Minimum, Maximum	2, 3
Pest 4 Code, Type, Scale	LAMAM, W, BBCH
Diameter Average	1 IN
Diameter Minimum, Maximum	0.5, 1.5
Density Average	3.25 FT2
Density Minimum, Maximum	2, 4
Pest 5 Code, Type, Scale	THLAR, W, BBCH
Diameter Average	1.25 IN
Diameter Minimum, Maximum	0.5, 2
Density Average	13.25 FT2
Density Minimum, Maximum	2, 36
Pest 6 Code, Type, Scale	OXAST, W, BBCH
Diameter Average	2 IN
Diameter Minimum, Maximum	1.25, 2.75
Density Average	4 FT2
Density Minimum, Maximum	3, 5
Pest 7 Code, Type, Scale	STEME, W, BBCH
Diameter Average	0.5 IN
Diameter Minimum, Maximum	0.25, 0.75
Density Average	3.5 FT2
Density Minimum, Maximum	3, 4
Pest 8 Code, Type, Scale	LAMPU, W, BBCH
Diameter Average	1.375 IN
Diameter Minimum, Maximum	0.5, 2.25

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Density Average 19.75 FT2
Density Minimum, Maximum 2, 45
Pest 9 Code, Type, Scale GERCA, W, BBCH
Diameter Average 1.125 IN
Diameter Minimum, Maximum 1, 2.25
Density Average 0.25 FT2
Density Minimum, Maximum 0, 1
Pest10 Code, Type, Scale LOLMG, W, BBCH
Diameter Average 0.25 IN
Diameter Minimum, Maximum 0.25, 0.5
Density Average 0.25 FT2
Density Minimum, Maximum 0, 1
Pest11 Code, Type, Scale TAROF, W, BBCH
Diameter Average 8.125 IN
Diameter Minimum, Maximum 6, 10.25
Density Average 2 FT2
Density Minimum, Maximum 1, 2
Pest12 Code, Type, Scale ALLVI, W, BBCH
Diameter Average 5.75 IN
Diameter Minimum, Maximum 3.25, 8.25
Density Average 0.75 FT2
Density Minimum, Maximum 0, 3

Application Equipment

Equipment Type SPRBAC
Operation Pressure 32 PSI
Nozzle Model TEEJET
Nozzle Type FLAFXR
Nozzle TradeName XR11002
Nozzle Tip Size, Color 02, Yellow
Nozzle Spacing 20.0 IN
Boom ID BLUE
Boom Length 10.0 FT
Boom Height 18.0 IN
Ground Speed 3 MPH
Carrier WATER
Application Amount 15 GAL/AC
Mix Size 2.0 L
Propellant COMCO2

Notes

Context	Date	By	Notes
STATUS 3-4-2021	Travis Legleiter	Automatically added by ARM:	Trial Status updated to 'S' during trial creation.
STATUS 7-8-2021	Travis Legleiter	Automatically added by ARM:	Trial Status updated to 'E' when Application Date entered.

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	LAMPU	THLAR	CERVU	TAROF	LAMPU	THLAR	CERVU
Pest Scientific Name	Lamium purpureum	Thlaspi arvense	Cerastium fonta>	Taraxacum offic>	Lamium purpureum	Thlaspi arvense	Cerastium fonta>
Pest Name	purple archangel	Field pennycress	Mouse-ear chick>	Blowball	purple archangel	Field pennycress	Mouse-ear chick>
Crop Type, Code							
Crop Scientific Name							
Crop Name							
Rating Date	3-25-2021	3-25-2021	3-25-2021	3-25-2021	4-2-2021	4-2-2021	4-2-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1	1
Data Entry Date	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021
Rating Timing							
Days After First/Last Applic.	9, 9	9, 9	9, 9	9, 9	17, 17	17, 17	17, 17
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A	17 DA-A	17 DA-A	17 DA-A
Days After Emergence							
ARM Action Codes	ET6	EC	AL	EC	ET3		ET2
Number of Decimals							

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5	6	7
1	Reviton MSO	2 FL OZ/A	A	101	90.0	40.0	10.0	90.0	80.0	80.0	0.0
				203	95.0	60.0	5.0	95.0	80.0	70.0	2.0
				304	90.0	30.0	5.0	80.0	90.0	50.0	20.0
				402	90.0	70.0	15.0	90.0	90.0	50.0	20.0
				Mean =	91.3	50.0	7.9d	88.8	85.0	62.5	10.5
2	Reviton Roundup PowerMax MSO	1 FL OZ/A	A	102	90.0	50.0	10.0	97.0	95.0	80.0	25.0
				201	95.0	70.0	20.0	97.0	85.0	80.0	80.0
				306	70.0	40.0	10.0	95.0	70.0	50.0	50.0
				405	95.0	40.0	10.0	95.0	95.0	80.0	80.0
				Mean =	87.5	50.0	11.9d	96.0	86.3	72.5	58.8
3	Sharpen Roundup PowerMax MSO	1 FL OZ/A	A	103	70.0	50.0	20.0	97.0	80.0	80.0	70.0
				206	85.0	50.0	20.0	90.0	60.0	50.0	60.0
				307	70.0	50.0	20.0	95.0	50.0	70.0	70.0
				403	75.0	40.0	15.0	97.0	90.0	85.0	85.0
				Mean =	75.0	47.5	18.6d	94.8	70.0	71.3	71.3
4	Reviton Roundup PowerMax Valor EZ MSO	1 FL OZ/A	A	104	90.0	60.0	50.0	97.0	97.0	90.0	90.0
				207	90.0	50.0	30.0	97.0	95.0	80.0	90.0
				303	80.0	70.0	30.0	98.0	90.0	70.0	90.0
				407	80.0	50.0	15.0	90.0	95.0	85.0	80.0
				Mean =	85.0	57.5	28.8d	95.5	94.3	81.3	87.5
5	Reviton Roundup PowerMax Authority First MSO	1 FL OZ/A	A	105	90.0	50.0	20.0	97.0	97.0	85.0	70.0
				204	90.0	50.0	10.0	95.0	97.0	80.0	75.0
				301	90.0	50.0	15.0	97.0	90.0	80.0	76.0
				404	90.0	50.0	10.0	97.0	95.0	80.0	80.0
				Mean =	90.0	50.0	13.2d	96.5	94.8	81.3	75.3
6	Roundup PowerMax 2,4-D LV6 Amsol AMS	28.4 FL OZ/A	A	106	10.0	30.0	10.0	0.0	50.0	70.0	60.0
				202	50.0	50.0	20.0	5.0	60.0	70.0	65.0
				305	15.0	20.0	0.0	0.0	50.0	60.0	40.0
				401	50.0	30.0	20.0	5.0	80.0	80.0	70.0
				Mean =	31.3	32.5	7.3d	2.5	60.0	70.0	58.8

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	LAMPU	THLAR	CERVU	TAROF	LAMPU	THLAR	CERVU
Pest Scientific Name	Lamium purpureum	Thlaspi arvense	Cerastium fonta>	Taraxacum offic>	Lamium purpureum	Thlaspi arvense	Cerastium fonta>
Pest Name	purple archangel	Field pennycress	Mouse-ear chick>	Blowball	purple archangel	Field pennycress	Mouse-ear chick>
Crop Type, Code							
Crop Scientific Name							
Crop Name							
Rating Date	3-25-2021	3-25-2021	3-25-2021	3-25-2021	4-2-2021	4-2-2021	4-2-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1	1
Data Entry Date	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021
Rating Timing							
Days After First/Last Applic.	9, 9	9, 9	9, 9	9, 9	17, 17	17, 17	17, 17
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A	17 DA-A	17 DA-A	17 DA-A
Days After Emergence							
ARM Action Codes	ET6	EC	AL	EC	ET3		ET2
Number of Decimals							

Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7
7 Untreated		107	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		205	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		302	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		406	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0d	0.0	0.0	0.0	0.0

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	TAROF	LAMPU	THLAR	CERVU	TAROF
Pest Scientific Name	Taraxacum offic>	Lamium purpureum	Thlaspi arvense	Cerastium fonta>	Taraxacum offic>
Pest Name	Blowball	Purple deadnett>	Fanweed	Mouse-ear chick>	Blowball
Crop Type, Code					
Crop Scientific Name					
Crop Name					
Rating Date	4-2-2021	4-7-2021	4-7-2021	4-7-2021	4-7-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1
Data Entry Date	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021
Rating Timing					
Days After First/Last Applic.	17, 17	22, 22	22, 22	22, 22	22, 22
Trt-Eval Interval	17 DA-A	22 DA-A	22 DA-A	22 DA-A	22 DA-A
Days After Emergence					
ARM Action Codes	ET6	AA	AA	ET2	AL
Number of Decimals					

Trt No.	Treatment Name	Rate	Appl Code	Plot	8	9	10	11	12
1	Reviton	2 FL OZ/A	A	101	5.0	80.0	50.0	0.0	0.0
	MSO	1 % V/V	A	203	5.0	80.0	95.0	0.0	0.0
				304	5.0	100.0	80.0	0.0	0.0
				402	8.0	80.0	90.0	0.0	0.0
				Mean =	5.8	88.4d	81.2d	0.0	0.0d
2	Reviton	1 FL OZ/A	A	102	90.0	97.0	97.0	90.0	90.0
	Roundup PowerMax MSO	28.4 FL OZ/A	A	201	90.0	100.0	97.0	100.0	90.0
				306	80.0	100.0	95.0	100.0	90.0
				405	95.0	100.0	97.0	100.0	90.0
				Mean =	88.8	99.8d	96.5d	97.5	90.0d
3	Sharpen	1 FL OZ/A	A	103	90.0	95.0	95.0	95.0	90.0
	Roundup PowerMax MSO	28.4 FL OZ/A	A	206	90.0	90.0	80.0	90.0	97.0
				307	90.0	90.0	97.0	100.0	95.0
				403	90.0	100.0	97.0	100.0	85.0
				Mean =	90.0	95.4d	93.4d	96.3	91.6d
4	Reviton	1 FL OZ/A	A	104	95.0	100.0	97.0	100.0	90.0
	Roundup PowerMax Valor EZ MSO	28.4 FL OZ/A	A	207	90.0	100.0	96.0	100.0	90.0
				303	90.0	100.0	90.0	97.0	90.0
				407	90.0	100.0	90.0	100.0	95.0
				Mean =	91.3	100.0d	93.7d	99.3	91.2d
5	Reviton	1 FL OZ/A	A	105	90.0	97.0	100.0	100.0	90.0
	Roundup PowerMax Authority First MSO	28.4 FL OZ/A	A	204	90.0	100.0	100.0	100.0	95.0
				301	90.0	100.0	97.0	97.0	90.0
				404	95.0	100.0	100.0	100.0	95.0
				Mean =	91.3	99.8d	99.8d	99.3	92.5d
6	Roundup PowerMax 2,4-D LV6	28.4 FL OZ/A	A	106	5.0	85.0	70.0	95.0	0.0
	Amsol AMS	2.5 % V/V	A	202	10.0	97.0	97.0	100.0	5.0
				305	20.0	85.0	96.0	100.0	0.0
				401	15.0	90.0	97.0	100.0	0.0
				Mean =	12.5	89.9d	92.2d	98.8	0.6d

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	TAROF	LAMPU	THLAR	CERVU	TAROF
Pest Scientific Name	Taraxacum offic>	Lamium purpureum	Thlaspi arvense	Cerastium fonta>	Taraxacum offic>
Pest Name	Blowball	Purple deadnett>	Fanweed	Mouse-ear chick>	Blowball
Crop Type, Code					
Crop Scientific Name					
Crop Name					
Rating Date	4-2-2021	4-7-2021	4-7-2021	4-7-2021	4-7-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Data Entry Date	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021
Rating Timing					
Days After First/Last Applic.	17, 17	22, 22	22, 22	22, 22	22, 22
Trt-Eval Interval	17 DA-A	22 DA-A	22 DA-A	22 DA-A	22 DA-A
Days After Emergence					
ARM Action Codes	ET6	AA	AA	ET2	AL
Number of Decimals					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	8	9	10	11	12
7	Untreated		107	0.0	0.0	0.0	0.0	0.0
			205	0.0	0.0	0.0	0.0	0.0
			302	0.0	0.0	0.0	0.0	0.0
			406	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0d	0.0d	0.0	0.0d

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	LAMPU	THLAR	CERVU	TAROF
Pest Scientific Name	Lamium purpureum	Thlaspi arvense	Cerastium fontana	Taraxacum officinale
Pest Name	Purple deadnett	Fanweed	Mouse-ear chick	Blowball
Crop Type, Code				
Crop Scientific Name				
Crop Name				
Rating Date	4-7-2021	4-7-2021	4-7-2021	4-7-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Data Entry Date	4-8-2021	4-8-2021	4-8-2021	4-8-2021
Rating Timing				
Days After First/Last Applic.	22, 22	22, 22	22, 22	22, 22
Trit-Eval Interval	22 DA-A	22 DA-A	22 DA-A	22 DA-A
Days After Emergence				
ARM Action Codes	AA	AA	ET2	AL
Number of Decimals				

Trit No.	Treatment Name	Rate	Unit	Appl Code	9 dAA	10 dAA	11	12 dAL
1	Reviton	2	FL OZ/A	A	88.4 b	81.2 b	0.0 b	0.0 b
	MSO	1	% V/V	A				
2	Reviton	1	FL OZ/A	A	99.8 a	96.5 ab	97.5	90.0 a
	Roundup PowerMax	28.4	FL OZ/A	A				
	MSO	1	% V/V	A				
3	Sharpen	1	FL OZ/A	A	95.4 ab	93.4 ab	96.3 a	91.6 a
	Roundup PowerMax	28.4	FL OZ/A	A				
	MSO	1	% V/V	A				

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	LAMPU	THLAR	CERVU	TAROF
Pest Scientific Name	Lamium purpureum	Thlaspi arvense	Cerastium fonta	Taraxacum offic
Pest Name	Purple deadnett	Fanweed	Mouse-ear chick	Blowball
Crop Type, Code				
Crop Scientific Name				
Crop Name				
Rating Date	4-7-2021	4-7-2021	4-7-2021	4-7-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Data Entry Date	4-8-2021	4-8-2021	4-8-2021	4-8-2021
Rating Timing				
Days After First/Last Applic.	22, 22	22, 22	22, 22	22, 22
Trt-Eval Interval	22 DA-A	22 DA-A	22 DA-A	22 DA-A
Days After Emergence				
ARM Action Codes	AA	AA	ET2	AL
Number of Decimals				

Trt No.	Treatment Name	Rate	Appl Code	9 dAA	10 dAA	11	12 dAL
4	Reviton	1 FL OZ/A	A	100.0 a	93.7 ab	99.3 a	91.2 a
	Roundup PowerMax	28.4 FL OZ/A	A				
	Valor EZ	2.5 FL OZ/A	A				
	MSO	1 % V/V	A				
5	Reviton	1 FL OZ/A	A	99.8 a	99.8 a	99.3 a	92.5 a
	Roundup PowerMax	28.4 FL OZ/A	A				
	Authority First	6.45 OZ/A	A				
	MSO	1 % V/V	A				
6	Roundup PowerMax	28.4 FL OZ/A	A	89.9 b	92.2 ab	98.8 a	0.6 b
	2,4-D LV6	11 FL OZ/A	A				
	Amsol AMS	2.5 % V/V	A				
7	Untreated			0.0 c	0.0 c	0.0 b	0.0 b
LSD P=.05				3.21 - 8.83	5.89 - 13.04	3.69	1.02 - 36.80
Standard Deviation				6.94t	7.93t	2.45	0.15t
CV				10.04t	12.19t	3.73	12.71t
Levene's F^				1.293	0.564	2.009	0.588
Levene's Prob(F)				0.303	0.754	0.126	0.736
Skewness^				1.2469*	-0.9078*	-0.957*	2.467*
Kurtosis^				2.6891*	0.6312	1.9375*	10.9673*
Replicate F				1.015	0.929	0.622	1.119
Replicate Prob(F)				0.4091	0.4470	0.6119	0.3676
Treatment F				82.501	55.368	1724.488	193.680
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001

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Evaluation of Reviton herbicide in preplant burndown programs (University)

Trial ID: 2021-H-US12 Location: UKREC K200-A Trial Year: 2021
Protocol ID: 2021-H-US12 Investigator (Creator): Travis Legleiter
Project ID: 2021-H-US12 Study Director: Scott Akin, PhD
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

LAMPU, Lamium purpureum, purple archangel = US
THLAR, Thlaspi arvense, Field pennycress = US
CERVU, Cerastium fontanum vulgare, Mouse-ear chickweed = US
TAROF, Taraxacum officinale, Blowball = US
LAMPU, Lamium purpureum, Purple deadnettle = US
THLAR, Thlaspi arvense, Fanweed = US

Part Rated

PLANT = plant

P = Pest is Part Rated

Rating Unit/Min/Max

%, 0, 100 = percent

ARM Action Codes

ET6 = Excluded treatment 6

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

AL = Automatic log transformation of X+1

ET3 = Excluded treatment 3

ET2 = Excluded treatment 2

AA = Automatic arcsine square root % transformation

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Corn Herbicide Program Comparisons

Trial ID: 21-10_COR-REC Location: UKREC -109-B1 Trial Year: 2021
Protocol ID: 21-10_COR-REC Investigator (Creator): Travis Legleiter
Project ID: Study Director:
Sponsor Contact:

Reps: 4		Plots: 10 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)												
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep				
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Timing	Code	to Measure	1	2	3	4
1	Untreated												101	211	306	410
2	ACURON XR	3.5 lba/gal		ZC	3 QT/A		2.63 lba/a			PRE	A	100.2 mL/mx	102	208	310	406
3	Lexar EZ	3.7 lba/gal		ZC	1.8 QT/A		1.67 lba/a			PRE	A	60.17 mL/mx	103	201	311	401
	Acuron GT	4.295 lba/gal		ZC	3.75 PT/A		2.01 lba/a			POST	C	62.39 mL/mx				
	AAtrex	4 LBA/GAL		F	1 PT/A		0.5 lba/a			POST	C	16.66 mL/mx				
	NIS	100 %		SL	0.5 % V/V					POST	C	9.999 mL/mx				
	Amsol AMS	3.4 lba/gal		SL	8.5 LB AI/100 GAL		2.5 % V/V			POST	C	49.99 mL/mx				
4	Bicep II Magnum	5.5 lba/gal		SC	1.6 QT/A		2.2 lba/a			PRE	A	53.33 mL/mx	104	213	309	415
	Acuron GT	4.295 lba/gal		ZC	3.75 PT/A		2.01 lba/a			POST	C	62.39 mL/mx				
	AAtrex	4 LBA/GAL		F	1 PT/A		0.5 lba/a			POST	C	16.66 mL/mx				
	NIS	100 %		SL	0.5 % V/V					POST	C	9.999 mL/mx				
	Amsol AMS	3.4 lba/gal		SL	8.5 LB AI/100 GAL		2.5 % V/V			POST	C	49.99 mL/mx				
5	Verdict	2 LBA/GAL		EC	10 OZ/A		0.156 lba/a			PRE	A	10.4 mL/mx	105	204	301	413
	Armezon PRO	6.25 LBA/GAL		L	18 OZ/A		0.88 LBA/a			POST	C	18.77 mL/mx				
	Roundup PowerMAX 3	4.8 LBAE/GAL		SL	20 OZ/A		0.75 lba/a			POST	C	20.83 mL/mx				
	MSO	100 %		SL	0.5 % V/V					POST	C	9.999 mL/mx				
	Amsol AMS	3.4 lba/gal		SL	8.5 LB AI/100 GAL		2.5 % v/v			POST	C	49.99 mL/mx				
6	Surestart II	4.25 lba/gal		SE	1.75 PT/A		0.93 lba/a			PRE	A	29.17 mL/mx	106	214	303	404
	Resicore	3.298 LBAE/GAL		SE	1.25 QT/A		1.03 lba/a			POST	C	41.64 mL/mx				
	Roundup PowerMAX 3	4.8 LBAE/GAL		SL	20 OZ/A		0.75 lba/a			POST	C	20.83 mL/mx				
	NIS	100 %		SL	0.25 % V/V					POST	C	4.999 mL/mx				
	Amsol AMS	3.4 lba/gal		SL	8.5 LB AI/100 GAL		2.5 % v/v			POST	C	49.99 mL/mx				
7	Helmet	7.8 lba/gal		L	1.33 PT/A		1.3 lba/a			PRE	A	22.22 mL/mx	107	212	302	412
	Katagon	2 lba/gal		OD	3.2 FL OZ/A		0.05 lba/a			POST	C	3.333 mL/mx				
	COC	100 %		SL	1 % V/V					POST	C	20.0 mL/mx				
8	Bicep II Magnum	5.5 lba/gal		SC	1.6 QT/A		2.2 lba/a			PRE	A	53.33 mL/mx	108	205	315	408
	Katagon	2 lba/gal		OD	3.2 FL OZ/A		0.05 lba/a			POST	C	3.333 mL/mx				
	COC	100 %		SL	1 % V/V					POST	C	20.0 mL/mx				
9	Katagon	2 lba/gal		OD	3.2 FL OZ/A		0.05 lba/a			POST	B	3.333 mL/mx	109	206	305	411
	AAtrex	4 LBA/GAL		F	1 PT/A		0.5 lba/a			POST	B	16.66 mL/mx				
	COC	100 %		SL	1 % V/V					POST	B	20.0 mL/mx				

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Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)

Trt	Treatment	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep					
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Timing	Code	to Measure	1	2	3	4
10	Helmet Maxx	3.58	lba/gal	L	3	QT/A	2.69	lba/a		PRE	A	100.2 mL/mx	110	215	312	409
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	20	OZ/A	0.75	lba/a		POST	C	20.83 mL/mx				
	AAtrex	4	LBA/GAL	F	1	PT/A	0.5	lba/a		POST	C	16.66 mL/mx				
	NIS	100 %		SL	0.25	% V/V				POST	C	4.999 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	8.5	LB AI/100 GAL	2.5	% v/v		POST	C	49.99 mL/mx				
11	Helmet Maxx	3.58	lba/gal	L	3	QT/A	2.69	lba/a		POST	B	100.2 mL/mx	111	209	307	405
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	20	OZ/A	0.75	lba/a		POST	B	20.83 mL/mx				
	NIS	100 %		SL	0.25	% V/V				POST	B	4.999 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	8.5	LB AI/100 GAL	2.5	% v/v		POST	B	49.99 mL/mx				
12	Leadoff	33.4 %		WG	1.5	OZ/A	0.0313	lba/a		PRE	A	1.497 g/mx	112	203	313	402
	Durango DMA	4	LBAE/GAL	SL	1	QT/A	1	lbae/a		PRE	A	33.33 mL/mx				
	Realm Q	38.75 %		WG	4	OZ/A	0.097	lba/a		POST	C	3.999 g/mx				
	Durango DMA	4	LBAE/GAL	SL	1	QT/A	1	lbae/a		POST	C	33.33 mL/mx				
	Atrazine	4 lb a/gal		SC	2	QT/A	2	lba/a		POST	C	66.66 mL/mx				
	COC	100 %		SL	1	% V/V				POST	C	20.0 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	8.5	LB AI/100 GAL	2.5	%v/v		POST	C	49.99 mL/mx				
13	Leadoff	33.4 %		WG	1.5	OZ/A	0.0313	lba/a		PRE	A	1.497 g/mx	113	207	314	403
	Durango DMA	4	LBAE/GAL	SL	1	QT/A	1	lbae/a		PRE	A	33.33 mL/mx				
	Resicore	3.298	LBAE/GAL	SE	1.25	QT/A	1.03	lba/a		POST	C	41.64 mL/mx				
	Durango DMA	4	LBAE/GAL	SL	1	QT/A	1	lbae/a		POST	C	33.33 mL/mx				
	Atrazine	4 lb a/gal		SC	2	QT/A	2	lba/a		POST	C	66.66 mL/mx				
	NIS	100 %		SL	0.25	% V/V				POST	C	4.999 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	8.5	LB AI/100 GAL	2.5	% v/v		POST	C	49.99 mL/mx				
14	Leadoff	33.4 %		WG	1.5	OZ/A	0.0313	lba/a		PRE	A	1.497 g/mx	114	210	304	407
	Durango DMA	4	LBAE/GAL	SL	1	QT/A	1	lbae/a		PRE	A	33.33 mL/mx				
	Halex GT	4.39	lba/gal	EC	3.6	PT/A	1.98	lba/a		POST	C	60.13 mL/mx				
	Atrazine	4 lb a/gal		SC	2	QT/A	2	lba/a		POST	C	66.66 mL/mx				
15	Leadoff	33.4 %		WG	1.5	OZ/A	0.0313	lba/a		PRE	A	1.497 g/mx	115	202	308	414
	Durango DMA	4	LBAE/GAL	SL	1	QT/A	1	lbae/a		PRE	A	33.33 mL/mx				
	Armezon PRO	6.25	LBA/GAL	L	18	OZ/A	0.88	LBA/A		POST	C	18.77 mL/mx				
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	20	OZ/A	0.75	lba/a		POST	C	20.83 mL/mx				
	MSO	100 %		SL	0.5	% V/V				POST	C	9.999 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	8.5	LB AI/100 GAL	2.5	% v/v		POST	C	49.99 mL/mx				

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
125.224	mL	ACURON XR	3.5	lba/gal	ZC	
75.217	mL	Lexar EZ	3.7	lba/gal	ZC	
155.978	mL	Acuron GT	4.295	lba/gal	ZC	
83.324	mL	AAtrex	4	LBA/GAL	F	
49.995	mL	NIS	100	%	SL	
562.439	mL	Amsol AMS	3.4	lba/gal	SL	
133.319	mL	Bicep II Magnum	5.5	lba/gal	SC	
12.999	mL	Verdict	2	LBA/GAL	EC	
46.928	mL	Armezon PRO	6.25	LBA/GAL	L	
130.194	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
24.997	mL	MSO	100	%	SL	
36.467	mL	Surestart II	4.25	lba/gal	SE	
104.092	mL	Resicore	3.298	LBAE/GAL	SE	
27.775	mL	Helmet	7.8	lba/gal	L	
12.499	mL	Katagon	2	lba/gal	OD	
99.989	mL	COC	100	%	SL	
250.438	mL	Helmet Maxx	3.58	lba/gal	L	
7.486	g	Leadoff	33.4	%	WG	
249.973	mL	Durango DMA	4	LBAE/GAL	SL	
4.999	g	Realm Q	38.75	%	WG	
249.973	mL	Atrazine	4	lb a/gal	SC	
75.163	mL	Halex GT	4.39	lba/gal	EC	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

General Trial Information

Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established

ARM Trial Created On: 3-29-2021

Trial Location

City: Princeton **Country:** USA United States

State/Prov.: Kentucky

Postal Code: 42445

Latitude of LL Corner °: 37.09829 N

Longitude of LL Corner °: -87.86194 W

Conducted Under GLP: No

Conducted Under GEP: No

Role: INVEST investigator

Investigator: Travis Legleiter

Title: Assistant Extension Professor

Organization: University of Kentucky

Address 1: 348 University Drive

Phone No.: 859-562-1323

Country: USA United States

E-mail: Travis.Legleiter@uky.edu

City: Princeton, KY

Postal Code: 42445

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Crop Description

Crop 1: C ZEAMX Zea mays Corn **BBCH Scale:** BCOR
Entry Date: 5-26-2021 **Stage Scale:** BBCH
Variety: P1464AML
Planting Date: 4-22-2021 **Planting Rate:** 32000 S/A
Depth: 1.5 IN
Row Spacing: 30 IN
Soil Temperature: 60 F **Soil Moisture:** SLIDRY slightly dry
Emergence Date: 5-3-2021 **Harvested Width:** 5 FT
% Standard Moisture: 15.5

Pest Description

Pest 1 Type: W **Code:** CYPES Cyperus esculentus **Entry Date:** 8-30-2021
Common Name: Yellow nutsedge **Stage Scale:** BBCH

Pest 2 Type: W **Code:** DIGSA Digitaria sanguinalis **Entry Date:** 8-30-2021
Common Name: crabgrass, large **Stage Scale:** BBCH

Pest 3 Type: W **Code:** STEME Stellaria media **Entry Date:** 8-30-2021
Common Name: chickweed **Stage Scale:** BBCH

Pest 4 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** 8-30-2021
Common Name: Giant ragweed **Stage Scale:** BBCH

Pest 5 Type: W **Code:** AMACH Amaranthus hybridus **Entry Date:** 8-30-2021
Common Name: pigweed, smooth **Stage Scale:** BBCH

Pest 6 Type: W **Code:** SORHA Sorghum halepense **Entry Date:** 8-30-2021
Common Name: johnsongrass **Stage Scale:** BBCH

Pest 7 Type: W **Code:** IPOHE Ipomoea hederacea **Entry Date:** 8-30-2021
Common Name: morningglory, ivyleaf **Stage Scale:** BBCH

Pest 8 Type: W **Code:** SETFA Setaria faberi **Entry Date:** 8-30-2021
Common Name: Giant foxtail **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300.0 FT2 **Treatments:** 15 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Description	Rate	Unit	Tank Mix Code	Tank Mix
1.	4-9-2021	FERT	Urea	46	% N	SG	46-0-0	200	lba/a		
2.	4-16-2021	HERB	Gly Star Plus	3	LBAE/GAL L			64	fl oz/a Y		yes
3.	4-16-2021	HERB	Sharpen	2.85	lba/gal	SC		1	fl oz/a Y		yes

Soil Description

Description Name: 108 C1&2
% Sand: 4.8 **% OM:** 2.7 **Texture:** SIL silt loam
% Silt: 82.1 **pH:** 6.01 **Soil Name:** Crider Silt Loam
% Clay: 13.1 **CEC:** 13.13

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Application Description

	A	B	C
Application Date	4-22-2021	5-10-2021	5-25-2021
Appl. Start Time	3:05 PM	11:37 AM	1:37 PM
Appl. Stop Time	3:47 PM	11:41 AM	2:12 PM
Interval to Prev. Appl.		18 DAYS	15 DAYS
Application Method	SPRAY	SPRAY	SPRAY
Application Timing	PRE		
Application Placement	soil	foliar	foliar
Applied By	JLG	JLG	TL
Appl. Entry Date	5-26-2021	5-26-2021	5-26-2021
Air Temperature Start, Stop	56, 55 F	55.5, 56.8 F	91.2, 89.9 F
% Relative Humidity Start, Stop	42, 38	60.7, 60.4	38.8, 37.8
Wind Velocity+Dir. Start	1 MPH, SW	4.8 MPH, N	5.1 MPH, SW
Wind Velocity+Dir. Stop	3 MPH, SW	4.4 MPH, ENE	6.1 MPH, SW
Wind Velocity+Dir. Max	4 MPH, SW	11.7 MPH, -	6.9 MPH, -
Wet Leaves (Y/N)	N, no	N, no	N, no
Soil Temperature	60 F	60.1 F	
Soil Moisture	SLIDRY	DAMP	DRY
% Cloud Cover	2	70	30

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR
Days after Emergence	-11	7	22
Stage Majority, Percent		V1, -	V4, -
Stage Minimum, Percent		V1, -	V4, -
Stage Maximum, Percent		V1, -	V5, -
Height Average		3.875 IN	9 IN
Height Minimum, Maximum		3.25, 4.5	6, 12

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Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale	CYPES, W, BBCH	CYPES, W, BBCH	CYPES, W, BBCH
Height Average		2.375 IN	
Height Minimum, Maximum		1, 2.75	
Density Average		1.5 FT2	
Density Minimum, Maximum		1, 5	
Pest 2 Code, Type, Scale	DIGSA, W, BBCH	DIGSA, W, BBCH	DIGSA, W, BBCH
Height Average		1.625 IN	
Height Minimum, Maximum		0.25, 3	
Density Average		2.5 ft2	
Density Minimum, Maximum		4, 6	
Pest 3 Code, Type, Scale	STEME, W, BBCH	STEME, W, BBCH	STEME, W, BBCH
Height Average		0.375 IN	
Height Minimum, Maximum		0.25, 0.5	
Density Average		4 ft2	
Density Minimum, Maximum		4, 7	
Pest 4 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		1.875 IN	3 IN
Height Minimum, Maximum		1.25, 2.5	1, 5
Density Average		1.25 ft2	2.5 ft2
Density Minimum, Maximum		2, 3	1, 4
Pest 5 Code, Type, Scale	AMACH, W, BBCH	AMACH, W, BBCH	AMACH, W, BBCH
Height Average			0.5 IN
Height Minimum, Maximum			0.5, 1
Density Average			0.75 ft2
Density Minimum, Maximum			2, 4
Pest 6 Code, Type, Scale	SORHA, W, BBCH	SORHA, W, BBCH	SORHA, W, BBCH
Height Average			12 IN
Height Minimum, Maximum			0, 18
Density Average			0.25 FT2
Density Minimum, Maximum			1, 2
Pest 7 Code, Type, Scale	IPOHE, W, BBCH	IPOHE, W, BBCH	IPOHE, W, BBCH
Height Average			0.5 IN
Height Minimum, Maximum			0, 0.5
Density Average			0.13 FT2
Density Minimum, Maximum			0, 1
Pest 8 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH
Height Average			2 IN
Height Minimum, Maximum			1, 3
Density Average			0.38 FT2
Density Minimum, Maximum			0, 1

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Application Equipment

	A	B	C
Equipment Type	SPRBAC	SPRBAC	SPRBAC
Operation Pressure	32 PSI	32 PSI	22 PSI
Nozzle Model	XR11002	XR11002	XR11002
Nozzle Type	FLAFXR	FLAFXR	FLAFXR
Nozzle TradeName	XR TeeJet	XR TeeJet	XR TeeJet
Nozzle Tip Size, Color	02, Yellow	02, Yellow	02, Yellow
Nozzle Spacing	20 IN	20 IN	20.0 IN
Boom ID	BLUE	Blue	Blue
Boom Length	10 FT	10 FT	10.0 FT
Boom Height	18 IN	18 IN	18.0 IN
Ground Speed	3 MPH	3 MPH	3 MPH
Carrier	WATER	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Coverage	436.0 mL	436.0 mL	436.0 mL
Mix Size	2.0 L	2.0 L	2.0 L
Propellant	COMCO2	COMCO2	COMCO2

Notes

Context	Date	By	Notes
STATUS 3-29-2021	Travis Legleiter	Automatically added by ARM:	Trial Status updated to 'S' during trial creation.
STATUS 5-26-2021	Travis Legleiter	Automatically added by ARM:	Trial Status updated to 'E' when Emergence Date entered.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code	AMBTR	AMBTR	AMBTR	AMACH	AMBTR	AMACH	DIGSA	
Pest Scientific Name	Ambrosia trifida	Ambrosia trifida	Amaranthus hybr>	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>		
Pest Name	Giant ragweed	Giant ragweed	smooth pigweed	Giant ragweed	smooth pigweed	crabgrass		
Crop Type, Code	C, ZEAMX						C, ZEAMX	
BBCH Scale	BCOR						BCOR	
Crop Scientific Name	Zea mays						Zea mays	
Crop Name	Corn						Corn	
Rating Date	5-7-2021	5-7-2021	5-25-2021	5-25-2021	6-17-2021	6-17-2021	6-17-2021	10-4-2021
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLOT, C
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	LENGTH
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	FT, -, -
Sample Size								1 PLOT
Collection Basis								1 PLOT
Number of Subsamples	1	1	1	1	1	1	1	1
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-18-2021
Rating Timing								
Days After First/Last Applic.	15, 15	15, 15	33, 15	33, 15	56, 23	56, 23	56, 23	165, 132
Trt-Eval Interval								
Plant-Eval Interval	15 DP-1	15 DP-1	33 DP-1	33 DP-1	56 DP-1	56 DP-1	56 DP-1	165 DP-1
Days After Emergence	4 DE-1	4 DE-1	22 DE-1	22 DE-1	45 DE-1	45 DE-1	45 DE-1	154 DE-1
ARM Action Codes				AS	AA			
Number of Decimals								

Trt	Treatment	Rate	Appl								
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8
1	Untreated		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.620
			211	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.010
			306	0.0	0.0	0.0	0.0	0.0*	0.0*	0.0*	23.230
			410	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.860
			Mean =	0.0	0.0	0.0	0.0d	0.0d	0.0	0.0	23.930

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	AMBTR	AMACH	AMBTR	AMACH	DIGSA	
Pest Scientific Name	Ambrosia trifida	Ambrosia trifida	Amaranthus hybr>	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	
Pest Name	Giant ragweed	Giant ragweed	smooth pigweed	Giant ragweed	smooth pigweed	crabgrass	
Crop Type, Code		C, ZEAMX					C, ZEAMX
BBCH Scale		BCOR					BCOR
Crop Scientific Name		Zea mays					Zea mays
Crop Name		Corn					Corn
Rating Date	5-7-2021	5-7-2021	5-25-2021	5-25-2021	6-17-2021	6-17-2021	6-17-2021
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size							1 PLOT
Collection Basis							1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021
Rating Timing							
Days After First/Last Applic.	15, 15	15, 15	33, 15	33, 15	56, 23	56, 23	56, 23
Trt-Eval Interval							
Plant-Eval Interval	15 DP-1	15 DP-1	33 DP-1	33 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	4 DE-1	4 DE-1	22 DE-1	22 DE-1	45 DE-1	45 DE-1	45 DE-1
ARM Action Codes				AS	AA		
Number of Decimals							

Trt	Treatment	Rate	Appl										
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8		
2	ACURON XR	3 QT/A	A	102	97.0	0.0	80.0	80.0	50.0	50.0	70.0	24.340	
				208	97.0	0.0	70.0	96.0	72.4*	75.0*	85.0*	23.690	
				310	100.0	0.0	95.0	100.0	90.0	100.0	100.0	100.0	23.460
				406	100.0	0.0	100.0	100.0	72.4*	75.0*	85.0*	23.990	
				Mean =	98.5	0.0	86.3	93.8d	72.4d	75.0	85.0	23.870	
3	Lexar EZ Acuron GT AAtrex NIS Amsol AMS	1.8 QT/A 3.75 PT/A 1 PT/A 0.5 % V/V 8.5 LB AI/100 GAL	A C C C C	103	95.0	0.0	20.0	25.0	90.0	100.0	100.0	24.300	
				201	95.0	0.0	70.0	95.0	97.0	100.0	100.0	24.240	
				311	95.0	0.0	20.0	80.0	90.0	100.0	100.0	24.130	
				401	100.0	0.0	100.0	100.0	100.0	100.0	100.0	23.530	
				Mean =	96.3	0.0	52.5	71.0d	95.9d	100.0	100.0	24.050	
4	Bicep II Magnum Acuron GT AAtrex NIS Amsol AMS	1.6 QT/A 3.75 PT/A 1 PT/A 0.5 % V/V 8.5 LB AI/100 GAL	A C C C C	104	98.0	0.0	70.0	20.0	80.0	100.0	100.0	24.230	
				213	90.0	0.0	0.0	50.0	85.0	100.0	100.0	23.920	
				309	100.0	0.0	100.0	100.0	100.0	100.0	100.0	22.720	
				415	95.0	0.0	70.0	80.0	97.0	100.0	100.0	25.090	
				Mean =	95.8	0.0	60.0	58.1d	93.4d	100.0	97.5	23.990	
5	Verdict Armezon PRO Roundup PowerMAX 3 MSO Amsol AMS	10 OZ/A 18 OZ/A 20 OZ/A 0.5 % V/V 8.5 LB AI/100 GAL	A C C C C	105	95.0	0.0	50.0	20.0	90.0	100.0	90.0	24.030	
				204	90.0	0.0	50.0	50.0	50.0	100.0	80.0	24.350	
				301	100.0	0.0	95.0	95.0	98.0	100.0	98.0	23.500	
				413	90.0	0.0	30.0	70.0	50.0	100.0	80.0	24.480	
				Mean =	93.8	0.0	56.3	55.0d	76.3d	100.0	87.0	24.090	

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	AMBTR	AMACH	AMBTR	AMACH	DIGSA	
Pest Scientific Name	Ambrosia trifida	Ambrosia trifida	Amaranthus hybr>	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	
Pest Name	Giant ragweed	Giant ragweed	smooth pigweed	Giant ragweed	smooth pigweed	crabgrass	
Crop Type, Code		C, ZEAMX					C, ZEAMX
BBCH Scale		BCOR					BCOR
Crop Scientific Name		Zea mays					Zea mays
Crop Name		Corn					Corn
Rating Date	5-7-2021	5-7-2021	5-25-2021	5-25-2021	6-17-2021	6-17-2021	6-17-2021
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size							1 PLOT
Collection Basis							1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021
Rating Timing							
Days After First/Last Applic.	15, 15	15, 15	33, 15	33, 15	56, 23	56, 23	56, 23
Trt-Eval Interval							
Plant-Eval Interval	15 DP-1	15 DP-1	33 DP-1	33 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	4 DE-1	4 DE-1	22 DE-1	22 DE-1	45 DE-1	45 DE-1	45 DE-1
ARM Action Codes				AS	AA		
Number of Decimals							

Trt Treatment	Rate	Appl										
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8		
6 Surestart II	1.75 PT/A	A 106	97.0	0.0	70.0	50.0	96.0	100.0	80.0	23.980		
Resicore	1.25 QT/A	C 214	98.0	0.0	40.0	95.0	90.0	100.0	97.0	24.830		
Roundup PowerMAX 3	20 OZ/A	C 303	97.0	0.0	70.0	95.0	90.0	100.0	95.0	23.770		
NIS	0.25 % V/V	C 404	100.0	0.0	95.0	100.0	100.0	100.0	97.0	25.120		
Amsol AMS	8.5 LB AI/100 GAL	C										
		Mean =	98.0	0.0	68.8	83.6d	95.6d	100.0	92.3	24.425		
7 Helmet	1.33 PT/A	A 107	97.0	0.0	70.0	50.0	90.0	100.0	95.0	24.680		
Katagon	3.2 FL OZ/A	C 212	98.0	0.0	50.0	70.0	50.0	100.0	100.0	23.390		
COC	1 % V/V	C 302	100.0	0.0	60.0	80.0	75.0	100.0	100.0	23.930		
		412	95.0	0.0	40.0	60.0	30.0	100.0	100.0	23.780		
		Mean =	97.5	0.0	55.0	64.5d	62.8d	100.0	98.8	23.945		
8 Bicep II Magnum	1.6 QT/A	A 108	95.0	0.0	80.0	50.0	85.0	100.0	85.0	23.670		
Katagon	3.2 FL OZ/A	C 205	100.0	0.0	50.0	80.0	65.0	100.0	100.0	24.390		
COC	1 % V/V	C 315	100.0	0.0	80.0	60.0	80.0	100.0	100.0	23.520		
		408	100.0	0.0	100.0	100.0	97.0	100.0	100.0	23.740		
		Mean =	98.8	0.0	77.5	71.2d	83.6d	100.0	96.3	23.830		
9 Katagon	3.2 FL OZ/A	B 109	98.0	0.0	85.0	90.0	50.0	90.0	70.0	24.210		
AAtrex	1 PT/A	B 206	0.0	0.0	80.0	100.0	60.0	100.0	95.0	23.830		
COC	1 % V/V	B 305	0.0	0.0	95.0	95.0	50.0	100.0	70.0	23.750		
		411	0.0	0.0	80.0	95.0	30.0	97.0	97.0	23.500		
		Mean =	24.5	0.0	85.0	95.0d	47.4d	96.8	83.0	23.823		
10 Helmet Maxx	3 QT/A	A 110	98.0	0.0	97.0	95.0	90.0	100.0	90.0	24.040		
Roundup PowerMAX 3	20 OZ/A	C 215	100.0	0.0	95.0	95.0	80.0	95.0	90.0	24.330		
AAtrex	1 PT/A	C 312	90.0	0.0	50.0	95.0	25.0	100.0	90.0	24.700		
NIS	0.25 % V/V	C 409	100.0	0.0	95.0	100.0	67.1*	98.3*	90.0*	24.660		
Amsol AMS	8.5 LB AI/100 GAL	C										
		Mean =	97.0	0.0	84.3	96.2d	67.1d	98.3	90.0	24.433		

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	AMBTR	AMACH	AMBTR	AMACH	DIGSA	
Pest Scientific Name	Ambrosia trifida	Ambrosia trifida	Amaranthus hybr>	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	
Pest Name	Giant ragweed	Giant ragweed	smooth pigweed	Giant ragweed	smooth pigweed	crabgrass	
Crop Type, Code		C, ZEAMX					C, ZEAMX
BBCH Scale		BCOR					BCOR
Crop Scientific Name		Zea mays					Zea mays
Crop Name		Corn					Corn
Rating Date	5-7-2021	5-7-2021	5-25-2021	5-25-2021	6-17-2021	6-17-2021	6-17-2021
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTR0	PHYGEN	CONTR0	CONTR0	CONTR0	CONTR0	CONTR0
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size							1 PLOT
Collection Basis							1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021
Rating Timing							
Days After First/Last Applic.	15, 15	15, 15	33, 15	33, 15	56, 23	56, 23	56, 23
Trt-Eval Interval							
Plant-Eval Interval	15 DP-1	15 DP-1	33 DP-1	33 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	4 DE-1	4 DE-1	22 DE-1	22 DE-1	45 DE-1	45 DE-1	45 DE-1
ARM Action Codes				AS	AA		
Number of Decimals							

Trt	Treatment	Rate	Appl								
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8
11	Helmet Maxx	3 QT/A	B 111	0.0	0.0	90.0	100.0	90.0	100.0	95.0	23.990
	Roundup PowerMAX 3	20 OZ/A	B 209	0.0	0.0	90.0	100.0	80.0	100.0	25.0	24.900
	NIS	0.25 % V/V	B 307	0.0	0.0	100.0	100.0	93.3*	100.0*	73.3*	24.210
	Amsol AMS	8.5 LB AI/100 GAL	B 405	0.0	0.0	100.0	100.0	100.0	100.0	100.0	24.380
			Mean =	0.0	0.0	95.0	100.0d	93.3d	100.0	73.3	24.370
12	Leadoff	1.5 OZ/A	A 112	95.0	0.0	50.0	95.0	97.0	100.0	100.0	24.310
	Durango DMA	1 QT/A	A 203	100.0	0.0	60.0	80.0	100.0	100.0	100.0	23.880
	Realm Q	4 OZ/A	C 313	95.0	0.0	50.0	20.0	100.0	100.0	100.0	24.030
	Durango DMA	1 QT/A	C 402	100.0	0.0	80.0	100.0	100.0	100.0	100.0	24.110
	Atrazine	2 QT/A	C								
	COC	1 % V/V	C								
	Amsol AMS	8.5 LB AI/100 GAL	C								
			Mean =	97.5	0.0	60.0	68.8d	99.8d	100.0	100.0	24.083
13	Leadoff	1.5 OZ/A	A 113	95.0	0.0	50.0	80.0	80.0	100.0	100.0	24.460
	Durango DMA	1 QT/A	A 207	90.0	0.0	60.0	80.0	90.0	100.0	80.0	23.360
	Resicore	1.25 QT/A	C 314	90.0	0.0	50.0	95.0	90.0	100.0	100.0	22.960
	Durango DMA	1 QT/A	C 403	97.0	0.0	70.0	100.0	97.0	100.0	100.0	24.770
	Atrazine	2 QT/A	C								
	NIS	0.25 % V/V	C								
	Amsol AMS	8.5 LB AI/100 GAL	C								
			Mean =	93.0	0.0	57.5	88.5d	90.1d	100.0	95.0	23.888
14	Leadoff	1.5 OZ/A	A 114	95.0	0.0	70.0	95.0	97.0	100.0	100.0	24.120
	Durango DMA	1 QT/A	A 210	100.0	0.0	90.0	100.0	97.0	100.0	97.0	24.520
	Halax GT	3.6 PT/A	C 304	100.0	0.0	90.0	90.0	100.0	100.0	97.0	24.120
	Atrazine	2 QT/A	C 407	100.0	0.0	100.0	100.0	100.0	100.0	95.0	23.560
			Mean =	98.8	0.0	87.5	96.2d	99.2d	100.0	97.3	24.080

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR	DIGSA
Pest Scientific Name	Ambrosia trifida	Ambrosia trifida	Amaranthus hybr>	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	
Pest Name	Giant ragweed	Giant ragweed	smooth pigweed	Giant ragweed	smooth pigweed	crabgrass	
Crop Type, Code		C, ZEAMX					C, ZEAMX
BBCH Scale		BCOR					BCOR
Crop Scientific Name		Zea mays					Zea mays
Crop Name		Corn					Corn
Rating Date	5-7-2021	5-7-2021	5-25-2021	5-25-2021	6-17-2021	6-17-2021	6-17-2021
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size							
Collection Basis							1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021
Rating Timing							
Days After First/Last Applic.	15, 15	15, 15	33, 15	33, 15	56, 23	56, 23	56, 23
Trt-Eval Interval							
Plant-Eval Interval	15 DP-1	15 DP-1	33 DP-1	33 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	4 DE-1	4 DE-1	22 DE-1	22 DE-1	45 DE-1	45 DE-1	45 DE-1
ARM Action Codes				AS	AA		
Number of Decimals							

Trt	Treatment	Rate	Appl								
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8
15	Leadoff	1.5 OZ/A	A 115	100.0	0.0	60.0	95.0	90.0	100.0	100.0	24.220
	Durango DMA	1 QT/A	A 202	90.0	0.0	70.0	95.0	65.0	100.0	97.0	24.330
	Armezon PRO	18 OZ/A	C 308	97.0	0.0	90.0	95.0	65.0	100.0	95.0	23.380
	Roundup PowerMAX 3	20 OZ/A	C 414	100.0	0.0	80.0	90.0	75.0	100.0	100.0	24.490
	MSO	0.5 % V/V	C								
	Amsol AMS	8.5 LB AI/100 GAL	C								
			Mean =	96.8	0.0	75.0	93.7d	74.6d	100.0	98.0	24.105

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Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn
Rating Date	10-4-2021	10-4-2021	10-4-2021	10-4-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	weight	MOICON	WEITES	YIELD
Rating Unit/Min/Max	LB, -, -	%, 0, 100	LB/bu, -, -	BU, -, -
Sample Size	2 ROW			1 A
Collection Basis	2 ROW			2 ROW
Number of Subsamples	1	1	1	1
Data Entry Date	10-18-2021	10-18-2021	10-18-2021	
Rating Timing				
Days After First/Last Applic.	165, 132	165, 132	165, 132	165, 132
Trt-Eval Interval				
Plant-Eval Interval	165 DP-1	165 DP-1	165 DP-1	165 DP-1
Days After Emergence	154 DE-1	154 DE-1	154 DE-1	154 DE-1
ARM Action Codes		AL		TY1
Number of Decimals				1

Trt	Treatment	Rate	Appl				
No.	Name	Rate Unit	Code Plot	9	10	11	12
1	Untreated		101	16.150	16.00	53.10	101.4
			211	9.170	18.32*	47.10	58.5
			306	14.020	17.50	53.40	91.7
			410	17.740	17.10	50.50	113.5
			Mean =	14.270	17.21d	51.03	91.3

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Pest Type
 Pest Code
 Pest Scientific Name
 Pest Name
 Crop Type, Code C, ZEAMX C, ZEAMX C, ZEAMX C, ZEAMX
 BBCH Scale BCOR BCOR BCOR BCOR
 Crop Scientific Name Zea mays Zea mays Zea mays Zea mays
 Crop Name Corn Corn Corn Corn
 Rating Date 10-4-2021 10-4-2021 10-4-2021 10-4-2021
 Part Rated GRAIN, C GRAIN, C GRAIN, C GRAIN, C
 Rating Type weight MOICON WEITES YIELD
 Rating Unit/Min/Max LB, -, - % , 0, 100 LB/bu, -, - BU, -, -
 Sample Size 2 ROW 1 A
 Collection Basis 2 ROW 2 ROW
 Number of Subsamples 1 1 1 1
 Data Entry Date 10-18-2021 10-18-2021 10-18-2021
 Rating Timing
 Days After First/Last Applic. 165, 132 165, 132 165, 132 165, 132
 Trt-Eval Interval
 Plant-Eval Interval 165 DP-1 165 DP-1 165 DP-1 165 DP-1
 Days After Emergence 154 DE-1 154 DE-1 154 DE-1 154 DE-1
 ARM Action Codes AL TY1
 Number of Decimals 1

Trt	Treatment	Rate	Appl								
No.	Name	Rate Unit	Code Plot	9	10	11	12				
2	ACURON XR	3 QT/A	A	102	29.990	16.70	53.90	189.0			
				208	17.360	19.60	51.10	108.5			
				310	30.720	19.10	52.20	195.0			
				406	20.650	16.50	54.60	132.3			
				Mean =	24.680	17.92d	52.95	156.2			
3	Lexar EZ	1.8 QT/A	A	103	34.150	15.30	55.60	219.1			
				Acuron GT	3.75 PT/A	C	201	28.870	18.10	54.10	179.6
				AAtrex	1 PT/A	C	311	37.410	16.60	56.00	238.1
				NIS	0.5 % V/V	C	401	32.390	16.30	55.50	212.1
				Amsol AMS	8.5 LB AI/100 GAL	C	Mean =	33.205	16.55d	55.30	212.2
4	Bicep II Magnum	1.6 QT/A	A	104	32.950	15.90	55.50	210.6			
				Acuron GT	3.75 PT/A	C	213	38.710	15.30	56.60	252.4
				AAtrex	1 PT/A	C	309	31.860	17.40	54.60	213.3
				NIS	0.5 % V/V	C	415	35.170	15.70	56.50	217.6
				Amsol AMS	8.5 LB AI/100 GAL	C	Mean =	34.673	16.06d	55.80	223.4
5	Verdict	10 OZ/A	A	105	32.340	16.30	55.60	207.4			
				Armezon PRO	18 OZ/A	C	204	26.980	21.30	51.40	160.5
				Roundup PowerMAX 3	20 OZ/A	C	301	29.810	16.70	55.10	194.5
				MSO	0.5 % V/V	C	413	37.100	14.50	56.80	238.6
				Amsol AMS	8.5 LB AI/100 GAL	C	Mean =	31.558	17.04d	54.73	200.3

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Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn
Rating Date	10-4-2021	10-4-2021	10-4-2021	10-4-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	weight	MOICON	WEITES	YIELD
Rating Unit/Min/Max	LB, -, -	%, 0, 100	LB/bu, -, -	BU, -, -
Sample Size	2 ROW			1 A
Collection Basis	2 ROW			2 ROW
Number of Subsamples	1	1	1	1
Data Entry Date	10-18-2021	10-18-2021	10-18-2021	
Rating Timing				
Days After First/Last Applic.	165, 132	165, 132	165, 132	165, 132
Trt-Eval Interval				
Plant-Eval Interval	165 DP-1	165 DP-1	165 DP-1	165 DP-1
Days After Emergence	154 DE-1	154 DE-1	154 DE-1	154 DE-1
ARM Action Codes		AL		TY1
Number of Decimals				1

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	9	10	11	12
6	Surestart II	1.75	PT/A	A	106	35.800	16.10	55.00	230.6
	Resicore	1.25	QT/A	C	214	38.330	18.70	54.50	231.1
	Roundup PowerMAX 3	20	OZ/A	C	303	30.580	16.10	54.80	198.7
	NIS	0.25	% V/V	C	404	31.160	15.50	54.80	193.0
	Amsol AMS	8.5	LB AI/100 GAL	C					
					Mean =	33.968	16.56d	54.78	213.3
7	Helmet	1.33	PT/A	A	107	30.450	15.80	55.40	191.3
	Katagon	3.2	FL OZ/A	C	212	32.040	19.20	53.20	203.8
	COC	1	% V/V	C	302	26.360	17.20	55.20	167.9
					412	32.920	17.80	55.20	209.5
					Mean =	30.443	17.46d	54.75	193.1
8	Bicep II Magnum	1.6	QT/A	A	108	25.850	17.60	55.50	165.7
	Katagon	3.2	FL OZ/A	C	205	29.300	16.90	55.40	183.8
	COC	1	% V/V	C	315	39.090	16.70	55.60	254.9
					408	23.610	18.30	53.20	149.6
					Mean =	29.463	17.36d	54.93	188.5
9	Katagon	3.2	FL OZ/A	B	109	36.340	16.20	56.10	231.6
	AAtrex	1	PT/A	B	206	29.510	19.00	53.30	184.7
	COC	1	% V/V	B	305	19.460	18.08*	43.70	123.8
					411	26.730	18.60	54.40	170.5
					Mean =	28.010	17.94d	51.88	177.6
10	Helmet Maxx	3	QT/A	A	110	38.380	16.10	55.60	246.6
	Roundup PowerMAX 3	20	OZ/A	C	215	37.430	16.30	56.80	237.1
	AAtrex	1	PT/A	C	312	37.090	16.80	55.90	230.0
	NIS	0.25	% V/V	C	409	28.190	15.80	55.20	177.2
	Amsol AMS	8.5	LB AI/100 GAL	C					
					Mean =	35.273	16.25d	55.88	222.7

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Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn
Rating Date	10-4-2021	10-4-2021	10-4-2021	10-4-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	weight	MOICON	WEITES	YIELD
Rating Unit/Min/Max	LB, -, -	%, 0, 100	LB/bu, -, -	BU, -, -
Sample Size	2 ROW			1 A
Collection Basis	2 ROW			2 ROW
Number of Subsamples	1	1	1	1
Data Entry Date	10-18-2021	10-18-2021	10-18-2021	
Rating Timing				
Days After First/Last Applic.	165, 132	165, 132	165, 132	165, 132
Trt-Eval Interval				
Plant-Eval Interval	165 DP-1	165 DP-1	165 DP-1	165 DP-1
Days After Emergence	154 DE-1	154 DE-1	154 DE-1	154 DE-1
ARM Action Codes		AL		TY1
Number of Decimals				1

Trt	Treatment	Rate	Appl				
No.	Name	Rate Unit	Code Plot	9	10	11	12
11	Helmet Maxx	3 QT/A	B 111	37.740	16.80	55.80	241.0
	Roundup PowerMAX 3	20 OZ/A	B 209	31.480	16.90	55.00	193.4
	NIS	0.25 % V/V	B 307	26.160	17.40	55.60	164.3
	Amsol AMS	8.5 LB AI/100 GAL	B 405	25.900	16.80	54.70	162.7
			Mean =	30.320	16.97d	55.28	190.4
12	Leadoff	1.5 OZ/A	A 112	34.900	16.30	56.60	221.2
	Durango DMA	1 QT/A	A 203	30.690	16.30	56.00	198.0
	Realm Q	4 OZ/A	C 313	33.960	14.80	56.40	221.7
	Durango DMA	1 QT/A	C 402	27.220	16.00	53.50	174.6
	Atrazine	2 QT/A	C				
	COC	1 % V/V	C				
	Amsol AMS	8.5 LB AI/100 GAL	C				
			Mean =	31.693	15.84d	55.63	203.9
13	Leadoff	1.5 OZ/A	A 113	36.720	14.10	57.00	237.4
	Durango DMA	1 QT/A	A 207	28.970	16.80	55.10	190.0
	Resicore	1.25 QT/A	C 314	33.620	14.90	56.90	229.4
	Durango DMA	1 QT/A	C 403	33.190	15.60	55.60	208.2
	Atrazine	2 QT/A	C				
	NIS	0.25 % V/V	C				
	Amsol AMS	8.5 LB AI/100 GAL	C				
			Mean =	33.125	15.32d	56.15	216.3
14	Leadoff	1.5 OZ/A	A 114	38.370	15.90	55.30	246.3
	Durango DMA	1 QT/A	A 210	39.200	18.20	54.80	240.8
	Halex GT	3.6 PT/A	C 304	27.110	16.60	55.60	172.6
	Atrazine	2 QT/A	C 407	26.190	15.60	56.20	172.7
			Mean =	32.718	16.55d	55.48	208.1

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Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn
Rating Date	10-4-2021	10-4-2021	10-4-2021	10-4-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	weight	MOICON	WEITES	YIELD
Rating Unit/Min/Max	LB, -, -	%, 0, 100	LB/bu, -, -	BU, -, -
Sample Size	2 ROW			1 A
Collection Basis	2 ROW			2 ROW
Number of Subsamples	1	1	1	1
Data Entry Date	10-18-2021	10-18-2021	10-18-2021	
Rating Timing				
Days After First/Last Applic.	165, 132	165, 132	165, 132	165, 132
Trt-Eval Interval				
Plant-Eval Interval	165 DP-1	165 DP-1	165 DP-1	165 DP-1
Days After Emergence	154 DE-1	154 DE-1	154 DE-1	154 DE-1
ARM Action Codes		AL		TY1
Number of Decimals				1

Trt	Treatment	Rate	Appl				
No.	Name	Rate Unit	Code Plot	9	10	11	12
15	Leadoff	1.5 OZ/A	A 115	35.200	15.00	57.40	227.4
	Durango DMA	1 QT/A	A 202	29.710	16.60	54.20	187.5
	Armezon PRO	18 OZ/A	C 308	23.990	17.00	54.00	156.8
	Roundup PowerMAX 3	20 OZ/A	C 414	35.420	14.30	56.90	228.2
	MSO	0.5 % V/V	C				
	Amsol AMS	8.5 LB AI/100 GAL	C				
			Mean =	31.080	15.69d	55.63	200.0

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Corn Herbicide Program Comparisons

Trial ID: 21-10_COR-REC Location: UKREC -109-B1 Trial Year: 2021
 Protocol ID: 21-10_COR-REC Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

AMACH, Amaranthus hybridus, smooth pigweed = US

DIGSA, Digitaria sanguinalis, crabgrass = US

Crop Type Code

C = EPPO species (Bayer) codes

ZEAMX, BCOR, Zea mays, Corn = US

Part Rated

PLANT = plant

PLOT = plot

GRAIN = grain

P = Pest is Part Rated

C = Crop is Part Rated

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

LENGTH = length

MOICON = moisture content

WEITES = weight - test

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

FT, , = foot

LB, , = pound

BU, , = bushel

PLOT = total plot

ROW = row

A = acre

PLOT = total plot

ROW = row

Plant-Eval Interval

15 DP-1 = 1 ZEAMX 4-22-2021

33 DP-1 = 1 ZEAMX 4-22-2021

56 DP-1 = 1 ZEAMX 4-22-2021

165 DP-1 = 1 ZEAMX 4-22-2021

ARM Action Codes

AS = Automatic square root transformation of X+0.5

AA = Automatic arcsine square root % transformation

AL = Automatic log transformation of X+1

TY1 = (777.857142857143/(5*[8]))*[9]*(100-@MVAVGREP([10]))/84.5

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed					
Pest Code	AMBTR	AMBTR	AMACH	AMBTR	AMACH	DIGSA					
Pest Scientific Name	Ambrosia trifida	Ambrosia trifida	Amaranthus hybr>	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>					
Pest Name	Giant ragweed	Giant ragweed	smooth pigweed	Giant ragweed	smooth pigweed	crabgrass					
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX					
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR					
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays					
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn					
Rating Date	5-7-2021	5-7-2021	5-25-2021	5-25-2021	6-17-2021	6-17-2021					
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P					
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100					
Sample Size											
Collection Basis											
Number of Subsamples	1	1	1	1	1	1					
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021					
Rating Timing											
Days After First/Last Applic.	15, 15	15, 15	33, 15	33, 15	56, 23	56, 23					
Trt-Eval Interval											
Plant-Eval Interval	15 DP-1	15 DP-1	33 DP-1	33 DP-1	56 DP-1	56 DP-1					
Days After Emergence	4 DE-1	4 DE-1	22 DE-1	22 DE-1	45 DE-1	45 DE-1					
ARM Action Codes				AS	AA						
Number of Decimals											
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7	8	9
No. Name	Rate Unit	Code				dAS	dAA				
15 Leadoff	1.5 OZ/A	A	96.8 a	0.0 a	75.0 a	93.7 a	74.6 a-d	100.0 a	98.0 a	24.105 a	31.080 a
Durango DMA	1 QT/A	A									
Armezon PRO	18 OZ/A	C									
Roundup PowerMAX 3	20 OZ/A	C									
MSO	0.5 % V/V	C									
Amsol AMS	8.5 LB AI/100 GAL	C									
LSD P=.05			18.63	.	28.85	29.37 - 32.23	11.08 - 28.55	8.20	17.01	0.6834	6.8197
Standard Deviation			13.06	0.00	20.22	1.24t	11.95t	5.73	11.87	0.4789	4.7790
CV			16.51	0.0	30.31	14.63t	18.93t	6.27	13.77	1.99	15.77
Levene's F^			0.783	.	2.165	1.371	1.194	31.876	1.213	1.193	0.716
Levene's Prob(F)			0.681	.	0.026*	0.207	0.317	0.00*	0.304	0.314	0.747
Skewness^			3.7955*	.	-0.4873	-0.884*	-0.2608	-0.0123	-1.4132*	-0.0157	0.2474
Kurtosis^			26.6678*	.	1.3501*	3.4453*	0.107	19.4704*	7.6374*	-0.5343	-0.4603
Replicate F			0.883	0.000	2.208	4.128	0.617	1.220	1.075	3.995	2.263
Replicate Prob(F)			0.4579	1.0000	0.1012	0.0118	0.6084	0.3162	0.3717	0.0137	0.0951
Treatment F			32.331	0.000	5.257	13.944	12.969	82.880	17.770	0.725	4.731
Treatment Prob(F)			0.0001	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.7375	0.0001

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Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn
Rating Date	10-4-2021	10-4-2021	10-4-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	MOICON	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	LB/bu, -, -	BU, -, -
Sample Size			1 A
Collection Basis			2 ROW
Number of Subsamples	1	1	1
Data Entry Date	10-18-2021	10-18-2021	
Rating Timing			
Days After First/Last Applic.	165, 132	165, 132	165, 132
Trt-Eval Interval			
Plant-Eval Interval	165 DP-1	165 DP-1	165 DP-1
Days After Emergence	154 DE-1	154 DE-1	154 DE-1
ARM Action Codes	AL		TY1
Number of Decimals			1

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	10 dAL	11	12
1	Untreated				17.21 a	51.03 b	91.3 b
2	ACURON XR	3 QT/A		A	17.92 a	52.95 ab	156.2 a
3	Lexar EZ	1.8 QT/A		A	16.55 a	55.30 ab	212.2 a
	Acuron GT	3.75 PT/A		C			
	AAtrex	1 PT/A		C			
	NIS	0.5 % V/V		C			
	Amsol AMS	8.5 LB AI/100 GAL		C			
4	Bicep II Magnum	1.6 QT/A		A	16.06 a	55.80 a	223.4 a
	Acuron GT	3.75 PT/A		C			
	AAtrex	1 PT/A		C			
	NIS	0.5 % V/V		C			
	Amsol AMS	8.5 LB AI/100 GAL		C			
5	Verdict	10 OZ/A		A	17.04 a	54.73 ab	200.3 a
	Armezon PRO	18 OZ/A		C			
	Roundup PowerMAX 3	20 OZ/A		C			
	MSO	0.5 % V/V		C			
	Amsol AMS	8.5 LB AI/100 GAL		C			
6	Surestart II	1.75 PT/A		A	16.56 a	54.78 ab	213.3 a
	Resicore	1.25 QT/A		C			
	Roundup PowerMAX 3	20 OZ/A		C			
	NIS	0.25 % V/V		C			
	Amsol AMS	8.5 LB AI/100 GAL		C			
7	Helmet	1.33 PT/A		A	17.46 a	54.75 ab	193.1 a
	Katagon	3.2 FL OZ/A		C			
	COC	1 % V/V		C			
8	Bicep II Magnum	1.6 QT/A		A	17.36 a	54.93 ab	188.5 a
	Katagon	3.2 FL OZ/A		C			
	COC	1 % V/V		C			

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Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn
Rating Date	10-4-2021	10-4-2021	10-4-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	MOICON	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	LB/bu, -, -	BU, -, -
Sample Size			1 A
Collection Basis			2 ROW
Number of Subsamples	1	1	1
Data Entry Date	10-18-2021	10-18-2021	
Rating Timing			
Days After First/Last Applic.	165, 132	165, 132	165, 132
Trt-Eval Interval			
Plant-Eval Interval	165 DP-1	165 DP-1	165 DP-1
Days After Emergence	154 DE-1	154 DE-1	154 DE-1
ARM Action Codes	AL		TY1
Number of Decimals			1

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	10 dAL	11	12
9	Katagon	3.2	FL OZ/A	B	17.94 a	51.88 ab	177.6 a
	AAtrex	1	PT/A	B			
	COC	1	% V/V	B			
10	Helmet Maxx	3	QT/A	A	16.25 a	55.88 a	222.7 a
	Roundup PowerMAX 3	20	OZ/A	C			
	AAtrex	1	PT/A	C			
	NIS	0.25	% V/V	C			
	Amsol AMS	8.5	LB AI/100 GAL	C			
11	Helmet Maxx	3	QT/A	B	16.97 a	55.28 ab	190.4 a
	Roundup PowerMAX 3	20	OZ/A	B			
	NIS	0.25	% V/V	B			
	Amsol AMS	8.5	LB AI/100 GAL	B			
12	Leadoff	1.5	OZ/A	A	15.84 a	55.63 ab	203.9 a
	Durango DMA	1	QT/A	A			
	Realm Q	4	OZ/A	C			
	Durango DMA	1	QT/A	C			
	Atrazine	2	QT/A	C			
	COC	1	% V/V	C			
	Amsol AMS	8.5	LB AI/100 GAL	C			
13	Leadoff	1.5	OZ/A	A	15.32 a	56.15 a	216.3 a
	Durango DMA	1	QT/A	A			
	Resicore	1.25	QT/A	C			
	Durango DMA	1	QT/A	C			
	Atrazine	2	QT/A	C			
	NIS	0.25	% V/V	C			
	Amsol AMS	8.5	LB AI/100 GAL	C			
14	Leadoff	1.5	OZ/A	A	16.55 a	55.48 ab	208.1 a
	Durango DMA	1	QT/A	A			
	Halex GT	3.6	PT/A	C			
	Atrazine	2	QT/A	C			

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Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn
Rating Date	10-4-2021	10-4-2021	10-4-2021
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	MOICON	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	LB/bu, -, -	BU, -, -
Sample Size			1 A
Collection Basis			2 ROW
Number of Subsamples	1	1	1
Data Entry Date	10-18-2021	10-18-2021	
Rating Timing			
Days After First/Last Applic.	165, 132	165, 132	165, 132
Trt-Eval Interval			
Plant-Eval Interval	165 DP-1	165 DP-1	165 DP-1
Days After Emergence	154 DE-1	154 DE-1	154 DE-1
ARM Action Codes	AL		TY1
Number of Decimals			1

Trt	Treatment	Rate	Appl	10	11	12
No.	Name	Rate Unit	Code	dAL		
15	Leadoff	1.5 OZ/A	A	15.69 a	55.63 ab	200.0 a
	Durango DMA	1 QT/A	A			
	Armezon PRO	18 OZ/A	C			
	Roundup PowerMAX 3	20 OZ/A	C			
	MSO	0.5 % V/V	C			
	Amsol AMS	8.5 LB AI/100 GAL	C			
LSD P=.05				1.443 - 1.538	2.724	43.74
Standard Deviation				0.026t	1.909	30.65
CV				2.06t	3.49	15.87
Levene's F^				1.083	0.815	0.708
Levene's Prob(F)				0.399	0.649	0.754
Skewness^				0.0675	-1.8859*	0.2416
Kurtosis^				0.7748	8.6539*	-0.3632
Replicate F				8.340	2.119	2.389
Replicate Prob(F)				0.0002	0.1122	0.0823
Treatment F				2.306	2.532	4.728
Treatment Prob(F)				0.0196	0.0102	0.0001

University of Kentucky

Corn Herbicide Program Comparisons

Trial ID: 21-10_COR-REC Location: UKREC -109-B1 Trial Year: 2021
 Protocol ID: 21-10_COR-REC Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

AMACH, Amaranthus hybridus, smooth pigweed = US

DIGSA, Digitaria sanguinalis, crabgrass = US

Crop Type Code

C = EPPO species (Bayer) codes

ZEAMX, BCOR, Zea mays, Corn = US

Part Rated

PLANT = plant

PLOT = plot

GRAIN = grain

P = Pest is Part Rated

C = Crop is Part Rated

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

LENGTH = length

MOICON = moisture content

WEITES = weight - test

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

FT, , = foot

LB, , = pound

BU, , = bushel

PLOT = total plot

ROW = row

A = acre

PLOT = total plot

ROW = row

Plant-Eval Interval

15 DP-1 = 1 ZEAMX 4-22-2021

33 DP-1 = 1 ZEAMX 4-22-2021

56 DP-1 = 1 ZEAMX 4-22-2021

165 DP-1 = 1 ZEAMX 4-22-2021

ARM Action Codes

AS = Automatic square root transformation of X+0.5

AA = Automatic arcsine square root % transformation

AL = Automatic log transformation of X+1

TY1 = (777.857142857143/(5*[8]))*[9]*(100-@MVAVGREP([10]))/84.5

University of Kentucky

Evaluation of Reviton herbicide in tank-mixes for control of marestalk

Trial ID: 2021-H-US03 Location: UKREC K300-A Trial Year: 2021
 Protocol ID: 2021-H-US03 Investigator (Creator): Travis Legleiter
 Project ID: 2021-H-US03 Study Director: Scott Akin, PhD
 Sponsor Contact:

Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.564 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check												101	204	310	401
2	Reviton	2.83 LB/GAL		SC	1 FL OZ/A				spring	A	1.042 mL/mx		102	206	313	406
	Roundup PowerMax	4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 lb ai/a		spring	A	29.63 mL/mx					
	MSO				1 % V/V				spring	A	20.0 mL/mx					
3	Reviton	2.83 LB/GAL		SC	2 FL OZ/A				spring	A	2.083 mL/mx		103	211	301	414
	Roundup PowerMax	4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 lb ai/a		spring	A	29.63 mL/mx					
	MSO				1 % V/V				spring	A	20.0 mL/mx					
4	Reviton	2.83 LB/GAL		SC	1 FL OZ/A				spring	A	1.042 mL/mx		104	214	304	405
	Sterling Blue	4 lbae/gal		SL	8 FL OZ/A		0.25 lb ae/a		spring	A	8.332 mL/mx					
	MSO				1 % V/V				spring	A	20.0 mL/mx					
5	Reviton	2.83 LB/GAL		SC	1 FL OZ/A				spring	A	1.042 mL/mx		105	203	312	404
	2,4-D LV6	6 lbae/gal		SL	11 FL OZ/A		0.516 lb ae/a		spring	A	11.47 mL/mx					
	MSO				1 % V/V				spring	A	20.0 mL/mx					
6	Reviton	2.83 LB/GAL		SC	1 FL OZ/A				spring	A	1.042 mL/mx		106	208	302	411
	Roundup PowerMax	4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 lb ai/a		spring	A	29.63 mL/mx					
	Sterling Blue	4 lbae/gal		SL	8 FL OZ/A		0.25 lb ae/a		spring	A	8.332 mL/mx					
	MSO				1 % V/V				spring	A	20.0 mL/mx					
7	Reviton	2.83 LB/GAL		SC	1 FL OZ/A				spring	A	1.042 mL/mx		107	216	305	412
	Roundup PowerMax	4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 lb ai/a		spring	A	29.63 mL/mx					
	2,4-D LV6	6 lbae/gal		SL	11 FL OZ/A		0.516 lb ae/a		spring	A	11.47 mL/mx					
	MSO				1 % V/V				spring	A	20.0 mL/mx					
8	Sharpen	2.85 LB/GAL		SC	1 FL OZ/A				spring	A	1.042 mL/mx		108	201	306	407
	Roundup PowerMax	4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 lb ai/a		spring	A	29.63 mL/mx					
	MSO				1 % V/V				spring	A	20.0 mL/mx					
9	Sharpen	2.85 LB/GAL		SC	2 FL OZ/A				spring	A	2.083 mL/mx		109	215	303	410
	Roundup PowerMax	4.5 LBAE/GAL		SL	28.4 FL OZ/A		1 lb ai/a		spring	A	29.63 mL/mx					
	MSO				1 % V/V				spring	A	20.0 mL/mx					
10	Sharpen	2.85 LB/GAL		SC	1 FL OZ/A				spring	A	1.042 mL/mx		110	207	311	408
	Sterling Blue	4 lbae/gal		SL	8 FL OZ/A		0.25 lb ae/a		spring	A	8.332 mL/mx					
	MSO				1 % V/V				spring	A	20.0 mL/mx					

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Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.564 L)

Trt No.	Treatment Name	Form Conc Unit	Form Type	Form Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
11	Sharpen	2.85 LB/GAL	SC	1 FL OZ/A			spring	A	1.042 mL/mx		111	210	309	415
	2,4-D LV6	6 lbae/gal	SL	11 FL OZ/A	0.516 lb ae/a		spring	A	11.47 mL/mx					
	MSO			1 % V/V			spring	A	20.0 mL/mx					
12	Sharpen	2.85 LB/GAL	SC	1 FL OZ/A			spring	A	1.042 mL/mx		112	209	315	416
	Roundup PowerMax	4.5 LBAE/GAL	SL	28.4 FL OZ/A	1 lb ai/a		spring	A	29.63 mL/mx					
	Sterling Blue	4 lbae/gal	SL	8 FL OZ/A	0.25 lb ae/a		spring	A	8.332 mL/mx					
	MSO			1 % V/V			spring	A	20.0 mL/mx					
13	Sharpen	2.85 LB/GAL	SC	1 FL OZ/A			spring	A	1.042 mL/mx		113	205	307	403
	Roundup PowerMax	4.5 LBAE/GAL	SL	28.4 FL OZ/A	1 lb ai/a		spring	A	29.63 mL/mx					
	2,4-D LV6	6 lbae/gal	SL	11 FL OZ/A	0.516 lb ae/a		spring	A	11.47 mL/mx					
	MSO			1 % V/V			spring	A	20.0 mL/mx					
14	Roundup PowerMax	4.5 LBAE/GAL	SL	28.4 FL OZ/A	1 lb ai/a		spring	A	29.63 mL/mx		114	213	308	409
	Sterling Blue	4 lbae/gal	SL	8 FL OZ/A	0.25 lb ae/a		spring	A	8.332 mL/mx					
	NIS			0.25 % V/V			spring	A	4.999 mL/mx					
15	Roundup PowerMax	4.5 LBAE/GAL	SL	28.4 FL OZ/A	1 lb ai/a		spring	A	29.63 mL/mx		115	212	316	413
	2,4-D LV6	6 lbae/gal	SL	11 FL OZ/A	0.516 lb ae/a		spring	A	11.47 mL/mx					
	NIS			0.25 % V/V			spring	A	4.999 mL/mx					
16	Gramoxone	2 LBA/GAL	L	3 PT/A	0.75 lb a/a		spring	A	49.99 mL/mx		116	202	314	402
	COC	100 %	SL	1 % V/V			spring	A	20.0 mL/mx					

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
9.115 mL		Reviton	2.83	LB/GAL	SC	
370.330 mL		Roundup PowerMax	4.5	LBAE/GAL	SL	
299.967 mL		MSO				
52.078 mL		Sterling Blue	4	lbae/gal	SL	
71.659 mL		2,4-D LV6	6	lbae/gal	SL	
9.115 mL		Sharpen	2.85	LB/GAL	SC	
12.499 mL		NIS				
62.493 mL		Gramoxone	2	LBA/GAL	L	
24.997 mL		COC	100	%	SL	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.
 * 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

University of Kentucky

Evaluation of Reviton herbicide in tank-mixes for control of marestail

Trial ID: 2021-H-US03 Location: UKREC K300-A Trial Year: 2021
 Protocol ID: 2021-H-US03 Investigator (Creator): Travis Legleiter
 Project ID: 2021-H-US03 Study Director: Scott Akin, PhD
 Sponsor Contact:

General Trial Information

Study Director: Scott Akin, PhD **Title:** Technical Service
Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established

ARM Trial Created On: 3-4-2021

Planned Completion Date: 7-30-2021

Trial Location

City: Princeton **Country:** USA United States
State/Prov.: Kentucky
Postal Code: 42445

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director
Study Director: Scott Akin, PhD **Title:** Technical Service
Organization: Helm Agro
Address 1: 5426 State Route 121 NORTH **Mobile No.:** 270-227-8843
E-mail: sakin@helmagro.com
City: Murray, KY
Role: INVEST investigator
Investigator: Travis Legleiter **Title:** Assistant Extension Professor
Organization: University of Kentucky
Address 1: 348 University Drive **Phone No.:** 859-562-1323
Country: USA United States **E-mail:** Travis.Legleiter@uky.edu
City: Princeton, KY **Postal Code:** 42445

Pest Description

Pest 1 Type: W	Code: ERICA Erigeron canadensis	Entry Date: 7-8-2021
	Common Name: Hogweed	Stage Scale: BBCH
Pest 2 Type: W	Code: LAMAM Lamium amplexicaule	Entry Date: 7-8-2021
	Common Name: Henbit deadnettle	Stage Scale: BBCH
Pest 3 Type: W	Code: CARHI Cardamine hirsuta	Entry Date: 7-8-2021
	Common Name: bristly bittercress	Stage Scale: BBCH
Pest 4 Type: W	Code: VIOAR Viola arvensis	Entry Date: 7-8-2021
	Common Name: Field pansy	Stage Scale: BBCH
Pest 5 Type: W	Code: STEME Stellaria media	Entry Date: 7-8-2021
	Common Name: chickweed	Stage Scale: BBCH
Pest 6 Type: W	Code: CAPBP Capsella bursa-pastoris	Entry Date: 7-8-2021
	Common Name: Shepherd's purse	Stage Scale: BBCH
Pest 7 Type: W	Code: CERAR Cerastium arvense	Entry Date: 7-8-2021
	Common Name: mouse-ear chickweed	Stage Scale: BBCH

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Site and Design

Treated Plot Width: 10 FT
 Treated Plot Length: 30 FT
 Treated Plot Area: 300.0 FT²
 Replications: 4

Site Type: FIELD field
 Experimental Unit: 1 PLOT plot
 Tillage Type: NOTILL no-till
 Study Design: RACOB L Randomized Complete Block (RCB)

Soil Description

Description Name: K300A
 % Sand: 5.1 % OM: 3.2 Texture: SIL silt loam
 % Silt: 78.4 pH: 6.21
 % Clay: 16.5 CEC: 13.13

Application Description

A

Application Date 3-16-2021
 Appl. Start Time 4:00 PM
 Appl. Stop Time 4:39 PM
 Application Method SPRAY
 Application Timing PREPLA
 Application Placement BROADC
 Applied By JLG
 Appl. Entry Date 7-8-2021
 Air Temperature Start, Stop 72, - F
 % Relative Humidity Start, Stop 52, -
 Wind Velocity+Dir. Start - MPH, -
 Wind Velocity+Dir. Max 7.4 MPH, NW
 Wet Leaves (Y/N) N, no
 Soil Temperature 52 F
 Soil Moisture wet
 % Cloud Cover 100

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Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	ERICA, W, BBCH
Diameter Average	3.5 IN
Diameter Minimum, Maximum	1.25, 5.75
Density Average	3.25 FT2
Density Minimum, Maximum	1, 11
Pest 2 Code, Type, Scale	LAMAM, W, BBCH
Diameter Average	5.25 IN
Diameter Minimum, Maximum	0.5, 10
Density Average	3.38 FT2
Density Minimum, Maximum	1, 6
Pest 3 Code, Type, Scale	CARHI, W, BBCH
Diameter Average	9.5 IN
Diameter Minimum, Maximum	3, 6.5
Density Average	0.5 FT
Density Minimum, Maximum	1, 2
Pest 4 Code, Type, Scale	VIOAR, W, BBCH
Diameter Average	1.375 IN
Diameter Minimum, Maximum	1, 2.75
Density Average	0.13 FT2
Density Minimum, Maximum	0, 1
Pest 5 Code, Type, Scale	STEME, W, BBCH
Diameter Average	1.875 IN
Diameter Minimum, Maximum	1, 3.75
Density Average	0.13 FT2
Density Minimum, Maximum	0, 1
Pest 6 Code, Type, Scale	CAPBP, W, BBCH
Diameter Average	1 IN
Diameter Minimum, Maximum	0.5, 2
Density Average	0.13 FT2
Density Minimum, Maximum	0, 1
Pest 7 Code, Type, Scale	CERAR, W, BBCH
Diameter Average	0.5 IN
Diameter Minimum, Maximum	0.5, 1
Density Average	0.13 FT2
Density Minimum, Maximum	0, 1

Application Equipment

	A
Equipment Type	SPRBAC
Operation Pressure	32 PSI
Nozzle Model	TeeJet
Nozzle Type	FLAFXR
Nozzle TradeName	XR11002
Nozzle Tip Size, Color	02, yellow
Nozzle Spacing	20.0 IN
Boom ID	BLUE
Boom Length	10.0 FT
Boom Height	18.0 IN
Ground Speed	3 MPH
Carrier	WATER
Application Amount	15 GAL/AC
Mix Size	2.0 L
Propellant	COMCO2

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Notes

Context Date By
 STATUS 3-4-2021 Travis Legleiter Automatically added by ARM: Trial Status updated to 'S' during trial creation.
 STATUS 7-8-2021 Travis Legleiter Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

Notes

	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Type	ERICA	LAMAM	ERICA	LAMAM	ERICA	LAMAM
Pest Code	ERICA	LAMAM	ERICA	LAMAM	ERICA	LAMAM
Pest Scientific Name	Erigeron canadense	Lamium amplexic	Erigeron canadense	Lamium amplexic	Erigeron canadense	Lamium amplexic
Pest Name	Canada horseweed	Henbit	Canada horseweed	Henbit	Canada horseweed	Henbit
Crop Type, Code						
Crop Scientific Name						
Crop Name						
Rating Date	3-25-2021	3-25-2021	4-2-2021	4-2-2021	4-7-2021	4-7-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
Data Entry Date	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021
Rating Timing						
Days After First/Last Applic.	9, 9	9, 9	17, 17	17, 17	22, 22	22, 22
Trt-Eval Interval	9 DA-A	9 DA-A	17 DA-A	17 DA-A	22 DA-A	22 DA-A
Days After Emergence						
ARM Action Codes	ET4			ER4		EC
Number of Decimals						

Trt	Treatment	Rate	Appl	1		2		3		4		5		6	
No.	Name	Rate Unit	Code Plot												
1	Untreated Check		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			204	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			401	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Reviton	1 FL OZ/A	102	80.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0	50.0	90.0
	Roundup PowerMax	28.4 FL OZ/A	206	70.0	80.0	70.0	80.0	70.0	80.0	77.0	80.0	77.0	80.0	77.0	80.0
	MSO	1 % V/V	313	50.0	60.0	55.0	60.0	55.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
			406	50.0	50.0	55.0	50.0	55.0	50.0	55.0	50.0	55.0	50.0	55.0	50.0
			Mean =	62.5	70.0	57.5	70.0	57.5	80.0	60.5	80.0	60.5	80.0	60.5	80.0
3	Reviton	2 FL OZ/A	103	70.0	80.0	60.0	80.0	60.0	90.0	60.0	90.0	60.0	90.0	60.0	90.0
	Roundup PowerMax	28.4 FL OZ/A	211	50.0	90.0	15.0	90.0	15.0	50.0	15.0	50.0	15.0	50.0	15.0	50.0
	MSO	1 % V/V	301	50.0	70.0	0.0	70.0	0.0	60.0	20.0	60.0	20.0	60.0	20.0	60.0
			414	50.0	60.0	20.0	60.0	20.0	60.0	20.0	60.0	20.0	60.0	20.0	60.0
			Mean =	55.0	75.0	23.8	75.0	23.8	66.7	28.8	66.7	28.8	66.7	28.8	66.7
4	Reviton	1 FL OZ/A	104	60.0	70.0	70.0	70.0	70.0	50.0	95.0	70.0	95.0	70.0	95.0	70.0
	Sterling Blue	8 FL OZ/A	214	20.0	50.0	60.0	50.0	60.0	80.0	60.0	80.0	60.0	80.0	60.0	80.0
	MSO	1 % V/V	304	65.0	70.0	70.0	70.0	70.0	80.0	70.0	80.0	70.0	80.0	70.0	80.0
			405	15.0	40.0	65.0	40.0	65.0	80.0	50.0	80.0	50.0	80.0	50.0	80.0
			Mean =	40.0	57.5	66.3	57.5	66.3	70.0	68.8	70.0	68.8	70.0	68.8	70.0
5	Reviton	1 FL OZ/A	105	60.0	80.0	70.0	80.0	70.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
	2,4-D LV6	11 FL OZ/A	203	75.0	70.0	70.0	70.0	70.0	50.0	100.0	50.0	100.0	50.0	100.0	50.0
	MSO	1 % V/V	312	75.0	50.0	85.0	50.0	85.0	60.0	90.0	60.0	90.0	60.0	90.0	60.0
			404	20.0	40.0	65.0	40.0	65.0	60.0	55.0	60.0	55.0	60.0	55.0	60.0
			Mean =	57.5	60.0	72.5	60.0	72.5	63.3	81.3	63.3	81.3	63.3	81.3	63.3

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	ERICA	LAMAM	ERICA	LAMAM	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule	Erigeron canadensis	Lamium amplexicaule	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit	Canada horseweed	Henbit	Canada horseweed	Henbit
Crop Type, Code						
Crop Scientific Name						
Crop Name						
Rating Date	3-25-2021	3-25-2021	4-2-2021	4-2-2021	4-7-2021	4-7-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
Data Entry Date	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021
Rating Timing						
Days After First/Last Applic.	9, 9	9, 9	17, 17	17, 17	22, 22	22, 22
Trt-Eval Interval	9 DA-A	9 DA-A	17 DA-A	17 DA-A	22 DA-A	22 DA-A
Days After Emergence						
ARM Action Codes	ET4			ER4		EC
Number of Decimals						

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5	6
6	Reviton	1 FL OZ/A	A	106	70.0	80.0	90.0	80.0	100.0	90.0
	Roundup PowerMax	28.4 FL OZ/A	A	208	55.0	70.0	65.0	80.0	95.0	90.0
	Sterling Blue	8 FL OZ/A	A	302	40.0	60.0	50.0	80.0	70.0	90.0
	MSO	1 % V/V	A	411	50.0	70.0	80.0	80.0	85.0	95.0
	Mean =				53.8	70.0	71.3	80.0	87.5	91.3
7	Reviton	1 FL OZ/A	A	107	80.0	80.0	100.0	90.0	97.0	97.0
	Roundup PowerMax	28.4 FL OZ/A	A	216	50.0	70.0	85.0	80.0	75.0	80.0
	2,4-D LV6	11 FL OZ/A	A	305	60.0	70.0	80.0	90.0	75.0	90.0
	MSO	1 % V/V	A	412	60.0	70.0	70.0	70.0	80.0	90.0
	Mean =				62.5	72.5	83.8	86.7	81.8	89.3
8	Sharpen	1 FL OZ/A	A	108	75.0	80.0	70.0	90.0	80.0	90.0
	Roundup PowerMax	28.4 FL OZ/A	A	201	80.0	50.0	80.0	50.0	70.0	80.0
	MSO	1 % V/V	A	306	70.0	50.0	80.0	50.0	75.0	70.0
				407	75.0	60.0	50.0	50.0	50.0	75.0
	Mean =				75.0	60.0	70.0	63.3	68.8	78.8
9	Sharpen	2 FL OZ/A	A	109	90.0	80.0	90.0	70.0	100.0	70.0
	Roundup PowerMax	28.4 FL OZ/A	A	215	80.0	70.0	90.0	70.0	95.0	80.0
	MSO	1 % V/V	A	303	70.0	90.0	75.0	80.0	60.0	70.0
				410	80.0	70.0	90.0	80.0	90.0	90.0
	Mean =				80.0	77.5	86.3	73.3	86.3	77.5
10	Sharpen	1 FL OZ/A	A	110	90.0	80.0	100.0	50.0	100.0	20.0
	Sterling Blue	8 FL OZ/A	A	207	90.0	50.0	95.0	15.0	100.0	40.0
	MSO	1 % V/V	A	311	85.0	70.0	96.0	60.0	100.0	50.0
				408	87.0	70.0	97.0	60.0	95.0	70.0
	Mean =				88.0	67.5	97.0	41.7	98.8	45.0
11	Sharpen	1 FL OZ/A	A	111	85.0	80.0	100.0	80.0	100.0	50.0
	2,4-D LV6	11 FL OZ/A	A	210	90.0	80.0	95.0	25.0	90.0	30.0
	MSO	1 % V/V	A	309	90.0	50.0	90.0	40.0	100.0	25.0
				415	80.0	50.0	95.0	40.0	100.0	60.0
	Mean =				86.3	65.0	95.0	48.3	97.5	41.3

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	ERICA	LAMAM	ERICA	LAMAM	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule	Erigeron canadensis	Lamium amplexicaule	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit	Canada horseweed	Henbit	Canada horseweed	Henbit
Crop Type, Code						
Crop Scientific Name						
Crop Name						
Rating Date	3-25-2021	3-25-2021	4-2-2021	4-2-2021	4-7-2021	4-7-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
Data Entry Date	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021
Rating Timing						
Days After First/Last Applic.	9, 9	9, 9	17, 17	17, 17	22, 22	22, 22
Trt-Eval Interval	9 DA-A	9 DA-A	17 DA-A	17 DA-A	22 DA-A	22 DA-A
Days After Emergence						
ARM Action Codes	ET4			ER4		EC
Number of Decimals						

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5	6
12	Sharpen	1 FL OZ/A	A	112	90.0	80.0	100.0	80.0	100.0	70.0
	Roundup PowerMax	28.4 FL OZ/A	A	209	80.0	70.0	100.0	60.0	100.0	80.0
	Sterling Blue	8 FL OZ/A	A	315	90.0	80.0	90.0	60.0	100.0	75.0
	MSO	1 % V/V	A	416	85.0	70.0	95.0	100.0	100.0	60.0
				Mean =	86.3	75.0	96.3	66.7	100.0	71.3
13	Sharpen	1 FL OZ/A	A	113	90.0	85.0	100.0	85.0	100.0	85.0
	Roundup PowerMax	28.4 FL OZ/A	A	205	85.0	87.0	85.0	70.0	97.0	90.0
	2,4-D LV6	11 FL OZ/A	A	307	85.0	75.0	90.0	80.0	90.0	96.0
	MSO	1 % V/V	A	403	80.0	50.0	90.0	80.0	80.0	70.0
				Mean =	85.0	74.3	91.3	78.3	91.8	85.3
14	Roundup PowerMax	28.4 FL OZ/A	A	114	40.0	30.0	60.0	50.0	100.0	30.0
	Sterling Blue	8 FL OZ/A	A	213	10.0	0.0	30.0	25.0	50.0	20.0
	NIS	0.25 % V/V	A	308	10.0	0.0	55.0	0.0	90.0	40.0
				409	5.0	0.0	50.0	90.0	90.0	25.0
				Mean =	16.3	7.5	48.8	25.0	82.5	28.8
15	Roundup PowerMax	28.4 FL OZ/A	A	115	10.0	10.0	60.0	50.0	100.0	60.0
	2,4-D LV6	11 FL OZ/A	A	212	15.0	0.0	30.0	20.0	70.0	50.0
	NIS	0.25 % V/V	A	316	5.0	0.0	50.0	50.0	50.0	50.0
				413	10.0	5.0	70.0	50.0	75.0	50.0
				Mean =	10.0	3.8	52.5	40.0	73.8	52.5
16	Gramoxone	3 PT/A	A	116	50.0	70.0	85.0	40.0	50.0	50.0
	COC	1 % V/V	A	202	20.0	50.0	0.0	60.0	0.0	70.0
				314	5.0	50.0	0.0	90.0	0.0	70.0
				402	25.0	60.0	5.0	6.0	6.0	80.0
				Mean =	25.0	57.5	22.5	63.3	14.0	67.5

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

ERICA, Erigeron canadensis, Canada horseweed = US

LAMAM, Lamium amplexicaule, Henbit deadnettle = US

Part Rated

PLANT = plant

P = Pest is Part Rated

Rating Unit/Min/Max

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%, 0, 100 = percent

ARM Action Codes

ET4 = Excluded treatment 4

ER4 = Excluded replicate 4

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	ERICA	LAMAM	ERICA	LAMAM	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule	Erigeron canadensis	Lamium amplexicaule	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit	Canada horseweed	Henbit	Canada horseweed	Henbit
Crop Type, Code						
Crop Scientific Name						
Crop Name						
Rating Date	3-25-2021	3-25-2021	4-2-2021	4-2-2021	4-7-2021	4-7-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
Data Entry Date	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021	4-8-2021
Rating Timing						
Days After First/Last Applic.	9, 9	9, 9	17, 17	17, 17	22, 22	22, 22
Trt-Eval Interval	9 DA-A	9 DA-A	17 DA-A	17 DA-A	22 DA-A	22 DA-A
Days After Emergence						
ARM Action Codes	ET4			ER4		EC
Number of Decimals						

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
No.	Name	Rate Unit	Code						
1	Untreated Check			0.0 e	0.0 b	0.0 d	0.0 d	0.0 d	0.0
2	Reviton	1 FL OZ/A	A	62.5 bc	70.0 a	57.5 bc	80.0 ab	60.5 b	89.0 a
	Roundup PowerMax	28.4 FL OZ/A	A						
	MSO	1 % V/V	A						
3	Reviton	2 FL OZ/A	A	55.0 c	75.0 a	23.8 d	66.7 abc	28.8 c	85.0 a
	Roundup PowerMax	28.4 FL OZ/A	A						
	MSO	1 % V/V	A						
4	Reviton	1 FL OZ/A	A	40.0	57.5 a	66.3 abc	70.0 ab	68.8 ab	55.0 cd
	Sterling Blue	8 FL OZ/A	A						
	MSO	1 % V/V	A						
5	Reviton	1 FL OZ/A	A	57.5 c	60.0 a	72.5 abc	63.3 abc	81.3 ab	60.0 bcd
	2,4-D LV6	11 FL OZ/A	A						
	MSO	1 % V/V	A						
6	Reviton	1 FL OZ/A	A	53.8 c	70.0 a	71.3 abc	80.0 ab	87.5 ab	91.3 a
	Roundup PowerMax	28.4 FL OZ/A	A						
	Sterling Blue	8 FL OZ/A	A						
	MSO	1 % V/V	A						
7	Reviton	1 FL OZ/A	A	62.5 bc	72.5 a	83.8 ab	86.7 a	81.8 ab	89.3 a
	Roundup PowerMax	28.4 FL OZ/A	A						
	2,4-D LV6	11 FL OZ/A	A						
	MSO	1 % V/V	A						
8	Sharpen	1 FL OZ/A	A	75.0 abc	60.0 a	70.0 abc	63.3 abc	68.8 ab	78.8 ab
	Roundup PowerMax	28.4 FL OZ/A	A						
	MSO	1 % V/V	A						
9	Sharpen	2 FL OZ/A	A	80.0 ab	77.5 a	86.3 ab	73.3 ab	86.3 ab	77.5 ab
	Roundup PowerMax	28.4 FL OZ/A	A						
	MSO	1 % V/V	A						

University of Kentucky

Evaluation of Reviton herbicide in tank-mixes for control of marestalk

Trial ID: 2021-H-US03 Location: UKREC K300-A Trial Year: 2021
Protocol ID: 2021-H-US03 Investigator (Creator): Travis Legleiter
Project ID: 2021-H-US03 Study Director: Scott Akin, PhD
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

ERICA, Erigeron canadensis, Canada horseweed = US

LAMAM, Lamium amplexicaule, Henbit deadnettle = US

Part Rated

PLANT = plant

P = Pest is Part Rated

Rating Unit/Min/Max

%, 0, 100 = percent

ARM Action Codes

ET4 = Excluded treatment 4

ER4 = Excluded replicate 4

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

University of Kentucky

Evaluation of Reviton Zone Defense & Zone Maxx in herbicide programs (University)

Trial ID: 21-12_SOY-REC Location: UKREC 505-D2 Trial Year: 2021
 Protocol ID: 2021-H-US20 Investigator (Creator): Travis Legleiter
 Project ID: 2021-H-US20 Study Director: Scott Akin, PhD
 Sponsor Contact:

Reps: 4 Plots: 6.7 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.048 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Product Amt	Product Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check												101	210	309	404
2	Zone Defense	77 %W/W	DF		4 OZ/A		0.193 LBA/A		PRE	A	4.005 g/mx		102	205	307	406
3	Zone Defense	77 %W/W	DF		5 OZ/A		0.24 LBA/A		PRE	A	4.98 g/mx		103	206	302	403
4	Zone Defense Helmet	77 %W/W 7.8 LB/GAL	DF EC		4 OZ/A 1.33 PT/A		0.193 LBA/A 1.3 LBA/A		PRE PRE	A A	4.005 g/mx 22.22 mL/mx		104	202	304	409
5	Zone Defense Helmet	77 %W/W 7.8 LB/GAL	DF EC		5 OZ/A 1.33 PT/A		0.24 LBA/A 1.3 LBA/A		PRE PRE	A A	4.98 g/mx 22.22 mL/mx		105	208	301	407
6	Zone Maxx	66 %W/W	DF		6.5 OZ WT/A		0.268 LBA/A		PRE	A	6.488 g/mx		106	204	308	402
7	Zone Maxx	66 %W/W	DF		8 OZ WT/A		0.33 LBA/A		PRE	A	7.988 g/mx		107	201	306	408
8	Zone Maxx Helmet	66 %W/W 7.8 LB/GAL	DF EC		6.5 OZ WT/A 1.33 PT/A		0.268 LBA/A 1.3 LBA/A		PRE PRE	A A	6.488 g/mx 22.22 mL/mx		108	203	310	405
9	Zone Maxx Helmet	66 %W/W 7.8 LB/GAL	DF EC		8 OZ/A 1.33 PT/A		0.33 LBA/A 1.3 LBA/A		PRE PRE	A A	7.988 g/mx 22.22 mL/mx		109	207	305	410
10	Broadaxe XC	7 LBA/GAL	L		32 FL OZ/A		1.75 lba/a		PRE	A	33.33 mL/mx		110	209	303	401

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
22.461 g		Zone Defense	77	%W/W	DF	
111.099 mL		Helmet	7.8	LB/GAL	EC	
36.190 g		Zone Maxx	66	%W/W	DF	
41.662 mL		Broadaxe XC	7	LBA/GAL	L	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.

University of Kentucky

Evaluation of Reviton Zone Defense & Zone Maxx in herbicide programs (University)

Trial ID: 21-12_SOY-REC Location: UKREC 505-D2 Trial Year: 2021
 Protocol ID: 2021-H-US20 Investigator (Creator): Travis Legleiter
 Project ID: 2021-H-US20 Study Director: Scott Akin, PhD
 Sponsor Contact:

General Trial Information

Study Director: Scott Akin, PhD **Title:** Technical Service
Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: F one-year/final
ARM Trial Created On: 3-31-2021 **Planned Completion Date:** 9-1-2021

Trial Location

City: Princeton **Country:** USA United States
State/Prov.: Kentucky
Postal Code: 42445

Latitude of LL Corner °: 37.10664 N
Longitude of LL Corner °: -87.82487 W

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Role: STYDIR study director
Study Director: Scott Akin, PhD **Title:** Technical Service
Organization: Helm Agro
Address 1: 5426 State Route 121 NORTH **Mobile No.:** 270-227-8843
Country: USA United States **E-mail:** sakin@helmagro.com
City: Murray, KY
Role: INVEST investigator
Investigator: Travis Legleiter **Title:** Assistant Extension Professor
Organization: University of Kentucky
Address 1: 348 University Drive **Phone No.:** 859-562-1323
Country: USA United States **E-mail:** Travis.Legleiter@uky.edu
City: Princeton, KY **Postal Code:** 42445

Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: 9-8-2021 **Stage Scale:** BBCH
Variety: P41T07E
Attributes: ENLIST
Planting Date: 5-24-2021 **Planting Rate:** 140000 S/A
Depth: 1 IN
Rows per Plot: 7 **Planting Method:** PLANTD planted
Row Spacing: 15 IN **Planting Equipment:** KINZE

Site and Design

Treated Plot Width: 6.7 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 201.0 FT2 **Treatments:** 10 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Rate	Form Unit	Rate
1.	5-24-2021	HERB	Gramoxone	3	lba/gal	L	1.7	pt/a

University of Kentucky

Soil Description

Description Name: 505-D2
 % Sand: 10.8 % OM: 2.5 Texture: SIL silt loam
 % Silt: 74.3 pH: 6.08 Soil Name: Sadler Silt Loam
 % Clay: 14.9

Application Description

A

Application Date 5-25-2021
 Appl. Start Time 11:22 AM
 Appl. Stop Time 11:48 AM
 Application Method SPRAY
 Application Timing PREEM
 Application Placement BROADC
 Applied By JLG
 Appl. Entry Date 9-8-2021
 Air Temperature Start, Stop 89.3, 89.2 F
 % Relative Humidity Start, Stop 41.7, 45.3
 Wind Velocity+Dir. Start 1.2 MPH, SSW
 Wind Velocity+Dir. Stop 2.3 MPH, -
 Wind Velocity+Dir. Max 15.5 MPH, -
 Wet Leaves (Y/N) N, no
 Soil Temperature 70 F
 Soil Moisture DRY
 % Cloud Cover 50

Crop Stage At Each Application

A

Crop 1 Code, BBCH Scale GLXMA, BSOY

Application Equipment

A

Appl. Equipment SPRABAC
 Equipment Type BACCAI
 Operation Pressure 31 PSI
 Nozzle Model XR11002
 Nozzle Type FLAFXR
 Nozzle TradeName XR TeeJet
 Nozzle Tip Size, Color 02, Yellow
 Nozzle Spacing 20.0 IN
 Boom ID BLACK
 Boom Length 6.7 FT
 Boom Height 18.0 IN
 Ground Speed 3 MPH
 Carrier WATER
 Application Amount 15 GAL/AC
 Mix Size 2.0 L
 Propellant COMCO2

Notes

Context	Date	By	Notes
STATUS	3-31-2021	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	9-8-2021	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

University of Kentucky

Evaluation of Reviton Zone Defense & Zone Maxx in herbicide programs (University)

Trial ID: 21-12_SOY-REC
Protocol ID: 2021-H-US20
Project ID: 2021-H-US20

Location: UKREC 505-D2 Trial Year: 2021
Investigator (Creator): Travis Legleiter
Study Director: Scott Akin, PhD
Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMAPA	DIGSA	AMAPA	DIGSA	AMAPA	DIGSA	AMAPA	DIGSA	AMAPA
Pest Scientific Name	Amaranthus palm> Digitaria sangu>		Amaranthus palm> Digitaria sangu>		Amaranthus palm> Digitaria sangu>		Amaranthus palm> Digitaria sangu>		Amaranthus palm>
Pest Name	amaranth, Palmer crabgrass, large		amaranth, Palmer crabgrass, large		amaranth, Palmer crabgrass, large		amaranth, Palmer crabgrass, large		amaranth, Palmer
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Rating Date	6-16-2021	6-16-2021	6-16-2021	6-16-2021	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-30-2021
Part Rated	PLANT, C	plant, C	PLANT, P	PLANT, P	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	COUPLA	CONTRO	CONTRO	PHYGEN	COUPLA	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	PLANT, -, -	% , 0, 100	% , 0, 100	% , 0, 100	PLANT, -, -	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	10 ROWFT	1 PLOT	1 PLOT	1 PLOT	10 ROWFT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1	1	1
Data Entry Date	9-10-2021	9-10-2021	9-10-2021	9-10-2021	9-10-2021	9-10-2021	9-10-2021	9-10-2021	9-10-2021
Rating Timing									
Days After First/Last Applic.	22, 22	22, 22	22, 22	22, 22	28, 28	28, 28	28, 28	28, 28	36, 36
Trt-Eval Interval	22 DA-A	22 DA-A	22 DA-A	22 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	36 DA-A
Plant-Eval Interval	23 DP-1	23 DP-1	23 DP-1	23 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1	37 DP-1
Days After Emergence									
ARM Action Codes									
Number of Decimals		0				0			

Trt	Treatment	Rate	Appl	1	2	3	4	5	6	7	8	9
No.	Name	Rate Unit	Code Plot									
1	Untreated Check		A	101	0.0	28	0.0	0.0	0.0	30	0.0	0.0
				210	0.0	24	0.0	0.0	0.0	22	0.0	0.0
				309	0.0	25	0.0	0.0	0.0	23	0.0	0.0
				404	0.0	23	0.0	0.0	0.0	22	0.0	0.0
				Mean =	0.0	25	0.0	0.0	0.0	24	0.0	0.0
2	Zone Defense	4 OZ/A	A	102	0.0	27	100.0	90.0	0.0	24	95.0	50.0
				205	0.0	23	100.0	100.0	0.0	21	50.0	80.0
				307	0.0	21	100.0	100.0	0.0	19	97.0	95.0
				406	0.0	24	100.0	95.0	0.0	24	85.0	85.0
				Mean =	0.0	24	100.0	96.3	0.0	22	81.8	77.5
3	Zone Defense	5 OZ/A	A	103	0.0	14	100.0	90.0	0.0	12	100.0	80.0
				206	0.0	27	100.0	100.0	0.0	25	90.0	80.0
				302	0.0	24	100.0	90.0	0.0	25	70.0	80.0
				403	0.0	23	100.0	97.0	0.0	24	95.0	70.0
				Mean =	0.0	22	100.0	94.3	0.0	21	88.8	77.5
4	Zone Defense	4 OZ/A	A	104	0.0	21	100.0	97.0	0.0	23	100.0	90.0
	Helmet	1.33 PT/A	A	202	0.0	21	100.0	100.0	0.0	20	90.0	95.0
				304	0.0	23	100.0	100.0	0.0	24	90.0	95.0
				409	0.0	23	100.0	100.0	0.0	24	80.0	96.0
				Mean =	0.0	22	100.0	99.3	0.0	23	90.0	94.0
5	Zone Defense	5 OZ/A	A	105	0.0	22	100.0	100.0	0.0	20	100.0	98.0
	Helmet	1.33 PT/A	A	208	0.0	18	100.0	100.0	0.0	19	90.0	100.0
				301	0.0	25	100.0	97.0	0.0	22	50.0	80.0
				407	0.0	24	100.0	100.0	0.0	21	80.0	95.0
				Mean =	0.0	22	100.0	99.3	0.0	20	80.0	93.3

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Pest Type			W, Weed	W, Weed			W, Weed	W, Weed	W, Weed
Pest Code			AMAPA	DIGSA			AMAPA	DIGSA	AMAPA
Pest Scientific Name			Amaranthus palm>	Digitaria sangu>			Amaranthus palm>	Digitaria sangu>	Amaranthus palm>
Pest Name			amaranth, Palmer crabgrass, large				amaranth, Palmer crabgrass, large		amaranth, Palmer
Crop Type, Code	C, GLXMA	C, GLXMA			C, GLXMA	C, GLXMA			
BBCH Scale	BSOY	BSOY			BSOY	BSOY			
Crop Scientific Name	Glycine max	Glycine max			Glycine max	Glycine max			
Crop Name	Soybean	Soybean			Soybean	Soybean			
Rating Date	6-16-2021	6-16-2021	6-16-2021	6-16-2021	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-30-2021
Part Rated	PLANT, C	plant, C	PLANT, P	PLANT, P	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	COUPLA	CONTRO	CONTRO	PHYGEN	COUPLA	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	PLANT, -, -	%, 0, 100	%, 0, 100	%, 0, 100	PLANT, -, -	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	10 ROWFT	1 PLOT	1 PLOT	1 PLOT	10 ROWFT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1	1	1
Data Entry Date	9-10-2021	9-10-2021	9-10-2021	9-10-2021	9-10-2021	9-10-2021	9-10-2021	9-10-2021	9-10-2021
Rating Timing									
Days After First/Last Applic.	22, 22	22, 22	22, 22	22, 22	28, 28	28, 28	28, 28	28, 28	36, 36
Trt-Eval Interval	22 DA-A	22 DA-A	22 DA-A	22 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	36 DA-A
Plant-Eval Interval	23 DP-1	23 DP-1	23 DP-1	23 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1	37 DP-1
Days After Emergence									
ARM Action Codes									
Number of Decimals			0				0		

Trt	Treatment	Rate	Appl										
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9	
6	Zone Maxx	6.5 OZ WT/A	A	106	0.0	19	100.0	100.0	0.0	20	100.0	90.0	90.0
				204	0.0	15	100.0	100.0	0.0	17	95.0	70.0	90.0
				308	0.0	21	100.0	90.0	0.0	23	95.0	50.0	95.0
				402	0.0	20	100.0	100.0	0.0	21	95.0	90.0	70.0
				Mean =	0.0	19	100.0	97.5	0.0	20	96.3	75.0	86.3
7	Zone Maxx	8 OZ WT/A	A	107	0.0	19	100.0	100.0	0.0	21	100.0	85.0	80.0
				201	0.0	19	90.0	90.0	0.0	18	90.0	60.0	80.0
				306	0.0	21	100.0	100.0	0.0	19	97.0	97.0	95.0
				408	0.0	26	100.0	100.0	0.0	23	97.0	70.0	90.0
				Mean =	0.0	21	97.5	97.5	0.0	20	96.0	78.0	86.3
8	Zone Maxx Helmet	6.5 OZ WT/A 1.33 PT/A	A	108	0.0	22	100.0	100.0	0.0	22	100.0	95.0	75.0
				203	0.0	17	100.0	97.0	0.0	15	100.0	90.0	95.0
				310	0.0	21	100.0	90.0	0.0	23	98.0	95.0	95.0
				405	0.0	24	100.0	100.0	0.0	26	96.0	95.0	90.0
				Mean =	0.0	21	100.0	96.8	0.0	21	98.5	93.8	88.8
9	Zone Maxx Helmet	8 OZ/A 1.33 PT/A	A	109	0.0	16	100.0	98.0	0.0	21	100.0	90.0	90.0
				207	0.0	20	100.0	100.0	0.0	22	100.0	97.0	90.0
				305	0.0	20	100.0	100.0	0.0	19	97.0	97.0	95.0
				410	0.0	19	100.0	100.0	0.0	20	97.0	90.0	90.0
				Mean =	0.0	18	100.0	99.5	0.0	20	98.5	93.5	91.3
10	Broadaxe XC	32 FL OZ/A	A	110	0.0	19	100.0	100.0	0.0	20	90.0	90.0	50.0
				209	0.0	20	100.0	100.0	0.0	24	96.0	95.0	50.0
				303	0.0	26	100.0	100.0	0.0	26	80.0	90.0	40.0
				401	0.0	26	100.0	100.0	0.0	25	65.0	90.0	25.0
				Mean =	0.0	23	100.0	100.0	0.0	24	82.8	91.3	41.3

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Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	DIGSA	AMAPA	DIGSA
Pest Scientific Name	Digitaria sangu>	Amaranthus palm>	Digitaria sangu>
Pest Name	crabgrass, large	amaranth, Palmer	crabgrass, large
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	6-30-2021	7-9-2021	7-9-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	9-10-2021	9-10-2021	9-10-2021
Rating Timing			
Days After First/Last Applic.	36, 36	45, 45	45, 45
Trt-Eval Interval	36 DA-A	45 DA-A	45 DA-A
Plant-Eval Interval	37 DP-1	46 DP-1	46 DP-1
Days After Emergence			
ARM Action Codes			
Number of Decimals			

Trt	Treatment	Rate	Appl			
No.	Name	Rate Unit	Code Plot	10	11	12
1	Untreated Check		101	0.0	0.0	0.0
			210	0.0	0.0	0.0
			309	0.0	0.0	0.0
			404	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0
2	Zone Defense	4 OZ/A	A 102	20.0	80.0	0.0
			205	80.0	0.0	60.0
			307	70.0	50.0	0.0
			406	25.0	50.0	0.0
			Mean =	48.8	45.0	15.0
3	Zone Defense	5 OZ/A	A 103	20.0	50.0	0.0
			206	0.0	0.0	0.0
			302	90.0	0.0	70.0
			403	50.0	50.0	50.0
			Mean =	40.0	25.0	30.0
4	Zone Defense	4 OZ/A	A 104	80.0	80.0	50.0
	Helmet	1.33 PT/A	A 202	80.0	25.0	70.0
			304	90.0	0.0	80.0
			409	95.0	0.0	80.0
			Mean =	86.3	26.3	70.0
5	Zone Defense	5 OZ/A	A 105	85.0	50.0	80.0
	Helmet	1.33 PT/A	A 208	95.0	25.0	80.0
			301	80.0	0.0	50.0
			407	80.0	10.0	60.0
			Mean =	85.0	21.3	67.5

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Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	DIGSA	AMAPA	DIGSA
Pest Scientific Name	Digitaria sangu>	Amaranthus palm>	Digitaria sangu>
Pest Name	crabgrass, large	amaranth, Palmer	crabgrass, large
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	6-30-2021	7-9-2021	7-9-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	9-10-2021	9-10-2021	9-10-2021
Rating Timing			
Days After First/Last Applic.	36, 36	45, 45	45, 45
Trt-Eval Interval	36 DA-A	45 DA-A	45 DA-A
Plant-Eval Interval	37 DP-1	46 DP-1	46 DP-1
Days After Emergence			
ARM Action Codes			
Number of Decimals			

Trt	Treatment	Rate	Appl			
No.	Name	Rate Unit	Code Plot	10	11	12
6	Zone Maxx	6.5 OZ WT/A A	106	50.0	80.0	20.0
			204	0.0	80.0	0.0
			308	15.0	90.0	0.0
			402	80.0	60.0	50.0
			Mean =	36.3	77.5	17.5
7	Zone Maxx	8 OZ WT/A A	107	50.0	70.0	0.0
			201	0.0	70.0	0.0
			306	80.0	80.0	60.0
			408	70.0	90.0	25.0
			Mean =	50.0	77.5	21.3
8	Zone Maxx Helmet	6.5 OZ WT/A A 1.33 PT/A A	108	20.0	70.0	0.0
			203	80.0	90.0	60.0
			310	80.0	50.0	50.0
			405	90.0	70.0	80.0
			Mean =	67.5	70.0	47.5
9	Zone Maxx Helmet	8 OZ/A A 1.33 PT/A A	109	80.0	50.0	50.0
			207	90.0	50.0	50.0
			305	95.0	85.0	80.0
			410	80.0	60.0	0.0
			Mean =	86.3	61.3	45.0
10	Broadaxe XC	32 FL OZ/A A	110	80.0	0.0	25.0
			209	95.0	0.0	80.0
			303	70.0	0.0	80.0
			401	90.0	0.0	80.0
			Mean =	83.8	0.0	66.3

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Pest Type	C, GLXMA		C, GLXMA		C, GLXMA		C, GLXMA		C, GLXMA			
Pest Code	BSOY		BSOY		BSOY		BSOY		BSOY			
Pest Scientific Name	Glycine max		Glycine max		Glycine max		Glycine max		Glycine max			
Pest Name	Soybean		Soybean		Soybean		Soybean		Soybean			
Crop Type, Code	6-16-2021		6-16-2021		6-22-2021		6-22-2021		6-22-2021			
BBCH Scale	PLANT, C		plant, C		PLANT, C		PLANT, C		PLANT, P			
Crop Scientific Name	PHYGEN		COUPLA		PHYGEN		COUPLA		CONTRO			
Crop Name	Soybean		Soybean		Soybean		Soybean		Soybean			
Rating Date	6-16-2021		6-16-2021		6-22-2021		6-22-2021		6-22-2021			
Part Rated	PLANT, C		plant, C		PLANT, C		PLANT, C		PLANT, P			
Rating Type	PHYGEN		COUPLA		PHYGEN		COUPLA		CONTRO			
Rating Unit/Min/Max	% , 0, 100		PLANT, -, -		% , 0, 100		% , 0, 100		PLANT, -, -			
Sample Size	1 PLOT		10 ROWFT		1 PLOT		10 ROWFT		1 PLOT			
Number of Subsamples	1		1		1		1		1			
Data Entry Date	9-10-2021		9-10-2021		9-10-2021		9-10-2021		9-10-2021			
Rating Timing	22, 22		22, 22		22, 22		22, 22		28, 28			
Days After First/Last Applic.	22 DA-A		22 DA-A		22 DA-A		22 DA-A		28 DA-A			
Trt-Eval Interval	23 DP-1		23 DP-1		23 DP-1		23 DP-1		29 DP-1			
Plant-Eval Interval	23 DP-1		23 DP-1		23 DP-1		23 DP-1		29 DP-1			
Days After Emergence	23 DP-1		23 DP-1		23 DP-1		23 DP-1		29 DP-1			
ARM Action Codes												
Number of Decimals	0		0		0		0		0			
Trt No.	Treatment Name	Rate Unit	Appl Code	1	2	3	4	5	6	7	8	9
1	Untreated Check			0.0 a	25 a	0.0 b	0.0 b	0.0 a	24 a	0.0 b	0.0 b	0.0 c
2	Zone Defense	4 OZ/A	A	0.0 a	24 a	100.0 a	96.3 a	0.0 a	22 a	81.8 a	77.5 a	63.8 ab
3	Zone Defense	5 OZ/A	A	0.0 a	22 a	100.0 a	94.3 a	0.0 a	21 a	88.8 a	77.5 a	57.5 ab
4	Zone Defense	4 OZ/A	A	0.0 a	22 a	100.0 a	99.3 a	0.0 a	23 a	90.0 a	94.0 a	70.0 ab
	Helmet	1.33 PT/A	A									
5	Zone Defense	5 OZ/A	A	0.0 a	22 a	100.0 a	99.3 a	0.0 a	20 a	80.0 a	93.3 a	48.8 b
	Helmet	1.33 PT/A	A									
6	Zone Maxx	6.5 OZ WT/A	A	0.0 a	19 a	100.0 a	97.5 a	0.0 a	20 a	96.3 a	75.0 a	86.3 a
7	Zone Maxx	8 OZ WT/A	A	0.0 a	21 a	97.5 a	97.5 a	0.0 a	20 a	96.0 a	78.0 a	86.3 a
8	Zone Maxx	6.5 OZ WT/A	A	0.0 a	21 a	100.0 a	96.8 a	0.0 a	21 a	98.5 a	93.8 a	88.8 a
	Helmet	1.33 PT/A	A									
9	Zone Maxx	8 OZ/A	A	0.0 a	18 a	100.0 a	99.5 a	0.0 a	20 a	98.5 a	93.5 a	91.3 a
	Helmet	1.33 PT/A	A									
10	Broadaxe XC	32 FL OZ/A	A	0.0 a	23 a	100.0 a	100.0 a	0.0 a	24 a	82.8 a	91.3 a	41.3 b
	LSD P=.05			.	4.3	2.29	5.15	.	4.6	16.40	16.37	23.57
	Standard Deviation			0.00	2.9	1.58	3.55	0.00	3.2	11.31	11.28	16.24
	CV			0.0	13.67	1.76	4.03	0.0	14.75	13.92	14.58	25.63
	Levene's F^			.	1.352	0.711	1.43	.	0.724	0.911	2.739	2.607
	Levene's Prob(F)			.	0.253	0.694	0.22	.	0.684	0.529	0.018*	0.024*
	Skewness^			.	-0.0352	-3.2005*	-0.7653*	.	-0.8022*	-1.2995*	-0.8467*	-0.2002
	Kurtosis^			.	1.3771	18.2785*	0.7893	.	2.4801*	3.2011*	2.1361*	0.8572
	Replicate F			0.000	2.258	1.000	1.024	0.000	1.414	1.924	0.042	0.482
	Replicate Prob(F)			1.0000	0.1045	0.4079	0.3977	1.0000	0.2602	0.1496	0.9885	0.6973
	Treatment F			0.000	1.887	1592.111	304.788	0.000	0.786	27.037	25.282	12.238
	Treatment Prob(F)			1.0000	0.0977	0.0001	0.0001	1.0000	0.6311	0.0001	0.0001	0.0001

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Pest Type	W, Weed	W, Weed	W, Weed		
Pest Code	DIGSA	AMAPA	DIGSA		
Pest Scientific Name	Digitaria sangu>	Amaranthus palm>	Digitaria sangu>		
Pest Name	crabgrass, large	amaranth, Palmer	crabgrass, large		
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	6-30-2021	7-9-2021	7-9-2021		
Part Rated	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1		
Data Entry Date	9-10-2021	9-10-2021	9-10-2021		
Rating Timing					
Days After First/Last Applic.	36, 36	45, 45	45, 45		
Trt-Eval Interval	36 DA-A	45 DA-A	45 DA-A		
Plant-Eval Interval	37 DP-1	46 DP-1	46 DP-1		
Days After Emergence					
ARM Action Codes					
Number of Decimals					
Trt Treatment	Rate	Appl	10	11	12
No. Name	Rate Unit	Code			

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Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	DIGSA	AMAPA	DIGSA
Pest Scientific Name	Digitaria sangu>	Amaranthus palm>	Digitaria sangu>
Pest Name	crabgrass, large	amaranth, Palmer	crabgrass, large
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	6-30-2021	7-9-2021	7-9-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	9-10-2021	9-10-2021	9-10-2021
Rating Timing			
Days After First/Last Applic.	36, 36	45, 45	45, 45
Trt-Eval Interval	36 DA-A	45 DA-A	45 DA-A
Plant-Eval Interval	37 DP-1	46 DP-1	46 DP-1
Days After Emergence			
ARM Action Codes			
Number of Decimals			

Trt No.	Treatment Name	Rate	Unit	Appl Code	10	11	12
1	Untreated Check				0.0 b	0.0 c	0.0 b
2	Zone Defense	4 OZ/A		A	48.8 ab	45.0 ab	15.0 ab
3	Zone Defense	5 OZ/A		A	40.0 ab	25.0 bc	30.0 ab
4	Zone Defense	4 OZ/A		A	86.3 a	26.3 bc	70.0 a
	Helmet	1.33 PT/A		A			
5	Zone Defense	5 OZ/A		A	85.0 a	21.3 bc	67.5 a
	Helmet	1.33 PT/A		A			
6	Zone Maxx	6.5 OZ WT/A		A	36.3 ab	77.5 a	17.5 ab
7	Zone Maxx	8 OZ WT/A		A	50.0 ab	77.5 a	21.3 ab
8	Zone Maxx	6.5 OZ WT/A		A	67.5 a	70.0 a	47.5 ab
	Helmet	1.33 PT/A		A			
9	Zone Maxx	8 OZ/A		A	86.3 a	61.3 ab	45.0 ab
	Helmet	1.33 PT/A		A			
10	Broadaxe XC	32 FL OZ/A		A	83.8 a	0.0 c	66.3 a
	LSD P=.05				35.66	30.07	36.89
	Standard Deviation				24.58	20.73	25.43
	CV				42.11	51.34	66.92
	Levene's F^				1.66	0.875	1.105
	Levene's Prob(F)				0.143	0.557	0.389
	Skewness^				-0.1999	0.1042	-0.1212
	Kurtosis^				-0.2441	-0.2414	-0.5002
	Replicate F				1.494	1.751	1.781
	Replicate Prob(F)				0.2387	0.1803	0.1745
	Treatment F				5.435	8.435	3.828
	Treatment Prob(F)				0.0003	0.0001	0.0032

University of Kentucky

Evaluation of Reviton Zone Defense & Zone Maxx in herbicide programs (University)

Trial ID: 21-12_SOY-REC Location: UKREC 505-D2 Trial Year: 2021
Protocol ID: 2021-H-US20 Investigator (Creator): Travis Legleiter
Project ID: 2021-H-US20 Study Director: Scott Akin, PhD
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMAPA, Amaranthus palmeri, amaranth, Palmer = US

DIGSA, Digitaria sanguinalis, crabgrass, large = US

Crop Type Code

C = EPPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

COUPLA = count - plant / emergence - objective

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLANT, , = plant

PLOT = total plot

ROWFT = row-foot

Plant-Eval Interval

23 DP-1 = 1 GLXMA 5-24-2021

29 DP-1 = 1 GLXMA 5-24-2021

37 DP-1 = 1 GLXMA 5-24-2021

46 DP-1 = 1 GLXMA 5-24-2021

University of Kentucky

Broadleaf and grass control with Tarzec

Trial Year: 2021

Trial ID: NA21D2C007H-DMS017 Location:
 Protocol ID: NA21D2C007H Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Reps: 4		Plots: 10 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=1.564 L)		Appl Amt Product Rep											
Appl. Amount: 15 GAL/AC		Form		Form		Rate		Other		Other		Appl		Appl Amt Product Rep			
Trt Treatment		Form		Form		Rate		Other		Other		Appl					
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Timing	Code	to Measure	1	2	3	4	
1	UNTREATED												101	201	308	402	
2	TARZEC ACTIVATOR 90	316.67	GAE/KG	WG L	22.2 g 0.25 %	AE/ha V/V	1 OZ /A 0.25 %			1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A	1.042 g/mx 5.0 mL/mx		102	208	304	404	
3	TARZEC 2,4-D ESTER LV ACTIVATOR 90	316.67 660	GAE/KG GAE/L	WG EC L	22.2 g 350 g 0.25 %	AE/ha AE/ha V/V	1 OZ /A 7.26 FL OZ /A 0.25 %			1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A	1.042 g/mx 7.563 mL/mx 5.0 mL/mx		103	207	303	401	
4	TARZEC HARMONY EXTRA SG ACTIVATOR 90	316.67 500	GAE/KG GA/KG	WG SG L	22.2 g 26.3 g 0.25 %	AE/ha Al/ha V/V	1 OZ /A 0.75 OZ /A 0.25 %			1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A	1.042 g/mx 0.7812 g/mx 5.0 mL/mx		104	202	302	407	
5	POWERFLEX HL ACTIVATOR 90	131.25	GA/KG	WG L	18.4 g 0.25 %	Al/ha V/V	2 OZ /A 0.25 %			1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A	2.083 g/mx 5.0 mL/mx		105	203	306	408	
6	POWERFLEX HL 2,4-D ESTER LV ACTIVATOR 90	131.25 660	GA/KG GAE/L	WG EC L	18.4 g 350 g 0.25 %	Al/ha AE/ha V/V	2 OZ /A 7.26 FL OZ /A 0.25 %			1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A	2.083 g/mx 7.563 mL/mx 5.0 mL/mx		106	206	307	403	
7	TARZEC QUELEX ACTIVATOR 90	316.67 200	GAE/KG GAE/KG	WG WG L	22.2 g 7.7 g 0.25 %	AE/ha AE/ha V/V	1 OZ /A 0.55 OZ /A 0.25 %			1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A	1.042 g/mx 0.5728 g/mx 5.0 mL/mx		107	204	305	406	
8	HARMONY EXTRA SG ACTIVATOR 90	500	GA/KG	SG L	26.7 g 0.25 %	Al/ha V/V	0.75 OZ /A 0.25 %			1 TO 4 LF WEEDS A 1 TO 4 LF WEEDS A	0.7812 g/mx 5.0 mL/mx		108	205	301	405	

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot Code
5.208 g		TARZEC		316.67	GAE/KG	WG			
43.750 mL		ACTIVATOR 90				L			
18.906 mL		2,4-D ESTER LV		660	GAE/L	EC			
1.953 g		HARMONY EXTRA SG		500	GA/KG	SG			
5.208 g		POWERFLEX HL		131.25	GA/KG	WG			
0.716 g		QUELEX		200	GAE/KG	WG			

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

University of Kentucky

Broadleaf and grass control with Tarzec

Trial Year: 2021

Trial ID: NA21D2C007H-DMS017
Protocol ID: NA21D2C007H
Project ID:

Location:
Investigator (Creator): Travis Legleiter
Study Director:
Sponsor Contact:

General Trial Information

Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established
ARM Trial Created On: 3-5-2021

Trial Location

City: Princeton **Country:** USA United States
State/Prov.: Kentucky
Postal Code: 42445

Conducted Under GLP: No

Conducted Under GEP: No

Role: INVEST investigator
Investigator: Travis Legleiter

Title: Assistant Extension Professor

Organization: University of Kentucky

Address 1: 348 University Drive

Phone No.: 859-562-1323

Country: USA United States

E-mail: Travis.Legleiter@uky.edu

City: Princeton, KY

Postal Code: 42445

Crop Description

Crop 1: C TRZAW Triticum aestivum

Winter wheat

BBCH Scale: BCER

Entry Date: 10-13-2021

Stage Scale: BBCH

Variety: Pioneer 26R10

Planting Date: 10-22-2020

Planting Rate: 156 LB/A

Depth: 1 IN

Planting Method: DRILLE drilled

Row Spacing: 7.5 IN

Planting Equipment: DD disc drill

Soil Temperature: 67 F

Soil Moisture: WET wet

Emergence Date: 11-2-2020

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Pest Description

- Pest 1 Type:** W **Code:** GERCA Geranium carolinianum **Entry Date:** 10-13-2021
Common Name: Carolina geranium **Stage Scale:** BBCH
- Pest 2 Type:** W **Code:** CARHI Cardamine hirsuta **Entry Date:** 10-13-2021
Common Name: bittercress, hairy **Stage Scale:** BBCH
- Pest 3 Type:** W **Code:** OXAST Oxalis stricta **Entry Date:** 10-13-2021
Common Name: woodsorrel, yellow **Stage Scale:** BBCH
- Pest 4 Type:** W **Code:** VIOAR Viola arvensis **Entry Date:** 10-13-2021
Common Name: violet, field **Stage Scale:** BBCH
- Pest 5 Type:** W **Code:** THLAR Thlaspi arvense **Entry Date:** 10-13-2021
Common Name: Field pennycress **Stage Scale:** BBCH
- Pest 6 Type:** W **Code:** CERVU Cerastium fontanum ssp. vulgare **Entry Date:** 10-13-2021
Common Name: chickweed, mouseear **Stage Scale:** BBCH
- Pest 7 Type:** W **Code:** STEME Stellaria media **Entry Date:** 10-13-2021
Common Name: chickweed, common **Stage Scale:** BBCH
- Pest 8 Type:** W **Code:** LAMPU Lamium purpureum **Entry Date:** 10-13-2021
Common Name: purple deadnettle **Stage Scale:** BBCH
- Pest 9 Type:** W **Code:** LAMAM Lamium amplexicaule **Entry Date:** 10-13-2021
Common Name: henbit **Stage Scale:** BBCH
- Pest10 Type:** W **Code:** ERPVE Draba verna **Entry Date:** 10-13-2021
Common Name: common whitlowgrass **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300.0 FT2 **Treatments:** 8 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: 201-AB
% Sand: 7.2 **% OM:** 2.6 **Texture:** SIL silt loam
% Silt: 77.9 **pH:** 5.29 **Soil Name:** Crider Silt loam
% Clay: 14.9 **CEC:** 13.81

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Application Description

Application Date 3-16-2021 **A**
Appl. Start Time 6:09 PM
Appl. Stop Time 6:22 PM
Application Method SPRAY
Application Timing POST
Application Placement foliar
Appl. Entry Date 10-13-2021
Air Temperature Start, Stop 72, - F
Wind Velocity+Dir. Start 5 MPH, N
Wind Velocity+Dir. Stop 6 MPH, N
Wind Velocity+Dir. Max 9 MPH, N
Wet Leaves (Y/N) N, no
Soil Temperature 50 F
Soil Moisture damp
% Cloud Cover 100

Crop Stage At Each Application

Crop 1 Code, BBCH Scale TRZAW, BCER **A**
Days after Emergence 134

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Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	GERCA, W, BBCH
Height Average	2 IN
Height Minimum, Maximum	1.25, 2.5
Density Average	0.75 ft ²
Density Minimum, Maximum	0, 3
Pest 2 Code, Type, Scale	CARHI, W, BBCH
Height Average	1 IN
Height Minimum, Maximum	0.75, 2
Density Average	1 ft ²
Density Minimum, Maximum	0, 2
Pest 3 Code, Type, Scale	OXAST, W, BBCH
Height Average	1 IN
Height Minimum, Maximum	1, 1
Density Average	0.25 ft ²
Density Minimum, Maximum	0, 1
Pest 4 Code, Type, Scale	VIOAR, W, BBCH
Height Average	1.25 IN
Height Minimum, Maximum	1.25, 1.25
Density Average	0.25 ft ²
Density Minimum, Maximum	0, 1
Pest 5 Code, Type, Scale	THLAR, W, BBCH
Height Average	2 IN
Height Minimum, Maximum	1, 3.75
Density Average	1 ft ²
Density Minimum, Maximum	0, 3
Pest 6 Code, Type, Scale	CERVU, W, BBCH
Height Average	3 IN
Height Minimum, Maximum	0.75, 6.5
Density Average	4 ft ²
Density Minimum, Maximum	2, 9
Pest 7 Code, Type, Scale	STEME, W, BBCH
Height Average	5 IN
Height Minimum, Maximum	1.5, 7.5
Density Average	0.75 ft ²
Density Minimum, Maximum	0, 1
Pest 8 Code, Type, Scale	LAMPU, W, BBCH
Height Average	5.75 IN
Height Minimum, Maximum	5.75, 5.75
Density Average	0.25 ft ²
Density Minimum, Maximum	0, 1
Pest 9 Code, Type, Scale	LAMAM, W, BBCH
Height Average	3 IN
Height Minimum, Maximum	2, 5.25
Density Average	4.25 ft ²
Density Minimum, Maximum	2, 10
Pest10 Code, Type, Scale	ERPVE, W, BBCH
Height Average	1 IN
Height Minimum, Maximum	0.5, 1.25
Density Average	0.5 ft ²
Density Minimum, Maximum	0, 2

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Pest Type				W, Weed	W, Weed	W, Weed			
Pest Code				POAAN	LAMAM	CERVU			
Pest Scientific Name				Poa annua	Lamium amplexic>	Cerastium fonta>			
Pest Name				Annual bluegrass	Henbit deadnett>	common mouse-ear>			
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW				C, TRZAW	C, TRZAW	
BBCH Scale	BCER	BCER	BCER				BCER	BCER	
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>				Triticum aestiv>	Triticum aestiv>	
Crop Name	Winter wheat	Winter wheat	Winter wheat				Winter wheat	Winter wheat	
Rating Date	4-2-2021	4-2-2021	4-2-2021	4-2-2021	4-2-2021	4-2-2021	4-14-2021	4-14-2021	
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, C	
Rating Type	PHYCHL	GROINHIB	PHYGEN	CONTRO	CONTRO	CONTRO	PHYCHL	GROINHIB	
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1	1	1	1	
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	
Rating Timing									
Days After First/Last Applic.	17, 17	17, 17	17, 17	17, 17	17, 17	17, 17	29, 29	29, 29	
Trt-Eval Interval	17 DA-A	17 DA-A	17 DA-A	17 DA-A	17 DA-A	17 DA-A	29 DA-A	29 DA-A	
Plant-Eval Interval	162 DP-1	162 DP-1	162 DP-1	162 DP-1	162 DP-1	162 DP-1	174 DP-1	174 DP-1	
Days After Emergence	151 DE-1	151 DE-1	151 DE-1	151 DE-1	151 DE-1	151 DE-1	163 DE-1	163 DE-1	
ARM Action Codes						ET8	ER2		
Number of Decimals									

Trt	Treatment	Rate	Appl								
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8
2	TARZEC	22.2 g AE/ha	A 102	0.0	0.0	0.0	0.0	50.0	57.0	0.0	0.0
	ACTIVATOR 90	0.25 % V/V	A 208	0.0	0.0	0.0	0.0*	70.0		0.0	0.0
			304	0.0	0.0	0.0	0.0	70.0	80.0	0.0	0.0
			404	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	60.0	62.3	0.0	0.0
3	TARZEC	22.2 g AE/ha	A 103	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
	2,4-D ESTER LV	350 g AE/ha	A 207	0.0	0.0	0.0	0.0	80.0		0.0	0.0
	ACTIVATOR 90	0.25 % V/V	A 303	0.0	0.0	0.0	0.0	70.0	80.0	0.0	0.0
			401	0.0	0.0	0.0	0.0*	70.0	50.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	67.5	60.0	0.0	0.0
4	TARZEC	22.2 g AE/ha	A 104	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
	HARMONY EXTRA SG	26.3 g AI/ha	A 202	0.0	0.0	0.0	0.0	70.0		0.0	0.0
	ACTIVATOR 90	0.25 % V/V	A 302	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
			407	0.0	0.0	0.0	0.0	70.0	75.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	60.0	58.3	0.0	0.0
5	POWERFLEX HL	18.4 g AI/ha	A 105	0.0	0.0	0.0	0.0	20.0	25.0	0.0	0.0
	ACTIVATOR 90	0.25 % V/V	A 203	0.0	0.0	0.0	0.0	50.0		0.0	0.0
			306	0.0	0.0	0.0	0.0*	0.0	20.0	0.0	0.0
			408	0.0	0.0	0.0	0.0	20.0	50.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	22.5	31.7	0.0	0.0
6	POWERFLEX HL	18.4 g AI/ha	A 106	0.0	0.0	0.0	0.0	70.0	75.0	0.0	0.0
	2,4-D ESTER LV	350 g AE/ha	A 206	0.0	0.0	0.0	0.0*	50.0		0.0	0.0
	ACTIVATOR 90	0.25 % V/V	A 307	0.0	0.0	0.0	0.0	50.0	70.0	0.0	0.0
			403	0.0	0.0	0.0	0.0	28.0	58.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	49.5	67.7	0.0	0.0
7	TARZEC	22.2 g AE/ha	A 107	0.0	0.0	0.0	0.0	70.0	80.0	0.0	0.0
	QUELEX	7.7 g AE/ha	A 204	0.0	0.0	0.0	0.0	50.0		0.0	0.0
	ACTIVATOR 90	0.25 % V/V	A 305	0.0	0.0	0.0	0.0*	50.0	50.0	0.0	0.0
			406	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	55.0	43.3	0.0	0.0

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Pest Type				W, Weed	W, Weed	W, Weed			
Pest Code				POAAN	LAMAM	CERVU			
Pest Scientific Name				Poa annua	Lamium amplexic>	Cerastium fonta>			
Pest Name				Annual bluegrass	Henbit deadnett>	common mouse-ear>			
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW				C, TRZAW	C, TRZAW	
BBCH Scale	BCER	BCER	BCER				BCER	BCER	
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>				Triticum aestiv>	Triticum aestiv>	
Crop Name	Winter wheat	Winter wheat	Winter wheat				Winter wheat	Winter wheat	
Rating Date	4-2-2021	4-2-2021	4-2-2021	4-2-2021	4-2-2021	4-2-2021	4-14-2021	4-14-2021	
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, C	
Rating Type	PHYCHL	GROINHIB	PHYGEN	CONTRO	CONTRO	CONTRO	PHYCHL	GROINHIB	
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1	1	1	1	
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	
Rating Timing									
Days After First/Last Applic.	17, 17	17, 17	17, 17	17, 17	17, 17	17, 17	29, 29	29, 29	
Trt-Eval Interval	17 DA-A	17 DA-A	17 DA-A	17 DA-A	17 DA-A	17 DA-A	29 DA-A	29 DA-A	
Plant-Eval Interval	162 DP-1	162 DP-1	162 DP-1	162 DP-1	162 DP-1	162 DP-1	174 DP-1	174 DP-1	
Days After Emergence	151 DE-1	151 DE-1	151 DE-1	151 DE-1	151 DE-1	151 DE-1	163 DE-1	163 DE-1	
ARM Action Codes						ET8	ER2		
Number of Decimals									

Trt	Treatment	Rate	Appl									
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	
8	HARMONY EXTRA SG	26.7 g Al/ha	A	108	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0
	ACTIVATOR 90	0.25 % V/V	A	205	0.0	0.0	0.0	0.0*	0.0	0.0	0.0	0.0
				301	0.0	0.0	0.0	0.0*	70.0	0.0	0.0	0.0
				405	0.0	0.0	0.0	0.0*	50.0	70.0	0.0	0.0
			Mean =		0.0	0.0	0.0	0.0	30.0	63.3	0.0	0.0

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Pest Type		W, Weed	W, Weed	W, Weed					W, Weed
Pest Code		POAAN	LAMAM	CERVU					LAMAM
Pest Scientific Name		Poa annua	Lamium amplexic>	Cerastium fonta>					Lamium amplexic>
Pest Name		Annual bluegrass	Henbit deadnett>	common mouse-ear>					henbit
Crop Type, Code	C, TRZAW				C, TRZAW	C, TRZAW	C, TRZAW		
BBCH Scale	BCER				BCER	BCER	BCER		
Crop Scientific Name	Triticum aestiv>				Triticum aestiv>	Triticum aestiv>	Triticum aestiv>		
Crop Name	Winter wheat				Winter wheat	Winter wheat	Winter wheat		
Rating Date	4-14-2021	4-14-2021	4-14-2021	4-14-2021	5-7-2021	5-7-2021	5-7-2021		5-7-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, C	PLANT, C		PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYCHL	GROINHIB	PHYGEN		CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		1 PLOT
Number of Subsamples	1	1	1	1	1	1	1		1
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021		10-13-2021
Rating Timing									
Days After First/Last Applic.	29, 29	29, 29	29, 29	29, 29	52, 52	52, 52	52, 52		52, 52
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A	29 DA-A	52 DA-A	52 DA-A	52 DA-A		52 DA-A
Plant-Eval Interval	174 DP-1	174 DP-1	174 DP-1	174 DP-1	197 DP-1	197 DP-1	197 DP-1		197 DP-1
Days After Emergence	163 DE-1	163 DE-1	163 DE-1	163 DE-1	186 DE-1	186 DE-1	186 DE-1		186 DE-1
ARM Action Codes									AA
Number of Decimals									

Trt	Treatment	Rate	Appl								
No.	Name	Rate Unit	Code Plot	9	10	11	12	13	14	15	16
2	TARZEC	22.2 g AE/ha	A 102	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
	ACTIVATOR 90	0.25 % V/V	A 208	0.0	0.0*	100.0	100.0	0.0	0.0	0.0	100.0
			304	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
			404	0.0	0.0	95.0	95.0	0.0	0.0	0.0	95.0
			Mean =	0.0	0.0	98.8	98.8	0.0	0.0	0.0	99.7d
3	TARZEC	22.2 g AE/ha	A 103	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
	2,4-D ESTER LV	350 g AE/ha	A 207	0.0	0.0*	100.0	100.0	0.0	0.0	0.0	100.0
	ACTIVATOR 90	0.25 % V/V	A 303	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
			401	0.0	0.0*	100.0	97.0	0.0	0.0	0.0	100.0
			Mean =	0.0	0.0	100.0	99.3	0.0	0.0	0.0	100.0d
4	TARZEC	22.2 g AE/ha	A 104	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
	HARMONY EXTRA SG	26.3 g AI/ha	A 202	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
	ACTIVATOR 90	0.25 % V/V	A 302	0.0	0.0	95.0	100.0	0.0	0.0	0.0	95.0
			407	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
			Mean =	0.0	0.0	98.8	100.0	0.0	0.0	0.0	99.7d
5	POWERFLEX HL	18.4 g AI/ha	A 105	0.0	0.0	50.0	100.0	0.0	0.0	0.0	100.0
	ACTIVATOR 90	0.25 % V/V	A 203	0.0	0.0	50.0	100.0	0.0	0.0	0.0	80.0
			306	0.0	0.0*	0.0	100.0	0.0	0.0	0.0	50.0
			408	0.0	0.0	0.0	100.0	0.0	0.0	0.0	75.0
			Mean =	0.0	0.0	25.0	100.0	0.0	0.0	0.0	81.6d
6	POWERFLEX HL	18.4 g AI/ha	A 106	0.0	0.0	80.0	100.0	0.0	0.0	0.0	100.0
	2,4-D ESTER LV	350 g AE/ha	A 206	0.0	0.0*	97.0	97.0	0.0	0.0	0.0	100.0
	ACTIVATOR 90	0.25 % V/V	A 307	0.0	0.0	70.0	100.0	0.0	0.0	0.0	100.0
			403	0.0	0.0	60.0	97.0	0.0	0.0	0.0	80.0
			Mean =	0.0	0.0	76.8	98.5	0.0	0.0	0.0	98.7d
7	TARZEC	22.2 g AE/ha	A 107	0.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0
	QUELEX	7.7 g AE/ha	A 204	0.0	0.0	97.0	100.0	0.0	0.0	0.0	97.0
	ACTIVATOR 90	0.25 % V/V	A 305	0.0	0.0*	100.0	100.0	0.0	0.0	0.0	100.0
			406	0.0	0.0	100.0	50.0	0.0	0.0	0.0	100.0
			Mean =	0.0	0.0	99.3	87.5	0.0	0.0	0.0	99.8d

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed						W, Weed
Pest Code	POAAN	LAMAM	CERVU						LAMAM
Pest Scientific Name	Poa annua	Lamium amplexic>	Cerastium fonta>						Lamium amplexic>
Pest Name	Annual bluegrass	Henbit deadnett>	common mouse-ea>						henbit
Crop Type, Code	C, TRZAW				C, TRZAW	C, TRZAW	C, TRZAW		
BBCH Scale	BCER				BCER	BCER	BCER		
Crop Scientific Name	Triticum aestiv>				Triticum aestiv>	Triticum aestiv>	Triticum aestiv>		
Crop Name	Winter wheat				Winter wheat	Winter wheat	Winter wheat		
Rating Date	4-14-2021	4-14-2021	4-14-2021	4-14-2021	5-7-2021	5-7-2021	5-7-2021		5-7-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, C	PLANT, C		PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYCHL	GROINHIB	PHYGEN		CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		1 PLOT
Number of Subsamples	1	1	1	1	1	1	1		1
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021		10-13-2021
Rating Timing									
Days After First/Last Applic.	29, 29	29, 29	29, 29	29, 29	52, 52	52, 52	52, 52		52, 52
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A	29 DA-A	52 DA-A	52 DA-A	52 DA-A		52 DA-A
Plant-Eval Interval	174 DP-1	174 DP-1	174 DP-1	174 DP-1	197 DP-1	197 DP-1	197 DP-1		197 DP-1
Days After Emergence	163 DE-1	163 DE-1	163 DE-1	163 DE-1	186 DE-1	186 DE-1	186 DE-1		186 DE-1
ARM Action Codes									AA
Number of Decimals									

Trt	Treatment	Rate	Appl																			
No.	Name	Rate Unit	Code Plot	9	10	11	12	13	14	15	16											
8	HARMONY EXTRA SG	26.7 g AI/ha	A	108	0.0	0.0	80.0	100.0	0.0	0.0	0.0	80.0										
	ACTIVATOR 90	0.25 % V/V	A	205	0.0	0.0*	50.0	100.0	0.0	0.0	0.0	75.0										
				301	0.0	0.0*	70.0	100.0	0.0	0.0	0.0	100.0										
				405	0.0	0.0*	90.0	90.0	0.0	0.0	0.0	90.0										
			Mean =		0.0	0.0	72.5	97.5	0.0	0.0	0.0	89.7d										

University of Kentucky

Broadleaf and grass control with Tarzec

Trial Year: 2021

Trial ID: NA21D2C007H-DMS017
Protocol ID: NA21D2C007H
Project ID:

Location:
Investigator (Creator): Travis Legleiter
Study Director:
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

POAAN, Poa annua, Annual bluegrass = US

LAMAM, Lamium amplexicaule, Henbit deadnettle = US

CERVU, Cerastium fontanum vulgare, common mouse-ear chickweed = US

Crop Type Code

C = EPPO species (Bayer) codes

TRZAW, BCER, Triticum aestivum, Winter wheat = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYCHL = phytotoxicity - chlorosis

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

Plant-Eval Interval

162 DP-1 = 1 TRZAW 10-22-2020

174 DP-1 = 1 TRZAW 10-22-2020

197 DP-1 = 1 TRZAW 10-22-2020

ARM Action Codes

ET8 = Excluded treatment 8

ER2 = Excluded replicate 2

AA = Automatic arcsine square root % transformation

University of Kentucky

Pest Type				W, Weed	W, Weed	W, Weed				
Pest Code				POAAN	LAMAM	CERVU				
Pest Scientific Name				Poa annua	Lamium amplexic>	Cerastium fonta>				
Pest Name				Annual bluegrass	Henbit deadnett>	common mouse-ear>				
Crop Type, Code	C, TRZAW	C, TRZAW	C, TRZAW				C, TRZAW	C, TRZAW		
BBCH Scale	BCER	BCER	BCER				BCER	BCER		
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>	Triticum aestiv>				Triticum aestiv>	Triticum aestiv>		
Crop Name	Winter wheat	Winter wheat	Winter wheat				Winter wheat	Winter wheat		
Rating Date	4-2-2021	4-2-2021	4-2-2021	4-2-2021	4-2-2021	4-2-2021	4-14-2021	4-14-2021		
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, C		
Rating Type	PHYCHL	GROINHIB	PHYGEN	CONTRO	CONTRO	CONTRO	PHYCHL	GROINHIB		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1		
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021	10-13-2021		
Rating Timing										
Days After First/Last Applic.	17, 17	17, 17	17, 17	17, 17	17, 17	17, 17	29, 29	29, 29		
Trt-Eval Interval	17 DA-A	17 DA-A	17 DA-A	17 DA-A	17 DA-A	17 DA-A	29 DA-A	29 DA-A		
Plant-Eval Interval	162 DP-1	162 DP-1	162 DP-1	162 DP-1	162 DP-1	162 DP-1	174 DP-1	174 DP-1		
Days After Emergence	151 DE-1	151 DE-1	151 DE-1	151 DE-1	151 DE-1	151 DE-1	163 DE-1	163 DE-1		
ARM Action Codes										
Number of Decimals										
Trt	Rate	Appl	1	2	3	4	5	6	7	8
No. Name	Rate Unit	Code								
1 UNTREATED			0.0 a	0.0 a	0.0 a	0.0 a	0.0 c	0.0 b	0.0 a	0.0 a
2 TARZEC	22.2 g AE/ha A		0.0 a	0.0 a	0.0 a	0.0 a	60.0 a	62.3 a	0.0 a	0.0 a
ACTIVATOR 90	0.25 % V/V A									
3 TARZEC	22.2 g AE/ha A		0.0 a	0.0 a	0.0 a	0.0 a	67.5 a	60.0 a	0.0 a	0.0 a
2,4-D ESTER LV	350 g AE/ha A									
ACTIVATOR 90	0.25 % V/V A									
4 TARZEC	22.2 g AE/ha A		0.0 a	0.0 a	0.0 a	0.0 a	60.0 a	58.3 a	0.0 a	0.0 a
HARMONY EXTRA SG	26.3 g AI/ha A									
ACTIVATOR 90	0.25 % V/V A									
5 POWERFLEX HL	18.4 g AI/ha A		0.0 a	0.0 a	0.0 a	0.0 a	22.5 b	31.7 ab	0.0 a	0.0 a
ACTIVATOR 90	0.25 % V/V A									
6 POWERFLEX HL	18.4 g AI/ha A		0.0 a	0.0 a	0.0 a	0.0 a	49.5 a	67.7 a	0.0 a	0.0 a
2,4-D ESTER LV	350 g AE/ha A									
ACTIVATOR 90	0.25 % V/V A									
7 TARZEC	22.2 g AE/ha A		0.0 a	0.0 a	0.0 a	0.0 a	55.0 a	43.3 a	0.0 a	0.0 a
QUELEX	7.7 g AE/ha A									
ACTIVATOR 90	0.25 % V/V A									
8 HARMONY EXTRA SG	26.7 g AI/ha A		0.0 a	0.0 a	0.0 a	0.0 a	30.0	63.3 a	0.0 a	0.0 a
ACTIVATOR 90	0.25 % V/V A									
LSD P=.05			.	.	.	.	19.51	34.49	.	.
Standard Deviation			0.00	0.00	0.00	0.00	13.13	19.70	0.00	0.00
CV			0.0	0.0	0.0	0.0	29.23	40.75	0.0	0.0
Levene's F^			.	.	.	.	0.531	1.466	.	.
Levene's Prob(F)			.	.	.	.	0.779	0.226	.	.
Skewness^			.	.	.	.	0.1345	-0.1475	.	.
Kurtosis^			.	.	.	.	-0.4142	1.2698	.	.
Replicate F			0.000	0.000	0.000	0.000	1.216	0.362	0.000	0.000
Replicate Prob(F)			1.0000	1.0000	1.0000	1.0000	0.3326	0.7029	1.0000	1.0000
Treatment F			0.000	0.000	0.000	0.000	13.947	4.054	0.000	0.000
Treatment Prob(F)			1.0000	1.0000	1.0000	1.0000	0.0001	0.0124	1.0000	1.0000

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	POAAN	LAMAM	CERVU	LAMAM
Pest Scientific Name	Poa annua	Lamium amplexic>	Cerastium fonta>	Lamium amplexic>
Pest Name	Annual bluegrass	Henbit deadnett>	common mouse-ear>	henbit
Crop Type, Code	C, TRZAW			C, TRZAW
BBCH Scale	BCER			BCER
Crop Scientific Name	Triticum aestiv>			Triticum aestiv>
Crop Name	Winter wheat			Winter wheat
Rating Date	4-14-2021	4-14-2021	4-14-2021	4-14-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	CONTRO	CONTRO	PHYCHL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1
Data Entry Date	10-13-2021	10-13-2021	10-13-2021	10-13-2021
Rating Timing				
Days After First/Last Applic.	29, 29	29, 29	29, 29	52, 52
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A	52 DA-A
Plant-Eval Interval	174 DP-1	174 DP-1	174 DP-1	197 DP-1
Days After Emergence	163 DE-1	163 DE-1	163 DE-1	186 DE-1
ARM Action Codes				AA
Number of Decimals				

Trt No.	Treatment Name	Rate	Appl Code	9	10	11	12	13	14	15	16 dAA
1	UNTREATED			0.0 a	0.0 a	0.0 c	0.0 b	0.0 a	0.0 a	0.0 a	0.0 c
2	TARZEC	22.2 g AE/ha A		0.0 a	0.0 a	98.8 a	98.8 a	0.0 a	0.0 a	0.0 a	99.7 a
	ACTIVATOR 90	0.25 % V/V A									
3	TARZEC	22.2 g AE/ha A		0.0 a	0.0 a	100.0 a	99.3 a	0.0 a	0.0 a	0.0 a	100.0 a
	2,4-D ESTER LV	350 g AE/ha A									
	ACTIVATOR 90	0.25 % V/V A									
4	TARZEC	22.2 g AE/ha A		0.0 a	0.0 a	98.8 a	100.0 a	0.0 a	0.0 a	0.0 a	99.7 a
	HARMONY EXTRA SG	26.3 g Al/ha A									
	ACTIVATOR 90	0.25 % V/V A									
5	POWERFLEX HL	18.4 g Al/ha A		0.0 a	0.0 a	25.0 b	100.0 a	0.0 a	0.0 a	0.0 a	81.6 b
	ACTIVATOR 90	0.25 % V/V A									
6	POWERFLEX HL	18.4 g Al/ha A		0.0 a	0.0 a	76.8 a	98.5 a	0.0 a	0.0 a	0.0 a	98.7 a
	2,4-D ESTER LV	350 g AE/ha A									
	ACTIVATOR 90	0.25 % V/V A									
7	TARZEC	22.2 g AE/ha A		0.0 a	0.0 a	99.3 a	87.5 a	0.0 a	0.0 a	0.0 a	99.8 a
	QUELEX	7.7 g AE/ha A									
	ACTIVATOR 90	0.25 % V/V A									
8	HARMONY EXTRA SG	26.7 g Al/ha A		0.0 a	0.0 a	72.5 a	97.5 a	0.0 a	0.0 a	0.0 a	89.7 ab
	ACTIVATOR 90	0.25 % V/V A									
	LSD P=.05			.	.	19.42	12.53	.	.	.	6.75 - 15.17
	Standard Deviation			0.00	0.00	13.21	8.52	0.00	0.00	0.00	10.24t
	CV			0.0	0.0	18.5	10.0	0.0	0.0	0.0	14.37t
	Levene's F^			.	.	4.519	0.639	.	.	.	1.26
	Levene's Prob(F)			.	.	0.002*	0.719	.	.	.	0.311
	Skewness^			.	.	-0.1173	-2.5334*	.	.	.	0.0452
	Kurtosis^			.	.	0.9893	12.1842*	.	.	.	1.3706
	Replicate F			0.000	0.000	0.961	2.113	0.000	0.000	0.000	0.772
	Replicate Prob(F)			1.0000	1.0000	0.4296	0.1290	1.0000	1.0000	1.0000	0.5224
	Treatment F			0.000	0.000	33.971	66.217	0.000	0.000	0.000	34.679
	Treatment Prob(F)			1.0000	1.0000	0.0001	0.0001	1.0000	1.0000	1.0000	0.0001

University of Kentucky

Broadleaf and grass control with Tarzec

Trial Year: 2021

Trial ID: NA21D2C007H-DMS017
Protocol ID: NA21D2C007H
Project ID:

Location:
Investigator (Creator): Travis Legleiter
Study Director:
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

POAAN, Poa annua, Annual bluegrass = US

LAMAM, Lamium amplexicaule, Henbit deadnettle = US

CERVU, Cerastium fontanum vulgare, common mouse-ear chickweed = US

Crop Type Code

C = EPPO species (Bayer) codes

TRZAW, BCER, Triticum aestivum, Winter wheat = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYCHL = phytotoxicity - chlorosis

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

Plant-Eval Interval

162 DP-1 = 1 TRZAW 10-22-2020

174 DP-1 = 1 TRZAW 10-22-2020

197 DP-1 = 1 TRZAW 10-22-2020

ARM Action Codes

ET8 = Excluded treatment 8

ER2 = Excluded replicate 2

AA = Automatic arcsine square root % transformation

University of Kentucky

Enlist Soybean Programs

Trial ID: 21-14_SOY-REC Location: UKREC 505-D2 Trial Year: 2021
Protocol ID: NA21P2E002H Investigator (Creator): Travis Legleiter
Project ID: Study Director:
Sponsor Contact:

Reps: 4 Plots: 6.7 by 30 feet
Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.048 L, overage=436 mL)

Trt No.	Treatment Name	Form Conc Unit	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Appl Amt to Measure	Product	Rep
1	Untreated										101 206 307 404
2	Trivence	61.3 %	WG	6 OZ/A	0.23 LBA/A		PRE A		5.995 g/mx		102 203 306 407
	Enlist Duo	3.3 lbae/gal	SL	4.75 PT/A	1.96 LBA/A		POST B		79.18 mL/mx		
	AMS - Liquid	3.4 lba/gal	SL	2.5 % V/V	1.27 LBA/A		POST B		49.8 mL/mx		
3	Trivence	61.3 %	WG	6 OZ/A	0.23 LBA/A		PRE A		5.995 g/mx		103 204 302 403
	Enlist One	3.8 lbae/gal	SL	2 PT/A	0.95 lba/a		POST B		33.33 mL/mx		
	Liberty	2.34 lba/gal	L	2 PT/A	0.585 LBA/A		POST B		33.33 mL/mx		
	AMS - Liquid	3.4 lba/gal	SL	2.5 % V/V	1.27 LBA/A		POST B		49.8 mL/mx		
4	Sonic	70 %	DG	5 OZ/A	0.219 LBA/A		PRE A		4.998 g/mx		104 202 303 408
	Enlist One	3.8 lbae/gal	SL	2 PT/A	0.95 LBA/A		POST B		33.33 mL/mx		
	EverpreX	7.62 LBA/GAL	EC	1 PT/A	0.95 LBA/A		POST B		16.62 mL/mx		
	Durango DMA	4 LBAE/GAL	SL	2 PT/A	1 LBA/A		POST B		33.33 mL/mx		
	AMS - Liquid	3.4 lba/gal	SL	2.5 % V/V	1.27 LBA/A		POST B		49.8 mL/mx		
5	Kyber	2.6 lba/gal	SC	1 PT/A	0.325 LBA/A		PRE A		16.66 mL/mx		105 208 305 406
	Enlist Duo	3.3 lbae/gal	SL	4.75 PT/A	1.96 LBA/A		POST B		79.18 mL/mx		
	AMS - Liquid	3.4 lba/gal	SL	2.5 % V/V	1.27 LBA/A		POST B		49.8 mL/mx		
6	Kyber	2.6 lba/gal	SC	1 PT/A	0.325 LBA/A		PRE A		16.66 mL/mx		106 207 301 405
	Enlist One	3.8 lbae/gal	SL	2 PT/A	0.95 lba/a		POST B		33.33 mL/mx		
	Liberty	2.34 lba/gal	L	2 PT/A	0.585 LBA/A		POST B		33.33 mL/mx		
	AMS - Liquid	3.4 lba/gal	SL	2.5 % V/V	1.27 LBA/A		POST B		49.8 mL/mx		
7	Kyber	2.6 lba/gal	SC	1 PT/A	0.325 LBA/A		PRE A		16.66 mL/mx		107 201 308 402
	Enlist One	3.8 lbae/gal	SL	2 PT/A	0.95 LBA/A		POST B		33.33 mL/mx		
	EverpreX	7.62 LBA/GAL	EC	1 PT/A	0.95 LBA/A		POST B		16.62 mL/mx		
	Durango DMA	4 LBAE/GAL	SL	2 PT/A	1 LBA/A		POST B		33.33 mL/mx		
	AMS - Liquid	3.4 lba/gal	SL	2.5 % V/V	1.27 LBA/A		POST B		49.8 mL/mx		
8	Kyber	2.6 lba/gal	SC	1 PT/A	0.325 LBA/A		PRE A		16.66 mL/mx		108 205 304 401
	Enlist One	3.8 lbae/gal	SL	2 PT/A	0.95 LBA/A		POST B		33.33 mL/mx		
	EverpreX	7.62 LBA/GAL	EC	1 PT/A	0.95 LBA/A		POST B		16.62 mL/mx		
	Liberty	2.34 lba/gal	L	2 PT/A	0.585 LBA/A		POST B		33.33 mL/mx		
	AMS - Liquid	3.4 lba/gal	SL	2.5 % V/V	1.27 LBA/A		POST B		49.8 mL/mx		

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

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Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
14.986	g	Trivence	61.3	%	WG	
197.958	mL	Enlist Duo	3.3	lbae/gal	SL	
435.737	mL	AMS - Liquid	3.4	lba/gal	SL	
208.311	mL	Enlist One	3.8	lbae/gal	SL	
124.986	mL	Liberty	2.34	lba/gal	L	
6.248	g	Sonic	70	%	DG	
62.329	mL	EverpreX	7.62	LBA/GAL	EC	
83.324	mL	Durango DMA	4	LBAE/GAL	SL	
83.324	mL	Kyber	2.6	lba/gal	SC	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

General Trial Information

Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established

ARM Trial Created On: 3-31-2021

Trial Location

City: Princeton **Country:** USA United States

State/Prov.: Kentucky

Postal Code: 42445

Latitude of LL Corner °: 37.10683 N

Longitude of LL Corner °: -87.8245 W

Directions:

GPS Coordinates:

LR Corner: N 37.10690; W 87.82426

UR Corner: N 37.10720; W 87.82448

UL Corner: N 37.10711; W 87.82466

Conducted Under GLP: No

Conducted Under GEP: No

Role: INVEST investigator

Investigator: Travis Legleiter

Title: Assistant Extension Professor

Organization: University of Kentucky

Address 1: 348 University Drive

Phone No.: 859-562-1323

Country: USA United States

E-mail: Travis.Legleiter@uky.edu

City: Princeton, KY

Postal Code: 42445

Crop Description

Crop 1: C GLXMA Glycine max Soybean

BBCH Scale: BSOY

Entry Date: 10-15-2021

Stage Scale: BBCH

Variety: P41T07E

Attributes: Enlist

Planting Date: 5-24-2021

Planting Rate: 140000 S/A

Depth: 1 IN

Planting Method: PLANTD planted

Row Spacing: 15 IN

Planting Equipment: KINZE

Soil Moisture: DRY dry

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Pest Description

Pest 1 Type: W **Code:** AMAPA **Amaranthus palmeri** **Entry Date:** 10-15-2021
Common Name: Palmer amaranth **Stage Scale:** BBCH

Pest 2 Type: W **Code:** ELEIN **Eleusine indica** **Entry Date:** 10-15-2021
Common Name: Goosegrass **Stage Scale:** BBCH

Pest 3 Type: W **Code:** DIGSA **Digitaria sanguinalis** **Entry Date:** 10-15-2021
Common Name: crabgrass **Stage Scale:** BBCH

Pest 4 Type: W **Code:** EPHNU **Chamaesyce nutans** **Entry Date:** 10-15-2021
Common Name: spurge, nodding **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 6.7 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 201.0 FT2 **Treatments:** 8 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Form Product Name	Conc	Form Unit	Form Type	Rate	Unit	Tank Mix Code	Tank Mix
1.	5-11-2021	HERB	Gly Star Plus	3	LBAE/GAL L	L	64	fl oz/a	Y	yes
2.	5-11-2021	HERB	Liberty	2.34	lba/gal	L	32	fl oz/a	Y	yes

Soil Description

Description Name: 505-D2
% Sand: 10.8 **% OM:** 2.5 **Texture:** SIL silt loam
% Silt: 74.3 **pH:** 6.08 **Soil Name:** Sadler Silt Loam
% Clay: 14.9

Application Description

	A	B
Application Date	5-25-2021	6-23-2021
Appl. Start Time	1:34 PM	2:24 PM
Appl. Stop Time	1:57 PM	2:43 PM
Interval to Prev. Appl.		29 DAYS
Application Method	spray	spray
Application Placement	soil	foliar
Applied By	JLG	JLG
Appl. Entry Date	10-15-2021	10-15-2021
Air Temperature Start, Stop	90.1, 92.7 F	79.8, 80.4 F
% Relative Humidity Start, Stop	40.4, 38.9	40.2, 41.8
Wind Velocity+Dir. Start	7.5 MPH, S	1.1 MPH, N
Wind Velocity+Dir. Stop	1.4 MPH, S	4.9 MPH, SSW
Wind Velocity+Dir. Max	16.7 MPH, -	14 MPH, -
Wet Leaves (Y/N)	N, no	N, no
Soil Temperature	75 F	78 F
Soil Moisture	dry	damp
% Cloud Cover	45	0

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Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Stage Majority, Percent		V3, -
Stage Minimum, Percent		V2, -
Stage Maximum, Percent		V3, -
Height Average		6 IN
Height Minimum, Maximum		4, 8

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMAPA, W, BBCH	AMAPA, W, BBCH
Height Average		1.25 IN
Height Minimum, Maximum		0.25, 2.25
Density Average		52.88 FT2
Density Minimum, Maximum		8, 120
Pest 2 Code, Type, Scale	ELEIN, W, BBCH	ELEIN, W, BBCH
Height Average		1.875 IN
Height Minimum, Maximum		0.25, 3.5
Density Average		4.25 FT2
Density Minimum, Maximum		1, 11
Pest 3 Code, Type, Scale	DIGSA, W, BBCH	DIGSA, W, BBCH
Height Average		0.625 IN
Height Minimum, Maximum		0.25, 1
Density Average		0.88 FT2
Density Minimum, Maximum		1, 4
Pest 4 Code, Type, Scale	EPHNU, W, BBCH	EPHNU, W, BBCH
Height Average		0.25 IN
Height Minimum, Maximum		0.25, 0.25
Density Average		0.75 FT2
Density Minimum, Maximum		1, 3

Application Equipment

	A	B
Equipment Type	SPRBAC	SPRBAC
Operation Pressure	33 PSI	33 PSI
Nozzle Model	AIXR 11002	AIXR 11002
Nozzle Type	FLAFAI	FLAFAI
Nozzle TradeName	TEEJET	TEEJET
Nozzle Tip Size, Color	02, Yellow	02, Yellow
Nozzle Spacing	20.0 IN	20.0 IN
Boom ID	BLUE	BLACK
Boom Length	6.7 FT	6.7 FT
Boom Height	18.0 IN	18.0 IN
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC
Mix Coverage	436.0 mL	436.0 mL
Mix Size	2.0 L	2.0 L
Propellant	COMCO2	COMCO2

Notes

Context	Date	By	Notes
STATUS 3-31-2021		Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS 10-15-2021		Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

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Enlist Soybean Programs

Trial ID: 21-14_SOY-REC Location: UKREC 505-D2 Trial Year: 2021
Protocol ID: NA21P2E002H Investigator (Creator): Travis Legleiter
Project ID: Study Director:
Sponsor Contact:

Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMAPA	DIGSA	AMAPA	DIGSA	AMAPA	ELEIN
Pest Scientific Name		Amaranthus palm> Digitaria sangu>		Amaranthus palm> Digitaria sangu>		Amaranthus palm> Eleusine indica	
Pest Name		amaranth, Palmer crabgrass, large		amaranth, Palmer crabgrass, large		amaranth, Palmer goosegrass	
Crop Type, Code	C, GLXMA						
BBCH Scale	BSOY						
Crop Scientific Name	Glycine max						
Crop Name	Soybean						
Rating Date	6-22-2021	6-22-2021	6-22-2021	7-9-2021	7-9-2021	7-13-2021	7-13-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1	1
Data Entry Date	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021
Rating Timing							
Days After First/Last Applic.	28, 28	28, 28	28, 28	45, 16	45, 16	49, 20	49, 20
Trt-Eval Interval							
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	46 DP-1	46 DP-1	50 DP-1	50 DP-1
Days After Emergence							
ARM Action Codes				ET1			
Number of Decimals							

Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	
1 Untreated			101 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			206 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			307 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			404 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 Trivence	6 OZ/A	A	102 0.0	80.0	90.0	97.0	100.0	98.0	100.0	
Enlist Duo	4.75 PT/A	B	203 0.0	70.0	90.0	80.0	100.0	85.0	95.0	
AMS - Liquid	2.5 % V/V	B	306 0.0	90.0	95.0	80.0	90.0	97.0	90.0	
			407 0.0	85.0	80.0	97.0	100.0	95.0	95.0	
		Mean =	0.0	81.3	88.8	88.5	97.5	93.8	95.0	
3 Trivence	6 OZ/A	A	103 0.0	80.0	70.0	90.0	97.0	80.0	80.0	
Enlist One	2 PT/A	B	204 0.0	60.0	80.0	90.0	90.0	90.0	97.0	
Liberty	2 PT/A	B	302 0.0	90.0	80.0	95.0	100.0	90.0	90.0	
AMS - Liquid	2.5 % V/V	B	403 0.0	90.0	80.0	90.0	95.0	90.0	90.0	
		Mean =	0.0	80.0	77.5	91.3	95.5	87.5	89.3	
4 Sonic	5 OZ/A	A	104 0.0	50.0	90.0	95.0	97.0	90.0	95.0	
Enlist One	2 PT/A	B	202 0.0	80.0	80.0	98.0	100.0	97.0	100.0	
EverpreX	1 PT/A	B	303 0.0	90.0	90.0	100.0	100.0	97.0	100.0	
Durango DMA	2 PT/A	B	408 0.0	80.0	80.0	95.0	100.0	97.0	100.0	
AMS - Liquid	2.5 % V/V	B								
		Mean =	0.0	75.0	85.0	97.0	99.3	95.3	98.8	
5 Kyber	1 PT/A	A	105 0.0	50.0	90.0	95.0	100.0	95.0	95.0	
Enlist Duo	4.75 PT/A	B	208 0.0	25.0	90.0	85.0	100.0	70.0	90.0	
AMS - Liquid	2.5 % V/V	B	305 0.0	50.0	95.0	60.0	100.0	70.0	95.0	
			406 0.0	80.0	95.0	100.0	100.0	87.0	97.0	
		Mean =	0.0	51.3	92.5	85.0	100.0	80.5	94.3	

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMAPA	DIGSA	AMAPA	DIGSA	AMAPA	ELEIN
Pest Scientific Name		Amaranthus palm>	Digitaria sangu>	Amaranthus palm>	Digitaria sangu>	Amaranthus palm>	Eleusine indica
Pest Name		amaranth, Palmer crabgrass, large	amaranth, Palmer crabgrass, large	amaranth, Palmer	amaranth, Palmer	amaranth, Palmer	goosegrass
Crop Type, Code	C, GLXMA						
BBCH Scale	BSOY						
Crop Scientific Name	Glycine max						
Crop Name	Soybean						
Rating Date	6-22-2021	6-22-2021	6-22-2021	7-9-2021	7-9-2021	7-13-2021	7-13-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1	1
Data Entry Date	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021
Rating Timing							
Days After First/Last Applic.	28, 28	28, 28	28, 28	45, 16	45, 16	49, 20	49, 20
Trt-Eval Interval							
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	46 DP-1	46 DP-1	50 DP-1	50 DP-1
Days After Emergence							
ARM Action Codes				ET1			
Number of Decimals							

Trt	Treatment	Rate	Appl							
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7
6	Kyber	1 PT/A	A 106	0.0	25.0	90.0	90.0	100.0	70.0	80.0
	Enlist One	2 PT/A	B 207	0.0	40.0	90.0	90.0	100.0	90.0	97.0
	Liberty	2 PT/A	B 301	0.0	30.0	90.0	50.0	100.0	25.0	95.0
	AMS - Liquid	2.5 % V/V	B 405	0.0	70.0	95.0	90.0	100.0	80.0	90.0
			Mean =	0.0	41.3	91.3	80.0	100.0	66.3	90.5
7	Kyber	1 PT/A	A 107	0.0	20.0	90.0	90.0	100.0	90.0	95.0
	Enlist One	2 PT/A	B 201	0.0	50.0	90.0	95.0	100.0	95.0	100.0
	EverpreX	1 PT/A	B 308	0.0	50.0	80.0	90.0	100.0	97.0	100.0
	Durango DMA	2 PT/A	B 402	0.0	50.0	80.0	95.0	100.0	90.0	100.0
	AMS - Liquid	2.5 % V/V	B							
			Mean =	0.0	42.5	85.0	92.5	100.0	93.0	98.8
8	Kyber	1 PT/A	A 108	0.0	20.0	90.0	97.0	100.0	90.0	80.0
	Enlist One	2 PT/A	B 205	0.0	30.0	95.0	99.0	100.0	95.0	100.0
	EverpreX	1 PT/A	B 304	0.0	60.0	90.0	97.0	100.0	100.0	100.0
	Liberty	2 PT/A	B 401	0.0	60.0	90.0	85.0	100.0	80.0	100.0
	AMS - Liquid	2.5 % V/V	B							
			Mean =	0.0	42.5	91.3	94.5	100.0	91.3	95.0

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMAPA, Amaranthus palmeri, amaranth, Palmer = US

DIGSA, Digitaria sanguinalis, crabgrass, large = US

ELEIN, Eleusine indica, goosegrass = US

Crop Type, Code

C = EPP0 species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

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CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

29 DP-1 = 1 GLXMA 5-24-2021

46 DP-1 = 1 GLXMA 5-24-2021

50 DP-1 = 1 GLXMA 5-24-2021

ARM Action Codes

ET1 = Excluded treatment 1

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code	AMAPA	DIGSA	AMAPA	DIGSA	AMAPA	ELEIN	
Pest Scientific Name	Amaranthus palm> Digitaria sangu>		Amaranthus palm> Digitaria sangu>		Amaranthus palm> Eleusine indica		
Pest Name	amaranth, Palmer crabgrass, large		amaranth, Palmer crabgrass, large		amaranth, Palmer goosegrass		
Crop Type, Code	C, GLXMA						
BBCH Scale	BSOY						
Crop Scientific Name	Glycine max						
Crop Name	Soybean						
Rating Date	6-22-2021	6-22-2021	6-22-2021	7-9-2021	7-9-2021	7-13-2021	7-13-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN						
Rating Unit/Min/Max	%, 0, 100						
Number of Subsamples	1						
Data Entry Date	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021
Rating Timing							
Days After First/Last Applic.	28, 28	28, 28	28, 28	45, 16	45, 16	49, 20	49, 20
Trt-Eval Interval							
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	46 DP-1	46 DP-1	50 DP-1	50 DP-1
Days After Emergence							
ARM Action Codes	ET1						
Number of Decimals							

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6	7
No.	Name	Rate Unit	Code							
1	Untreated			0.0 a	0.0 c	0.0	0.0 b	0.0 b	0.0 c	0.0 b
2	Trivence	6 OZ/A	A	0.0 a	81.3 a	88.8 a	88.5 a	97.5 a	93.8 ab	95.0 a
	Enlist Duo	4.75 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
3	Trivence	6 OZ/A	A	0.0 a	80.0 a	77.5 b	91.3 a	95.5 a	87.5 ab	89.3 a
	Enlist One	2 PT/A	B							
	Liberty	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
4	Sonic	5 OZ/A	A	0.0 a	75.0 a	85.0 ab	97.0 a	99.3 a	95.3 a	98.8 a
	Enlist One	2 PT/A	B							
	EverpreX	1 PT/A	B							
	Durango DMA	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
5	Kyber	1 PT/A	A	0.0 a	51.3 b	92.5 a	85.0 a	100.0 a	80.5 ab	94.3 a
	Enlist Duo	4.75 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
6	Kyber	1 PT/A	A	0.0 a	41.3 b	91.3 a	80.0 a	100.0 a	66.3 b	90.5 a
	Enlist One	2 PT/A	B							
	Liberty	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							

University of Kentucky

Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMAPA	DIGSA	AMAPA	DIGSA	AMAPA	ELEIN
Pest Scientific Name		Amaranthus palm>	Digitaria sangu>	Amaranthus palm>	Digitaria sangu>	Amaranthus palm>	Eleusine indica
Pest Name		amaranth, Palmer	crabgrass, large	amaranth, Palmer	crabgrass, large	amaranth, Palmer	goosegrass
Crop Type, Code	C, GLXMA						
BBCH Scale	BSOY						
Crop Scientific Name	Glycine max						
Crop Name	Soybean						
Rating Date	6-22-2021	6-22-2021	6-22-2021	7-9-2021	7-9-2021	7-13-2021	7-13-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1	1
Data Entry Date	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021	10-18-2021
Rating Timing							
Days After First/Last Applic.	28, 28	28, 28	28, 28	45, 16	45, 16	49, 20	49, 20
Trt-Eval Interval							
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	46 DP-1	46 DP-1	50 DP-1	50 DP-1
Days After Emergence							
ARM Action Codes			ET1				
Number of Decimals							

Trt	Treatment	Rate	Appl	1	2	3	4	5	6	7
No.	Name	Rate Unit	Code							
7	Kyber	1 PT/A	A	0.0 a	42.5 b	85.0 ab	92.5 a	100.0 a	93.0 ab	98.8 a
	Enlist One	2 PT/A	B							
	EverpreX	1 PT/A	B							
	Durango DMA	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
8	Kyber	1 PT/A	A	0.0 a	42.5 b	91.3 a	94.5 a	100.0 a	91.3 ab	95.0 a
	Enlist One	2 PT/A	B							
	EverpreX	1 PT/A	B							
	Liberty	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
	LSD P=.05			.	18.82	7.22	14.58	3.69	18.28	7.22
	Standard Deviation			0.00	12.80	4.86	9.92	2.51	12.43	4.91
	CV			0.0	24.75	5.56	12.62	2.9	16.37	5.94
	Levene's F^			.	0.794	0.762	0.408	1.446	1.593	0.717
	Levene's Prob(F)			.	0.60	0.608	0.888	0.234	0.185	0.659
	Skewness^			.	-0.0657	-0.2835	-0.8669*	-1.4734*	-1.2693*	-0.2209
	Kurtosis^			.	-1.2916	-1.013	0.9697	5.5865*	5.0239*	0.8324
	Replicate F			0.000	6.031	0.441	1.892	0.137	0.368	3.147
	Replicate Prob(F)			1.0000	0.0040	0.7264	0.1618	0.9366	0.7769	0.0466
	Treatment F			0.000	18.022	4.714	42.201	778.697	26.728	187.076
	Treatment Prob(F)			1.0000	0.0001	0.0047	0.0001	0.0001	0.0001	0.0001

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMAPA, Amaranthus palmeri, amaranth, Palmer = US

DIGSA, Digitaria sanguinalis, crabgrass, large = US

ELEIN, Eleusine indica, goosegrass = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

C = Crop is Part Rated

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P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

29 DP-1 = 1 GLXMA 5-24-2021

46 DP-1 = 1 GLXMA 5-24-2021

50 DP-1 = 1 GLXMA 5-24-2021

ARM Action Codes

ET1 = Excluded treatment 1

University of Kentucky

Restraint Programs in Kentucky Corn

Trial ID: 21-16_COR-REC Location: UKREC - 109-B1 Trial Year: 2021
 Protocol ID: H-RestraintVis2021 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Chuck Foresmand and Jay Turner
 Sponsor Contact:

Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)

Trt No.	Treatment Name	Form	Form Conc	Form Unit	Form Rate	Other Rate	Other Unit	Appl Timing	Appl Code	Appl Amt	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	UNTREATED											101	203	301	402
2	Restraint		6.498 LBA/GAL	EC	36 FL OZ/A	1.83 lbai/a		PRE	A	37.55 mL/mx		102	204	302	404
	Atrazine		4 LBA/GAL	F	1 QT/A	1 lbai/a		PRE	A	33.33 mL/mx					
	Shieldex		3.33 lba/gal	OD	1 FL OZ/A	0.026 lbai/a		POST	B	1.041 mL/mx					
	Atrazine		4 LBA/GAL	F	1 QT/A	1 lbai/a		POST	B	33.33 mL/mx					
	COC		100 %	SL	1 % V/V			POST	B	20.0 mL/mx					
3	Restraint		6.498 LBA/GAL	EC	18 FL OZ/A	0.91 lbai/a		PRE	A	18.67 mL/mx		103	205	304	401
	Atrazine		4 LBA/GAL	F	1 QT/A	1 lbai/a		PRE	A	33.33 mL/mx					
	Restraint		6.498 LBA/GAL	EC	18 FL OZ/A	0.91 lbai/a		POST	B	18.67 mL/mx					
	Atrazine		4 LBA/GAL	F	1 QT/A	1 lbai/a		POST	B	33.33 mL/mx					
	COC		100 %	SL	1 % V/V			POST	B	20.0 mL/mx					
4	Resicore		3.298 LBAE/GAL	SE	40 FL OZ/A	1.03 lbai/a		PRE	A	41.64 mL/mx		104	201	303	405
	Atrazine		4 LBA/GAL	F	1 QT/A	1 lbai/a		PRE	A	33.33 mL/mx					
	Restraint		6.498 LBA/GAL	EC	30 FL OZ/A	1.52 lbai/a		POST	B	31.19 mL/mx					
	Atrazine		4 LBA/GAL	F	1 QT/A	1 lbai/a		POST	B	33.33 mL/mx					
	COC		100 %	SL	1 % V/V			POST	B	20.0 mL/mx					
5	Resicore		3.298 LBAE/GAL	SE	40 FL OZ/A	1.03 lbai/a		PRE	A	41.64 mL/mx		105	202	305	403
	Atrazine		4 LBA/GAL	F	1 QT/A	1 lbai/a		PRE	A	33.33 mL/mx					
	Resicore		3.298 LBAE/GAL	SE	40 FL OZ/A	1.03 lbai/a		POST	B	41.64 mL/mx					
	Atrazine		4 LBA/GAL	F	1 QT/A	1 lbai/a		POST	B	33.33 mL/mx					
	COC		100 %	SL	1 % V/V			POST	B	20.0 mL/mx					

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form Unit	Form Type	Lot Code
132.590 mL		Restraint		6.498	LBA/GAL	EC	
333.297 mL		Atrazine		4	LBA/GAL	F	
1.301 mL		Shieldex		3.33	lba/gal	OD	
99.989 mL		COC		100	%	SL	
156.138 mL		Resicore		3.298	LBAE/GAL	SE	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.
 * 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

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Restraint Programs in Kentucky Corn

Trial ID: 21-16_COR-REC Location: UKREC - 109-B1 Trial Year: 2021
Protocol ID: H-RestraintVis2021 Investigator (Creator): Travis Legleiter
Project ID: Study Director: Chuck Foresmand and Jay Turner
Sponsor Contact:

General Trial Information

Study Director: Chuck Foresmand and Jay Turner
Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established
ARM Trial Created On: 3-29-2021

Trial Location

City: Princeton **Country:** USA United States
State/Prov.: Kentucky
Postal Code: 42445

Latitude of LL Corner °: 37.09916 N
Longitude of LL Corner °: -88.4398 W

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Role: STYDIR study director
Study Director: Chuck Foresmand and Jay Turner
Role: INVEST investigator
Investigator: Travis Legleiter **Title:** Assistant Extension Professor
Organization: University of Kentucky
Address 1: 348 University Drive **Phone No.:** 859-562-1323
Country: USA United States **E-mail:** Travis.Legleiter@uky.edu
City: Princeton, KY **Postal Code:** 42445

Crop Description

Crop 1: C ZEAMX Zea mays Corn
Variety: P1464AML
Attributes: RR/LL
Planting Date: 4-22-2021 **Planting Rate:** 32000 S/A
Depth: 1.5 IN
Planting Method: PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** KINZE
Soil Temperature: 60 F **Soil Moisture:** SL DRY
Harvest Date: 5-3-2021

Pest Description

Pest 1 Type: W **Code:** SORHA Sorghum halepense
Common Name: johnsongrass **Stage Scale:** BBCH

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed **Stage Scale:** BBCH

Pest 3 Type: W **Code:** DIGSA Digitaria sanguinalis
Common Name: crabgrass, large **Stage Scale:** BBCH

Pest 4 Type: W **Code:** AMACH Amaranthus hybridus
Common Name: pigweed, smooth **Stage Scale:** BBCH

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Site and Design

Treated Plot Width: 10 FT Site Type: FIELD field
 Treated Plot Length: 30 FT Experimental Unit: 1 PLOT plot
 Treated Plot Area: 300.0 FT2 Treatments: 5 Tillage Type: NOTILL no-till
 Replications: 4 Study Design: RACOB� Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Product Name	Maintenance Form Conc	Form Unit	Form Type	Description	Rate	Unit	Tank Mix
1.	4-9-2021	FERT	Urea	46	% N	SG	46-0-0	200	lba/a	
2.	4-16-2021	HERB	Gly Star Plus	3.0	LBAE/GAL	L		64	fl oz/a	yes
3.	4-16-2021	HERB	Sharpen	2.85	lba/gal	SC		1	fl oz/a	yes

Soil Description

Description Name: 109 B1&2
 % Sand: 5.3 % OM: 2.9 Texture: SIL silt loam
 % Silt: 78.8 pH: 6.2 Soil Name: Crider Silt Loam
 % Clay: 15.9 CEC: 13.32 Fert. Level: F fair
 Soil Drainage: G good

Application Description

	A	B
Application Date	4-22-2021	5-25-2021
Appl. Start Time	2:15 PM	2:27 PM
Appl. Stop Time	2:30 PM	2:39 PM
Application Method	SPRAY	SPRAY
Application Timing	PRE	POST
Application Placement	soil	foliar
Applied By	JLG	TL
Air Temperature Start, Stop	56, 58 F	88.7, 85.3 F
% Relative Humidity Start, Stop	30, 30	40.3, 44
Wind Velocity+Dir. Start	4.2 MPH, SW	13.5 MPH, SW
Wind Velocity+Dir. Stop	2 MPH, SW	6.7 MPH, SW
Wind Velocity+Dir. Max	4.2 MPH, SW	17.5 MPH, SW
Wet Leaves (Y/N)	N, no	N, no
Soil Temperature	60 F	
Soil Moisture	DRY	DRY
% Cloud Cover	2	30

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR
Stage Majority, Percent		V4, -
Stage Minimum, Percent		V5, -
Stage Maximum, Percent		V4, -
Height Average		9.5 IN
Height Minimum, Maximum		6, 12

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Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	SORHA, W, BBCH	SORHA, W, BBCH
Height Average		18 IN
Height Minimum, Maximum		6, 24
Density Average		1 ft2
Density Minimum, Maximum		0, 3
Pest 2 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		4 IN
Height Minimum, Maximum		1, 6
Density Average		2.25 ft2
Density Minimum, Maximum		1, 3
Pest 3 Code, Type, Scale	DIGSA, W, BBCH	DIGSA, W, BBCH
Height Average		1.5 IN
Height Minimum, Maximum		1, 2
Density Average		4.5 ft2
Density Minimum, Maximum		0, 10
Pest 4 Code, Type, Scale	AMACH, W, BBCH	AMACH, W, BBCH
Height Average		2 IN
Height Minimum, Maximum		1, 3
Density Average		0.25 ft2
Density Minimum, Maximum		0, 1

Application Equipment

	A	B
Equipment Type	SPRBAC	SPRBAC
Operation Pressure	32 PSI	22 PSI
Nozzle Model	XR11002	XR11002
Nozzle Type	FLAFXR	FLAFXR
Nozzle TradeName	XR TeeJet	XR TeeJet
Nozzle Tip Size, Color	02, Yellow	02, Yellow
Boom ID	BLUE	BLUE
Boom Length	10.0 FT	10.0 FT
Boom Height	18.0 IN	18.0 IN
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC
Mix Overage	436.0 mL	436.0 mL
Mix Size	2.0 L	2.0 L
Propellant	COMCO2	COMCO2

Notes

Context	Date	By	Notes
STATUS	3-29-2021	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
GENTRI	4-30-2021	Travis Legleiter	7 Day after treatment A evaluation not recorded due to lack of weed and corn emergence in all plots including untreated check.
STATUS	8-31-2021	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code	AMBTR	AMBTR	DIGSA	AMBTR	DIGSA	AMBTR	DIGSA	AMBTR	DIGSA	AMBTR	DIGSA	DIGSA	
Pest Name	Giant ragweed	Giant ragweed	crabgrass	Giant ragweed	crabgrass	Giant ragweed	crabgrass	Giant ragweed	crabgrass	Giant ragweed	crabgrass	crabgrass	
Crop Type, Code	C, ZEAMX	C, ZEAMX		C, ZEAMX		C, ZEAMX		C, ZEAMX		C, ZEAMX			
Crop Scientific Name	Zea mays	Zea mays		Zea mays		Zea mays		Zea mays		Zea mays			
Crop Name	Corn	Corn		Corn		Corn		Corn		Corn			
Rating Date	5-7-2021	5-7-2021		5-25-2021	5-25-2021	6-3-2021		6-3-2021	6-3-2021	6-9-2021	6-9-2021	6-22-2021	6-22-2021
Part Rated	PLANT, P	PLANT, C		PLANT, P	PLANT, P	PLANT, C		PLANT, P	PLANT, P	PLANT, C		PLANT, P	PLANT, P
Rating Type	CONTRO	PHYGEN		CONTRO	CONTRO	PHYGEN		CONTRO	CONTRO	PHYGEN		CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100		% , 0, 100	% , 0, 100	% , 0, 100		% , 0, 100	% , 0, 100	% , 0, 100		% , 0, 100	% , 0, 100
Number of Subsamples	1	1		1	1	1		1	1	1		1	1
Rating Timing													
Days After First/Last Applic.	15, 15	15, 15		33, 33	33, 33	42, 9		42, 9	42, 9	48, 15		48, 15	48, 15
Trt-Eval Interval													
Days After Emergence													
ARM Action Codes				ET5	ET4			ET1		ET1			
Number of Decimals													

Trt	Treatment	Rate	Appl														
No. Name	Rate Unit	Code Plot		1	2	3	4	5	6	7	8	9	10	11	12		
1	UNTREATED		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
			203	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			301	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			402	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Restraint	36 FL OZ/A	A 102	100.0	0.0	80.0	80.0	0.0	90.0	100.0	0.0	90.0	90.0	95.0	90.0		
			A 204	100.0	0.0	80.0	70.0	0.0	80.0	100.0	0.0	70.0	90.0	50.0	50.0		
			B 302	100.0	0.0	60.0	80.0	0.0	90.0	100.0	0.0	75.0	97.0	50.0	90.0		
			B 404	100.0	0.0	20.0	80.0	0.0	85.0	100.0	0.0	70.0	90.0	25.0	35.0		
			Mean =	100.0	0.0	60.0	77.5	0.0	86.3	100.0	0.0	76.3	91.8	55.0	66.3		
3	Restraint	18 FL OZ/A	A 103	100.0	0.0	90.0	70.0	0.0	90.0	100.0	0.0	90.0	100.0	95.0	95.0		
			A 205	95.0	0.0	80.0	70.0	0.0	85.0	100.0	0.0	80.0	100.0	70.0	95.0		
			B 304	95.0	0.0	80.0	70.0	0.0	95.0	100.0	0.0	80.0	100.0	80.0	95.0		
			B 401	100.0	0.0	20.0	60.0	0.0	90.0	100.0	0.0	70.0	90.0	50.0	95.0		
			Mean =	97.5	0.0	67.5	67.5	0.0	90.0	100.0	0.0	80.0	97.5	73.8	95.0		
4	Resicore	40 FL OZ/A	A 104	100.0	0.0	80.0	70.0	0.0	90.0	100.0	0.0	90.0	100.0	80.0	95.0		
			A 201	90.0	0.0	80.0	80.0	0.0	90.0	100.0	0.0	80.0	100.0	50.0	95.0		
			B 303	100.0	0.0	80.0	80.0	2.0	96.0	100.0	0.0	80.0	100.0	80.0	100.0		
			B 405	95.0	0.0	80.0	50.0	0.0	90.0	100.0	0.0	80.0	100.0	70.0	100.0		
			Mean =	96.3	0.0	80.0	70.0	0.5	91.5	100.0	0.0	82.5	100.0	70.0	97.5		
5	Resicore	40 FL OZ/A	A 105	100.0	0.0	70.0	50.0	0.0	90.0	90.0	0.0	100.0	95.0	100.0	100.0		
			A 202	100.0	0.0	90.0	80.0	0.0	90.0	100.0	0.0	97.0	100.0	90.0	100.0		
			B 305	100.0	0.0	90.0	80.0	0.0	96.0	100.0	0.0	90.0	100.0	96.0	100.0		
			B 403	100.0	0.0	50.0	80.0	0.0	90.0	100.0	0.0	96.0	100.0	90.0	100.0		
			Mean =	100.0	0.0	75.0	72.5	0.0	91.5	97.5	0.0	95.8	98.8	94.0	100.0		

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	AMBTR	AMBTR	DIGSA	DIGSA	AMBTR	DIGSA	AMBTR	DIGSA	AMBTR	DIGSA	AMBTR	DIGSA	DIGSA		
Pest Name	Giant ragweed	Giant ragweed	crabgrass	crabgrass	Giant ragweed	crabgrass	Giant ragweed	crabgrass	Giant ragweed	crabgrass	Giant ragweed	crabgrass	crabgrass		
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn		
Rating Date	5-7-2021	5-7-2021	5-25-2021	5-25-2021	6-3-2021	6-3-2021	6-9-2021	6-9-2021	6-9-2021	6-9-2021	6-22-2021	6-22-2021	6-22-2021		
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1	1	1	1		
Rating Timing															
Days After First/Last Applic.	15, 15	15, 15	33, 33	33, 33	42, 9	42, 9	42, 9	48, 15	48, 15	48, 15	61, 28	61, 28	61, 28		
Trt-Eval Interval															
Days After Emergence															
ARM Action Codes			ET5	ET4	ET1	ET1	ET1	ET1	ET1	ET1	ET1	ET1	ET1		
Number of Decimals															
Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6	7	8	9	10	11	12
3	Restraint	18 FL OZ/A	A	97.5 a	0.0 a	67.5 a	67.5 a	0.0 a	90.0 a	100.0 a	0.0 a	80.0 b	97.5 a	73.8 ab	95.0 a
	Atrazine	1 QT/A	A												
	Restraint	18 FL OZ/A	B												
	Atrazine	1 QT/A	B												
	COC	1 % V/V	B												
4	Resicore	40 FL OZ/A	A	96.3 a	0.0 a	80.0 a	70.0 a	0.5	91.5 a	100.0 a	0.0 a	82.5 b	100.0 a	70.0 ab	97.5 a
	Atrazine	1 QT/A	A												
	Restraint	30 FL OZ/A	B												
	Atrazine	1 QT/A	B												
	COC	1 % V/V	B												
5	Resicore	40 FL OZ/A	A	100.0 a	0.0 a	75.0 a	72.5	0.0 a	91.5 a	97.5 a	0.0 a	95.8 a	98.8 a	94.0 a	100.0 a
	Atrazine	1 QT/A	A												
	Resicore	40 FL OZ/A	B												
	Atrazine	1 QT/A	B												
	COC	1 % V/V	B												
	LSD P=.05			3.72	.	25.00	12.22	.	3.31	3.45	.	6.73	4.42	20.77	19.54
	Standard Deviation			2.42	0.00	16.23	7.64	0.00	2.07	2.24	0.00	4.21	2.87	13.48	12.68
	CV			3.07	0.0	28.72	14.21	0.0	2.3	2.81	0.0	5.03	3.7	23.02	17.68
	Levene's F^			3.485	.	0.101	1.844	.	0.401	0.45	.	1.661	0.491	0.993	14.858
	Levene's Prob(F)			0.033*	.	0.981	0.193	.	0.755	0.771	.	0.228	0.743	0.442	0.00*
	Skewness^			-0.2791	.	0.1268	-0.5519	.	0.5848	-1.8758*	.	-0.1957	-0.7249	0.1703	-0.2564
	Kurtosis^			0.321	.	-0.5475	0.8948	.	0.3855	6.3489*	.	-0.9758	0.9613	0.0165	1.5216
	Replicate F			1.357	0.000	4.323	1.286	0.000	10.439	1.000	0.000	8.237	1.278	3.871	0.961
	Replicate Prob(F)			0.3026	1.0000	0.0277	0.3373	1.0000	0.0027	0.4262	1.0000	0.0060	0.3263	0.0379	0.4426
	Treatment F			1330.714	0.000	16.025	89.286	0.000	5.733	1581.000	0.000	16.262	918.149	27.843	44.642
	Treatment Prob(F)			0.0001	1.0000	0.0001	0.0001	1.0000	0.0179	0.0001	1.0000	0.0006	0.0001	0.0001	0.0001

Pest Type
W, Weed = Weed or volunteer crop
Pest Code
AMBTR, Ambrosia trifida, Giant ragweed = US
DIGSA, Digitaria sanguinalis, crabgrass = US
Crop Type, Code
C = EPPO species (Bayer) codes
ZEAMX, BCOR, Zea mays, Corn = US
Part Rated
PLANT = plant
P = Pest is Part Rated

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C = Crop is Part Rated

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

Rating Unit/Min/Max

%, 0, 100 = percent

ARM Action Codes

ET5 = Excluded treatment 5

ET4 = Excluded treatment 4

ET1 = Excluded treatment 1

University of Kentucky

Shieldex Programs in Kentucky Corn

Trial ID: 21-17 COR-REC Location: UKREC 109-B1
 Protocol ID: H-ShldexVis2021 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Chuck Foresman and Jay Turner
 Sponsor Contact:

Trial Year: 2021

Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	Bicep II Magnum	5.5 lba/gal		SC	1.67 QT/A		2.3 lba/a		PRE	A	55.75 mL/mx		101	205	304	402
2	Bicep II Magnum	5.5 lba/gal		SC	1.67 QT/A		2.3 lba/a		PRE	A	55.75 mL/mx		102	204	306	401
	Shieldex	3.33 lba/gal		OD	1 FL OZ/A		0.026 lba/a		POST	B	1.041 mL/mx					
	Atrazine	4 LBA/GAL		F	1 QT/A		1 lba/a		POST	B	33.33 mL/mx					
	COC	100 %		SL	1 % V/V				POST	B	20.0 mL/mx					
	Amsol AMS	3.4 lba/gal		SL	2.5 % V/V		8.5 LBA/100GAL		POST	B	49.99 mL/mx					
3	Bicep II Magnum	5.5 lba/gal		SC	1.67 QT/A		2.3 lba/a		PRE	A	55.75 mL/mx		103	202	303	405
	Impact	2.8 lba/gal		SC	0.75 FL OZ/A		0.0164 lba/a		POST	B	0.7809 mL/mx					
	Atrazine	4 LBA/GAL		F	1 QT/A		1 lba/a		POST	B	33.33 mL/mx					
	COC	100 %		SL	1 % V/V				POST	B	20.0 mL/mx					
	Amsol AMS	3.4 lba/gal		SL	2.5 % V/V		8.5 LBA/100GAL		POST	B	49.99 mL/mx					
4	Bicep II Magnum	5.5 lba/gal		SC	1.67 QT/A		2.3 lba/a		PRE	A	55.75 mL/mx		104	201	305	406
	Laudis	3.5 lba/gal		SC	3 FL OZ/A		0.082 lba/a		POST	B	3.123 mL/mx					
	Atrazine	4 LBA/GAL		F	1 QT/A		1 lba/a		POST	B	33.33 mL/mx					
	COC	100 %		SL	1 % V/V				POST	B	20.0 mL/mx					
	Amsol AMS	3.4 lba/gal		SL	2.5 % V/V		8.5 LBA/100GAL		POST	B	49.99 mL/mx					
5	Bicep II Magnum	5.5 lba/gal		SC	1.67 QT/A		2.3 lba/a		PRE	A	55.75 mL/mx		105	206	302	403
	Shieldex	3.33 lba/gal		OD	1 FL OZ/A		0.026 lba/a		POST	B	1.041 mL/mx					
	Atrazine	4 LBA/GAL		F	1 QT/A		1 lba/a		POST	B	33.33 mL/mx					
	Roundup PowerMax	4.5 LBAE/GAL		SL	30 FL OZ/A		1.05 lba/a		POST	B	31.11 mL/mx					
	Amsol AMS	3.4 lba/gal		SL	2.5 % V/V		8.5 LBA/100GAL		POST	B	49.99 mL/mx					
6	Bicep II Magnum	5.5 lba/gal		SC	1.67 QT/A		2.3 lba/a		PRE	A	55.75 mL/mx		106	203	301	404
	Shieldex	3.33 lba/gal		OD	1 FL OZ/A		0.026 lba/a		POST	B	1.041 mL/mx					
	Atrazine	4 LBA/GAL		F	1 QT/A		1 lba/a		POST	B	33.33 mL/mx					
	Liberty	2.34 lba/gal		L	32 FL OZ/A		0.585 lba/a		POST	B	33.33 mL/mx					
	COC	100 %		SL	1 % V/V				POST	B	20.0 mL/mx					
	Amsol AMS	3.4 lba/gal		SL	2.5 % V/V		8.5 LBA/100GAL		POST	B	49.99 mL/mx					

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

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Product quantities required for listed treatments and applications of trials included in this table:

Amount* Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
418.136 mL	Bicep II Magnum	5.5	lba/gal	SC	
3.903 mL	Shieldex	3.33	lba/gal	OD	
208.311 mL	Atrazine	4	LBA/GAL	F	
99.989 mL	COC	100	%	SL	
312.466 mL	Amsol AMS	3.4	lba/gal	SL	
0.976 mL	Impact	2.8	lba/gal	SC	
3.904 mL	Laudis	3.5	lba/gal	SC	
38.885 mL	Roundup PowerMax	4.5	LBAE/GAL	SL	
41.662 mL	Liberty	2.34	lba/gal	L	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

General Trial Information

Study Director: Chuck Foresman and Jay Turner

Investigator: Travis Legleiter

Title: Assistant Extension Professor

Trial Status: E established

ARM Trial Created On: 3-29-2021

Trial Location

City: PRINCETON **Country:** USA United States

State/Prov.: Kentucky

Postal Code: 42445

Latitude of LL Corner °: 37.09904 N

Longitude of LL Corner °: -87.86372 W

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director

Study Director: Chuck Foresman and Jay Turner

Role: INVEST investigator

Investigator: Travis Legleiter

Title: Assistant Extension Professor

Organization: University of Kentucky

Address 1: 348 University Drive

Phone No.: 859-562-1323

Country: USA United States

E-mail: Travis.Legleiter@uky.edu

City: Princeton, KY

Postal Code: 42445

Crop Description

Crop 1: C ZEAMX Zea mays Corn

BBCH Scale: BCOR

Entry Date: 8-31-2021

Stage Scale: BBCH

Variety: P1464AML

Attributes: RR/LL

Planting Date: 4-22-2021

Planting Rate: 32000 S/A

Depth: 1.5 IN

Planting Method: PLANTD planted

Row Spacing: 30 IN

Planting Equipment: KINZE

Soil Temperature: 60 F

Soil Moisture: SL DRY

Emergence Date: 5-3-2021

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Pest Description

Pest 1 Type: W **Code:** SORHA Sorghum halepense **Entry Date:** 9-1-2021
Common Name: johnsongrass **Stage Scale:** BBCH

Pest 2 Type: W **Code:** DIGSA Digitaria sanguinalis **Entry Date:** 9-1-2021
Common Name: crabgrass **Stage Scale:** BBCH

Pest 3 Type: W **Code:** SIDSP Sida spinosa **Entry Date:** 9-1-2021
Common Name: Prickly sida **Stage Scale:** BBCH

Pest 4 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** 9-1-2021
Common Name: Giant ragweed **Stage Scale:** BBCH

Pest 5 Type: W **Code:** AMACH Amaranthus hybridus **Entry Date:** 9-1-2021
Common Name: pigweed, smooth **Stage Scale:** BBCH

Pest 6 Type: W **Code:** EPHHT Chamaesyce humistrata **Entry Date:** 9-1-2021
Common Name: spurge, prostrate **Stage Scale:** BBCH

Pest 7 Type: W **Code:** IPOSS Ipomoea sp. **Entry Date:** 9-1-2021
Common Name: Morning glory **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300.0 FT² **Treatments:** 6 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	4-9-2021	FERT	Urea	46	% N	SG	46-0-0	200	lba/a		
2.	4-16-2021	HERB	Gly Star Plus	3.0	LBAE/GAL L			64	fl oz/a Y		yes
3.	4-16-2021	HERB	Sharpen	2.85	lba/gal	SC		1	fl oz/a Y		yes

Soil Description

Description Name: 109 B1&2
% Sand: 5.3 **% OM:** 2.9 **Texture:** SIL silt loam
% Silt: 78.8 **pH:** 6.2 **Soil Name:** Crider Silt Loam
% Clay: 15.9 **CEC:** 13.32 **Fert. Level:** F fair
Soil Drainage: G good

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Application Description

	A	B
Application Date	4-22-2021	5-27-2021
Appl. Start Time	2:05 PM	10:23 PM
Appl. Stop Time	2:09 PM	10:38 PM
Interval to Prev. Appl.		35 DAYS
Application Method	SPRAY	SPRAY
Application Timing	PRE	POST
Application Placement	soil	FOLIAR
Applied By	JLG	JLG
Appl. Entry Date	8-31-2021	8-31-2021
Air Temperature Start, Stop	56, 56 F	77.4, 77.1 F
% Relative Humidity Start, Stop	30, 30	69.9, 68
Wind Velocity+Dir. Start	4 MPH, SW	1.1 MPH, SE
Wind Velocity+Dir. Stop	4.5 MPH, SW	0.7 MPH, SE
Wind Velocity+Dir. Max	6 MPH, SW	7.8 MPH, SE
Wet Leaves (Y/N)	N, no	Y, yes
Soil Temperature	60 F	70 F
Soil Moisture	SL DRY	SL WET
% Cloud Cover	2	50

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR
Days after Emergence	-11	24
Stage Majority, Percent		V4, -
Stage Minimum, Percent		V5, -
Stage Maximum, Percent		V5, -
Height Average		13.25 IN
Height Minimum, Maximum		10, 16.5

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Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	SORHA, W, BBCH	SORHA, W, BBCH
Height Average		6.375 IN
Height Minimum, Maximum		4.25, 8.5
Density Average		0.5 ft2
Density Minimum, Maximum		0, 4
Pest 2 Code, Type, Scale	DIGSA, W, BBCH	DIGSA, W, BBCH
Height Average		0.875 IN
Height Minimum, Maximum		0.25, 1.5
Density Average		31.75 ft2
Pest 3 Code, Type, Scale	SIDSP, W, BBCH	SIDSP, W, BBCH
Height Average		0.875 IN
Height Minimum, Maximum		0.5, 1.25
Density Average		0.88 ft2
Density Minimum, Maximum		1, 4
Pest 4 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		1.125 IN
Height Minimum, Maximum		0.5, 1.75
Density Average		3.13 ft2
Density Minimum, Maximum		1, 7
Pest 5 Code, Type, Scale	AMACH, W, BBCH	AMACH, W, BBCH
Height Average		1.25 IN
Height Minimum, Maximum		0.5, 2
Density Average		1.25 ft2
Density Minimum, Maximum		1, 5
Pest 6 Code, Type, Scale	EPHHT, W, BBCH	EPHHT, W, BBCH
Height Average		0.25 IN
Height Minimum, Maximum		0, 0.5
Density Average		0.13 ft2
Density Minimum, Maximum		0, 1
Pest 7 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH
Height Average		0.5 IN
Height Minimum, Maximum		0, 1
Density Average		0.13 ft2
Density Minimum, Maximum		0, 1

Application Equipment

	A	B
Equipment Type	SPRBAC	SPRBAC
Operation Pressure	32 PSI	32 PSI
Nozzle Model	XR11002	XR11002
Nozzle Type	FLAFXR	FLAFXR
Nozzle TradeName	XR TeeJet	XR TeeJet
Nozzle Tip Size, Color	02, Yellow	02, Yellow
Boom ID	BLUE	BLUE
Boom Length	10.0 FT	10.0 FT
Boom Height	18.0 IN	18.0 IN
Ground Speed	3 MPH	3 MPH
Carrier	WATER	
Application Amount	15 GAL/AC	15 GAL/AC
Mix Overage	436.0 mL	436.0 mL
Mix Size	2.0 L	2.0 L
Propellant	COMCO2	COMCO2

Notes

Context	Date	By	Notes
STATUS 3-29-2021	Travis Legleiter	Automatically added by ARM:	Trial Status updated to 'S' during trial creation.
STATUS 8-31-2021	Travis Legleiter	Automatically added by ARM:	Trial Status updated to 'E' when Planting Date entered.

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	DIGSA	AMBTR	DIGSA	AMBTR	DIGSA
Pest Scientific Name		Ambrosia trifida Digitaria sangu>		Ambrosia trifida Digitaria sangu>		Ambrosia trifida Digitaria sangu>	
Pest Name		Giant ragweed crabgrass, large		ragweed, giant crabgrass, large		ragweed, giant crabgrass, large	
Crop Type, Code	C, ZEAMX C, ZEAMX						
BBCH Scale	BCOR BCOR						
Crop Scientific Name	Zea mays Zea mays						
Crop Name	Corn Corn						
Rating Date	6-3-2021 6-9-2021	6-9-2021	6-9-2021	6-22-2021	6-22-2021	7-7-2021	7-7-2021
Part Rated	PLANT, C PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100 % , 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1 1	1	1	1	1	1	1
Rating Timing							
Days After First/Last Applic.	42, 7 48, 13	48, 13	48, 13	61, 26	61, 26	76, 41	76, 41
Trt-Eval Interval							
Plant-Eval Interval	42 DP-1 48 DP-1	48 DP-1	48 DP-1	61 DP-1	61 DP-1	76 DP-1	76 DP-1
Days After Emergence	31 DE-1 37 DE-1	37 DE-1	37 DE-1	50 DE-1	50 DE-1	65 DE-1	65 DE-1
ARM Action Codes		ER1				AL	
Number of Decimals							

Trt Treatment	Rate	Appl											
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8			
1 Bicep II Magnum	1.67 QT/A	A 101	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
			205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0		
			304	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
			402	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
			Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0d	12.5	
2 Bicep II Magnum	1.67 QT/A	A 102	0.0	0.0		70.0	70.0	50.0	70.0	50.0			
			Shieldex	1 FL OZ/A	B 204	0.0	0.0	80.0	90.0	50.0	50.0	25.0	70.0
			Atrazine	1 QT/A	B 306	0.0	0.0	80.0	96.0	60.0	50.0	55.0	80.0
			COC	1 % V/V	B 401	0.0	0.0	80.0	95.0	75.0	80.0	70.0	80.0
			Amsol AMS	2.5 % V/V	B								
Mean =	0.0	0.0	80.0	87.8	63.8	57.5	51.0d	70.0					
3 Bicep II Magnum	1.67 QT/A	A 103	0.0	0.0		90.0	80.0	25.0	70.0	25.0			
			Impact	0.75 FL OZ/A	B 202	0.0	0.0	75.0	95.0	50.0	60.0	70.0	
			Atrazine	1 QT/A	B 303	0.0	0.0	50.0	95.0	35.0	70.0	10.0	80.0
			COC	1 % V/V	B 405	0.0	0.0	50.0	95.0	0.0	70.0	10.0	80.0
			Amsol AMS	2.5 % V/V	B								
Mean =	0.0	0.0	58.3	93.8	41.3	56.3	25.9d	63.8					
4 Bicep II Magnum	1.67 QT/A	A 104	0.0	0.0		100.0	80.0	70.0	80.0	70.0			
			Laudis	3 FL OZ/A	B 201	0.0	0.0	90.0	100.0	70.0	90.0	75.0	90.0
			Atrazine	1 QT/A	B 305	0.0	0.0	85.0	100.0	60.0	90.0	70.0	90.0
			COC	1 % V/V	B 406	0.0	0.0	90.0	95.0	80.0	50.0	60.0	70.0
			Amsol AMS	2.5 % V/V	B								
Mean =	0.0	0.0	88.3	98.8	72.5	75.0	70.9d	80.0					
5 Bicep II Magnum	1.67 QT/A	A 105	0.0	0.0		95.0	70.0	50.0	70.0	50.0			
			Shieldex	1 FL OZ/A	B 206	0.0	0.0	90.0	80.0	50.0	25.0	50.0	30.0
			Atrazine	1 QT/A	B 302	0.0	0.0	50.0	95.0	50.0	90.0	25.0	70.0
			Roundup PowerMax	30 FL OZ/A	B 403	0.0	0.0	50.0	95.0	40.0	80.0	10.0	50.0
			Amsol AMS	2.5 % V/V	B								
Mean =	0.0	0.0	63.3	91.3	52.5	61.3	30.9d	50.0					

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Pest Type			W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code			AMBTR	DIGSA	AMBTR	DIGSA	AMBTR	DIGSA
Pest Scientific Name			Ambrosia trifida Digitaria sangu>			Ambrosia trifida Digitaria sangu>		
Pest Name			Giant ragweed crabgrass, large			ragweed, giant crabgrass, large		
Crop Type, Code	C, ZEAMX	C, ZEAMX						
BBCH Scale	BCOR	BCOR						
Crop Scientific Name	Zea mays	Zea mays						
Crop Name	Corn	Corn						
Rating Date	6-3-2021	6-9-2021	6-9-2021	6-9-2021	6-22-2021	6-22-2021	7-7-2021	7-7-2021
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1	1	1
Rating Timing								
Days After First/Last Applic.	42, 7	48, 13	48, 13	48, 13	61, 26	61, 26	76, 41	76, 41
Trt-Eval Interval								
Plant-Eval Interval	42 DP-1	48 DP-1	48 DP-1	48 DP-1	61 DP-1	61 DP-1	76 DP-1	76 DP-1
Days After Emergence	31 DE-1	37 DE-1	37 DE-1	37 DE-1	50 DE-1	50 DE-1	65 DE-1	65 DE-1
ARM Action Codes			ER1				AL	
Number of Decimals								

Trt	Treatment	Rate	Appl								
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8
6	Bicep II Magnum	1.67 QT/A	A 106	0.0	0.0		70.0	70.0	25.0	70.0	0.0
	Shieldex	1 FL OZ/A	B 203	0.0	0.0	50.0	90.0	35.0	70.0	25.0	70.0
	Atrazine	1 QT/A	B 301	0.0	0.0	75.0	90.0	30.0	50.0	50.0	60.0
	Liberty	32 FL OZ/A	B 404	0.0	0.0	60.0	95.0	0.0	95.0	0.0	90.0
	COC	1 % V/V	B								
	Amsol AMS	2.5 % V/V	B								
			Mean =	0.0	0.0	61.7	86.3	33.8	60.0	16.5d	55.0

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

DIGSA, Digitaria sanguinalis, crabgrass, large = US

AMBTR, Ambrosia trifida, ragweed, giant = US

Crop Type, Code

C = EPPO species (Bayer) codes

ZEAMX, BCOR, Zea mays, Corn = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

% , 0, 100 = percent

Plant-Eval Interval

42 DP-1 = 1 ZEAMX 4-22-2021

48 DP-1 = 1 ZEAMX 4-22-2021

61 DP-1 = 1 ZEAMX 4-22-2021

76 DP-1 = 1 ZEAMX 4-22-2021

ARM Action Codes

ER1 = Excluded replicate 1

AL = Automatic log transformation of X+1

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	DIGSA	AMBTR	DIGSA	AMBTR	DIGSA
Pest Scientific Name	Ambrosia trifida Digitaria sangu> Ambrosia trifida Digitaria sangu> Ambrosia trifida Digitaria sangu>					
Pest Name	Giant ragweed crabgrass, large ragweed, giant crabgrass, large ragweed, giant crabgrass, large					
Crop Type, Code	C, ZEAMX	C, ZEAMX				
BBCH Scale	BCOR	BCOR				
Crop Scientific Name	Zea mays	Zea mays				
Crop Name	Corn	Corn				
Rating Date	6-3-2021	6-9-2021	6-9-2021	6-9-2021	6-22-2021	6-22-2021
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
Rating Timing						
Days After First/Last Applic.	42, 7	48, 13	48, 13	48, 13	61, 26	61, 26
Trt-Eval Interval						
Plant-Eval Interval	42 DP-1	48 DP-1	48 DP-1	48 DP-1	61 DP-1	61 DP-1
Days After Emergence	31 DE-1	37 DE-1	37 DE-1	37 DE-1	50 DE-1	50 DE-1
ARM Action Codes			ER1			AL
Number of Decimals						

Trt No.	Treatment Name	Rate Unit	Appl Code	1	2	3	4	5	6	7 dAL	8
6	Bicep II Magnum	1.67 QT/A	A	0.0 a	0.0 a	61.7 a	86.3 a	33.8 b	60.0 a	16.5 a	55.0 a
	Shieldex	1 FL OZ/A	B								
	Atrazine	1 QT/A	B								
	Liberty	32 FL OZ/A	B								
	COC	1 % V/V	B								
	Amsol AMS	2.5 % V/V	B								
	LSD P=.05			.	.	22.51	10.52	24.88	30.28	47.81 - 52.59	30.41
	Standard Deviation			0.00	0.00	12.37	6.98	16.51	20.09	0.38t	20.18
	CV			0.0	0.0	21.11	9.15	37.55	38.88	29.36t	36.55
	Levene's F^			.	.	1.61	0.329	0.933	0.499	0.794	1.941
	Levene's Prob(F)			.	.	0.208	0.889	0.483	0.773	0.568	0.137
	Skewness^			.	.	-0.2122	-0.7802	-0.2209	-0.7282	-0.9121	-0.153
	Kurtosis^			.	.	-0.5626	0.1937	0.0091	-0.0919	2.0638*	-0.2991
	Replicate F			0.000	0.000	0.935	1.951	3.450	1.948	2.616	3.386
	Replicate Prob(F)			1.0000	1.0000	0.4245	0.1648	0.0437	0.1653	0.0893	0.0460
	Treatment F			0.000	0.000	18.848	116.346	9.759	6.799	12.425	5.418
	Treatment Prob(F)			1.0000	1.0000	0.0001	0.0001	0.0003	0.0017	0.0001	0.0048

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

DIGSA, Digitaria sanguinalis, crabgrass, large = US

AMBTR, Ambrosia trifida, ragweed, giant = US

Crop Type, Code

C = EPPO species (Bayer) codes

ZEAMX, BCOR, Zea mays, Corn = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

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%, 0, 100 = percent

Plant-Eval Interval

42 DP-1 = 1 ZEAMX 4-22-2021

48 DP-1 = 1 ZEAMX 4-22-2021

61 DP-1 = 1 ZEAMX 4-22-2021

76 DP-1 = 1 ZEAMX 4-22-2021

ARM Action Codes

ER1 = Excluded replicate 1

AL = Automatic log transformation of X+1

University of Kentucky

Evaluation of Reviton herbicide in preplant burndown programs (University)

Trial ID: 2021-H-US12 Location: LEXINGTON, KY Trial Year: 2021
 Protocol ID: 2021-H-US12 Investigator (Creator): Sara Carter
 Project ID: 2021-H-US12 Study Director: Scott Akin, PhD
 Sponsor Contact:

Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.564 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	Reviton MSO	2.83	LB/GAL	SC	FL OZ/A % V/V			SPRING A SPRING A		2.083 mL/mx 20.0 mL/mx		101	205	304	405
2	Reviton Roundup PowerMax MSO	2.83 4.5	LB/GAL LBAE/GAL	SC SL	FL OZ/A FL OZ/A % V/V		1 LB AI/A	SPRING A SPRING A SPRING A		1.042 mL/mx 29.63 mL/mx 20.0 mL/mx		102	204	305	402
3	Sharpen Roundup PowerMax MSO	2.85 4.5	LB/GAL LBAE/GAL	SC SL	FL OZ/A FL OZ/A % V/V		1 LB AI/A	SPRING A SPRING A SPRING A		1.042 mL/mx 29.63 mL/mx 20.0 mL/mx		103	201	303	406
4	Reviton Roundup PowerMax Valor EZ MSO	2.83 4.5	LB/GAL LBAE/GAL	SC SL	FL OZ/A FL OZ/A FL OZ/A % V/V		1 LB AI/A 0.078 LB AI/A	SPRING A SPRING A SPRING A SPRING A		1.042 mL/mx 29.63 mL/mx 2.6 mL/mx 20.0 mL/mx		104	206	301	407
5	Reviton Roundup PowerMax Authority First MSO	2.83 4.5 70	LB/GAL LBAE/GAL %	SC SL WDG	FL OZ/A FL OZ/A OZ/A % V/V		1 LB AI/A 0.282 LB AI/A	SPRING A SPRING A SPRING A SPRING A		1.042 mL/mx 29.63 mL/mx 6.436 g/mx 20.0 mL/mx		105	203	302	401
6	Roundup PowerMax 2,4-D ESTER Amsol AMS	4.5 4 3.4	LBAE/GAL LBAE/GAL lba/gal	SL SC SL	FL OZ/A PT/A % V/V		1 LB AI/A 0.5 LB AI/A 8.5 lb ai/100gal	SPRING A SPRING A SPRING A		29.63 mL/mx 16.66 mL/mx 49.99 mL/mx		106	207	306	403
7	Untreated											107	202	307	404

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
6.510	mL	Reviton	2.83	LB/GAL	SC	
124.986	mL	MSO				
185.165	mL	Roundup PowerMax	4.5	LBAE/GAL	SL	
1.302	mL	Sharpen	2.85	LB/GAL	SC	
3.250	mL	Valor EZ	4	lba/gal	L	
8.045	g	Authority First	70	%	WDG	
20.831	mL	2,4-D ESTER	4		SC	
62.493	mL	Amsol AMS	3.4	lba/gal	SL	

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Product quantities required for listed treatments and applications of trials included in this table:

* 'Per area' calculations based on application amount= 15 GPA, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2 L.

General Trial Information

Study Director: Scott Akin, PhD **Title:** Technical Service
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

Discipline: H herbicide
Trial Status: I one-year/interim

ARM Trial Created On: 3-15-2021
Initiation Date: 4-6-2021 **Planned Completion Date:** 7-30-2021
Completion Date: 5-27-2021

Trial Location

City: LEXINGTON **Country:** USA United States
State/Prov.: KENTUCKY
Postal Code: 40511

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director
Study Director: Scott Akin, PhD **Title:** Technical Service
Organization: Helm Agro
Address 1: 5426 State Route 121 NORTH **Mobile No.:** 270-227-8843
City: Murray, KY **E-mail:** sakin@helmagro.com
Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
City: LEXINGTON, KY **E-mail:** sara.carter@uky.edu **Postal Code:** 40546-0312

Crop Description

Crop 1: C ZEAMX Zea mays corn
Stage Scale: BBCH
Variety: DKC 63-57
Attributes: RR
Planting Date: 5-11-2021 **Planting Rate:** 32000 S/A
Depth: 1.5 IN
Rows per Plot: 4 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** FE field equipment
Seed Bed: MEDIUM medium
Soil Temperature: 59 F **Soil Moisture:** GOOD good
Emergence Date: 5-18-2021

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Pest Description		
Pest 1 Type: W	Code: LAMSS Lamium sp. Common Name: Deadnettle Crop: 1 ZEAMX	Stage Scale: BBCH
Pest 2 Type: W	Code: TAROF Taraxacum officinale Common Name: dandelion Crop: 1 ZEAMX	Stage Scale: BBCH
Pest 3 Type: W	Code: GERSS Geranium sp. Common Name: Cranesbill Crop: 1 ZEAMX	Stage Scale: BBCH
Pest 4 Type: W	Code: RUMCR Rumex crispus Common Name: Curly dock Crop: 1 ZEAMX	Stage Scale: BBCH

Site and Design	
Treated Plot Width: 10 FT	Site Type: FIELD field
Treated Plot Length: 30 FT	
Treated Plot Area: 300.0 FT ²	Treatments: 7
Replications: 4	Study Design: RACOB� Randomized Complete Block (RCB)

Soil Description	
Description Name: MAURY	
% Sand: 6	% OM: 2.6 Texture: SIL silt loam
% Silt: 62	pH: 6.4 Soil Name: MAURY SILT LOAM
% Clay: 32	CEC: 18 Fert. Level: E excellent
Soil Drainage: E	excellent

Weather Conditions	
Overall Moisture Conditions: WET wet	
Closest Weather Station: SPINDLETOP	Distance: 1 MI

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Application Description	
	A
Application Date	4-6-2021
Appl. Start Time	4:00 PM
Appl. Stop Time	4:30 PM
Application Method	SPRAY
Application Timing	PREPLA
Application Placement	BROFOL
Applied By	SARA
Air Temperature Start, Stop	77, - F
% Relative Humidity Start, Stop	37, -
Wind Velocity+Dir. Start	7 MPH, WSW
Soil Temperature	53 F
Soil Moisture	WET
Soil Surface Condition	MEDIUM
% Cloud Cover	30
Next Moisture Occurred On	4-8-2021

Crop Stage At Each Application	
	A
Crop 1 Code, BBCH Scale	ZEAMX, BCOR
Days after Emergence	-42

Pest Stage At Each Application	
	A
Pest 1 Code, Type, Scale	LAMSS, W, BBCH
Height Average	4 IN
Crop Part Attacked, Code	-, ZEAMX
Pest 2 Code, Type, Scale	TAROF, W, BBCH
Height Average	3 IN
Crop Part Attacked, Code	-, ZEAMX
Pest 3 Code, Type, Scale	GERSS, W, BBCH
Height Average	4 IN
Crop Part Attacked, Code	-, ZEAMX
Pest 4 Code, Type, Scale	RUMCR, W, BBCH
Height Average	4 IN
Crop Part Attacked, Code	-, ZEAMX

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Application Equipment	
	A
Appl. Equipment	BACKPACK
Equipment Type	BELSPR
Operation Pressure	30 PSI
Nozzle Model	8002 DG
Nozzle Type	FLAT FAN
Nozzle TradeName	TEEJET
Nozzle Spacing	20 IN
Boom Length	10 FT
Boom Height	30 IN
Ground Speed	4 MPH
Carrier	WATER
Application Amount	15 GPA
Mix Size	2 liters
Propellant	CO2

Notes			
Context	Date	By	Notes
STATUS	3-15-2021	Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	6-28-2021	Sara Carter	Automatically added by ARM: Trial Status updated to 'E' when Rating Date entered.

	W, Weed LAMSS Deadnettle	W, Weed TAROF dandelion	W, Weed GERSS Cranesbill	W, Weed RUMCR Curly dock	W, Weed LAMSS Deadnettle	W, Weed TAROF dandelion	W, Weed GERSS Cranesbill	W, Weed RUMCR Curly dock	W, Weed LAMSS Deadnettle	W, Weed TAROF dandelion	W, Weed GERSS Cranesbill	W, Weed RUMCR Curly dock
Pest Type												
Pest Code												
Pest Name												
Crop Type, Code												
Crop Scientific Name												
Crop Name												
Rating Date	4-13-2021	4-13-2021	4-13-2021	4-13-2021	4-20-2021	4-20-2021	4-20-2021	4-20-2021	4-13-2021	4-13-2021	4-13-2021	4-13-2021
Part Rated	- , P	- , P	- , P	- , P	- , P	- , P	- , P	- , P	- , P	- , P	- , P	- , P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 100
Number of Subsamples	1	1	1	1	1	1	1	1	1	1	1	1
Data Entry Date	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021
Rating Timing	7 DAY	7 DAY	7 DAY	7 DAY	14 DAY	14 DAY	14 DAY	14 DAY	21 DAY	21 DAY	21 DAY	21 DAY
Days After First/Last Applic.	7 , 7	7 , 7	7 , 7	7 , 7	14 , 14	14 , 14	14 , 14	14 , 14	7 , 7	7 , 7	7 , 7	7 , 7
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A
Days After Emergence	-35 DE-1	-35 DE-1	-35 DE-1	-35 DE-1	-28 DE-1	-28 DE-1	-28 DE-1	-28 DE-1	-35 DE-1	-35 DE-1	-35 DE-1	-35 DE-1
ARM Action Codes												
Number of Decimals	0				0				0			
Trt Treatment												
No. Name	Rate Code Plot	Rate Code Plot	Rate Code Plot	Rate Code Plot	Rate Code Plot	Rate Code Plot	Rate Code Plot	Rate Code Plot	Rate Code Plot	Rate Code Plot	Rate Code Plot	Rate Code Plot
1 Reviton	2 FL OZ/A A 101											
MSO	1 % V/V A 205											
	304											
	405											
Mean =	88	90.0	61.3	35.0	99	97.5	66.3	43.8	100	93.8	67.5	40.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	LAMSS	TAROF	GERSS	RUMCR	LAMSS	TAROF	GERSS	RUMCR	LAMSS	TAROF	GERSS	RUMCR		
Pest Name	Deadnettle	dandelion	Cranesbill	Curly dock	Deadnettle	dandelion	Cranesbill	Curly dock	Deadnettle	dandelion	Cranesbill	Curly dock		
Crop Type, Code														
Crop Scientific Name														
Crop Name														
Rating Date	4-13-2021	4-13-2021	4-13-2021	4-13-2021	4-20-2021	4-20-2021	4-20-2021	4-20-2021	4-13-2021	4-13-2021	4-13-2021	4-13-2021		
Part Rated	-, P	-, P	-, P	-, P	-, P	-, P	-, P	-, P	-, P	-, P	-, P	-, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021		
Rating Timing	7 DAY	7 DAY	7 DAY	7 DAY	14 DAY	14 DAY	14 DAY	14 DAY	21 DAY	21 DAY	21 DAY	21 DAY		
Days After First/Last Applic.	7, 7	7, 7	7, 7	7, 7	14, 14	14, 14	14, 14	14, 14	7, 7	7, 7	7, 7	7, 7		
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A		
Days After Emergence	-35 DE-1	-35 DE-1	-35 DE-1	-35 DE-1	-28 DE-1	-28 DE-1	-28 DE-1	-28 DE-1	-35 DE-1	-35 DE-1	-35 DE-1	-35 DE-1		
ARM Action Codes														
Number of Decimals	0				0				0					
Trt Treatment	Rate	Appl												
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9	10	11	12
2 Reviton	1 FL OZ/A	A 102	85	90.0	65.0	40.0	100	100.0	75.0	50.0	100	100.0	75.0	40.0
Roundup PowerMax	28.4 FL OZ/A	A 204	85	80.0	85.0	75.0	100	100.0	95.0	85.0	100	100.0	95.0	75.0
MSO	1 % V/V	A 305	90	85.0	85.0	95.0	100	100.0	100.0	100.0	100	100.0	95.0	95.0
		402	90	85.0	85.0	40.0	100	100.0	90.0	50.0	100	100.0	90.0	45.0
		Mean =	88	85.0	80.0	62.5	100	100.0	90.0	71.3	100	100.0	88.8	63.8
3 Sharpen	1 FL OZ/A	A 103	85	90.0	80.0	65.0	100	100.0	90.0	75.0	100	100.0	100.0	65.0
Roundup PowerMax	28.4 FL OZ/A	A 201	85	95.0	80.0	50.0	95	100.0	85.0	70.0	100	100.0	80.0	70.0
MSO	1 % V/V	A 303	85	95.0	90.0	80.0	100	100.0	90.0	90.0	100	100.0	90.0	90.0
		406	90	95.0	90.0	85.0	90	100.0	95.0	90.0	100	100.0	90.0	90.0
		Mean =	86	93.8	85.0	70.0	96	100.0	90.0	81.3	100	100.0	90.0	78.8
4 Reviton	1 FL OZ/A	A 104	85	85.0	80.0	90.0	100	100.0	95.0	95.0	100	100.0	100.0	90.0
Roundup PowerMax	28.4 FL OZ/A	A 206	85	90.0	85.0	95.0	100	100.0	100.0	100.0	100	100.0	95.0	90.0
Valor EZ	2.5 FL OZ/A	A 301	90	90.0	90.0	60.0	100	100.0	90.0	75.0	100	100.0	90.0	70.0
MSO	1 % V/V	A 407	90	90.0	90.0	85.0	100	100.0	98.0	100.0	100	100.0	90.0	90.0
		Mean =	88	88.8	86.3	82.5	100	100.0	95.8	92.5	100	100.0	93.8	85.0
5 Reviton	1 FL OZ/A	A 105	90	90.0	50.0	70.0	100	100.0	60.0	75.0	100	100.0	75.0	80.0
Roundup PowerMax	28.4 FL OZ/A	A 203	85	95.0	80.0	80.0	100	100.0	98.0	90.0	100	100.0	95.0	85.0
Authority First	6.45 OZ/A	A 302	90	90.0	95.0	80.0	100	100.0	100.0	90.0	100	100.0	95.0	85.0
MSO	1 % V/V	A 401	95	90.0	90.0	60.0	100	100.0	95.0	75.0	100	100.0	90.0	65.0
		Mean =	90	91.3	78.8	72.5	100	100.0	88.3	82.5	100	100.0	88.8	78.8
6 Roundup PowerMax	28.4 FL OZ/A	A 106	85	65.0	70.0	90.0	75	40.0	85.0	95.0	90	95.0	85.0	90.0
2,4-D ESTER	1 PT/A	A 207	95	90.0	80.0	85.0	85	75.0	90.0	90.0	100	100.0	95.0	90.0
Amsol AMS	2.5 % V/V	A 306	90	85.0	60.0	20.0	70	75.0	70.0	30.0	100	100.0	65.0	25.0
		403	95	65.0	65.0	10.0	60	75.0	75.0	25.0	100	100.0	75.0	20.0
		Mean =	91	76.3	68.8	51.3	73	66.3	80.0	60.0	98	98.8	80.0	56.3
7 Untreated		107	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0
		202	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0
		307	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0
		404	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0
		Mean =	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0

Pest Type				
Pest Code				
Pest Name				
Crop Type, Code			C, ZEAMX	
Crop Scientific Name			Zea mays	
Crop Name			corn	
Rating Date			5-27-2021	
Part Rated			-, P	
Rating Type			PHYGEN	
Rating Unit/Min/Max			%, 0, 100	
Number of Subsamples			1	
Data Entry Date			6-28-2021	
Rating Timing			2 WEEK	
Days After First/Last Applic.			51, 51	
Trt-Eval Interval			51 DA-A	
Days After Emergence			9 DE-1	
ARM Action Codes				
Number of Decimals				
Trt	Treatment	Rate	Appl	
No.	Name	Rate Unit	Code Plot	13
1	Reviton	2 FL OZ/A	A 101	0.0
	MSO	1 % V/V	A 205	0.0
			304	0.0
			405	0.0
			Mean =	0.0

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Pest Type				
Pest Code				
Pest Name				
Crop Type, Code			C, ZEAMX	
Crop Scientific Name			Zea mays	
Crop Name			corn	
Rating Date			5-27-2021	
Part Rated			-, P	
Rating Type			PHYGEN	
Rating Unit/Min/Max			%, 0, 100	
Number of Subsamples			1	
Data Entry Date			6-28-2021	
Rating Timing			2 WEEK	
Days After First/Last Applic.			51, 51	
Trt-Eval Interval			51 DA-A	
Days After Emergence			9 DE-1	
ARM Action Codes				
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	13	
2 Reviton	1 FL OZ/A	A 102	0.0	
Roundup PowerMax	28.4 FL OZ/A	A 204	0.0	
MSO	1 % V/V	A 305	0.0	
		402	0.0	
		Mean =	0.0	
3 Sharpen	1 FL OZ/A	A 103	0.0	
Roundup PowerMax	28.4 FL OZ/A	A 201	0.0	
MSO	1 % V/V	A 303	0.0	
		406	0.0	
		Mean =	0.0	
4 Reviton	1 FL OZ/A	A 104	0.0	
Roundup PowerMax	28.4 FL OZ/A	A 206	0.0	
Valor EZ	2.5 FL OZ/A	A 301	0.0	
MSO	1 % V/V	A 407	0.0	
		Mean =	0.0	
5 Reviton	1 FL OZ/A	A 105	0.0	
Roundup PowerMax	28.4 FL OZ/A	A 203	0.0	
Authority First	6.45 OZ/A	A 302	0.0	
MSO	1 % V/V	A 401	0.0	
		Mean =	0.0	
6 Roundup PowerMax	28.4 FL OZ/A	A 106	0.0	
2,4-D ESTER	1 PT/A	A 207	0.0	
Amsol AMS	2.5 % V/V	A 306	0.0	
		403	0.0	
		Mean =	0.0	
7 Untreated		107	0.0	
		202	0.0	
		307	0.0	
		404	0.0	
		Mean =	0.0	

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Pest Type Pest Code Pest Name	W, Weed LAMSS Deadnettle	W, Weed TAROF dandelion	W, Weed GERSS Cranesbill	W, Weed RUMCR Curly dock	W, Weed LAMSS Deadnettle	W, Weed TAROF dandelion	W, Weed GERSS Cranesbill	W, Weed RUMCR Curly dock	W, Weed LAMSS Deadnettle	W, Weed TAROF dandelion	W, Weed GERSS Cranesbill	W, Weed RUMCR Curly dock		
Crop Type, Code														
Crop Scientific Name														
Crop Name														
Rating Date	4-13-2021	4-13-2021	4-13-2021	4-13-2021	4-20-2021	4-20-2021	4-20-2021	4-20-2021	4-13-2021	4-13-2021	4-13-2021	4-13-2021		
Part Rated	-, P	-, P	-, P	-, P	-, P	-, P	-, P	-, P	-, P	-, P	-, P	-, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021	6-28-2021		
Rating Timing	7 DAY	7 DAY	7 DAY	7 DAY	14 DAY	14 DAY	14 DAY	14 DAY	21 DAY	21 DAY	21 DAY	21 DAY		
Days After First/Last Applic.	7, 7	7, 7	7, 7	7, 7	14, 14	14, 14	14, 14	14, 14	7, 7	7, 7	7, 7	7, 7		
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A		
Days After Emergence	-35 DE-1	-35 DE-1	-35 DE-1	-35 DE-1	-28 DE-1	-28 DE-1	-28 DE-1	-28 DE-1	-35 DE-1	-35 DE-1	-35 DE-1	-35 DE-1		
ARM Action Codes														
Number of Decimals	0				0				0					
Trt Treatment No. Name	Rate Unit	Appl Code	1	2	3	4	5	6	7	8	9	10	11	12
5 Reviton	1 FL OZ/A A		90 a	91.3 a	78.8 a	72.5 a	100 a	100.0 a	88.3 a	82.5 a	100 a	100.0 a	88.8 a	78.8 a
Roundup PowerMax	28.4 FL OZ/A A													
Authority First	6.45 OZ/A A													
MSO	1 % V/V A													
6 Roundup PowerMax	28.4 FL OZ/A A		91 a	76.3 b	68.8 a	51.3 a	73 b	66.3 b	80.0 a	60.0 a	98 a	98.8 a	80.0 a	56.3 a
2,4-D ESTER	1 PT/A A													
Amsol AMS	2.5 % V/V A													
7 Untreated			0 b	0.0 c	0.0 b	0.0 b	0 c	0.0 c	0.0 b	0.0 b	0 b	0.0 b	0.0 b	0.0 b
LSD P=.05			3.6	8.08	23.20	36.59	6.2	9.80	26.15	32.45	2.8	6.92	27.76	33.55
Standard Deviation			2.4	5.44	15.62	24.63	4.1	6.60	17.60	21.84	1.9	4.66	18.69	22.58
CV			3.2	7.25	23.76	46.13	5.11	8.19	24.15	35.46	2.21	5.51	25.71	39.27
Levene's F^			2.048	10.441	0.693	2.688	2.88	0.577	0.70	3.352	0.595	0.58	0.719	3.012
Levene's Prob(F)			0.104	0.00*	0.658	0.043*	0.033*	0.744	0.653	0.018*	0.731	0.742	0.639	0.028*
Skewness^			0.1683	0.0733	-1.4128*	0.2041	0.5324	-2.3901*	-1.4364*	0.2766	-2.4926*	-2.305*	-1.7418*	0.3144
Kurtosis^			0.7899	1.3066	4.5229*	-0.3798	4.2379*	10.4143*	4.988*	-0.0591	11.1577*	10.0808*	6.3962*	-0.0736
Replicate F			6.102	1.611	3.466	1.030	2.012	1.223	2.288	0.990	1.000	1.479	1.046	1.011
Replicate Prob(F)			0.0047	0.2219	0.0381	0.4029	0.1484	0.3301	0.1132	0.4199	0.4155	0.2537	0.3964	0.4109
Treatment F			763.780	152.356	15.078	5.236	321.000	130.011	14.530	8.364	1587.667	257.438	12.644	6.946
Treatment Prob(F)			0.0001	0.0001	0.0001	0.0028	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0.0001	0.0006

Pest Type				
Pest Code				
Pest Name				
Crop Type, Code			C, ZEAMX	
Crop Scientific Name			Zea mays	
Crop Name			corn	
Rating Date			5-27-2021	
Part Rated			-, P	
Rating Type			PHYGEN	
Rating Unit/Min/Max			%, 0, 100	
Number of Subsamples			1	
Data Entry Date			6-28-2021	
Rating Timing			2 WEEK	
Days After First/Last Applic.			51, 51	
Trt-Eval Interval			51 DA-A	
Days After Emergence			9 DE-1	
ARM Action Codes				
Number of Decimals				
Trt No.	Treatment Name	Rate	Appl Code	13
		Unit		
1	Reviton	2 FL OZ/A	A	0.0 a
	MSO	1 % V/V	A	
2	Reviton	1 FL OZ/A	A	0.0 a
	Roundup PowerMax	28.4 FL OZ/A	A	
	MSO	1 % V/V	A	
3	Sharpen	1 FL OZ/A	A	0.0 a
	Roundup PowerMax	28.4 FL OZ/A	A	
	MSO	1 % V/V	A	
4	Reviton	1 FL OZ/A	A	0.0 a
	Roundup PowerMax	28.4 FL OZ/A	A	
	Valor EZ	2.5 FL OZ/A	A	
	MSO	1 % V/V	A	

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Pest Type	
Pest Code	
Pest Name	
Crop Type, Code	C, ZEAMX
Crop Scientific Name	Zea mays
Crop Name	corn
Rating Date	5-27-2021
Part Rated	-, P
Rating Type	PHYGEN
Rating Unit/Min/Max	%, 0, 100
Number of Subsamples	1
Data Entry Date	6-28-2021
Rating Timing	2 WEEK
Days After First/Last Applic.	51, 51
Trt-Eval Interval	51 DA-A
Days After Emergence	9 DE-1
ARM Action Codes	
Number of Decimals	
Trt Treatment	Rate Appl
No. Name	Rate Unit Code
5 Reviton	1 FL OZ/A A
Roundup PowerMax	28.4 FL OZ/A A
Authority First	6.45 OZ/A A
MSO	1 % V/V A
6 Roundup PowerMax	28.4 FL OZ/A A
2,4-D ESTER	1 PT/A A
Amsol AMS	2.5 % V/V A
7 Untreated	
LSD P=.05	.
Standard Deviation	0.00
CV	0.0
Levene's F^	.
Levene's Prob(F)	.
Skewness^	.
Kurtosis^	.
Replicate F	0.000
Replicate Prob(F)	1.0000
Treatment F	0.000
Treatment Prob(F)	1.0000

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Evaluation of Reviton herbicide in preplant burndown programs (University)

Trial ID: 2021-H-US12 Location: LEXINGTON, KY Trial Year: 2021
Protocol ID: 2021-H-US12 Investigator (Creator): Sara Carter
Project ID: 2021-H-US12 Study Director: Scott Akin, PhD
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

LAMSS, Lamium sp., Deadnettle = US
TAROF, Taraxacum officinale, dandelion = US
GERSS, Geranium sp., Cranesbill = US
RUMCR, Rumex crispus, Curly dock = US

Crop Type, Code

C = EPPO species (Bayer) codes
ZEAMX, BCOR, Zea mays, corn = US

P = Pest is Part Rated

Rating Type

CONTRO = control / burndown or knockdown
PHYGEN = phytotoxicity - general / injury

Rating Unit/Min/Max

%, 0, 100 = percent

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Evaluate efficacy of AMVAC soybean herbicides when used in a soybean herbicide program

Trial ID: 21C12H114 Location: Trial Year: 2021
 Protocol ID: 21C12H114 Investigator (Creator): Sara Carter
 Project ID: Study Director:
 Sponsor Contact:

Reps: 4 Plots: 10 by 33 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2.2 L (total for 4 plots; minimum=1.7206 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Rate Type	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	NTC									101	205	303	401
2	Dual II Magnum	7.64	LBA/GAL	EC	FL OZ/A	1.19 LB A/A	PREEM A		22.84 mL/mx	102	201	305	405
3	Dual II Magnum FirstRate	7.64 84 %	LBA/GAL	EC WG	FL OZ/A OZ/A	1.19 LB A/A 0.0263 LB A/A	PREEM A PREEM A		22.84 mL/mx 0.5502 g/mx	103	202	304	402
4	Dual II Magnum Scepter	7.64 70 %	LBA/GAL	EC WG	FL OZ/A OZ/A	1.19 LB A/A	PREEM A PREEM A		22.84 mL/mx 3.076 g/mx	104	206	302	406
5	Dual II Magnum Python	7.64 80 %	LBA/GAL	EC WG	FL OZ/A OZ/A	1.19 LB A/A 0.05 LB A/A	PREEM A PREEM A		22.84 mL/mx 1.098 g/mx	105	203	306	404
6	Dual II Magnum FirstRate Glory	7.64 84 % 75 %	LBA/GAL	EC WG DF	FL OZ/A OZ/A LB/A	1.19 LB A/A 0.0263 LB A/A	PREEM A PREEM A PREEM A		22.84 mL/mx 0.5502 g/mx 8.787 g/mx	106	204	301	403

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
142.764	mL	Dual II Magnum	7.64	LBA/GAL	EC	
1.376	g	FirstRate	84	%	WG	
3.844	g	Scepter	70	%	WG	
1.373	g	Python	80	%	WG	
10.984	g	Glory	75	%	DF	

* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

General Trial Information

Investigator: Sara Carter Title: RESEARCH SPECIALIST

Discipline: H herbicide

Trial Status: F one-year/final

ARM Trial Created On: 4-5-2021 Trial Usage/Type: DEV Development/Registration

Initiation Date: 5-13-2021

Trial Location

City: LEXINGTON

Country: USA United States

State/Prov.: KENTUCKY

Postal Code: 40511

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Conducted Under GLP: No
Conducted Under GEP: No

Role: INVEST investigator
Investigator: Sara Carter
Organization: UNIVERSITY OF KENTUCKY
Address 1: 105 PLANT SCIENCE BUILDING
City: LEXINGTON, KY
Title: RESEARCH SPECIALIST
Phone No.: 859-259-1914
Mobile No.: 859-559-6710
E-mail: sara.carter@uky.edu
Postal Code: 40546-0312

Crop Description

Crop 1: C GLXMA Glycine max Soybean
Stage Scale: BBCH
BBCH Scale: BSOY
Variety: AG35XF1
Attributes: XTEND FLEX
Planting Date: 5-13-2021
Depth: 1.5 IN
Rows per Plot: 6
Row Spacing: 30 IN
Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: SMOOTH smooth
Soil Temperature: 59 F
Soil Moisture: WET wet
Emergence Date: 5-19-2021

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed
Crop: 1 GLXMA
Stage Scale: BBCH
Pest 2 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory
Crop: 1 GLXMA
Stage Scale: BBCH
Pest 3 Type: W **Code:** CHEAL Chenopodium album
Common Name: common lambsquarters
Crop: 1 GLXMA
Stage Scale: BBCH
Pest 4 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail
Crop: 1 GLXMA
Stage Scale: BBCH

Site and Design

Treated Plot Width: 10 FT
Treated Plot Length: 33 FT
Treated Plot Area: 330.0 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 4 ROW row
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)

Field Prep./Maintenance:

Conventional tillage required for the trial. Soybean crop should be managed using local practices to ensure optimum soybean growth.

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Soil Description

Description Name: MAURY
% Sand: 6 **% OM:** 2.6 **Texture:** SIL silt loam
% Silt: 62 **pH:** 6.4 **Soil Name:** MAURY SILT LOAM
% Clay: 32 **CEC:** 18 **Fert. Level:** E excellent
Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Closest Weather Station: Spindletop **Distance:** 1.5 mi

Application Description

	A
Application Date	5-14-2021
Appl. Start Time	7:00 PM
Appl. Stop Time	7:30 PM
Application Method	SPRAY
Application Timing	PREPRE
Application Placement	BROSOI
Applied By	SARA
Air Temperature Start, Stop	67, - F
% Relative Humidity Start, Stop	32, -
Wind Velocity+Dir. Start	3 MPH, NNE
Soil Temperature	59 F
Soil Moisture	SLIDRY
Soil Surface Condition	SMOOTH
% Cloud Cover	30

Protocol Application Directions:

Apply herbicide to bare ground before crop and weeds have emerged

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	GLXMA, BSOY
Days after Emergence	-5

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Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	AMBTR, W, BBCH
Crop Part Attacked, Code	-, GLXMA
Pest 2 Code, Type, Scale	IPOSS, W, BBCH
Crop Part Attacked, Code	-, GLXMA
Pest 3 Code, Type, Scale	CHEAL, W, BBCH
Crop Part Attacked, Code	-, GLXMA
Pest 4 Code, Type, Scale	SETFA, W, BBCH
Crop Part Attacked, Code	-, GLXMA

Application Equipment

	A
Appl. Equipment	BACKPACK
Equipment Type	BELSPR
Operation Pressure	30 PSI
Nozzle Model	8002 DG
Nozzle Type	FLAT FAN
Nozzle Spacing	20 IN
Boom Length	10 FT
Boom Height	30 IN
Ground Speed	4 MPH
Carrier	WATER
Application Amount	15 GPA
Mix Size	2.2 liters
Propellant	CO2

Treatment Appl. Comments

Trt No Treatment Application Comment

- 4 Scepter rate should be adjusted based on soil type or geographical rate restrictions
- 6 Use correct metribuzin rate for soil type

Notes

Context	Date	By	Notes
STATUS	4-5-2021	Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.

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Pest Type		W, Weed AMBTR	W, Weed IPOSS	W, Weed CHEAL	W, Weed SETFA	W, Weed AMBTR	W, Weed IPOSS	W, Weed CHEAL	W, Weed SETFA		
Pest Code		Giant ragweed	Morning glory	common lambsqua>	Giant foxtail	Giant ragweed	Morning glory	common lambsqua>	Giant foxtail		
Pest Name											
Crop Type, Code	C, GLXMA										
Crop Scientific Name	Glycine max										
Crop Name	Soybean										
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-11-2021	6-11-2021	6-11-2021	6-11-2021		
Part Rated											
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-16-2021	9-16-2021		
Rating Timing	14 DAT	14 DAT	14 DAT	14 DAT	14 DAT	28 DAA	28 DAA	28 DAA	28 DAA		
Days After First/Last Applic.	13, 13	13, 13	13, 13	13, 13	13, 13	28, 28	28, 28	28, 28	28, 28		
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	13 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A		
Days After Emergence	8 DE-1	8 DE-1	8 DE-1	8 DE-1	8 DE-1	23 DE-1	23 DE-1	23 DE-1	23 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9
1 NTC		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		303	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		401	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 Dual II Magnum	20 FL OZ/A A	102	0.0	60.0	85.0	100.0	100.0	50.0	75.0	90.0	85.0
		201	0.0	95.0	100.0	100.0	100.0	80.0	95.0	95.0	95.0
		305	0.0	90.0	95.0	100.0	100.0	80.0	90.0	90.0	90.0
		405	0.0	95.0	95.0	100.0	100.0	80.0	90.0	90.0	95.0
		Mean =	0.0	85.0	93.8	100.0	100.0	72.5	87.5	91.3	91.3
3 Dual II Magnum	20 FL OZ/A A	103	0.0	70.0	90.0	100.0	100.0	65.0	90.0	90.0	95.0
FirstRate	0.5 OZ/A A	202	0.0	85.0	95.0	100.0	100.0	80.0	90.0	95.0	92.0
		304	0.0	98.0	98.0	100.0	100.0	95.0	95.0	85.0	90.0
		402	0.0	90.0	100.0	100.0	100.0	85.0	90.0	85.0	90.0
		Mean =	0.0	85.8	95.8	100.0	100.0	81.3	91.3	88.8	91.8
4 Dual II Magnum	20 FL OZ/A A	104	0.0	95.0	90.0	100.0	100.0	90.0	85.0	90.0	95.0
Scepter	2.8 OZ/A A	206	0.0	80.0	95.0	100.0	100.0	80.0	90.0	95.0	85.0
		302	0.0	90.0	100.0	100.0	100.0	85.0	95.0	90.0	90.0
		406	0.0	85.0	95.0	100.0	100.0	75.0	90.0	95.0	90.0
		Mean =	0.0	87.5	95.0	100.0	100.0	82.5	90.0	92.5	90.0
5 Dual II Magnum	20 FL OZ/A A	105	0.0	85.0	95.0	100.0	100.0	80.0	90.0	90.0	85.0
Python	1.0 OZ/A A	203	0.0	80.0	95.0	100.0	100.0	75.0	90.0	85.0	92.0
		306	0.0	70.0	90.0	100.0	100.0	60.0	85.0	85.0	90.0
		404	0.0	90.0	95.0	100.0	100.0	85.0	90.0	90.0	95.0
		Mean =	0.0	81.3	93.8	100.0	100.0	75.0	88.8	87.5	90.5
6 Dual II Magnum	20 FL OZ/A A	106	0.0	75.0	95.0	100.0	100.0	70.0	90.0	90.0	95.0
FirstRate	0.5 OZ/A A	204	0.0	70.0	95.0	100.0	100.0	70.0	90.0	90.0	95.0
Glory	0.5 LB/A A	301	0.0	95.0	100.0	100.0	100.0	90.0	90.0	95.0	90.0
		403	0.0	80.0	90.0	100.0	100.0	75.0	85.0	90.0	90.0
		Mean =	0.0	80.0	95.0	100.0	100.0	76.3	88.8	91.3	92.5

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Pest Type		W, Weed AMBTR	W, Weed IPOSS	W, Weed CHEAL	W, Weed SETFA	W, Weed AMBTR	W, Weed IPOSS	W, Weed CHEAL	W, Weed SETFA		
Pest Code		Giant ragweed	Morning glory	common lambsqua>	Giant foxtail	Giant ragweed	Morning glory	common lambsqua>	Giant foxtail		
Pest Name											
Crop Type, Code	C, GLXMA										
Crop Scientific Name	Glycine max										
Crop Name	Soybean										
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-11-2021	6-11-2021	6-11-2021	6-11-2021		
Part Rated											
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-16-2021	9-16-2021		
Rating Timing	14 DAT	14 DAT	14 DAT	14 DAT	14 DAT	28 DAA	28 DAA	28 DAA	28 DAA		
Days After First/Last Applic.	13, 13	13, 13	13, 13	13, 13	13, 13	28, 28	28, 28	28, 28	28, 28		
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	13 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A		
Days After Emergence	8 DE-1	8 DE-1	8 DE-1	8 DE-1	8 DE-1	23 DE-1	23 DE-1	23 DE-1	23 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7	8	9
No. Name	Rate Unit	Code									
6 Dual II Magnum	20 FL OZ/A	A	0.0 a	80.0 a	95.0 a	100.0 a	100.0 a	76.3 a	88.8 a	91.3 a	92.5 a
FirstRate	0.5 OZ/A	A									
Glory	0.5 LB/A	A									
LSD P=.05	.		15.49	5.70	.	.	15.57	6.29	4.55	5.55	
Standard Deviation	0.00		10.28	3.78	0.00	0.00	10.33	4.17	3.02	3.68	
CV	0.0		14.7	4.8	0.0	0.0	15.99	5.61	4.01	4.84	
Levene's F^	.		0.352	0.511	.	.	0.357	0.662	1.498	0.856	
Levene's Prob(F)	.		0.875	0.765	.	.	0.871	0.657	0.24	0.529	
Skewness^	.		-0.453	-0.2015	.	.	-0.6037	-0.8895	0.4103	-0.4801	
Kurtosis^	.		-0.0003	-0.5343	.	.	0.0874	1.9428*	-0.5372	-0.1276	
Replicate F	0.000		1.185	1.850	0.000	0.000	0.898	1.335	0.725	0.254	
Replicate Prob(F)	1.0000		0.3489	0.1815	1.0000	1.0000	0.4649	0.3004	0.5526	0.8571	
Treatment F	0.000		44.713	417.256	0.000	0.000	38.078	305.032	598.374	409.622	
Treatment Prob(F)	1.0000		0.0001	0.0001	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	CHEAL	SETFA
Pest Name	Giant ragweed	Morning glory	common lambsqua>	Giant foxtail
Crop Type, Code				
Crop Scientific Name				
Crop Name				
Rating Date	6-25-2021	6-25-2021	6-25-2021	6-25-2021
Part Rated				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Data Entry Date	9-16-2021	9-16-2021	9-16-2021	9-16-2021
Rating Timing	42 DAA	42 DAA	42 DAA	42 DAA
Days After First/Last Applic.	42, 42	42, 42	42, 42	42, 42
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A	42 DA-A
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	37 DE-1
ARM Action Codes				
Number of Decimals				
Trt Treatment	10	11	12	13
No. Name				
Rate				
Rate Unit				
Appl Code				
1 NTC	0.0 b	0.0 c	0.0 b	0.0 b
2 Dual II Magnum	20 FL OZ/A A	58.8 a	72.5 a	73.8 a
3 Dual II Magnum	20 FL OZ/A A	67.5 a	72.5 a	71.3 a
FirstRate	0.5 OZ/A A			
4 Dual II Magnum	20 FL OZ/A A	67.5 a	72.5 a	71.3 a
Scepter	2.8 OZ/A A			
5 Dual II Magnum	20 FL OZ/A A	65.0 a	65.0 b	73.8 a
Python	1.0 OZ/A A			

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	CHEAL	SETFA
Pest Name	Giant ragweed	Morning glory	common lambsqua>	Giant foxtail
Crop Type, Code				
Crop Scientific Name				
Crop Name				
Rating Date	6-25-2021	6-25-2021	6-25-2021	6-25-2021
Part Rated				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Data Entry Date	9-16-2021	9-16-2021	9-16-2021	9-16-2021
Rating Timing	42 DAA	42 DAA	42 DAA	42 DAA
Days After First/Last Applic.	42, 42	42, 42	42, 42	42, 42
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A	42 DA-A
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	37 DE-1
ARM Action Codes				
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	10	11
6 Dual II Magnum	20 FL OZ/A	A	12	13
FirstRate	0.5 OZ/A	A		
Glory	0.5 LB/A	A		
LSD P=.05	67.5 a	67.5 ab	73.8 a	80.0 a
Standard Deviation	9.46	4.77	7.00	7.10
CV	6.27	3.16	4.65	4.71
Levene's F^	11.54	5.42	7.67	7.39
Levene's Prob(F)	0.246	0.50	1.034	1.75
Skewness^	0.936	0.772	0.428	0.174
Kurtosis^	-0.8296	0.2373	-0.5468	-0.0806
Replicate F	1.1174	-0.8076	1.2066	0.0805
Replicate Prob(F)	1.296	5.000	0.305	1.188
Treatment F	0.3121	0.0134	0.8210	0.3479
Treatment Prob(F)	73.254	330.667	163.650	177.300
	0.0001	0.0001	0.0001	0.0001

University of Kentucky

Evaluate efficacy of AMVAC soybean herbicides when used in a soybean herbicide program

Trial ID: 21C12H114 Location: Trial Year: 2021
Protocol ID: 21C12H114 Investigator (Creator): Sara Carter
Project ID: Study Director:
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

IPOSS, Ipomoea sp., Morning glory = US

CHEAL, Chenopodium album, common lambsquarters = US

SETFA, Setaria faberi, Giant foxtail = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

University of Kentucky

Trial ID: 21C13H115 Location: Trial Year: 2021
 Protocol ID: 21C13H115 Investigator (Creator): Sara Carter
 Project ID: Study Director:
 Sponsor Contact:

Reps: 4 Plots: 10 by 33 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2.2 L (total for 4 plots; minimum=1.7206 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Rep			
											1	2	3	4
1	NTC										101	203	304	405
2	Dual II Magnum Liberty	7.64 LBA/GAL	EC	FL	OZ/A			PREPRE	A	18.33 mL/mx	102	205	301	409
		2.34 LBA/GAL	SL	FL	OZ/A	0.585 LB	A/A	POSPOS	B	36.66 mL/mx				
	Dual II Magnum	7.64 LBA/GAL	EC	FL	OZ/A			POSPOS	B	18.33 mL/mx				
	Ammonium Sulfate	100 %	SG	LB/A			POSPOS	B	52.72 g/mx					
3	Dual II Magnum Liberty	7.64 LBA/GAL	EC	FL	OZ/A			PREPRE	A	18.33 mL/mx	103	204	307	401
		2.34 LBA/GAL	SL	FL	OZ/A	0.585 LB	A/A	POSPOS	B	36.66 mL/mx				
	Classic	25 %AW/W	DF	OZ	WT/A	0.0078 LB	A/A	POSPOS	B	0.5483 g/mx				
	Dual II Magnum	7.64 LBA/GAL	EC	FL	OZ/A			POSPOS	B	18.33 mL/mx				
	Ammonium Sulfate	100 %	SG	LB/A			POSPOS	B	52.72 g/mx					
4	Dual II Magnum Liberty	7.64 LBA/GAL	EC	FL	OZ/A			PREPRE	A	18.33 mL/mx	104	208	303	408
		2.34 LBA/GAL	SL	FL	OZ/A	0.585 LB	A/A	POSPOS	B	36.66 mL/mx				
	FirstRate	84 %	WG	OZ	WT/A	0.021 LB	A/A	POSPOS	B	0.4394 g/mx				
	Dual II Magnum	7.64 LBA/GAL	EC	FL	OZ/A			POSPOS	B	18.33 mL/mx				
	Ammonium Sulfate	100 %	SG	LB/A			POSPOS	B	52.72 g/mx					
5	Dual II Magnum Engenia	7.64 LBA/GAL	EC	FL	OZ/A			PREPRE	A	18.33 mL/mx	105	201	308	404
		5 LBA/GAL	SL	FL	OZ/A	0.5 LB	A/A	POSPOS	B	14.67 mL/mx				
	Roundup Powermax	5.5 LBA/GAL	SL	FL	OZ/A	1.38 LB	A/A	POSPOS	B	36.8 mL/mx				
	Dual II Magnum	7.64 LBA/GAL	EC	FL	OZ/A			POSPOS	B	18.33 mL/mx				
	DeltaForce		L	%	V/V			POSPOS	B	11.0 mL/mx				
	DeltaLock			FL	OZ/A			POSPOS	B					
6	Dual II Magnum Engenia	7.64 LBA/GAL	EC	FL	OZ/A			PREPRE	A	18.33 mL/mx	106	207	309	407
		5 LBA/GAL	SL	FL	OZ/A	0.5 LB	A/A	POSPOS	B	14.67 mL/mx				
	FirstRate	84 %	WG	OZ	WT/A	0.021 LB	A/A	POSPOS	B	0.4394 g/mx				
	Roundup Powermax	5.5 LBA/GAL	SL	FL	OZ/A	1.38 LB	A/A	POSPOS	B	36.8 mL/mx				
	Dual II Magnum	7.64 LBA/GAL	EC	FL	OZ/A			POSPOS	B	18.33 mL/mx				
	DeltaForce		L	%	V/V			POSPOS	B	11.0 mL/mx				
	DeltaLock			FL	OZ/A			POSPOS	B					
7	Dual II Magnum Engenia	7.64 LBA/GAL	EC	FL	OZ/A			PREPRE	A	18.33 mL/mx	107	206	302	410
		5 LBA/GAL	SL	FL	OZ/A	0.5 LB	A/A	POSPOS	B	14.67 mL/mx				
	Classic	25 %AW/W	DF	OZ	WT/A	0.0078 LB	A/A	POSPOS	B	0.5483 g/mx				
	Roundup Powermax	5.5 LBA/GAL	SL	FL	OZ/A	1.38 LB	A/A	POSPOS	B	36.8 mL/mx				
	Dual II Magnum	7.64 LBA/GAL	EC	FL	OZ/A			POSPOS	B	18.33 mL/mx				
	DeltaForce		L	%	V/V			POSPOS	B	11.0 mL/mx				
	DeltaLock			FL	OZ/A			POSPOS	B					

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Reps: 4 Plots: 10 by 33 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2.2 L (total for 4 plots; minimum=1.7206 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Rate Type	Form Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
8	Dual II Magnum	7.64	LBA/GAL	EC	FL OZ/A			PREPRE	A	18.33 mL/mx	108	202	305	402
	Engenia	5	LBA/GAL	SL	FL OZ/A	0.5	LB A/A	POSPOS	B	14.67 mL/mx				
	Python	80	%	WG	OZ WT/A	0.00625	LB A/A	POSPOS	B	0.1373 g/mx				
	Roundup Powermax	5.5	LBA/GAL	SL	FL OZ/A	1.38	LB A/A	POSPOS	B	36.8 mL/mx				
	Dual II Magnum	7.64	LBA/GAL	EC	FL OZ/A			POSPOS	B	18.33 mL/mx				
	DeltaForce			L	% V/V			POSPOS	B	11.0 mL/mx				
	DeltaLock				FL OZ/A			POSPOS	B					
9	Dual II Magnum	7.64	LBA/GAL	EC	FL OZ/A			PREPRE	A	18.33 mL/mx	109	210	306	403
	Classic	25	%AW/W	DF	OZ WT/A	0.0078	LB A/A	POSPOS	B	0.5483 g/mx				
	Assure II	0.88	LBA/GAL	EC	FL OZ/A	0.0825	LB A/A	POSPOS	B	13.75 mL/mx				
	Reflex	2	LBA/GAL	EC	FL OZ/A	0.25	LB A/A	POSPOS	B	18.33 mL/mx				
	Ammonium Sulfate	100	%	SG	LB/A			POSPOS	B	35.15 g/mx				
COC	100	%	SL	% V/V			POSPOS	B	22.0 mL/mx					
10	Dual II Magnum	7.64	LBA/GAL	EC	FL OZ/A			PREPRE	A	18.33 mL/mx	110	209	310	406
	FirstRate	84	%	WG	OZ WT/A	0.021	LB A/A	POSPOS	B	0.4394 g/mx				
	Assure II	0.88	LBA/GAL	EC	FL OZ/A	0.0825	LB A/A	POSPOS	B	13.75 mL/mx				
	Reflex	2	LBA/GAL	EC	FL OZ/A	0.25	LB A/A	POSPOS	B	18.33 mL/mx				
	Ammonium Sulfate	100	%	SG	LB/A			POSPOS	B	35.15 g/mx				
COC	100	%	SL	% V/V			POSPOS	B	22.0 mL/mx					

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
366.666	mL	Dual II Magnum	7.64	LBA/GAL	EC	
137.485	mL	Liberty	2.34	LBA/GAL	SL	
285.585	g	Ammonium Sulfate	100	%	SG	
2.056	g	Classic	25	%AW/W	DF	
1.648	g	FirstRate	84	%	WG	
73.325	mL	Engenia	5	LBA/GAL	SL	
183.980	mL	Roundup Powermax	5.5	LBA/GAL	SL	
54.994	mL	DeltaForce			L	
0.172	g	Python	80	%	WG	
34.371	mL	Assure II	0.88	LBA/GAL	EC	
45.828	mL	Reflex	2	LBA/GAL	EC	
54.994	mL	COC	100	%	SL	

* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2.2 L.

University of Kentucky

Trial ID: 21C13H115 Location: Trial Year: 2021
 Protocol ID: 21C13H115 Investigator (Creator): Sara Carter
 Project ID: Study Director:
 Sponsor Contact:

General Trial Information

Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

Discipline: H herbicide
Trial Status: F one-year/final

ARM Trial Created On: 4-5-2021

Initiation Date: 5-13-2021 **Planned Completion Date:** 9-1-2021

Conducted Under GLP: No

Conducted Under GEP: No

Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
E-mail: sara.carter@uky.edu
City: LEXINGTON, KY **Postal Code:** 40546-0312

Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Stage Scale: BBCH
Variety: Xtendflex
Attributes: dicamba, glyphosate and glufosinate resist
Planting Date: 5-13-2021 **Planting Rate:** 150000 S/A
Depth: 1.5 IN
Rows per Plot: 6 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** FE field equipment
Seed Bed: SMOOTH smooth
Soil Temperature: 59 F **Soil Moisture:** SLIDRY slightly dry
Emergence Date: 5-19-2021

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed **Stage Scale:** BBCH
Crop: 1 GLXMA
Pest 2 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory **Stage Scale:** BBCH
Crop: 1 GLXMA
Pest 3 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 33 FT **Experimental Unit:** 4 ROW row
Treated Plot Area: 330.0 FT² **Treatments:** 10 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB Randomized Complete Block (RCB)

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Soil Description

Description Name: MAURY
% Sand: 6 **% OM:** 2.6 **Texture:** SIL silt loam
% Silt: 62 **pH:** 6.4 **Soil Name:** MAURY SILT LOAM
% Clay: 32 **CEC:** 18 **Fert. Level:** E excellent
Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Closest Weather Station: Spindletop **Distance:** 1.5 mi

Application Description

	A	B
Application Date	5-14-2021	6-10-2021
Appl. Start Time	6:15 PM	4:15 PM
Appl. Stop Time	7:00 PM	5:00 PM
Application Method	SPRAY	SPRAY
Application Timing	PREPRE	POSPOS
Application Placement	BROSOI	BROFOL
Applied By	SARA	SARA
Air Temperature Start, Stop	67, - F	80, - F
% Relative Humidity Start, Stop	32, -	85, -
Wind Velocity+Dir. Start	3 MPH, NNE	4 MPH, SE
Soil Temperature	59 F	71 F
Soil Moisture	SLIDRY	WET
Soil Surface Condition	SMOOTH	SMOOTH
% Cloud Cover	30	40

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-5	22
Stage Majority, Percent		V2, 95
Height Average		4 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		3 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 2 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH
Height Average		1.5 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Height Average		2 IN

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Pest Type			W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA	W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA	W, Weed AMBTR		
Pest Code			Giant ragweed	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed		
Pest Name											
Crop Type, Code	C, GLXMA	C, GLXMA									
Crop Scientific Name	Glycine max	Glycine max									
Crop Name	Soybean	Soybean									
Rating Date	6-17-2021	6-24-2021	6-24-2021	6-24-2021	6-24-2021	7-8-2021	7-8-2021	7-8-2021	7-22-2021		
Part Rated											
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021		
Rating Timing											
Days After First/Last Applic.	34, 7	41, 14	41, 14	41, 14	41, 14	55, 28	55, 28	55, 28	69, 42		
Trt-Eval Interval											
Days After Emergence	29 DE-1	36 DE-1	36 DE-1	36 DE-1	36 DE-1	50 DE-1	50 DE-1	50 DE-1	64 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9
		405	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 Dual II Magnum	16 FL OZ/A	A 102	0.0	0.0	100.0	100.0	100.0	75.0	80.0	85.0	50.0
Liberty	32 FL OZ/A	B 205	0.0	0.0	100.0	100.0	100.0	85.0	85.0	92.0	60.0
Dual II Magnum	16 FL OZ/A	B 301	0.0	0.0	100.0	100.0	100.0	85.0	80.0	90.0	50.0
Ammonium Sulfate	3 LB/A	B 409	0.0	0.0	100.0	100.0	100.0	80.0	80.0	95.0	50.0
		Mean =	0.0	0.0	100.0	100.0	100.0	81.3	81.3	90.5	52.5
3 Dual II Magnum	16 FL OZ/A	A 103	0.0	0.0	100.0	100.0	100.0	90.0	95.0	90.0	65.0
Liberty	32 FL OZ/A	B 204	0.0	0.0	100.0	100.0	100.0	92.0	92.0	95.0	60.0
Classic	0.5 OZ WT/A	B 307	0.0	0.0	100.0	100.0	100.0	90.0	95.0	90.0	50.0
Dual II Magnum	16 FL OZ/A	B 401	0.0	0.0	100.0	100.0	100.0	95.0	90.0	95.0	55.0
Ammonium Sulfate	3 LB/A	B									
		Mean =	0.0	0.0	100.0	100.0	100.0	91.8	93.0	92.5	57.5
4 Dual II Magnum	16 FL OZ/A	A 104	0.0	0.0	100.0	100.0	100.0	90.0	95.0	95.0	60.0
Liberty	32 FL OZ/A	B 208	0.0	0.0	100.0	100.0	100.0	95.0	95.0	95.0	55.0
FirstRate	0.4 OZ WT/A	B 303	0.0	0.0	100.0	100.0	100.0	90.0	95.0	95.0	60.0
Dual II Magnum	16 FL OZ/A	B 408	0.0	0.0	100.0	100.0	100.0	95.0	92.0	92.0	55.0
Ammonium Sulfate	3 LB/A	B									
		Mean =	0.0	0.0	100.0	100.0	100.0	92.5	94.3	94.3	57.5
5 Dual II Magnum	16 FL OZ/A	A 105	0.0	0.0	100.0	100.0	100.0	95.0	95.0	100.0	60.0
Engenia	12.8 FL OZ/A	B 201	0.0	0.0	100.0	100.0	100.0	98.0	98.0	95.0	60.0
Roundup Powermax	32 FL OZ/A	B 308	0.0	0.0	100.0	100.0	100.0	98.0	98.0	95.0	60.0
Dual II Magnum	16 FL OZ/A	B 404	0.0	0.0	100.0	100.0	100.0	95.0	95.0	98.0	55.0
DeltaForce	0.5 % V/V	B									
DeltaLock	20 FL OZ/A	B									
		Mean =	0.0	0.0	100.0	100.0	100.0	96.5	96.5	97.0	58.8

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Pest Type				W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed				
Pest Code				AMBTR	IPOSS	SETFA	AMBTR	IPOSS	SETFA	AMBTR				
Pest Name				Giant ragweed	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed				
Crop Type, Code				C, GLXMA	C, GLXMA									
Crop Scientific Name				Glycine max	Glycine max									
Crop Name				Soybean	Soybean									
Rating Date				6-17-2021	6-24-2021	6-24-2021	6-24-2021	6-24-2021	7-8-2021	7-8-2021	7-8-2021	7-22-2021		
Part Rated														
Rating Type				PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples				1	1	1	1	1	1	1	1			
Data Entry Date				9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021			
Rating Timing														
Days After First/Last Applic.				34, 7	41, 14	41, 14	41, 14	41, 14	55, 28	55, 28	55, 28	69, 42		
Trt-Eval Interval														
Days After Emergence				29 DE-1	36 DE-1	36 DE-1	36 DE-1	36 DE-1	50 DE-1	50 DE-1	50 DE-1	64 DE-1		
ARM Action Codes														
Number of Decimals														
Trt	Treatment	Rate	Appl											
No.	Name	Rate	Unit	Code	Plot	1	2	3	4	5	6	7	8	9
6	Dual II Magnum	16 FL OZ/A	A	106		0.0	0.0	100.0	100.0	100.0	95.0	98.0	95.0	65.0
	Engenia	12.8 FL OZ/A	B	207		0.0	0.0	100.0	100.0	100.0	98.0	98.0	98.0	65.0
	FirstRate	0.4 OZ WT/A	B	309		0.0	0.0	100.0	100.0	100.0	98.0	95.0	98.0	60.0
	Roundup Powermax	32 FL OZ/A	B	407		0.0	0.0	100.0	100.0	100.0	95.0	92.0	95.0	65.0
	Dual II Magnum	16 FL OZ/A	B											
	DeltaForce	0.5 % V/V	B											
	DeltaLock	20 FL OZ/A	B											
				Mean =		0.0	0.0	100.0	100.0	100.0	96.5	95.8	96.5	63.8
7	Dual II Magnum	16 FL OZ/A	A	107		0.0	0.0	100.0	100.0	100.0	95.0	98.0	98.0	60.0
	Engenia	12.8 FL OZ/A	B	206		0.0	0.0	100.0	100.0	100.0	98.0	98.0	98.0	65.0
	Classic	0.5 OZ WT/A	B	302		0.0	0.0	100.0	100.0	100.0	98.0	98.0	98.0	65.0
	Roundup Powermax	32 FL OZ/A	B	410		0.0	0.0	100.0	100.0	100.0	98.0	95.0	95.0	65.0
	Dual II Magnum	16 FL OZ/A	B											
	DeltaForce	0.5 % V/V	B											
	DeltaLock	20 FL OZ/A	B											
				Mean =		0.0	0.0	100.0	100.0	100.0	97.3	97.3	97.3	63.8
8	Dual II Magnum	16 FL OZ/A	A	108		0.0	0.0	100.0	100.0	100.0	98.0	98.0	95.0	60.0
	Engenia	12.8 FL OZ/A	B	202		0.0	0.0	100.0	100.0	100.0	95.0	95.0	95.0	65.0
	Python	0.125 OZ WT/A	B	305		0.0	0.0	100.0	100.0	100.0	95.0	98.0	95.0	60.0
	Roundup Powermax	32 FL OZ/A	B	402		0.0	0.0	100.0	100.0	100.0	98.0	95.0	95.0	65.0
	Dual II Magnum	16 FL OZ/A	B											
	DeltaForce	0.5 % V/V	B											
	DeltaLock	20 FL OZ/A	B											
				Mean =		0.0	0.0	100.0	100.0	100.0	96.5	96.5	95.0	62.5

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Pest Type			W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA	W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA	W, Weed AMBTR		
Pest Code			Giant ragweed	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed		
Pest Name											
Crop Type, Code	C, GLXMA	C, GLXMA									
Crop Scientific Name	Glycine max Soybean										
Crop Name	Soybean										
Rating Date	6-17-2021	6-24-2021	6-24-2021	6-24-2021	6-24-2021	7-8-2021	7-8-2021	7-8-2021	7-22-2021		
Part Rated											
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021		
Rating Timing											
Days After First/Last Applic.	34, 7	41, 14	41, 14	41, 14	41, 14	55, 28	55, 28	55, 28	69, 42		
Trt-Eval Interval											
Days After Emergence	29 DE-1	36 DE-1	36 DE-1	36 DE-1	36 DE-1	50 DE-1	50 DE-1	50 DE-1	64 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9
9 Dual II Magnum	16 FL OZ/A	A 109	0.0	0.0	100.0	100.0	100.0	95.0	98.0	92.0	65.0
Classic	0.5 OZ WT/A	B 210	0.0	0.0	100.0	100.0	100.0	95.0	98.0	90.0	65.0
Assure II	12 FL OZ/A	B 306	0.0	0.0	100.0	100.0	100.0	95.0	98.0	95.0	60.0
Reflex	16 FL OZ/A	B 403	0.0	0.0	100.0	100.0	100.0	98.0	98.0	98.0	60.0
Ammonium Sulfate	2 LB/A	B									
COC	1 % V/V	B									
		Mean =	0.0	0.0	100.0	100.0	100.0	95.8	98.0	93.8	62.5
10 Dual II Magnum	16 FL OZ/A	A 110	0.0	0.0	100.0	100.0	100.0	90.0	98.0	95.0	65.0
FirstRate	0.4 OZ WT/A	B 209	0.0	0.0	100.0	100.0	100.0	95.0	98.0	98.0	60.0
Assure II	12 FL OZ/A	B 310	0.0	0.0	100.0	100.0	100.0	95.0	98.0	98.0	60.0
Reflex	16 FL OZ/A	B 406	0.0	0.0	100.0	100.0	100.0	98.0	98.0	98.0	65.0
Ammonium Sulfate	2 LB/A	B									
COC	1 % V/V	B									
		Mean =	0.0	0.0	100.0	100.0	100.0	94.5	98.0	97.3	62.5

Pest Type	W, Weed	W, Weed
Pest Code	IPOSS	SETFA
Pest Name	Morning glory	Giant foxtail
Crop Type, Code		
Crop Scientific Name		
Crop Name		
Rating Date	7-22-2021	7-22-2021
Part Rated		
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
Data Entry Date	9-16-2021	9-16-2021
Rating Timing		
Days After First/Last Applic.	69, 42	69, 42
Trt-Eval Interval		
Days After Emergence	64 DE-1	64 DE-1
ARM Action Codes		
Number of Decimals		
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code Plot
1 NTC		
	101	0.0
	203	0.0
	304	0.0

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Pest Type					W, Weed	W, Weed
Pest Code					IPOSS	SETFA
Pest Name					Morning glory	Giant foxtail
Crop Type, Code						
Crop Scientific Name						
Crop Name						
Rating Date					7-22-2021	7-22-2021
Part Rated						
Rating Type					CONTRO	CONTRO
Rating Unit/Min/Max					%, 0, 100	%, 0, 100
Number of Subsamples					1	1
Data Entry Date					9-16-2021	9-16-2021
Rating Timing						
Days After First/Last Applic.					69, 42	69, 42
Trt-Eval Interval						
Days After Emergence					64 DE-1	64 DE-1
ARM Action Codes						
Number of Decimals						
Trt	Treatment	Rate	Appl			
No.	Name	Rate	Unit	Code	Plot	
				405	10	11
				Mean =	0.0	0.0
				Mean =	0.0	0.0
2	Dual II Magnum	16 FL OZ/A	A	102	65.0	65.0
	Liberty	32 FL OZ/A	B	205	60.0	65.0
	Dual II Magnum	16 FL OZ/A	B	301	65.0	65.0
	Ammonium Sulfate	3 LB/A	B	409	60.0	60.0
				Mean =	62.5	63.8
3	Dual II Magnum	16 FL OZ/A	A	103	65.0	65.0
	Liberty	32 FL OZ/A	B	204	65.0	55.0
	Classic	0.5 OZ WT/A	B	307	60.0	60.0
	Dual II Magnum	16 FL OZ/A	B	401	65.0	65.0
	Ammonium Sulfate	3 LB/A	B			
				Mean =	63.8	61.3
4	Dual II Magnum	16 FL OZ/A	A	104	60.0	65.0
	Liberty	32 FL OZ/A	B	208	60.0	62.0
	FirstRate	0.4 OZ WT/A	B	303	65.0	62.0
	Dual II Magnum	16 FL OZ/A	B	408	65.0	65.0
	Ammonium Sulfate	3 LB/A	B			
				Mean =	62.5	63.5
5	Dual II Magnum	16 FL OZ/A	A	105	65.0	60.0
	Engenia	12.8 FL OZ/A	B	201	65.0	65.0
	Roundup Powermax	32 FL OZ/A	B	308	65.0	60.0
	Dual II Magnum	16 FL OZ/A	B	404	60.0	65.0
	DeltaForce	0.5 % V/V	B			
	DeltaLock	20 FL OZ/A	B			
				Mean =	63.8	62.5

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Pest Type	W, Weed	W, Weed
Pest Code	IPOSS	SETFA
Pest Name	Morning glory	Giant foxtail
Crop Type, Code		
Crop Scientific Name		
Crop Name		
Rating Date	7-22-2021	7-22-2021
Part Rated		
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
Data Entry Date	9-16-2021	9-16-2021
Rating Timing		
Days After First/Last Applic.	69, 42	69, 42
Trt-Eval Interval		
Days After Emergence	64 DE-1	64 DE-1
ARM Action Codes		
Number of Decimals		
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code Plot
6 Dual II Magnum	16 FL OZ/A A	106
Engenia	12.8 FL OZ/A B	207
FirstRate	0.4 OZ WT/A B	309
Roundup Powermax	32 FL OZ/A B	407
Dual II Magnum	16 FL OZ/A B	
DeltaForce	0.5 % V/V B	
DeltaLock	20 FL OZ/A B	
	Mean =	
7 Dual II Magnum	16 FL OZ/A A	107
Engenia	12.8 FL OZ/A B	206
Classic	0.5 OZ WT/A B	302
Roundup Powermax	32 FL OZ/A B	410
Dual II Magnum	16 FL OZ/A B	
DeltaForce	0.5 % V/V B	
DeltaLock	20 FL OZ/A B	
	Mean =	
8 Dual II Magnum	16 FL OZ/A A	108
Engenia	12.8 FL OZ/A B	202
Python	0.125 OZ WT/A B	305
Roundup Powermax	32 FL OZ/A B	402
Dual II Magnum	16 FL OZ/A B	
DeltaForce	0.5 % V/V B	
DeltaLock	20 FL OZ/A B	
	Mean =	

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Pest Type	W, Weed	W, Weed
Pest Code	IPOSS	SETFA
Pest Name	Morning glory	Giant foxtail
Crop Type, Code		
Crop Scientific Name		
Crop Name		
Rating Date	7-22-2021	7-22-2021
Part Rated		
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
Data Entry Date	9-16-2021	9-16-2021
Rating Timing		
Days After First/Last Applic.	69, 42	69, 42
Trt-Eval Interval		
Days After Emergence	64 DE-1	64 DE-1
ARM Action Codes		
Number of Decimals		
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code Plot
		10 11
9 Dual II Magnum	16 FL OZ/A A	109 65.0 60.0
Classic	0.5 OZ WT/A B	210 65.0 55.0
Assure II	12 FL OZ/A B	306 65.0 55.0
Reflex	16 FL OZ/A B	403 65.0 60.0
Ammonium Sulfate	2 LB/A B	
COC	1 % V/V B	
	Mean =	65.0 57.5
10 Dual II Magnum	16 FL OZ/A A	110 50.0 65.0
FirstRate	0.4 OZ WT/A B	209 50.0 60.0
Assure II	12 FL OZ/A B	310 55.0 65.0
Reflex	16 FL OZ/A B	406 65.0 65.0
Ammonium Sulfate	2 LB/A B	
COC	1 % V/V B	
	Mean =	55.0 63.8

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Pest Type			W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA	W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA	W, Weed AMBTR	W, Weed IPOSS
Pest Code			Giant ragweed	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed	Morning glory
Pest Name										
Crop Type, Code	C, GLXMA	C, GLXMA								
Crop Scientific Name	Glycine max	Glycine max								
Crop Name	Soybean	Soybean								
Rating Date	6-17-2021	6-24-2021	6-24-2021	6-24-2021	6-24-2021	7-8-2021	7-8-2021	7-8-2021	7-22-2021	7-22-2021
Part Rated										
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1	1	1	1	1
Data Entry Date	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021	9-16-2021
Rating Timing										
Days After First/Last Applic.	34, 7	41, 14	41, 14	41, 14	41, 14	55, 28	55, 28	55, 28	69, 42	69, 42
Trt-Eval Interval										
Days After Emergence	29 DE-1	36 DE-1	36 DE-1	36 DE-1	36 DE-1	50 DE-1	50 DE-1	50 DE-1	64 DE-1	64 DE-1
ARM Action Codes										
Number of Decimals										
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
No. Name	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit
10 Dual II Magnum	16 FL OZ/A	16 FL OZ/A	100.0 a	100.0 a	100.0 a	94.5 ab	98.0 a	97.3 a	62.5 a	55.0 b
FirstRate	0.4 OZ WT/A	0.4 OZ WT/A								
Assure II	12 FL OZ/A	12 FL OZ/A								
Reflex	16 FL OZ/A	16 FL OZ/A								
Ammonium Sulfate	2 LB/A	2 LB/A								
COC	1 % V/V	1 % V/V								
LSD P=.05						3.18	2.18	3.40	4.83	4.96
Standard Deviation	0.00	0.00	0.00	0.00	0.00	2.19	1.50	2.35	3.33	3.42
CV	0.0	0.0	0.0	0.0	0.0	2.6	1.76	2.75	6.15	6.15
Levene's F^						2.191	1.666	1.496	0.913	1.199
Levene's Prob(F)						0.052	0.142	0.195	0.527	0.332
Skewness^						-0.0863	0.1864	-0.2343	0.2118	0.1191
Kurtosis^						-0.3179	-0.3613	0.0989	0.0738	0.9577
Replicate F	0.000	0.000	0.000	0.000	0.000	3.788	4.789	0.812	1.710	1.000
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000	1.0000	0.0218	0.0084	0.4986	0.1886	0.4079
Treatment F	0.000	0.000	0.000	0.000	0.000	749.456	1632.302	658.014	135.163	133.714
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001

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Pest Type	W, Weed		
Pest Code	SETFA		
Pest Name	Giant foxtail		
Crop Type, Code			
Crop Scientific Name			
Crop Name			
Rating Date	7-22-2021		
Part Rated			
Rating Type	CONTRO		
Rating Unit/Min/Max	%, 0, 100		
Number of Subsamples	1		
Data Entry Date	9-16-2021		
Rating Timing			
Days After First/Last Applic.	69, 42		
Trt-Eval Interval			
Days After Emergence	64 DE-1		
ARM Action Codes			
Number of Decimals			
Trt No.	Treatment Name	Rate	Appl Code
		Rate Unit	
11			
1	NTC		0.0 b
2	Dual II Magnum	16 FL OZ/A A	63.8 a
	Liberty	32 FL OZ/A B	
	Dual II Magnum	16 FL OZ/A B	
	Ammonium Sulfate	3 LB/A B	
3	Dual II Magnum	16 FL OZ/A A	61.3 a
	Liberty	32 FL OZ/A B	
	Classic	0.5 OZ WT/A B	
	Dual II Magnum	16 FL OZ/A B	
	Ammonium Sulfate	3 LB/A B	
4	Dual II Magnum	16 FL OZ/A A	63.5 a
	Liberty	32 FL OZ/A B	
	FirstRate	0.4 OZ WT/A B	
	Dual II Magnum	16 FL OZ/A B	
	Ammonium Sulfate	3 LB/A B	

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Pest Type				W, Weed	
Pest Code				SETFA	
Pest Name				Giant foxtail	
Crop Type, Code					
Crop Scientific Name					
Crop Name					
Rating Date				7-22-2021	
Part Rated					
Rating Type				CONTRO	
Rating Unit/Min/Max				%, 0, 100	
Number of Subsamples				1	
Data Entry Date				9-16-2021	
Rating Timing					
Days After First/Last Applic.				69, 42	
Trt-Eval Interval					
Days After Emergence				64 DE-1	
ARM Action Codes					
Number of Decimals					
Trt No.	Treatment Name	Rate	Unit	Appl Code	11
5	Dual II Magnum	16	FL OZ/A	A	62.5 a
	Engenia	12.8	FL OZ/A	B	
	Roundup Powermax	32	FL OZ/A	B	
	Dual II Magnum	16	FL OZ/A	B	
	DeltaForce	0.5	% V/V	B	
6	Dual II Magnum	16	FL OZ/A	A	63.0 a
	Engenia	12.8	FL OZ/A	B	
	FirstRate	0.4	OZ WT/A	B	
	Roundup Powermax	32	FL OZ/A	B	
	Dual II Magnum	16	FL OZ/A	B	
7	Dual II Magnum	16	FL OZ/A	A	63.0 a
	Engenia	12.8	FL OZ/A	B	
	Classic	0.5	OZ WT/A	B	
	Roundup Powermax	32	FL OZ/A	B	
	Dual II Magnum	16	FL OZ/A	B	
8	Dual II Magnum	16	FL OZ/A	A	62.3 a
	Engenia	12.8	FL OZ/A	B	
	Python	0.125	OZ WT/A	B	
	Roundup Powermax	32	FL OZ/A	B	
	Dual II Magnum	16	FL OZ/A	B	
9	Dual II Magnum	16	FL OZ/A	A	57.5 a
	Classic	0.5	OZ WT/A	B	
	Assure II	12	FL OZ/A	B	
	Reflex	16	FL OZ/A	B	
	Ammonium Sulfate	2	LB/A	B	
	COC	1	% V/V	B	

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Pest Type	W, Weed		
Pest Code	SETFA		
Pest Name	Giant foxtail		
Crop Type, Code			
Crop Scientific Name			
Crop Name			
Rating Date	7-22-2021		
Part Rated			
Rating Type	CONTRO		
Rating Unit/Min/Max	%, 0, 100		
Number of Subsamples	1		
Data Entry Date	9-16-2021		
Rating Timing			
Days After First/Last Applic.	69, 42		
Trt-Eval Interval			
Days After Emergence	64 DE-1		
ARM Action Codes			
Number of Decimals			
Trt Treatment	Rate	Unit	Appl Code
No. Name			
10 Dual II Magnum	16 FL	OZ/A	A
FirstRate	0.4 OZ	WT/A	B
Assure II	12 FL	OZ/A	B
Reflex	16 FL	OZ/A	B
Ammonium Sulfate	2 LB/A		B
COC	1 %	V/V	B
LSD P=.05	3.83		
Standard Deviation	2.64		
CV	4.71		
Levene's F^	0.911		
Levene's Prob(F)	0.528		
Skewness^	-0.623		
Kurtosis^	-0.0493		
Replicate F	1.239		
Replicate Prob(F)	0.3149		
Treatment F	224.656		
Treatment Prob(F)	0.0001		

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Trial ID: 21C13H115 Location: Trial Year: 2021
Protocol ID: 21C13H115 Investigator (Creator): Sara Carter
Project ID: Study Director:
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

IPOSS, Ipomoea sp., Morning glory = US

SETFA, Setaria faberi, Giant foxtail = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils			
Trial ID: 21-22_COR-REC		Location: UKREC 109-B1	
Protocol ID: 21C04H055		Investigator (Creator): Travis Legleiter	
Project ID:		Study Director: Joe Bruce	
Sponsor Contact:			

Reps: 4 Plots: 6.7 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.048 L, overage=400 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Other Rate	Other Unit	Other Rate	Other Unit	Appl Timing	Appl Code	Appl Description	Amt Product to Measure	Rep 1	2	3	4
1	Untreated Check													101	207	310	404
2	IMPACT CORE	7.15	LBA/GAL	EC	1.68	lb ai/a	30	fl oz/a		EAPOCR B		Corn V1-V2, 2-3" weeds max	31.33 mL/mx	102	215	304	411
	AAtrex	4	LBA/GAL	F	1	lb ai/a	2	pt/a		EAPOCR B		Corn V1-V2, 2-3" weeds max	33.33 mL/mx				
	MSO	100	%	SL	0.5	lb ai/a	0.5	lb ai/a		EAPOCR B		Corn V1-V2, 2-3" weeds max	9.999 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5	lb ai/a	2.5	lb/a		EAPOCR B		Corn V1-V2, 2-3" weeds max	98.03 mL/mx				
3	Liberty Ammonium Sulfate	2.34	LBA/GAL	SL	0.585	lb ai/a	32	fl oz/a		MIPOWE C		3-4" weeds	33.33 mL/mx	103	210	313	407
		100	%	SG	3	lb ai/a	3	lb/a		MIPOWE C		3-4" weeds	47.93 g/mx				
4	Sinate	2.57	LBA/GAL	SL	0.48	lb ai/a	24	fl oz/a		MIPOWE C		3-4" weeds	24.9 mL/mx	104	208	312	409
	MSO	100	%	SL	1	lb ai/a	1	lb ai/a		MIPOWE C		3-4" weeds	20.0 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	3	lb ai/a	3	lb/a		MIPOWE C		3-4" weeds	117.6 mL/mx				
5	Sinate	2.57	LBA/GAL	SL	0.48	lb ai/a	24	fl oz/a		MIPOWE C		3-4" weeds	24.9 mL/mx	105	204	307	403
	AAtrex	4	LBA/GAL	F	0.5	lb ai/a	1	pt/a		MIPOWE C		3-4" weeds	16.66 mL/mx				
	MSO	100	%	SL	1	lb ai/a	1	lb ai/a		MIPOWE C		3-4" weeds	20.0 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	3	lb ai/a	3	lb/a		MIPOWE C		3-4" weeds	117.6 mL/mx				
6	Sinate	2.57	LBA/GAL	SL	0.48	lb ai/a	24	fl oz/a		MIPOWE C		3-4" weeds	24.9 mL/mx	106	209	315	402
	Dual II Magnum	7.64	LBA/GAL	EC	1.43	lb ai/a	1.5	pt/a		MIPOWE C		3-4" weeds	24.95 mL/mx				
	MSO	100	%	SL	1	lb ai/a	1	lb ai/a		MIPOWE C		3-4" weeds	20.0 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	3	lb ai/a	3	lb/a		MIPOWE C		3-4" weeds	117.6 mL/mx				
7	Sinate	2.57	LBA/GAL	SL	0.48	lb ai/a	24	fl oz/a		MIPOWE C		3-4" weeds	24.9 mL/mx	107	211	302	401
	Dual II Magnum	7.64	LBA/GAL	EC	1.43	lb ai/a	1.5	pt/a		MIPOWE C		3-4" weeds	24.95 mL/mx				
	AAtrex	4	LBA/GAL	F	0.5	lb ai/a	1	pt/a		MIPOWE C		3-4" weeds	16.66 mL/mx				
	MSO	100	%	SG	1	lb ai/a	1	lb ai/a		MIPOWE C		3-4" weeds	20.0 g/mx				
	Amsol AMS	3.4	lba/gal	SL	3	lb ai/a	3	lb/a		MIPOWE C		3-4" weeds	117.6 mL/mx				
8	Bicep II Magnum	5.5	LBA/GAL	F	2.2	lb ai/a	1.6	qt/a		PREPRE A			53.33 mL/mx	108	203	308	412
	Sinate	2.57	LBA/GAL	SL	0.48	lb ai/a	24	fl oz/a		POSPOS D	8	to 11" corn	24.9 mL/mx				
	MSO	100	%	SL	1	lb ai/a	1	lb ai/a		POSPOS D	8	to 11" corn	20.0 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	3	lb ai/a	3	lb/a		POSPOS D	8	to 11" corn	117.6 mL/mx				
9	Bicep II Magnum	5.5	LBA/GAL	F	2.2	lb ai/a	1.6	qt/a		PREPRE A			53.33 mL/mx	109	205	309	414
	Sinate	2.57	LBA/GAL	SL	0.48	lb ai/a	24	fl oz/a		POSPOS D	8	to 11" corn	24.9 mL/mx				
	AAtrex	4	LBA/GAL	F	1	lb ai/a	2	pt/a		POSPOS D	8	to 11" corn	33.33 mL/mx				
	MSO	100	%	SL	1	lb ai/a	1	lb ai/a		POSPOS D	8	to 11" corn	20.0 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	3	lb ai/a	3	lb/a		POSPOS D	8	to 11" corn	117.6 mL/mx				
10	Bicep II Magnum	5.5	LBA/GAL	F	2.2	lb ai/a	1.6	qt/a		PREPRE A			53.33 mL/mx	110	213	305	408
	Sinate	2.57	LBA/GAL	SL	0.56	lb ai/a	28	fl oz/a		POSPOS D	8	to 11" corn	29.05 mL/mx				
	MSO	100	%	SL	1	lb ai/a	1	lb ai/a		POSPOS D	8	to 11" corn	20.0 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	3	lb ai/a	3	lb/a		POSPOS D	8	to 11" corn	117.6 mL/mx				
11	Bicep II Magnum	5.5	LBA/GAL	F	2.2	lb ai/a	1.6	qt/a		PREPRE A			53.33 mL/mx	111	212	303	413
	Sinate	2.57	LBA/GAL	SL	0.56	lb ai/a	28	fl oz/a		POSPOS D	8	to 11" corn	29.05 mL/mx				
	AAtrex	4	LBA/GAL	F	1	lb ai/a	2	pt/a		POSPOS D	8	to 11" corn	33.33 mL/mx				
	MSO	100	%	SL	1	lb ai/a	1	lb ai/a		POSPOS D	8	to 11" corn	20.0 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	3	lb ai/a	3	lb/a		POSPOS D	8	to 11" corn	117.6 mL/mx				
12	Bicep II Magnum	5.5	LBA/GAL	F	2.2	lb ai/a	1.6	qt/a		PREPRE A			53.33 mL/mx	112	206	301	405
	IMPACT CORE	7.15	LBA/GAL	EC	1.34	lb ai/a	24	fl oz/a		POSPOS D	8	to 11" corn	24.99 mL/mx				
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	1.13	lb ae/a	30	fl oz/a		POSPOS D	8	to 11" corn	31.39 mL/mx				
	AAtrex	4	LBA/GAL	F	1	lb ai/a	2	pt/a		POSPOS D	8	to 11" corn	33.33 mL/mx				
	NIS	100	%	SL	0.25	lb ai/a	0.25	lb ai/a		POSPOS D	8	to 11" corn	4.999 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5	lb ai/a	2.5	lb/a		POSPOS D	8	to 11" corn	98.03 mL/mx				
13	Bicep II Magnum	5.5	LBA/GAL	F	2.2	lb ai/a	1.6	qt/a		PREPRE A			53.33 mL/mx	113	201	314	415
	Impact	2.8	LBA/GAL	F	0.0219	lb ai/a	1	fl oz/a		POSPOS D	8	to 11" corn	1.043 mL/mx				
	AAtrex	4	LBA/GAL	F	0.5	lb ai/a	1	pt/a		POSPOS D	8	to 11" corn	16.66 mL/mx				
	MSO	100	%	SL	1	lb ai/a	1	lb ai/a		POSPOS D	8	to 11" corn	20.0 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5	lb ai/a	2.5	lb/a		POSPOS D	8	to 11" corn	98.03 mL/mx				
14	Bicep II Magnum	5.5	LBA/GAL	F	2.2	lb ai/a	1.6	qt/a		PREPRE A			53.33 mL/mx	114	202	306	410
	Halex GT	4.39	LBA/GAL	F	1.98	lb ai/a	3.6	pt/a		POSPOS D	8	to 11" corn	60.13 mL/mx				
	AAtrex	4	LBA/GAL	F	0.5	lb ai/a	1	pt/a		POSPOS D	8	to 11" corn	16.66 mL/mx				
	NIS	100	%	SL	0.25	lb ai/a	0.25	lb ai/a		POSPOS D	8	to 11" corn	4.999 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5	lb ai/a	2.5	lb/a		POSPOS D	8	to 11" corn	98.03 mL/mx				
15	Bicep II Magnum	5.5	LBA/GAL	F	2.2	lb ai/a	1.6	qt/a		PREPRE A			53.33 mL/mx	115	214	311	406
	Impact	2.8	LBA/GAL	F	0.044	lb ai/a	2.01	fl oz/a		LAPOCR E		>12" corn, 4-6" weeds	2.095 mL/mx				
	MSO	100	%	SL	1	lb ai/a	1	lb ai/a		LAPOCR E		>12" corn, 4-6" weeds	20.0 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5	lb ai/a	2.5	lb/a		LAPOCR E		>12" corn, 4-6" weeds	98.03 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
70.389	mL	IMPACT CORE	7.15	LBA/GAL	EC	

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
249.973	mL	AAtrex	4	LBA/GAL	F	
237.474	mL	MSO	100	%	SL	
1,789.021	mL	Amsol AMS	3.4	lba/gal	SL	
41.662	mL	Liberty	2.34	LBA/GAL	SL	
59.913	g	Ammonium Sulfate	100	%	SG	
259.375	mL	Sinate	2.57	LBA/GAL	SL	
62.384	mL	Dual II Magnum	7.64	LBA/GAL	EC	
24.997	g	MSO	100	%	SG	
533.275	mL	Bicep II Magnum	5.5	LBA/GAL	F	
39.232	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
12.499	mL	NIS	100	%	SL	
3.922	mL	Impact	2.8	LBA/GAL	F	
75.163	mL	Halex GT	4.39	LBA/GAL	F	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

General Trial Information

Study Director: Joe Bruce **Title:** Technical Service Manager
Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Discipline: H herbicide
Trial Status: E established

Trial Status Date: Aug-31-2021

Last Changed By: Travis Legleiter

ARM Trial Created On: Apr-5-2021

Trial Usage/Type: DEV Development/Registration

Planned Completion Date: Sep-30-2020

Protocol Revision Number: 2.0

Protocol Revision Date: Apr-5-2021

Trial Location

City: Princeton **Country:** USA United States

State/Prov.: Kentucky KY

Postal Code: 42445

Latitude of LL Corner °: 37.09894 N

Longitude of LL Corner °: -87.86346 W USAKY 39.147732 -36.497058
 -81.964788 --89.571203

Time Zone: America/Chicago

Conducted Under GLP: No

Conducted Under GEP: No

Objectives:

Demonstrate the utility of Impact Core, Sinate and expanded Impact use rates for weed control in corn.

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AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Description

Pest 1 Type: W	Code: AMBTR	Ambrosia trifida	Common Name: Giant ragweed	Stage Scale: BBCH
Pest 2 Type: W	Code: ERICA	Conyza canadensis	Common Name: horseweed	Stage Scale: BBCH
Pest 3 Type: W	Code: OXAST	Oxalis stricta	Common Name: woodsorrel, yellow	Stage Scale: BBCH
Pest 4 Type: W	Code: DIGSA	Digitaria sanguinalis	Common Name: crabgrass, large	Stage Scale: BBCH
Pest 5 Type: W	Code: SIDSP	Sida spinosa	Common Name: Prickly sida	Stage Scale: BBCH
Pest 6 Type: W	Code: AMACH	Amaranthus hybridus	Common Name: pigweed, smooth	Stage Scale: BBCH
Pest 7 Type: W	Code: TAROF	Taraxacum officinale	Common Name: dandelion	Stage Scale: BBCH
Pest 8 Type: W	Code: LOLMU	Lolium perenne	Common Name: ryegrass, Italian	Stage Scale: BBCH
Pest 9 Type: W	Code: SETVI	Setaria viridis	Common Name: foxtail, green	Stage Scale: BBCH
Pest10 Type: W	Code: AMBEL	Ambrosia artemisiifolia	Common Name: ragweed, common	Stage Scale: BBCH
Pest11 Type: W	Code: IPOHE	Ipomoea hederacea	Common Name: morningglory, ivyleaf	Stage Scale: BBCH
Pest12 Type: W	Code: SORHA	Sorghum halepense	Common Name: johnsongrass	Stage Scale: BBCH

Site and Design

Treated Plot Width: 6.7 FT Site Type: FIELD field
 Treated Plot Length: 30 FT Experimental Unit: 1 PLOT plot
 Treated Plot Area: 201.0 FT² Treatments: 15
 Replications: 4 Study Design: RACOBL Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	Apr-9-2021	FERT	Urea	46.0	% N	SG	46-0-0	200	lba/a		
2.	Apr-16-2021	HERB	Gly Star Plus	3.0	LBAE/GAL	L		64	fl oz/a	Y	yes
3.	Apr-16-2021	HERB	Sharpen	2.85	lba/gal	SC		1	fl oz/a	Y	yes

Field Prep./Maintenance:

Soil Description

Description Name: 109 B1&2
 % Sand: 5.3 % OM: 2.9 Texture: SIL silt loam
 % Silt: 78.8 pH: 6.2 Soil Name: Crider Silt Loam
 % Clay: 15.9 CEC: 13.32 Fert. Level: F fair
 Soil Drainage: G good

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Application Description

	A	B	C	D	E
Application Date	Apr-22-2021	May-10-2021	May-17-2021	May-27-2021	Jun-4-2021
Appl. Stop Time	1:48 PM	12:11 PM	3:38 PM	11:03 AM	10:23 AM
Interval to Prev. Appl.		18 DAYS	7 DAYS	10 DAYS	8 DAYS
Application Method	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing	PREPRE	EAPOCR	MIPOCR	POSPOS	LAPOCR
Application Placement	BROADC	BROADC	BROADC	BROADC	BROADC
Applied By	JLG	JLG	JLG	JLG	JLG
Appl. Entry Date	Aug-31-2021	Sep-8-2021	Sep-8-2021	Sep-8-2021	Sep-8-2021
Air Temperature Start, Stop	60, 60 F	58.4, 56.3 F	76.2, 74.8 F	74.9, 81 F	82, 80.6 F
% Relative Humidity Start, Stop	30, 30	58.4, 58.8	54.5, 55	69.5, 65.6	56.5, 56.2
Wind Velocity+Dir. Start	4.2 MPH, SW	3.3 MPH, NE	6.5 MPH, SSE	1.9 MPH, SSE	1.2 MPH, NE
Wind Velocity+Dir. Stop	5.5 MPH, SW	2.6 MPH, NE	3.8 MPH, SW	3 MPH, SW	1 MPH, NE
Wind Velocity+Dir. Max	6.6 MPH, SW	9.2 MPH, NE	10.3 MPH, -	7.9 MPH, -	6.1 MPH, -
Wet Leaves (Y/N)	N, no	N, no	N, no	Y, yes	Y, yes
Soil Temperature	60 F	61.8 F	64 F	70 F	69 F
Soil Moisture	SL DRY	DAMP	DAMP	SL WET	MOIST
% Cloud Cover	2	75	95	60	15

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR
Stage Scale Used	BBCH	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent		V1, -	V3, -	V4, -	V5, -
Stage Minimum, Percent		V1, -	V3, -	V4, -	V5, -
Stage Maximum, Percent		V1, -	V3, -	V5, -	V6, -
Height Average		3 IN	4.625 IN	9 IN	18.625 IN
Height Minimum, Maximum		2.5, 3.5	4, 5.25	6, 13	15.5, 21.75

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		1.75 IN	2 IN	3 IN
Height Minimum, Maximum		1, 2.5	1, 3	0.5, 4
Density Average		2.5 FT2	1.13 FT2	3.38 FT2
Density Minimum, Maximum		1, 7	1, 3	0, 10
Pest 2 Code, Type, Scale	ERICA, W, BBCH	ERICA, W, BBCH	ERICA, W, BBCH	ERICA, W, BBCH
Height Average		0.75 IN	0.125 IN	
Height Minimum, Maximum		0.5, 1	0.1, 0.25	
Density Average		0.75 FT2	0.25 FT2	
Density Minimum, Maximum		0, 3	0, 1	
Pest 3 Code, Type, Scale	OXAST, W, BBCH	OXAST, W, BBCH	OXAST, W, BBCH	OXAST, W, BBCH
Height Average		0.375 IN	0.25 IN	
Height Minimum, Maximum		0.1, 0.75	0.1, 0.5	

University of Kentucky

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Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Density Average		0.25 FT2	0.25 FT2	
Density Minimum, Maximum		0, 1	0, 1	
Pest 4 Code, Type, Scale	DIGSA, W, BBCH	DIGSA, W, BBCH	DIGSA, W, BBCH	DIGSA, W, BBCH
Height Average		0.875 IN	1 IN	0.5 IN
Height Minimum, Maximum		0.25, 1.5	0.25, 1.75	0.25, 1
Density Average		11.5 FT2	45.25 FT2	11 FT2
Density Minimum, Maximum		5, 34	4, 189	0, 31
Pest 5 Code, Type, Scale	SIDSP, W, BBCH	SIDSP, W, BBCH	SIDSP, W, BBCH	SIDSP, W, BBCH
Height Average		0.375 IN		
Height Minimum, Maximum		0.25, 0.5		
Density Average		0.5 FT2		
Density Minimum, Maximum		0, 2		
Pest 6 Code, Type, Scale	AMACH, W, BBCH	AMACH, W, BBCH	AMACH, W, BBCH	AMACH, W, BBCH
Height Average		0.375 IN	0.625 IN	2 IN
Height Minimum, Maximum		0.25, 0.5	0.25, 1	0.5, 3
Density Average		0.75 FT2	5 FT2	2.5 FT2
Density Minimum, Maximum		1, 2	2, 30	0, 10
Pest 7 Code, Type, Scale	TAROF, W, BBCH	TAROF, W, BBCH	TAROF, W, BBCH	TAROF, W, BBCH
Height Average			0.375 IN	
Height Minimum, Maximum			0.25, 0.5	
Density Average			0.5 FT2	
Density Minimum, Maximum			1, 1	
Pest 8 Code, Type, Scale	LOLMU, W, BBCH	LOLMU, W, BBCH	LOLMU, W, BBCH	LOLMU, W, BBCH
Height Average			1.5 IN	
Height Minimum, Maximum			0.1, 3	
Density Average			0.13 FT2	
Density Minimum, Maximum			0, 1	
Pest 9 Code, Type, Scale	SETVI, W, BBCH	SETVI, W, BBCH	SETVI, W, BBCH	SETVI, W, BBCH
Height Average			0.5 IN	
Height Minimum, Maximum			0.1, 1	
Density Average			0.13 FT2	
Density Minimum, Maximum			0, 1	
Pest10 Code, Type, Scale	AMBEL, W, BBCH	AMBEL, W, BBCH	AMBEL, W, BBCH	AMBEL, W, BBCH
Height Average				2 IN
Height Minimum, Maximum				1, 3
Density Average				0.38 FT2
Density Minimum, Maximum				0, 3
Pest11 Code, Type, Scale	IPOHE, W, BBCH	IPOHE, W, BBCH	IPOHE, W, BBCH	IPOHE, W, BBCH
Height Average				0.5 IN
Height Minimum, Maximum				0.5, 0.5
Density Average				0.13 FT2
Density Minimum, Maximum				0, 1
Pest12 Code, Type, Scale	SORHA, W, BBCH	SORHA, W, BBCH	SORHA, W, BBCH	SORHA, W, BBCH
Height Average				9 IN
Height Minimum, Maximum				6, 12

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AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Density Average			0.25 FT2
Density Minimum, Maximum			0, 2
E			
Pest 1 Code, Type, Scale	AMBTR, W, BBCH		
Height Average	3.125 IN		
Height Minimum, Maximum	0.5, 5.75		
Density Average	6.75 FT2		
Density Minimum, Maximum	12, 15		
Pest 2 Code, Type, Scale	ERICA, W, BBCH		
Height Average	0.375 IN		
Height Minimum, Maximum	0.25, 0.5		
Density Average	1 FT2		
Density Minimum, Maximum	0, 4		
Pest 3 Code, Type, Scale	OXAST, W, BBCH		
Height Average	1.5 IN		
Height Minimum, Maximum	1, 2		
Density Average	2 FT2		
Density Minimum, Maximum	2, 6		
Pest 4 Code, Type, Scale	DIGSA, W, BBCH		
Height Average	3.625 IN		
Height Minimum, Maximum	0.75, 6.5		
Density Average	15.5 FT2		
Density Minimum, Maximum	11, 23		
Pest 5 Code, Type, Scale	SIDSP, W, BBCH		
Height Average	1 IN		
Height Minimum, Maximum	0.5, 1.5		
Density Average	5.75 FT2		
Density Minimum, Maximum	4, 19		
Pest 6 Code, Type, Scale	AMACH, W, BBCH		
Height Average	5.875 IN		
Height Minimum, Maximum	0.75, 11		
Density Average	3.5 FT2		
Density Minimum, Maximum	0, 14		
Pest 7 Code, Type, Scale	TAROF, W, BBCH		
Height Average			
Height Minimum, Maximum			
Density Average			
Density Minimum, Maximum			
Pest 8 Code, Type, Scale	LOLMU, W, BBCH		
Height Average			
Height Minimum, Maximum			
Density Average			
Density Minimum, Maximum			
Pest 9 Code, Type, Scale	SETVI, W, BBCH		
Height Average			

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Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
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 Sponsor Contact:

Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	
Pest10 Code, Type, Scale	AMBEL, W, BBCH
Height Average	2.5 IN
Height Minimum, Maximum	2, 3
Density Average	1 FT2
Density Minimum, Maximum	0, 4
Pest11 Code, Type, Scale	IPOHE, W, BBCH
Height Average	
Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	
Pest12 Code, Type, Scale	SORHA, W, BBCH
Height Average	
Height Minimum, Maximum	
Density Average	
Density Minimum, Maximum	

Application Equipment

	A	B	C	D	E
Equipment Type	BACCAI	BACCAI	BACCAI	BACCAI	BACCAI
Operation Pressure	31 PSI	31 PSI	31 PSI	31 PSI	31 PSI
Nozzle Model	XR11002	XR11002	XR11002	XR11002	XR11002
Nozzle Type	FLAFXR	FLAFXR	FLAFXR	FLAFXR	FLAFXR
Nozzle TradeName	XR TeeJet	XR TeeJet	XR TeeJet	XR TeeJet	XR TeeJet
Nozzle Tip Size, Color	02, Yellow	02, Yellow	02, Yellow	02, Yellow	02, Yellow
Nozzle Spacing	20.0 IN	20.0 IN	20.0 IN	20.0 IN	20.0 IN
Boom ID	ORANGE	ORANGE	ORANGE	ORANGE	ORANGE
Boom Length	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Boom Height	18.0 IN	18.0 IN	18.0 IN	18.0 IN	18.0 IN
Ground Speed	3 MPH	3 MPH	3 MPH	3 MPH	3 MPH
Carrier	WATER	WATER	WATER	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC	15 GAL/AC	15 GAL/AC	15 GAL/AC
Minimum Mix/Treatment	1.048 L	1.048 L	1.048 L	1.048 L	1.048 L
Mix Overage	25.0 %	25.0 %	25.0 %	25.0 %	25.0 %
Mix Size	2.0 L	2.0 -	2.0 L	2.0 L	2.0 L
Propellant	COMCO2	COMCO2	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N)	Y, yes	Y, yes	Y, yes	Y, yes	Y, yes

Protocol Equipment Comment:

Small plot backpack equipment preferred.

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AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils			
Trial ID: 21-22_COR-REC	Location: UKREC 109-B1	Trial Year: 2021	
Protocol ID: 21C04H055	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Joe Bruce		
Sponsor Contact:			

Pest Type			W, Weed
Pest Code			AMBTR
Pest Scientific Name			Ambrosia trifida
Pest Name			ragweed, giant
Crop Type, Code	C, ZEAMX	C, ZEAMX	
BBCH Scale	BCOR	BCOR	
Crop Scientific Name	Zea mays	Zea mays	
Crop Name	Corn	Corn	
Rating Date	May-20-2021	May-28-2021	May-28-2021
SE Group No.	3	4	5
SE Name	CROP INJURY	CROP INJURY	WEED CONTROL
SE Description	CROP INJURY 7 a>	CROP INJURY 7 a>	WEED CONTROL 14>
Part Rated	PLANT, C	PLANT, C	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	28, 3	36, 1	36, 1
ARM Action Codes			AS
Trt Treatment	Rate	Rate	Rate
No. Name	Unit	Unit	Unit
	Code	Code	Code
	Plot	Plot	Plot
	1	2	3
1 Untreated Check			
	101	0.0	0.0
	207	0.0	0.0
	310	0.0	0.0
	404	0.0	0.0
	Mean =	0.0	0.0d
2 IMPACT CORE	1.68 lb ai/a B	0.0	90.0
AAtrex	1 lb ai/a B	0.0	90.0
MSO	0.5 % v/v B	0.0	80.0
Amsol AMS	2.5 lb ai/a B	0.0	70.0
	Mean =	0.0	82.3d
3 Liberty	0.585 lb ai/a C	0.0	87.0
Ammonium Sulfate	3 lb ai/a C	0.0	82.0
	313	0.0	80.0
	407	0.0	70.0
	Mean =	0.0	79.6d
4 Sinate	0.48 lb ai/a C	0.0	85.0
MSO	1 % v/v C	0.0	70.0
Amsol AMS	3 lb ai/a C	0.0	55.0
	409	0.0	85.0
	Mean =	0.0	73.2d
5 Sinate	0.48 lb ai/a C	0.0	85.0
AAtrex	0.5 lb ai/a C	0.0	85.0
MSO	1 % v/v C	0.0	75.0
Amsol AMS	3 lb ai/a C	0.0	85.0
	Mean =	0.0	82.4d
6 Sinate	0.48 lb ai/a C	0.0	90.0
Dual II Magnum	1.43 lb ai/a C	0.0	87.0
MSO	1 % v/v C	0.0	90.0
Amsol AMS	3 lb ai/a C	0.0	85.0
	Mean =	0.0	88.0d

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils			
Trial ID: 21-22_COR-REC	Location: UKREC 109-B1	Trial Year: 2021	
Protocol ID: 21C04H055	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Joe Bruce		
Sponsor Contact:			

Pest Type				W, Weed
Pest Code				AMBTR
Pest Scientific Name				Ambrosia trifida
Pest Name				ragweed, giant
Crop Type, Code	C, ZEAMX	C, ZEAMX		
BBCH Scale	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays		
Crop Name	Corn	Corn		
Rating Date	May-20-2021	May-28-2021		May-28-2021
SE Group No.	3	4		5
SE Name	CROP INJURY	CROP INJURY		WEED CONTROL
SE Description	CROP INJURY 7 a>	CROP INJURY 7 a>		WEED CONTROL 14>
Part Rated	PLANT, C	PLANT, C		PLANT, P
Rating Type	PHYGEN	PHYGEN		CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100		%, 0, 100
Sample Size	2 ROW	2 ROW		2 ROW
Collection Basis	1 PLOT	1 PLOT		1 PLOT
Number of Subsamples	1	1		1
Days After First/Last Applic.	28, 3	36, 1		36, 1
ARM Action Codes				AS
Trt Treatment	Rate	Rate	Appl	
No. Name	Rate	Unit	Code Plot	
				1
				2
				3
7 Sinate	0.48 lb ai/a	C	107	0.0
Dual II Magnum	1.43 lb ai/a	C	211	0.0
AAtrex	0.5 lb ai/a	C	302	0.0
MSO	1 % v/v	C	401	0.0
Amsol AMS	3 lb ai/a	C		0.0
			Mean =	0.0
8 Bicep II Magnum	2.2 lb ai/a	A	108	0.0
Sinate	0.48 lb ai/a	D	203	0.0
MSO	1 % v/v	D	308	0.0
Amsol AMS	3 lb ai/a	D	412	0.0
			Mean =	0.0
9 Bicep II Magnum	2.2 lb ai/a	A	109	0.0
Sinate	0.48 lb ai/a	D	205	0.0
AAtrex	1 lb ai/a	D	309	0.0
MSO	1 % v/v	D	414	0.0
Amsol AMS	3 lb ai/a	D		0.0
			Mean =	0.0
10 Bicep II Magnum	2.2 lb ai/a	A	110	0.0
Sinate	0.56 lb ai/a	D	213	0.0
MSO	1 % v/v	D	305	0.0
Amsol AMS	3 lb ai/a	D	408	0.0
			Mean =	0.0
11 Bicep II Magnum	2.2 lb ai/a	A	111	0.0
Sinate	0.56 lb ai/a	D	212	0.0
AAtrex	1 lb ai/a	D	303	0.0
MSO	1 % v/v	D	413	0.0
Amsol AMS	3 lb ai/a	D		0.0
			Mean =	0.0
				92.0
				86.0
				90.0
				90.0
				89.5d
				80.0
				95.0
				60.0
				50.0
				70.2d
				70.0
				90.0
				40.0
				50.0
				61.0d
				70.0
				30.0
				50.0
				70.0
				53.6d
				70.0
				20.0
				60.0
				50.0
				47.8d

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type				W, Weed
Pest Code				AMBTR
Pest Scientific Name				Ambrosia trifida
Pest Name				ragweed, giant
Crop Type, Code	C, ZEAMX	C, ZEAMX		
BBCH Scale	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays		
Crop Name	Corn	Corn		
Rating Date	May-20-2021	May-28-2021		May-28-2021
SE Group No.	3	4		5
SE Name	CROP INJURY	CROP INJURY		WEED CONTROL
SE Description	CROP INJURY 7 a>	CROP INJURY 7 a>		WEED CONTROL 14>
Part Rated	PLANT, C	PLANT, C		PLANT, P
Rating Type	PHYGEN	PHYGEN		CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100		%, 0, 100
Sample Size	2 ROW	2 ROW		2 ROW
Collection Basis	1 PLOT	1 PLOT		1 PLOT
Number of Subsamples	1	1		1
Days After First/Last Applic.	28, 3	36, 1		36, 1
ARM Action Codes				AS
Trt Treatment	Rate	Rate	Appl	
No. Name	Rate	Unit	Code Plot	
				1 2 3
12 Bicep II Magnum	2.2 lb ai/a	A	112	0.0 0.0 50.0
IMPACT CORE	1.34 lb ai/a	D	206	0.0 0.0 75.0
Roundup PowerMAX 3	1.13 lb ae/a	D	301	0.0 0.0 80.0
AAtrex	1 lb ai/a	D	405	0.0 0.0 50.0
NIS	0.25 % v/v	D		
Amsol AMS	2.5 lb ai/a	D		
			Mean =	0.0 0.0 63.0d
13 Bicep II Magnum	2.2 lb ai/a	A	113	0.0 0.0 50.0
Impact	0.0219 lb ai/a	D	201	0.0 0.0 50.0
AAtrex	0.5 lb ai/a	D	314	0.0 0.0 70.0
MSO	1 % v/v	D	415	0.0 0.0 0.0
Amsol AMS	2.5 lb ai/a	D		
			Mean =	0.0 0.0 33.5d
14 Bicep II Magnum	2.2 lb ai/a	A	114	0.0 0.0 50.0
Halex GT	1.98 lb ai/a	D	202	0.0 0.0 60.0
AAtrex	0.5 lb ai/a	D	306	0.0 0.0 50.0
NIS	0.25 % v/v	D	410	0.0 0.0 50.0
Amsol AMS	2.5 lb ai/a	D		
			Mean =	0.0 0.0 52.4d
15 Bicep II Magnum	2.2 lb ai/a	A	115	0.0 0.0 50.0
Impact	0.044 lb ai/a	E	214	0.0 0.0 50.0
MSO	1 % v/v	E	311	0.0 0.0 50.0
Amsol AMS	2.5 lb ai/a	E	406	0.0 0.0 50.0
			Mean =	0.0 0.0 50.0d

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils			
Trial ID: 21-22_COR-REC	Location: UKREC 109-B1	Trial Year: 2021	
Protocol ID: 21C04H055	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Joe Bruce		
Sponsor Contact:			

Pest Type	W, Weed	W, Weed	
Pest Code	DIGSA	AMACH	
Pest Scientific Name	Digitaria sangu>	Amaranthus hybr>	
Pest Name	crabgrass, large	pigweed, smooth	
Crop Type, Code			C, ZEAMX
BBCH Scale			BCOR
Crop Scientific Name			Zea mays
Crop Name			Corn
Rating Date	May-28-2021	May-28-2021	Jun-3-2021
SE Group No.	6	7	8
SE Name	WEED CONTROL	WEED CONTROL	CROP INJURY
SE Description	WEED CONTROL 14>	WEED CONTROL 14>	CROP INJURY 7 a>
Part Rated	PLANT, P	PLANT, P	PLANT, C
Rating Type	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	36, 1	36, 1	42, 7
ARM Action Codes			
Trt Treatment			
No. Name	4	5	6
7 Sinate	0.48 lb ai/a	100.0	0.0
Dual II Magnum	1.43 lb ai/a	100.0	0.0
AAtrex	0.5 lb ai/a	99.0	0.0
MSO	1 % v/v	100.0	0.0
Amsol AMS	3 lb ai/a	100.0	0.0
Mean =	99.8	100.0	0.0
8 Bicep II Magnum	2.2 lb ai/a	80.0	0.0
Sinate	0.48 lb ai/a	90.0	0.0
MSO	1 % v/v	50.0	0.0
Amsol AMS	3 lb ai/a	80.0	0.0
Mean =	75.0	73.8	0.0
9 Bicep II Magnum	2.2 lb ai/a	50.0	0.0
Sinate	0.48 lb ai/a	85.0	0.0
AAtrex	1 lb ai/a	70.0	0.0
MSO	1 % v/v	70.0	0.0
Amsol AMS	3 lb ai/a	0.0	0.0
Mean =	68.8	57.5	0.0
10 Bicep II Magnum	2.2 lb ai/a	55.0	0.0
Sinate	0.56 lb ai/a	70.0	0.0
MSO	1 % v/v	80.0	0.0
Amsol AMS	3 lb ai/a	80.0	0.0
Mean =	71.3	51.3	0.0
11 Bicep II Magnum	2.2 lb ai/a	60.0	0.0
Sinate	0.56 lb ai/a	80.0	0.0
AAtrex	1 lb ai/a	80.0	0.0
MSO	1 % v/v	80.0	0.0
Amsol AMS	3 lb ai/a	20.0	0.0
Mean =	75.0	71.3	0.0

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University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	4	5	6
12	Bicep II Magnum	2.2 lb ai/a	A	112		70.0	95.0	0.0
	IMPACT CORE	1.34 lb ai/a	D	206		60.0	80.0	0.0
	Roundup PowerMAX 3	1.13 lb ae/a	D	301		90.0	100.0	0.0
	AAtrex	1 lb ai/a	D	405		75.0	25.0	0.0
	NIS	0.25 % v/v	D					
	Amsol AMS	2.5 lb ai/a	D					
				Mean =		73.8	75.0	0.0
13	Bicep II Magnum	2.2 lb ai/a	A	113		50.0	90.0	0.0
	Impact	0.0219 lb ai/a	D	201		70.0	100.0	0.0
	AAtrex	0.5 lb ai/a	D	314		85.0	95.0	0.0
	MSO	1 % v/v	D	415		50.0	0.0	0.0
	Amsol AMS	2.5 lb ai/a	D					
				Mean =		63.8	71.3	0.0
14	Bicep II Magnum	2.2 lb ai/a	A	114		90.0	95.0	0.0
	Halex GT	1.98 lb ai/a	D	202		90.0	100.0	0.0
	AAtrex	0.5 lb ai/a	D	306		80.0	50.0	0.0
	NIS	0.25 % v/v	D	410		70.0	80.0	0.0
	Amsol AMS	2.5 lb ai/a	D					
				Mean =		82.5	81.3	0.0
15	Bicep II Magnum	2.2 lb ai/a	A	115		65.0	95.0	0.0
	Impact	0.044 lb ai/a	E	214		70.0	95.0	0.0
	MSO	1 % v/v	E	311		80.0	90.0	0.0
	Amsol AMS	2.5 lb ai/a	E	406		70.0	20.0	0.0
				Mean =		71.3	75.0	0.0

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University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

				W, Weed AMBTR	W, Weed DIGSA
Pest Type				Ambrosia trifida	Digitaria sangu>
Pest Code				ragweed, giant	crabgrass, large
Pest Scientific Name					
Pest Name					
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date				Jun-3-2021	Jun-3-2021
SE Group No.				9	10
SE Name				WEED CONTROL	WEED CONTROL
SE Description				WEED CONTROL 14>	WEED CONTROL 14>
Part Rated				PLANT, P	PLANT, P
Rating Type				CONTRO	CONTRO
Rating Unit/Min/Max				%, 0, 100	%, 0, 100
Sample Size				2 ROW	2 ROW
Collection Basis				1 PLOT	1 PLOT
Number of Subsamples				1	1
Days After First/Last Applic.				42, 7	42, 7
ARM Action Codes					
Trt No.	Treatment Name	Rate	Appl Unit Code Plot	7	8
1	Untreated Check		101	0.0	0.0
			207	0.0	0.0
			310	0.0	0.0
			404	0.0	0.0
			Mean =	0.0	0.0
2	IMPACT CORE	1.68 lb ai/a	B 102	80.0	90.0
	AAtrex	1 lb ai/a	B 215	80.0	95.0
	MSO	0.5 % v/v	B 304	80.0	100.0
	Amsol AMS	2.5 lb ai/a	B 411	55.0	90.0
			Mean =	73.8	93.8
3	Liberty	0.585 lb ai/a	C 103	80.0	50.0
	Ammonium Sulfate	3 lb ai/a	C 210	50.0	70.0
			313	55.0	70.0
			407	60.0	100.0
			Mean =	61.3	72.5
4	Sinate	0.48 lb ai/a	C 104	70.0	50.0
	MSO	1 % v/v	C 208	60.0	80.0
	Amsol AMS	3 lb ai/a	C 312	50.0	90.0
			409	65.0	90.0
			Mean =	61.3	77.5
5	Sinate	0.48 lb ai/a	C 105	60.0	50.0
	AAtrex	0.5 lb ai/a	C 204	80.0	95.0
	MSO	1 % v/v	C 307	66.0	90.0
	Amsol AMS	3 lb ai/a	C 403	70.0	90.0
			Mean =	69.0	81.3
6	Sinate	0.48 lb ai/a	C 106	70.0	90.0
	Dual II Magnum	1.43 lb ai/a	C 209	60.0	100.0
	MSO	1 % v/v	C 315	75.0	100.0
	Amsol AMS	3 lb ai/a	C 402	60.0	90.0
			Mean =	66.3	95.0

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed	W, Weed	
Pest Code	AMBTR	DIGSA	
Pest Scientific Name	Ambrosia trifida	Digitaria sangu>	
Pest Name	ragweed, giant	crabgrass, large	
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jun-3-2021	Jun-3-2021	
SE Group No.	9	10	
SE Name	WEED CONTROL	WEED CONTROL	
SE Description	WEED CONTROL 14>	WEED CONTROL 14>	
Part Rated	PLANT, P	PLANT, P	
Rating Type	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	
Sample Size	2 ROW	2 ROW	
Collection Basis	1 PLOT	1 PLOT	
Number of Subsamples	1	1	
Days After First/Last Applic.	42, 7	42, 7	
ARM Action Codes			
Trt Treatment			
No. Name	7	8	
Rate			
Rate Unit			
Appl Code Plot			
7 Sinate	0.48 lb ai/a C 107	90.0	90.0
Dual II Magnum	1.43 lb ai/a C 211	70.0	100.0
AAtrex	0.5 lb ai/a C 302	90.0	100.0
MSO	1 % v/v C 401	85.0	97.0
Amsol AMS	3 lb ai/a C		
	Mean =	83.8	96.8
8 Bicep II Magnum	2.2 lb ai/a A 108	97.0	97.0
Sinate	0.48 lb ai/a D 203	99.0	100.0
MSO	1 % v/v D 308	90.0	90.0
Amsol AMS	3 lb ai/a D 412	80.0	100.0
	Mean =	91.5	96.8
9 Bicep II Magnum	2.2 lb ai/a A 109	98.0	100.0
Sinate	0.48 lb ai/a D 205	100.0	100.0
AAtrex	1 lb ai/a D 309	85.0	100.0
MSO	1 % v/v D 414	90.0	90.0
Amsol AMS	3 lb ai/a D		
	Mean =	93.3	97.5
10 Bicep II Magnum	2.2 lb ai/a A 110	95.0	97.0
Sinate	0.56 lb ai/a D 213	75.0	100.0
MSO	1 % v/v D 305	90.0	100.0
Amsol AMS	3 lb ai/a D 408	95.0	100.0
	Mean =	88.8	99.3
11 Bicep II Magnum	2.2 lb ai/a A 111	90.0	100.0
Sinate	0.56 lb ai/a D 212	80.0	100.0
AAtrex	1 lb ai/a D 303	90.0	100.0
MSO	1 % v/v D 413	85.0	100.0
Amsol AMS	3 lb ai/a D		
	Mean =	86.3	100.0

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University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	7	8
	12 Bicep II Magnum	2.2 lb ai/a	A	112		90.0	100.0
	IMPACT CORE	1.34 lb ai/a	D	206		97.0	97.0
	Roundup PowerMAX 3	1.13 lb ae/a	D	301		92.0	100.0
	AAtrex	1 lb ai/a	D	405		97.0	100.0
	NIS	0.25 % v/v	D				
	Amsol AMS	2.5 lb ai/a	D				
				Mean =		94.0	99.3
	13 Bicep II Magnum	2.2 lb ai/a	A	113		95.0	95.0
	Impact	0.0219 lb ai/a	D	201		85.0	100.0
	AAtrex	0.5 lb ai/a	D	314		90.0	100.0
	MSO	1 % v/v	D	415		90.0	100.0
	Amsol AMS	2.5 lb ai/a	D				
				Mean =		90.0	98.8
	14 Bicep II Magnum	2.2 lb ai/a	A	114		100.0	97.0
	Halex GT	1.98 lb ai/a	D	202		95.0	100.0
	AAtrex	0.5 lb ai/a	D	306		90.0	100.0
	NIS	0.25 % v/v	D	410		90.0	100.0
	Amsol AMS	2.5 lb ai/a	D				
				Mean =		93.8	99.3
	15 Bicep II Magnum	2.2 lb ai/a	A	115		0.0	0.0
	Impact	0.044 lb ai/a	E	214		0.0	0.0
	MSO	1 % v/v	E	311		50.0	50.0
	Amsol AMS	2.5 lb ai/a	E	406		20.0	20.0
				Mean =		17.5	17.5

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University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed		W, Weed			
Pest Code	AMACH		AMBTR			
Pest Scientific Name	Amaranthus hybr>		Ambrosia trifida			
Pest Name	pigweed, smooth		ragweed, giant			
Crop Type, Code		C, ZEAMX				
BBCH Scale		BCOR				
Crop Scientific Name		Zea mays				
Crop Name		Corn				
Rating Date	Jun-3-2021	Jun-9-2021	Jun-9-2021			
SE Group No.	11	12	13			
SE Name	WEED CONTROL	CROP INJURY	WEED CONTROL			
SE Description	WEED CONTROL 14>	CROP INJURY 7 a>	WEED CONTROL 14>			
Part Rated	PLANT, P	PLANT, C	PLANT, P			
Rating Type	CONTRO	PHYGEN	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100			
Sample Size	2 ROW	2 ROW	2 ROW			
Collection Basis	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1			
Days After First/Last Applic.	42, 7	48, 5	48, 5			
ARM Action Codes						
Trt Treatment	Rate	Unit	Appl Code Plot	9	10	11
No. Name						
1 Untreated Check			101	0.0	0.0	0.0
			207	0.0	0.0	0.0
			310	0.0	0.0	0.0
			404	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0
2 IMPACT CORE	1.68 lb ai/a	B	102	100.0	0.0	50.0
AAtrex	1 lb ai/a	B	215	100.0	0.0	70.0
MSO	0.5 % v/v	B	304	100.0	0.0	60.0
Amsol AMS	2.5 lb ai/a	B	411	100.0	0.0	25.0
			Mean =	100.0	0.0	51.3
3 Liberty	0.585 lb ai/a	C	103	90.0	0.0	50.0
Ammonium Sulfate	3 lb ai/a	C	210	100.0	0.0	0.0
			313	80.0	0.0	0.0
			407	50.0	0.0	0.0
			Mean =	80.0	0.0	12.5
4 Sinate	0.48 lb ai/a	C	104	90.0	0.0	20.0
MSO	1 % v/v	C	208	100.0	0.0	50.0
Amsol AMS	3 lb ai/a	C	312	90.0	0.0	0.0
			409	100.0	0.0	30.0
			Mean =	95.0	0.0	25.0
5 Sinate	0.48 lb ai/a	C	105	100.0	0.0	20.0
AAtrex	0.5 lb ai/a	C	204	100.0	0.0	60.0
MSO	1 % v/v	C	307	100.0	0.0	50.0
Amsol AMS	3 lb ai/a	C	403	95.0	0.0	60.0
			Mean =	98.8	0.0	47.5
6 Sinate	0.48 lb ai/a	C	106	95.0	0.0	50.0
Dual II Magnum	1.43 lb ai/a	C	209	100.0	0.0	50.0
MSO	1 % v/v	C	315	100.0	0.0	50.0
Amsol AMS	3 lb ai/a	C	402	90.0	0.0	30.0
			Mean =	96.3	0.0	45.0

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University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed		W, Weed
Pest Code	AMACH		AMBTR
Pest Scientific Name	Amaranthus hybr>		Ambrosia trifida
Pest Name	pigweed, smooth		ragweed, giant
Crop Type, Code		C, ZEAMX	
BBCH Scale		BCOR	
Crop Scientific Name		Zea mays	
Crop Name		Corn	
Rating Date	Jun-3-2021	Jun-9-2021	Jun-9-2021
SE Group No.	11	12	13
SE Name	WEED CONTROL	CROP INJURY	WEED CONTROL
SE Description	WEED CONTROL 14>	CROP INJURY 7 a>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, C	PLANT, P
Rating Type	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	42, 7	48, 5	48, 5
ARM Action Codes			
Trt Treatment			
No. Name	Rate	Rate	Appl
	Unit	Unit	Code Plot
7 Sinate	0.48 lb ai/a	C	107
Dual II Magnum	1.43 lb ai/a	C	211
AAtrex	0.5 lb ai/a	C	302
MSO	1 % v/v	C	401
Amsol AMS	3 lb ai/a	C	
	Mean =		
			99.3
			0.0
			53.8
8 Bicep II Magnum	2.2 lb ai/a	A	108
Sinate	0.48 lb ai/a	D	203
MSO	1 % v/v	D	308
Amsol AMS	3 lb ai/a	D	412
	Mean =		
			100.0
			0.0
			90.0
9 Bicep II Magnum	2.2 lb ai/a	A	109
Sinate	0.48 lb ai/a	D	205
AAtrex	1 lb ai/a	D	309
MSO	1 % v/v	D	414
Amsol AMS	3 lb ai/a	D	
	Mean =		
			100.0
			0.0
			97.0
10 Bicep II Magnum	2.2 lb ai/a	A	110
Sinate	0.56 lb ai/a	D	213
MSO	1 % v/v	D	305
Amsol AMS	3 lb ai/a	D	408
	Mean =		
			100.0
			0.0
			80.0
11 Bicep II Magnum	2.2 lb ai/a	A	111
Sinate	0.56 lb ai/a	D	212
AAtrex	1 lb ai/a	D	303
MSO	1 % v/v	D	413
Amsol AMS	3 lb ai/a	D	
	Mean =		
			100.0
			0.0
			90.0
			70.0
			70.0
			55.0
			71.3

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed		W, Weed			
Pest Code	AMACH		AMBTR			
Pest Scientific Name	Amaranthus hybr>		Ambrosia trifida			
Pest Name	pigweed, smooth		ragweed, giant			
Crop Type, Code	C, ZEAMX					
BBCH Scale	BCOR					
Crop Scientific Name	Zea mays					
Crop Name	Corn					
Rating Date	Jun-3-2021	Jun-9-2021	Jun-9-2021			
SE Group No.	11	12	13			
SE Name	WEED CONTROL	CROP INJURY	WEED CONTROL			
SE Description	WEED CONTROL 14>	CROP INJURY 7 a>	WEED CONTROL 14>			
Part Rated	PLANT, P	PLANT, C	PLANT, P			
Rating Type	CONTRO	PHYGEN	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100			
Sample Size	2 ROW	2 ROW	2 ROW			
Collection Basis	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1			
Days After First/Last Applic.	42, 7	48, 5	48, 5			
ARM Action Codes						
Trt Treatment	Rate	Rate	Appl			
No. Name	Rate	Unit	Code Plot			
			9			
			10			
			11			
12 Bicep II Magnum	2.2 lb ai/a	A	112	100.0	0.0	95.0
IMPACT CORE	1.34 lb ai/a	D	206	100.0	0.0	97.0
Roundup PowerMAX 3	1.13 lb ae/a	D	301	100.0	0.0	80.0
AAtrex	1 lb ai/a	D	405	100.0	0.0	95.0
NIS	0.25 % v/v	D				
Amsol AMS	2.5 lb ai/a	D				
			Mean =	100.0	0.0	91.8
13 Bicep II Magnum	2.2 lb ai/a	A	113	100.0	0.0	90.0
Impact	0.0219 lb ai/a	D	201	100.0	0.0	70.0
AAtrex	0.5 lb ai/a	D	314	100.0	0.0	80.0
MSO	1 % v/v	D	415	100.0	0.0	60.0
Amsol AMS	2.5 lb ai/a	D				
			Mean =	100.0	0.0	75.0
14 Bicep II Magnum	2.2 lb ai/a	A	114	100.0	0.0	90.0
Halex GT	1.98 lb ai/a	D	202	100.0	0.0	97.0
AAtrex	0.5 lb ai/a	D	306	100.0	0.0	90.0
NIS	0.25 % v/v	D	410	100.0	0.0	80.0
Amsol AMS	2.5 lb ai/a	D				
			Mean =	100.0	0.0	89.3
15 Bicep II Magnum	2.2 lb ai/a	A	115	0.0	0.0	50.0
Impact	0.044 lb ai/a	E	214	0.0	0.0	50.0
MSO	1 % v/v	E	311	50.0	0.0	50.0
Amsol AMS	2.5 lb ai/a	E	406	0.0	0.0	0.0
			Mean =	12.5	0.0	37.5

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed	W, Weed
Pest Code	DIGSA	AMACH
Pest Scientific Name	Digitaria sangu>	Amaranthus hybr>
Pest Name	crabgrass, large	pigweed, smooth
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	Jun-9-2021	Jun-9-2021
SE Group No.	14	15
SE Name	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Days After First/Last Applic.	48, 5	48, 5
ARM Action Codes		
Trt Treatment		
No. Name	12	13
Rate		
Unit		
Appl Code Plot		
1 Untreated Check	101 0.0	0.0
	207 0.0	0.0
	310 0.0	0.0
	404 0.0	0.0
	Mean = 0.0	0.0
2 IMPACT CORE	1.68 lb ai/a B 102 70.0	100.0
AAtrex	1 lb ai/a B 215 85.0	100.0
MSO	0.5 % v/v B 304 90.0	100.0
Amsol AMS	2.5 lb ai/a B 411 100.0	100.0
	Mean = 86.3	100.0
3 Liberty	0.585 lb ai/a C 103 0.0	50.0
Ammonium Sulfate	3 lb ai/a C 210 50.0	100.0
	313 50.0	50.0
	407 50.0	0.0
	Mean = 37.5	50.0
4 Sinate	0.48 lb ai/a C 104 0.0	100.0
MSO	1 % v/v C 208 70.0	100.0
Amsol AMS	3 lb ai/a C 312 70.0	90.0
	409 95.0	100.0
	Mean = 58.8	97.5
5 Sinate	0.48 lb ai/a C 105 0.0	100.0
AAtrex	0.5 lb ai/a C 204 60.0	95.0
MSO	1 % v/v C 307 60.0	90.0
Amsol AMS	3 lb ai/a C 403 40.0	80.0
	Mean = 40.0	91.3
6 Sinate	0.48 lb ai/a C 106 90.0	100.0
Dual II Magnum	1.43 lb ai/a C 209 95.0	100.0
MSO	1 % v/v C 315 80.0	100.0
Amsol AMS	3 lb ai/a C 402 90.0	90.0
	Mean = 88.8	97.5

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University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

				W, Weed DIGSA	W, Weed AMACH		
Pest Type				Digitaria sangu>	Amaranthus hybr>		
Pest Code				crabgrass, large	pigweed, smooth		
Pest Scientific Name							
Pest Name							
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date				Jun-9-2021	Jun-9-2021		
SE Group No.				14	15		
SE Name				WEED CONTROL	WEED CONTROL		
SE Description				WEED CONTROL 14>	WEED CONTROL 14>		
Part Rated				PLANT, P	PLANT, P		
Rating Type				CONTRO	CONTRO		
Rating Unit/Min/Max				%, 0, 100	%, 0, 100		
Sample Size				2 ROW	2 ROW		
Collection Basis				1 PLOT	1 PLOT		
Number of Subsamples				1	1		
Days After First/Last Applic.				48, 5	48, 5		
ARM Action Codes							
Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot		
					12		13
7	Sinate	0.48 lb ai/a	C	107		90.0	100.0
	Dual II Magnum	1.43 lb ai/a	C	211		100.0	100.0
	AAtrex	0.5 lb ai/a	C	302		100.0	100.0
	MSO	1 % v/v	C	401		96.0	95.0
	Amsol AMS	3 lb ai/a	C				
				Mean =		96.5	98.8
8	Bicep II Magnum	2.2 lb ai/a	A	108		90.0	100.0
	Sinate	0.48 lb ai/a	D	203		95.0	100.0
	MSO	1 % v/v	D	308		100.0	95.0
	Amsol AMS	3 lb ai/a	D	412		100.0	100.0
				Mean =		96.3	98.8
9	Bicep II Magnum	2.2 lb ai/a	A	109		90.0	100.0
	Sinate	0.48 lb ai/a	D	205		97.0	100.0
	AAtrex	1 lb ai/a	D	309		100.0	97.0
	MSO	1 % v/v	D	414		100.0	100.0
	Amsol AMS	3 lb ai/a	D				
				Mean =		96.8	99.3
10	Bicep II Magnum	2.2 lb ai/a	A	110		80.0	100.0
	Sinate	0.56 lb ai/a	D	213		90.0	100.0
	MSO	1 % v/v	D	305		100.0	100.0
	Amsol AMS	3 lb ai/a	D	408		100.0	100.0
				Mean =		92.5	100.0
11	Bicep II Magnum	2.2 lb ai/a	A	111		97.0	100.0
	Sinate	0.56 lb ai/a	D	212		100.0	100.0
	AAtrex	1 lb ai/a	D	303		100.0	100.0
	MSO	1 % v/v	D	413		100.0	100.0
	Amsol AMS	3 lb ai/a	D				
				Mean =		99.3	100.0

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type		W, Weed	W, Weed				
Pest Code		DIGSA	AMACH				
Pest Scientific Name		Digitaria sangu>	Amaranthus hybr>				
Pest Name		crabgrass, large	pigweed, smooth				
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date		Jun-9-2021	Jun-9-2021				
SE Group No.		14	15				
SE Name		WEED CONTROL	WEED CONTROL				
SE Description		WEED CONTROL 14>	WEED CONTROL 14>				
Part Rated		PLANT, P	PLANT, P				
Rating Type		CONTRO	CONTRO				
Rating Unit/Min/Max		%, 0, 100	%, 0, 100				
Sample Size		2 ROW	2 ROW				
Collection Basis		1 PLOT	1 PLOT				
Number of Subsamples		1	1				
Days After First/Last Applic.		48, 5	48, 5				
ARM Action Codes							
Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot		
						12	13
12	Bicep II Magnum	2.2 lb ai/a	A	112		100.0	100.0
	IMPACT CORE	1.34 lb ai/a	D	206		100.0	100.0
	Roundup PowerMAX 3	1.13 lb ae/a	D	301		100.0	100.0
	AAtrex	1 lb ai/a	D	405		100.0	100.0
	NIS	0.25 % v/v	D				
	Amsol AMS	2.5 lb ai/a	D				
				Mean =		100.0	100.0
13	Bicep II Magnum	2.2 lb ai/a	A	113		85.0	100.0
	Impact	0.0219 lb ai/a	D	201		90.0	100.0
	AAtrex	0.5 lb ai/a	D	314		97.0	100.0
	MSO	1 % v/v	D	415		96.0	100.0
	Amsol AMS	2.5 lb ai/a	D				
				Mean =		92.0	100.0
14	Bicep II Magnum	2.2 lb ai/a	A	114		100.0	100.0
	Halex GT	1.98 lb ai/a	D	202		100.0	100.0
	AAtrex	0.5 lb ai/a	D	306		100.0	100.0
	NIS	0.25 % v/v	D	410		100.0	100.0
	Amsol AMS	2.5 lb ai/a	D				
				Mean =		100.0	100.0
15	Bicep II Magnum	2.2 lb ai/a	A	115		50.0	100.0
	Impact	0.044 lb ai/a	E	214		70.0	100.0
	MSO	1 % v/v	E	311		60.0	96.0
	Amsol AMS	2.5 lb ai/a	E	406		50.0	0.0
				Mean =		57.5	74.0

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed	W, Weed
Pest Code	AMBTR	DIGSA
Pest Scientific Name	Ambrosia trifida	Digitaria sangu>
Pest Name	ragweed, giant	crabgrass, large
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	Jun-16-2021	Jun-16-2021
SE Group No.	16	17
SE Name	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Days After First/Last Applic.	55, 12	55, 12
ARM Action Codes		
Trt Treatment		
No. Name	Rate	Rate
	Unit	Unit
	Code	Code
	Plot	Plot
	14	15
7 Sinate	0.48 lb ai/a C 107	50.0 80.0
Dual II Magnum	1.43 lb ai/a C 211	30.0 100.0
AAtrex	0.5 lb ai/a C 302	50.0 95.0
MSO	1 % v/v C 401	60.0 90.0
Amsol AMS	3 lb ai/a C	
	Mean =	47.5 91.3
8 Bicep II Magnum	2.2 lb ai/a A 108	70.0 70.0
Sinate	0.48 lb ai/a D 203	70.0 80.0
MSO	1 % v/v D 308	50.0 80.0
Amsol AMS	3 lb ai/a D 412	25.0 100.0
	Mean =	53.8 82.5
9 Bicep II Magnum	2.2 lb ai/a A 109	90.0 80.0
Sinate	0.48 lb ai/a D 205	90.0 90.0
AAtrex	1 lb ai/a D 309	25.0 95.0
MSO	1 % v/v D 414	60.0 95.0
Amsol AMS	3 lb ai/a D	
	Mean =	66.3 90.0
10 Bicep II Magnum	2.2 lb ai/a A 110	70.0 70.0
Sinate	0.56 lb ai/a D 213	25.0 90.0
MSO	1 % v/v D 305	80.0 80.0
Amsol AMS	3 lb ai/a D 408	80.0 100.0
	Mean =	63.8 85.0
11 Bicep II Magnum	2.2 lb ai/a A 111	80.0 90.0
Sinate	0.56 lb ai/a D 212	50.0 95.0
AAtrex	1 lb ai/a D 303	50.0 70.0
MSO	1 % v/v D 413	25.0 100.0
Amsol AMS	3 lb ai/a D	
	Mean =	51.3 88.8

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

				W, Weed AMBTR Ambrosia trifida ragweed, giant	W, Weed DIGSA Digitaria sangu-> crabgrass, large		
Pest Type							
Pest Code							
Pest Scientific Name							
Pest Name							
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date				Jun-16-2021	Jun-16-2021		
SE Group No.				16	17		
SE Name				WEED CONTROL	WEED CONTROL		
SE Description				WEED CONTROL 14>	WEED CONTROL 14>		
Part Rated				PLANT, P	PLANT, P		
Rating Type				CONTRO	CONTRO		
Rating Unit/Min/Max				%, 0, 100	%, 0, 100		
Sample Size				2 ROW	2 ROW		
Collection Basis				1 PLOT	1 PLOT		
Number of Subsamples				1	1		
Days After First/Last Applic.				55, 12	55, 12		
ARM Action Codes							
Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot		
					14	15	
12	Bicep II Magnum	2.2 lb ai/a	A	112		85.0	95.0
	IMPACT CORE	1.34 lb ai/a	D	206		95.0	100.0
	Roundup PowerMAX 3	1.13 lb ae/a	D	301		75.0	100.0
	AAtrex	1 lb ai/a	D	405		95.0	100.0
	NIS	0.25 % v/v	D				
	Amsol AMS	2.5 lb ai/a	D				
				Mean =		87.5	98.8
13	Bicep II Magnum	2.2 lb ai/a	A	113		80.0	80.0
	Impact	0.0219 lb ai/a	D	201		60.0	80.0
	AAtrex	0.5 lb ai/a	D	314		85.0	90.0
	MSO	1 % v/v	D	415		50.0	90.0
	Amsol AMS	2.5 lb ai/a	D				
				Mean =		68.8	85.0
14	Bicep II Magnum	2.2 lb ai/a	A	114		90.0	100.0
	Halex GT	1.98 lb ai/a	D	202		90.0	100.0
	AAtrex	0.5 lb ai/a	D	306		80.0	96.0
	NIS	0.25 % v/v	D	410		75.0	100.0
	Amsol AMS	2.5 lb ai/a	D				
				Mean =		83.8	99.0
15	Bicep II Magnum	2.2 lb ai/a	A	115		90.0	95.0
	Impact	0.044 lb ai/a	E	214		90.0	95.0
	MSO	1 % v/v	E	311		90.0	100.0
	Amsol AMS	2.5 lb ai/a	E	406		96.0	100.0
				Mean =		91.5	97.5

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed	W, Weed
Pest Code	AMACH	AMBTR
Pest Scientific Name	Amaranthus hybr>	Ambrosia trifida
Pest Name	pigweed, smooth	ragweed, giant
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	Jun-16-2021	Jul-2-2021
SE Group No.	18	19
SE Name	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Days After First/Last Applic.	55, 12	71, 28
ARM Action Codes	AL	AS
Trt Treatment		
No. Name	16	17
1 Untreated Check	101 207 310 404 Mean =	0.0 0.0 0.0 0.0 0.0d
2 IMPACT CORE	1.68 lb ai/a B 102	95.0
AAtrex	1 lb ai/a B 215	100.0
MSO	0.5 % v/v B 304	100.0
Amsol AMS	2.5 lb ai/a B 411	100.0
	Mean =	98.7d
3 Liberty	0.585 lb ai/a C 103	50.0
Ammonium Sulfate	3 lb ai/a C 210	100.0
	313	50.0
	407	0.0
	Mean =	21.6d
4 Sinate	0.48 lb ai/a C 104	80.0
MSO	1 % v/v C 208	100.0
Amsol AMS	3 lb ai/a C 312	90.0
	409	100.0
	Mean =	92.1d
5 Sinate	0.48 lb ai/a C 105	80.0
AAtrex	0.5 lb ai/a C 204	100.0
MSO	1 % v/v C 307	100.0
Amsol AMS	3 lb ai/a C 403	100.0
	Mean =	94.6d
6 Sinate	0.48 lb ai/a C 106	100.0
Dual II Magnum	1.43 lb ai/a C 209	100.0
MSO	1 % v/v C 315	90.0
Amsol AMS	3 lb ai/a C 402	90.0
	Mean =	94.9d

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

	W, Weed AMACH Amaranthus hybr> pigweed, smooth	W, Weed AMBTR Ambrosia trifida ragweed, giant
Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	Jun-16-2021	Jul-2-2021
SE Group No.	18	19
SE Name	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Days After First/Last Applic.	55, 12	71, 28
ARM Action Codes	AL	AS
Trt Treatment No. Name	16	17
7 Sinate Dual II Magnum AAtrex MSO Amsol AMS Mean =	100.0 100.0 100.0 90.0 97.4d	50.0 50.0 25.0 25.0 36.4d
8 Bicep II Magnum Sinate MSO Amsol AMS Mean =	95.0 100.0 100.0 100.0 98.7d	80.0 60.0 40.0 10.0 42.9d
9 Bicep II Magnum Sinate AAtrex MSO Amsol AMS Mean =	100.0 100.0 100.0 100.0 100.0d	85.0 90.0 25.0 15.0 47.6d
10 Bicep II Magnum Sinate MSO Amsol AMS Mean =	100.0 100.0 100.0 100.0 100.0d	60.0 50.0 60.0 70.0 59.8d
11 Bicep II Magnum Sinate AAtrex MSO Amsol AMS Mean =	100.0 100.0 100.0 100.0 100.0d	60.0 55.0 50.0 10.0 40.4d

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC	Location: UKREC 109-B1	Trial Year: 2021
Protocol ID: 21C04H055	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Joe Bruce	
	Sponsor Contact:	

Pest Type	W, Weed	W, Weed
Pest Code	AMACH	AMBTR
Pest Scientific Name	Amaranthus hybr>	Ambrosia trifida
Pest Name	pigweed, smooth	ragweed, giant
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	Jun-16-2021	Jul-2-2021
SE Group No.	18	19
SE Name	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Days After First/Last Applic.	55, 12	71, 28
ARM Action Codes	AL	AS
Trt Treatment		
No. Name	16	17
Rate		
Unit		
Appl Code		
Plot		
12 Bicep II Magnum	2.2 lb ai/a	A
IMPACT CORE	1.34 lb ai/a	D
Roundup PowerMAX 3	1.13 lb ae/a	D
AAtrex	1 lb ai/a	D
NIS	0.25 % v/v	D
Amsol AMS	2.5 lb ai/a	D
	Mean =	
	100.0d	71.1d
13 Bicep II Magnum	2.2 lb ai/a	A
Impact	0.0219 lb ai/a	D
AAtrex	0.5 lb ai/a	D
MSO	1 % v/v	D
Amsol AMS	2.5 lb ai/a	D
	Mean =	
	100.0d	42.9d
14 Bicep II Magnum	2.2 lb ai/a	A
Halex GT	1.98 lb ai/a	D
AAtrex	0.5 lb ai/a	D
NIS	0.25 % v/v	D
Amsol AMS	2.5 lb ai/a	D
	Mean =	
	100.0d	77.1d
15 Bicep II Magnum	2.2 lb ai/a	A
Impact	0.044 lb ai/a	E
MSO	1 % v/v	E
Amsol AMS	2.5 lb ai/a	E
	Mean =	
	94.6d	87.4d

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed	W, Weed
Pest Code	DIGSA	AMACH
Pest Scientific Name	Digitaria sangu>	Amaranthus hybr>
Pest Name	crabgrass, large	pigweed, smooth
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	Jul-2-2021	Jul-2-2021
SE Group No.	20	21
SE Name	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Days After First/Last Applic.	71, 28	71, 28
ARM Action Codes	AA	
Trt Treatment		
No. Name	18	19
1 Untreated Check	101 207 310 404 Mean =	0.0 0.0 0.0 0.0 0.0d
2 IMPACT CORE	1.68 lb ai/a B 102	50.0
AAtrex	1 lb ai/a B 215	90.0
MSO	0.5 % v/v B 304	90.0
Amsol AMS	2.5 lb ai/a B 411	90.0
Mean =		82.0d
3 Liberty	0.585 lb ai/a C 103	0.0
Ammonium Sulfate	3 lb ai/a C 210	50.0
	313	50.0
	407	65.0
Mean =		34.4d
4 Sinate	0.48 lb ai/a C 104	0.0
MSO	1 % v/v C 208	25.0
Amsol AMS	3 lb ai/a C 312	80.0
	409	80.0
Mean =		40.0d
5 Sinate	0.48 lb ai/a C 105	0.0
AAtrex	0.5 lb ai/a C 204	25.0
MSO	1 % v/v C 307	60.0
Amsol AMS	3 lb ai/a C 403	50.0
Mean =		27.2d
6 Sinate	0.48 lb ai/a C 106	90.0
Dual II Magnum	1.43 lb ai/a C 209	80.0
MSO	1 % v/v C 315	95.0
Amsol AMS	3 lb ai/a C 402	80.0
Mean =		87.0d

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

				W, Weed DIGSA	W, Weed AMACH	
Pest Type				Digitaria sangu>	Amaranthus hybr>	
Pest Code				crabgrass, large	pigweed, smooth	
Pest Scientific Name						
Pest Name						
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date				Jul-2-2021	Jul-2-2021	
SE Group No.				20	21	
SE Name				WEED CONTROL	WEED CONTROL	
SE Description				WEED CONTROL 14>	WEED CONTROL 14>	
Part Rated				PLANT, P	PLANT, P	
Rating Type				CONTRO	CONTRO	
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	
Sample Size				2 ROW	2 ROW	
Collection Basis				1 PLOT	1 PLOT	
Number of Subsamples				1	1	
Days After First/Last Applic.				71, 28	71, 28	
ARM Action Codes				AA		
Trt No.	Treatment Name	Rate	Unit	Appl Code Plot	18	19
7	Sinate	0.48 lb ai/a	C	107	80.0	80.0
	Dual II Magnum	1.43 lb ai/a	C	211	95.0	95.0
	AAtrex	0.5 lb ai/a	C	302	95.0	95.0
	MSO	1 % v/v	C	401	80.0	90.0
	Amsol AMS	3 lb ai/a	C			
				Mean =	88.6d	90.0
8	Bicep II Magnum	2.2 lb ai/a	A	108	50.0	95.0
	Sinate	0.48 lb ai/a	D	203	50.0	95.0
	MSO	1 % v/v	D	308	50.0	95.0
	Amsol AMS	3 lb ai/a	D	412	60.0	95.0
				Mean =	52.5d	95.0
9	Bicep II Magnum	2.2 lb ai/a	A	109	50.0	90.0
	Sinate	0.48 lb ai/a	D	205	75.0	95.0
	AAtrex	1 lb ai/a	D	309	95.0	95.0
	MSO	1 % v/v	D	414	95.0	95.0
	Amsol AMS	3 lb ai/a	D			
				Mean =	81.9d	93.8
10	Bicep II Magnum	2.2 lb ai/a	A	110	50.0	90.0
	Sinate	0.56 lb ai/a	D	213	70.0	95.0
	MSO	1 % v/v	D	305	25.0	95.0
	Amsol AMS	3 lb ai/a	D	408	95.0	95.0
				Mean =	62.5d	93.8
11	Bicep II Magnum	2.2 lb ai/a	A	111	60.0	90.0
	Sinate	0.56 lb ai/a	D	212	95.0	95.0
	AAtrex	1 lb ai/a	D	303	90.0	95.0
	MSO	1 % v/v	D	413	60.0	95.0
	Amsol AMS	3 lb ai/a	D			
				Mean =	78.7d	93.8

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type		W, Weed	W, Weed				
Pest Code		DIGSA	AMACH				
Pest Scientific Name		Digitaria sangu>	Amaranthus hybr>				
Pest Name		crabgrass, large	pigweed, smooth				
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date		Jul-2-2021	Jul-2-2021				
SE Group No.		20	21				
SE Name		WEED CONTROL	WEED CONTROL				
SE Description		WEED CONTROL 14>	WEED CONTROL 14>				
Part Rated		PLANT, P	PLANT, P				
Rating Type		CONTRO	CONTRO				
Rating Unit/Min/Max		%, 0, 100	%, 0, 100				
Sample Size		2 ROW	2 ROW				
Collection Basis		1 PLOT	1 PLOT				
Number of Subsamples		1	1				
Days After First/Last Applic.		71, 28	71, 28				
ARM Action Codes		AA					
Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	18	19
12	Bicep II Magnum	2.2 lb ai/a	A	112		80.0	90.0
	IMPACT CORE	1.34 lb ai/a	D	206		95.0	95.0
	Roundup PowerMAX 3	1.13 lb ae/a	D	301		94.0	95.0
	AAtrex	1 lb ai/a	D	405		95.0	95.0
	NIS	0.25 % v/v	D				
	Amsol AMS	2.5 lb ai/a	D				
	Mean =					91.8d	93.8
13	Bicep II Magnum	2.2 lb ai/a	A	113		60.0	90.0
	Impact	0.0219 lb ai/a	D	201		25.0	95.0
	AAtrex	0.5 lb ai/a	D	314		70.0	95.0
	MSO	1 % v/v	D	415		95.0	95.0
	Amsol AMS	2.5 lb ai/a	D				
	Mean =					64.9d	93.8
14	Bicep II Magnum	2.2 lb ai/a	A	114		95.0	95.0
	Halex GT	1.98 lb ai/a	D	202		100.0	100.0
	AAtrex	0.5 lb ai/a	D	306		95.0	95.0
	NIS	0.25 % v/v	D	410		95.0	95.0
	Amsol AMS	2.5 lb ai/a	D				
	Mean =					97.2d	96.3
15	Bicep II Magnum	2.2 lb ai/a	A	115		95.0	95.0
	Impact	0.044 lb ai/a	E	214		95.0	95.0
	MSO	1 % v/v	E	311		95.0	100.0
	Amsol AMS	2.5 lb ai/a	E	406		80.0	90.0
	Mean =					92.1d	95.0

d=Means are reported in de-transformed data units

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type
 W, Weed = Weed or volunteer crop

Pest Code
 AMBTR, Ambrosia trifida, ragweed, giant = US
 DIGSA, Digitaria sanguinalis, crabgrass, large = US
 AMACH, Amaranthus hybridus, pigweed, smooth = US

Crop Type, Code
 C = EPPO species (Bayer) codes
 ZEAMX, BCOR, Zea mays, Corn = US

Part Rated
 PLANT = plant
 C = Crop is Part Rated
 P = Pest is Part Rated

Rating Type
 PHYGEN = phytotoxicity - general / injury
 CONTRO = control / burndown or knockdown

Rating Unit/Min/Max
 %, 0, 100 = percent

ROW = row

PLOT = total plot

ARM Action Codes
 AS = Automatic square root transformation of X+0.5
 AL = Automatic log transformation of X+1
 AA = Automatic arcsine square root % transformation

Pest Type			W, Weed
Pest Code			AMBTR
Pest Scientific Name			Ambrosia trifida
Pest Name			ragweed, giant
Crop Type, Code	C, ZEAMX	C, ZEAMX	
BBCH Scale	BCOR	BCOR	
Crop Scientific Name	Zea mays	Zea mays	
Crop Name	Corn	Corn	
Rating Date	May-20-2021	May-28-2021	May-28-2021
SE Group No.	3	4	5
SE Name	CROP INJURY	CROP INJURY	WEED CONTROL
SE Description	CROP INJURY 7 a>	CROP INJURY 7 a>	WEED CONTROL 14>
Part Rated	PLANT, C	PLANT, C	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	28, 3	36, 1	36, 1
ARM Action Codes			AS
Trt Treatment	1	2	3
No. Name			dAS
1 Untreated Check	0.0 a	0.0 a	0.0 c
2 IMPACT CORE	0.0 a	0.0 a	82.3 a
AAtrex	1.68 lb ai/a B		
MSO	1 lb ai/a B		
Amsol AMS	0.5 % v/v B		
Amsol AMS	2.5 lb ai/a B		
3 Liberty	0.0 a	0.0 a	79.6 a
Ammonium Sulfate	0.585 lb ai/a C		
Ammonium Sulfate	3 lb ai/a C		
4 Sinate	0.0 a	0.0 a	73.2 ab
MSO	0.48 lb ai/a C		
MSO	1 % v/v C		
Amsol AMS	3 lb ai/a C		

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3
					dAS		
5	Sinate	0.48 lb ai/a	C		0.0 a	0.0 a	82.4 a
	AAtrex	0.5 lb ai/a	C				
	MSO	1 % v/v	C				
	Amsol AMS	3 lb ai/a	C				
6	Sinate	0.48 lb ai/a	C		0.0 a	0.0 a	88.0 a
	Dual II Magnum	1.43 lb ai/a	C				
	MSO	1 % v/v	C				
	Amsol AMS	3 lb ai/a	C				
7	Sinate	0.48 lb ai/a	C		0.0 a	0.0 a	89.5 a
	Dual II Magnum	1.43 lb ai/a	C				
	AAtrex	0.5 lb ai/a	C				
	MSO	1 % v/v	C				
	Amsol AMS	3 lb ai/a	C				
8	Bicep II Magnum	2.2 lb ai/a	A		0.0 a	0.0 a	70.2 ab
	Sinate	0.48 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				
9	Bicep II Magnum	2.2 lb ai/a	A		0.0 a	0.0 a	61.0 ab
	Sinate	0.48 lb ai/a	D				
	AAtrex	1 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				
10	Bicep II Magnum	2.2 lb ai/a	A		0.0 a	0.0 a	53.6 ab
	Sinate	0.56 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				
11	Bicep II Magnum	2.2 lb ai/a	A		0.0 a	0.0 a	47.8 ab
	Sinate	0.56 lb ai/a	D				
	AAtrex	1 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				

W, Weed
 AMBTR
 Ambrosia trifida
 ragweed, giant

May-28-2021
 5

WEED CONTROL
 WEED CONTROL 14>

PLANT, P
 CONTRO

% , 0 , 100
 % , 0 , 100
 % , 0 , 100

2 ROW
 2 ROW
 2 ROW

1 PLOT
 1 PLOT
 1 PLOT

1
 1
 1

36, 1
 36, 1
 36, 1

AS

C, ZEAMX
 BCOR
 Zea mays
 Corn
 May-20-2021
 3
 CROP INJURY
 CROP INJURY 7 a>

C, ZEAMX
 BCOR
 Zea mays
 Corn
 May-28-2021
 4
 CROP INJURY
 CROP INJURY 7 a>

PLANT, C
 PHYGEN
 % , 0 , 100

2 ROW
 2 ROW
 2 ROW

1 PLOT
 1 PLOT
 1 PLOT

36, 1
 36, 1
 36, 1

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type				W, Weed	
Pest Code				AMBTR	
Pest Scientific Name				Ambrosia trifida	
Pest Name				ragweed, giant	
Crop Type, Code		C, ZEAMX	C, ZEAMX		
BBCH Scale		BCOR	BCOR		
Crop Scientific Name		Zea mays	Zea mays		
Crop Name		Corn	Corn		
Rating Date		May-20-2021	May-28-2021	May-28-2021	
SE Group No.		3	4	5	
SE Name		CROP INJURY	CROP INJURY	WEED CONTROL	
SE Description		CROP INJURY 7 a>	CROP INJURY 7 a>	WEED CONTROL 14>	
Part Rated		PLANT, C	PLANT, C	PLANT, P	
Rating Type		PHYGEN	PHYGEN	CONTRO	
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	
Sample Size		2 ROW	2 ROW	2 ROW	
Collection Basis		1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples		1	1	1	
Days After First/Last Applic.		28, 3	36, 1	36, 1	
ARM Action Codes				AS	
Trt Treatment		1	2	3	
No. Name	Rate	Unit	Code	dAS	
12 Bicep II Magnum	2.2 lb ai/a	A	0.0 a	0.0 a	63.0 ab
IMPACT CORE	1.34 lb ai/a	D			
Roundup PowerMAX 3	1.13 lb ae/a	D			
AAtrex	1 lb ai/a	D			
NIS	0.25 % v/v	D			
Amsol AMS	2.5 lb ai/a	D			
13 Bicep II Magnum	2.2 lb ai/a	A	0.0 a	0.0 a	33.5 b
Impact	0.0219 lb ai/a	D			
AAtrex	0.5 lb ai/a	D			
MSO	1 % v/v	D			
Amsol AMS	2.5 lb ai/a	D			
14 Bicep II Magnum	2.2 lb ai/a	A	0.0 a	0.0 a	52.4 ab
Halex GT	1.98 lb ai/a	D			
AAtrex	0.5 lb ai/a	D			
NIS	0.25 % v/v	D			
Amsol AMS	2.5 lb ai/a	D			
15 Bicep II Magnum	2.2 lb ai/a	A	0.0 a	0.0 a	50.0 ab
Impact	0.044 lb ai/a	E			
MSO	1 % v/v	E			
Amsol AMS	2.5 lb ai/a	E			
LSD P=.05					23.11 - 29.78
Standard Deviation		0.00	0.00	0.00	1.21t
CV		0.0	0.0	0.0	15.91t
Levene's F^		.	.	.	1.207
Levene's Prob(F)		.	.	.	0.304
Skewness^		.	.	.	-1.5757*
Kurtosis^		.	.	.	6.9121*
Replicate F		0.000	0.000	0.000	1.405
Replicate Prob(F)		1.0000	1.0000	1.0000	0.2547
Treatment F		0.000	0.000	0.000	12.968
Treatment Prob(F)		1.0000	1.0000	1.0000	0.0001

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

	W, Weed DIGSA	W, Weed AMACH	
Pest Type			
Pest Code			
Pest Scientific Name	Digitaria sangu>	Amaranthus hybr>	
Pest Name	crabgrass, large	pigweed, smooth	
Crop Type, Code			C, ZEAMX
BBCH Scale			BCOR
Crop Scientific Name			Zea mays
Crop Name			Corn
Rating Date	May-28-2021	May-28-2021	Jun-3-2021
SE Group No.	6	7	8
SE Name	WEED CONTROL	WEED CONTROL	CROP INJURY
SE Description	WEED CONTROL 14>	WEED CONTROL 14>	CROP INJURY 7 a>
Part Rated	PLANT, P	PLANT, P	PLANT, C
Rating Type	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	36, 1	36, 1	42, 7
ARM Action Codes			
Trt Treatment	4	5	6
No. Name			
1 Untreated Check	0.0 e	0.0 b	0.0 a
2 IMPACT CORE	93.8 abc	96.5 a	0.0 a
AAtrex	1.68 lb ai/a B		
MSO	1 lb ai/a B		
Amsol AMS	0.5 % v/v B		
Amsol AMS	2.5 lb ai/a B		
3 Liberty	85.0 a-d	90.0 a	0.0 a
Ammonium Sulfate	0.585 lb ai/a C		
Ammonium Sulfate	3 lb ai/a C		
4 Sinate	95.3 ab	99.0 a	0.0 a
MSO	0.48 lb ai/a C		
MSO	1 % v/v C		
Amsol AMS	3 lb ai/a C		

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Trt No.	Treatment Name	Rate	Unit	Appl Code	4	5	6
5	Sinate	0.48 lb ai/a	C		94.3 abc	100.0 a	0.0 a
	AAtrex	0.5 lb ai/a	C				
	MSO	1 % v/v	C				
	Amsol AMS	3 lb ai/a	C				
6	Sinate	0.48 lb ai/a	C		98.5 a	99.3 a	0.0 a
	Dual II Magnum	1.43 lb ai/a	C				
	MSO	1 % v/v	C				
	Amsol AMS	3 lb ai/a	C				
7	Sinate	0.48 lb ai/a	C		99.8 a	100.0 a	0.0 a
	Dual II Magnum	1.43 lb ai/a	C				
	AAtrex	0.5 lb ai/a	C				
	MSO	1 % v/v	C				
	Amsol AMS	3 lb ai/a	C				
8	Bicep II Magnum	2.2 lb ai/a	A		75.0 bcd	73.8 a	0.0 a
	Sinate	0.48 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				
9	Bicep II Magnum	2.2 lb ai/a	A		68.8 d	57.5 a	0.0 a
	Sinate	0.48 lb ai/a	D				
	AAtrex	1 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				
10	Bicep II Magnum	2.2 lb ai/a	A		71.3 d	51.3 a	0.0 a
	Sinate	0.56 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				
11	Bicep II Magnum	2.2 lb ai/a	A		75.0 bcd	71.3 a	0.0 a
	Sinate	0.56 lb ai/a	D				
	AAtrex	1 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Trt No.	Treatment Name	Rate	Unit	Appl Code	4	5	6
12	Bicep II Magnum	2.2 lb ai/a	A		73.8 cd	75.0 a	0.0 a
	IMPACT CORE	1.34 lb ai/a	D				
	Roundup PowerMAX 3	1.13 lb ae/a	D				
	AAtrex	1 lb ai/a	D				
	NIS	0.25 % v/v	D				
	Amsol AMS	2.5 lb ai/a	D				
13	Bicep II Magnum	2.2 lb ai/a	A		63.8 d	71.3 a	0.0 a
	Impact	0.0219 lb ai/a	D				
	AAtrex	0.5 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	2.5 lb ai/a	D				
14	Bicep II Magnum	2.2 lb ai/a	A		82.5 a-d	81.3 a	0.0 a
	Halex GT	1.98 lb ai/a	D				
	AAtrex	0.5 lb ai/a	D				
	NIS	0.25 % v/v	D				
	Amsol AMS	2.5 lb ai/a	D				
15	Bicep II Magnum	2.2 lb ai/a	A		71.3 d	75.0 a	0.0 a
	Impact	0.044 lb ai/a	E				
	MSO	1 % v/v	E				
	Amsol AMS	2.5 lb ai/a	E				
	LSD P=.05				13.59	29.21	.
	Standard Deviation				9.52	20.47	0.00
	CV				12.45	26.91	0.0
	Levene's F^				1.05	0.446	.
	Levene's Prob(F)				0.426	0.949	.
	Skewness^				-0.5281	-0.5023	.
	Kurtosis^				1.5779*	0.0051	.
	Replicate F				2.447	9.309	0.000
	Replicate Prob(F)				0.0770	0.0001	1.0000
	Treatment F				25.957	6.578	0.000
	Treatment Prob(F)				0.0001	0.0001	1.0000

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils			
Trial ID: 21-22_COR-REC	Location: UKREC 109-B1	Trial Year: 2021	
Protocol ID: 21C04H055	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Joe Bruce		
Sponsor Contact:			

Pest Type	W, Weed AMBTR	W, Weed DIGSA	W, Weed AMACH
Pest Code			
Pest Scientific Name	Ambrosia trifida	Digitaria sangu>	Amaranthus hybr>
Pest Name	ragweed, giant	crabgrass, large	pigweed, smooth
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jun-3-2021	Jun-3-2021	Jun-3-2021
SE Group No.	9	10	11
SE Name	WEED CONTROL	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	42, 7	42, 7	42, 7
ARM Action Codes			
Trt Treatment	7	8	9
No. Name			
1 Untreated Check	0.0 f	0.0 d	0.0 c
2 IMPACT CORE	73.8 a-d	93.8 a	100.0 a
AAtrex	1.68 lb ai/a B		
MSO	1 lb ai/a B		
Amsol AMS	0.5 % v/v B		
Amsol AMS	2.5 lb ai/a B		
3 Liberty	61.3 d	72.5 b	80.0 a
Ammonium Sulfate	0.585 lb ai/a C		
Ammonium Sulfate	3 lb ai/a C		
4 Sinate	61.3 d	77.5 ab	95.0 a
MSO	0.48 lb ai/a C		
MSO	1 % v/v C		
Amsol AMS	3 lb ai/a C		

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	DIGSA	AMACH
Pest Scientific Name	Ambrosia trifida	Digitaria sangu>	Amaranthus hybr>
Pest Name	ragweed, giant	crabgrass, large	pigweed, smooth
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jun-3-2021	Jun-3-2021	Jun-3-2021
SE Group No.	9	10	11
SE Name	WEED CONTROL	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	42, 7	42, 7	42, 7
ARM Action Codes			
Trt Treatment	Rate	Rate	Rate
No. Name	Rate	Unit	Appl Code
5 Sinate	0.48 lb ai/a	C	7
AAtrex	0.5 lb ai/a	C	8
MSO	1 % v/v	C	9
Amsol AMS	3 lb ai/a	C	
6 Sinate	0.48 lb ai/a	C	69.0 bcd
Dual II Magnum	1.43 lb ai/a	C	81.3 ab
MSO	1 % v/v	C	
Amsol AMS	3 lb ai/a	C	98.8 a
7 Sinate	0.48 lb ai/a	C	66.3 cd
Dual II Magnum	1.43 lb ai/a	C	95.0 a
AAtrex	0.5 lb ai/a	C	
MSO	1 % v/v	C	
Amsol AMS	3 lb ai/a	C	96.3 a
8 Bicep II Magnum	2.2 lb ai/a	A	83.8 abc
Sinate	0.48 lb ai/a	D	96.8 a
MSO	1 % v/v	D	
Amsol AMS	3 lb ai/a	D	99.3 a
9 Bicep II Magnum	2.2 lb ai/a	A	91.5 a
Sinate	0.48 lb ai/a	D	96.8 a
AAtrex	1 lb ai/a	D	
MSO	1 % v/v	D	
Amsol AMS	3 lb ai/a	D	100.0 a
10 Bicep II Magnum	2.2 lb ai/a	A	93.3 a
Sinate	0.56 lb ai/a	D	97.5 a
MSO	1 % v/v	D	
Amsol AMS	3 lb ai/a	D	100.0 a
11 Bicep II Magnum	2.2 lb ai/a	A	88.8 ab
Sinate	0.56 lb ai/a	D	99.3 a
AAtrex	1 lb ai/a	D	
MSO	1 % v/v	D	
Amsol AMS	3 lb ai/a	D	100.0 a

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	DIGSA	AMACH
Pest Scientific Name	Ambrosia trifida	Digitaria sangu>	Amaranthus hybr>
Pest Name	ragweed, giant	crabgrass, large	pigweed, smooth
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jun-3-2021	Jun-3-2021	Jun-3-2021
SE Group No.	9	10	11
SE Name	WEED CONTROL	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	42, 7	42, 7	42, 7
ARM Action Codes			
Trt Treatment	7	8	9
No. Name			
Rate			
Unit			
Appl Code			
12 Bicep II Magnum	2.2 lb ai/a A		
IMPACT CORE	1.34 lb ai/a D		
Roundup PowerMAX 3	1.13 lb ae/a D		
AAtrex	1 lb ai/a D		
NIS	0.25 % v/v D		
Amsol AMS	2.5 lb ai/a D		
94.0 a		99.3 a	100.0 a
13 Bicep II Magnum	2.2 lb ai/a A		
Impact	0.0219 lb ai/a D		
AAtrex	0.5 lb ai/a D		
MSO	1 % v/v D		
Amsol AMS	2.5 lb ai/a D		
90.0 a		98.8 a	100.0 a
14 Bicep II Magnum	2.2 lb ai/a A		
Halex GT	1.98 lb ai/a D		
AAtrex	0.5 lb ai/a D		
NIS	0.25 % v/v D		
Amsol AMS	2.5 lb ai/a D		
93.8 a		99.3 a	100.0 a
15 Bicep II Magnum	2.2 lb ai/a A		
Impact	0.044 lb ai/a E		
MSO	1 % v/v E		
Amsol AMS	2.5 lb ai/a E		
17.5 e		17.5 c	12.5 b
LSD P=.05	14.05	14.62	12.42
Standard Deviation	9.84	10.24	8.70
CV	13.79	12.54	10.19
Levene's F^	1.751	0.997	1.749
Levene's Prob(F)	0.078	0.473	0.079
Skewness^	0.4249	0.3003	1.1779*
Kurtosis^	2.6436*	2.6301*	11.0986*
Replicate F	1.115	4.298	1.266
Replicate Prob(F)	0.3540	0.0099	0.2982
Treatment F	32.910	36.687	56.283
Treatment Prob(F)	0.0001	0.0001	0.0001

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AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils			
Trial ID: 21-22_COR-REC	Location: UKREC 109-B1	Trial Year: 2021	
Protocol ID: 21C04H055	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Joe Bruce		
Sponsor Contact:			

Pest Type		W, Weed	W, Weed	
Pest Code		AMBTR	DIGSA	
Pest Scientific Name		Ambrosia trifida	Digitaria sangu>	
Pest Name		ragweed, giant	crabgrass, large	
Crop Type, Code	C, ZEAMX			
BBCH Scale	BCOR			
Crop Scientific Name	Zea mays			
Crop Name	Corn			
Rating Date	Jun-9-2021	Jun-9-2021	Jun-9-2021	
SE Group No.	12	13	14	
SE Name	CROP INJURY	WEED CONTROL	WEED CONTROL	
SE Description	CROP INJURY 7 a>	WEED CONTROL 14>	WEED CONTROL 14>	
Part Rated	PLANT, C	PLANT, P	PLANT, P	
Rating Type	PHYGEN	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	
Sample Size	2 ROW	2 ROW	2 ROW	
Collection Basis	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	
Days After First/Last Applic.	48, 5	48, 5	48, 5	
ARM Action Codes				
Trt Treatment				
No. Name	Rate Unit Appl Code	10	11	12
1 Untreated Check		0.0 a	0.0 g	0.0 c
2 IMPACT CORE	1.68 lb ai/a B	0.0 a	51.3 b-e	86.3 a
AAtrex	1 lb ai/a B			
MSO	0.5 % v/v B			
Amsol AMS	2.5 lb ai/a B			
3 Liberty	0.585 lb ai/a C	0.0 a	12.5 fg	37.5 b
Ammonium Sulfate	3 lb ai/a C			
4 Sinate	0.48 lb ai/a C	0.0 a	25.0 efg	58.8 b
MSO	1 % v/v C			
Amsol AMS	3 lb ai/a C			

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

				W, Weed AMBTR Ambrosia trifida ragweed, giant	W, Weed DIGSA Digitaria sangu-> crabgrass, large		
Pest Type							
Pest Code							
Pest Scientific Name							
Pest Name							
Crop Type, Code	C, ZEAMX						
BBCH Scale	BCOR						
Crop Scientific Name	Zea mays						
Crop Name	Corn						
Rating Date	Jun-9-2021			Jun-9-2021	Jun-9-2021		
SE Group No.	12			13	14		
SE Name	CROP INJURY			WEED CONTROL	WEED CONTROL		
SE Description	CROP INJURY 7 a>			WEED CONTROL 14>	WEED CONTROL 14>		
Part Rated	PLANT, C			PLANT, P	PLANT, P		
Rating Type	PHYGEN			CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100			%, 0, 100	%, 0, 100		
Sample Size	2 ROW			2 ROW	2 ROW		
Collection Basis	1 PLOT			1 PLOT	1 PLOT		
Number of Subsamples	1			1	1		
Days After First/Last Applic.	48, 5			48, 5	48, 5		
ARM Action Codes							
Trt No.	Treatment Name	Rate	Unit	Appl Code	10	11	12
5	Sinate	0.48 lb ai/a	C		0.0 a	47.5 c-f	40.0 b
	AAtrex	0.5 lb ai/a	C				
	MSO	1 % v/v	C				
	Amsol AMS	3 lb ai/a	C				
6	Sinate	0.48 lb ai/a	C		0.0 a	45.0 c-f	88.8 a
	Dual II Magnum	1.43 lb ai/a	C				
	MSO	1 % v/v	C				
	Amsol AMS	3 lb ai/a	C				
7	Sinate	0.48 lb ai/a	C		0.0 a	53.8 a-e	96.5 a
	Dual II Magnum	1.43 lb ai/a	C				
	AAtrex	0.5 lb ai/a	C				
	MSO	1 % v/v	C				
	Amsol AMS	3 lb ai/a	C				
8	Bicep II Magnum	2.2 lb ai/a	A		0.0 a	66.3 a-d	96.3 a
	Sinate	0.48 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				
9	Bicep II Magnum	2.2 lb ai/a	A		0.0 a	83.8 abc	96.8 a
	Sinate	0.48 lb ai/a	D				
	AAtrex	1 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				
10	Bicep II Magnum	2.2 lb ai/a	A		0.0 a	77.5 a-d	92.5 a
	Sinate	0.56 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				
11	Bicep II Magnum	2.2 lb ai/a	A		0.0 a	71.3 a-d	99.3 a
	Sinate	0.56 lb ai/a	D				
	AAtrex	1 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	3 lb ai/a	D				

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type		W, Weed	W, Weed
Pest Code		AMBTR	DIGSA
Pest Scientific Name		Ambrosia trifida	Digitaria sangu>
Pest Name		ragweed, giant	crabgrass, large
Crop Type, Code	C, ZEAMX		
BBCH Scale	BCOR		
Crop Scientific Name	Zea mays		
Crop Name	Corn		
Rating Date	Jun-9-2021	Jun-9-2021	Jun-9-2021
SE Group No.	12	13	14
SE Name	CROP INJURY	WEED CONTROL	WEED CONTROL
SE Description	CROP INJURY 7 a>	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, C	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	48, 5	48, 5	48, 5
ARM Action Codes			
Trt Treatment			
No. Name	Rate Unit Appl Code	10	11
12 Bicep II Magnum	2.2 lb ai/a A		
IMPACT CORE	1.34 lb ai/a D	0.0 a	91.8 a
Roundup PowerMAX 3	1.13 lb ae/a D		
AAtrex	1 lb ai/a D		
NIS	0.25 % v/v D		
Amsol AMS	2.5 lb ai/a D		100.0 a
13 Bicep II Magnum	2.2 lb ai/a A	0.0 a	75.0 a-d
Impact	0.0219 lb ai/a D		
AAtrex	0.5 lb ai/a D		
MSO	1 % v/v D		
Amsol AMS	2.5 lb ai/a D		92.0 a
14 Bicep II Magnum	2.2 lb ai/a A	0.0 a	89.3 ab
Halex GT	1.98 lb ai/a D		
AAtrex	0.5 lb ai/a D		
NIS	0.25 % v/v D		
Amsol AMS	2.5 lb ai/a D		100.0 a
15 Bicep II Magnum	2.2 lb ai/a A	0.0 a	37.5 def
Impact	0.044 lb ai/a E		
MSO	1 % v/v E		
Amsol AMS	2.5 lb ai/a E		57.5 b
LSD P=.05	.	24.99	18.65
Standard Deviation	0.00	17.51	13.07
CV	0.0	31.75	17.16
Levene's F^	.	1.031	1.033
Levene's Prob(F)	.	0.442	0.44
Skewness^	.	-0.5512	-1.0213*
Kurtosis^	.	0.1488	5.0197*
Replicate F	0.000	3.032	6.957
Replicate Prob(F)	1.0000	0.0397	0.0007
Treatment F	0.000	10.117	21.659
Treatment Prob(F)	1.0000	0.0001	0.0001

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMACH	AMBTR	DIGSA
Pest Scientific Name	Amaranthus hybr>	Ambrosia trifida	Digitaria sangu>
Pest Name	pigweed, smooth	ragweed, giant	crabgrass, large
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jun-9-2021	Jun-16-2021	Jun-16-2021
SE Group No.	15	16	17
SE Name	WEED CONTROL	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	48, 5	55, 12	55, 12
ARM Action Codes			
Trt Treatment	13	14	15
No. Name			
Rate			
Unit			
Appl Code			
1 Untreated Check	0.0 c	0.0 e	0.0 c
2 IMPACT CORE	100.0 a	37.5 cde	83.8 a
AAtrex	1 lb ai/a B		
MSO	0.5 % v/v B		
Amsol AMS	2.5 lb ai/a B		
3 Liberty	50.0 b	18.8 de	40.0 b
Ammonium Sulfate	3 lb ai/a C		
4 Sinate	97.5 a	1.3 e	31.3 b
MSO	1 % v/v C		
Amsol AMS	3 lb ai/a C		

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type		W, Weed	W, Weed	W, Weed	
Pest Code		AMACH	AMBTR	DIGSA	
Pest Scientific Name		Amaranthus hybr>	Ambrosia trifida	Digitaria sangu>	
Pest Name		pigweed, smooth	ragweed, giant	crabgrass, large	
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date		Jun-9-2021	Jun-16-2021	Jun-16-2021	
SE Group No.		15	16	17	
SE Name		WEED CONTROL	WEED CONTROL	WEED CONTROL	
SE Description		WEED CONTROL 14>	WEED CONTROL 14>	WEED CONTROL 14>	
Part Rated		PLANT, P	PLANT, P	PLANT, P	
Rating Type		CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	
Sample Size		2 ROW	2 ROW	2 ROW	
Collection Basis		1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples		1	1	1	
Days After First/Last Applic.		48, 5	55, 12	55, 12	
ARM Action Codes					
Trt Treatment	Rate	Appl	13	14	15
No. Name	Rate Unit	Code			
5 Sinate	0.48 lb ai/a	C	91.3 a	2.5 e	30.0 b
AAtrex	0.5 lb ai/a	C			
MSO	1 % v/v	C			
Amsol AMS	3 lb ai/a	C			
6 Sinate	0.48 lb ai/a	C	97.5 a	17.5 de	88.8 a
Dual II Magnum	1.43 lb ai/a	C			
MSO	1 % v/v	C			
Amsol AMS	3 lb ai/a	C			
7 Sinate	0.48 lb ai/a	C	98.8 a	47.5 bcd	91.3 a
Dual II Magnum	1.43 lb ai/a	C			
AAtrex	0.5 lb ai/a	C			
MSO	1 % v/v	C			
Amsol AMS	3 lb ai/a	C			
8 Bicep II Magnum	2.2 lb ai/a	A	98.8 a	53.8 a-d	82.5 a
Sinate	0.48 lb ai/a	D			
MSO	1 % v/v	D			
Amsol AMS	3 lb ai/a	D			
9 Bicep II Magnum	2.2 lb ai/a	A	99.3 a	66.3 abc	90.0 a
Sinate	0.48 lb ai/a	D			
AAtrex	1 lb ai/a	D			
MSO	1 % v/v	D			
Amsol AMS	3 lb ai/a	D			
10 Bicep II Magnum	2.2 lb ai/a	A	100.0 a	63.8 abc	85.0 a
Sinate	0.56 lb ai/a	D			
MSO	1 % v/v	D			
Amsol AMS	3 lb ai/a	D			
11 Bicep II Magnum	2.2 lb ai/a	A	100.0 a	51.3 bcd	88.8 a
Sinate	0.56 lb ai/a	D			
AAtrex	1 lb ai/a	D			
MSO	1 % v/v	D			
Amsol AMS	3 lb ai/a	D			

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMACH	AMBTR	DIGSA
Pest Scientific Name	Amaranthus hybr>	Ambrosia trifida	Digitaria sangu>
Pest Name	pigweed, smooth	ragweed, giant	crabgrass, large
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jun-9-2021	Jun-16-2021	Jun-16-2021
SE Group No.	15	16	17
SE Name	WEED CONTROL	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	48, 5	55, 12	55, 12
ARM Action Codes			
Trt Treatment	13	14	15
No. Name			
Rate			
Unit			
Appl Code			
12 Bicep II Magnum	2.2 lb ai/a A		
IMPACT CORE	1.34 lb ai/a D		
Roundup PowerMAX 3	1.13 lb ae/a D		
AAtrex	1 lb ai/a D		
NIS	0.25 % v/v D		
Amsol AMS	2.5 lb ai/a D		
13 Bicep II Magnum	2.2 lb ai/a A		
Impact	0.0219 lb ai/a D		
AAtrex	0.5 lb ai/a D		
MSO	1 % v/v D		
Amsol AMS	2.5 lb ai/a D		
14 Bicep II Magnum	2.2 lb ai/a A		
Halex GT	1.98 lb ai/a D		
AAtrex	0.5 lb ai/a D		
NIS	0.25 % v/v D		
Amsol AMS	2.5 lb ai/a D		
15 Bicep II Magnum	2.2 lb ai/a A		
Impact	0.044 lb ai/a E		
MSO	1 % v/v E		
Amsol AMS	2.5 lb ai/a E		
LSD P=.05	22.81	25.43	16.79
Standard Deviation	15.99	17.82	11.77
CV	18.35	38.66	16.17
Levene's F^	0.931	0.719	0.822
Levene's Prob(F)	0.535	0.744	0.642
Skewness^	-1.5121*	-0.1122	-0.4745
Kurtosis^	10.7953*	0.5093	0.2163
Replicate F	2.598	3.584	8.689
Replicate Prob(F)	0.0648	0.0215	0.0001
Treatment F	12.059	12.765	27.982
Treatment Prob(F)	0.0001	0.0001	0.0001

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils			
Trial ID: 21-22_COR-REC	Location: UKREC 109-B1	Trial Year: 2021	
Protocol ID: 21C04H055	Investigator (Creator): Travis Legleiter		
Project ID:	Study Director: Joe Bruce		
Sponsor Contact:			

Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMACH	AMBTR	DIGSA
Pest Scientific Name	Amaranthus hybr>	Ambrosia trifida	Digitaria sangu>
Pest Name	pigweed, smooth	ragweed, giant	crabgrass, large
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	Jun-16-2021	Jul-2-2021	Jul-2-2021
SE Group No.	18	19	20
SE Name	WEED CONTROL	WEED CONTROL	WEED CONTROL
SE Description	WEED CONTROL 14>	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	2 ROW	2 ROW	2 ROW
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	55, 12	71, 28	71, 28
ARM Action Codes	AL	AS	AA
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
1 Untreated Check			
			16 dAL
			17 dAS
			18 dAA
2 IMPACT CORE	1.68 lb ai/a B		0.0 c
AAatrex	1 lb ai/a B		0.0 f
MSO	0.5 % v/v B		0.0 f
Amsol AMS	2.5 lb ai/a B		0.0 f
3 Liberty	0.585 lb ai/a C		98.7 a
Ammonium Sulfate	3 lb ai/a C		16.1 c-f
4 Sinate	0.48 lb ai/a C		21.6 b
MSO	1 % v/v C		4.8 ef
Amsol AMS	3 lb ai/a C		34.4 de
			92.1 a
			17.9 b-f
			40.0 cde

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

				W, Weed AMACH	W, Weed AMBTR	W, Weed DIGSA
Pest Type				Amaranthus hybr>	Ambrosia trifida	Digitaria sangu>
Pest Code				pigweed, smooth	ragweed, giant	crabgrass, large
Pest Scientific Name						
Pest Name						
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date				Jun-16-2021	Jul-2-2021	Jul-2-2021
SE Group No.				18	19	20
SE Name				WEED CONTROL	WEED CONTROL	WEED CONTROL
SE Description				WEED CONTROL 14>	WEED CONTROL 14>	WEED CONTROL 14>
Part Rated				PLANT, P	PLANT, P	PLANT, P
Rating Type				CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100
Sample Size				2 ROW	2 ROW	2 ROW
Collection Basis				1 PLOT	1 PLOT	1 PLOT
Number of Subsamples				1	1	1
Days After First/Last Applic.				55, 12	71, 28	71, 28
ARM Action Codes				AL	AS	AA
Trt No.	Treatment Name	Rate	Appl Code	16 dAL	17 dAS	18 dAA
5	Sinate	0.48 lb ai/a	C	94.6 a	7.8 def	27.2 e
	AAtrex	0.5 lb ai/a	C			
	MSO	1 % v/v	C			
	Amsol AMS	3 lb ai/a	C			
6	Sinate	0.48 lb ai/a	C	94.9 a	2.7 f	87.0 abc
	Dual II Magnum	1.43 lb ai/a	C			
	MSO	1 % v/v	C			
	Amsol AMS	3 lb ai/a	C			
7	Sinate	0.48 lb ai/a	C	97.4 a	36.4 a-e	88.6 abc
	Dual II Magnum	1.43 lb ai/a	C			
	AAtrex	0.5 lb ai/a	C			
	MSO	1 % v/v	C			
	Amsol AMS	3 lb ai/a	C			
8	Bicep II Magnum	2.2 lb ai/a	A	98.7 a	42.9 a-d	52.5 b-e
	Sinate	0.48 lb ai/a	D			
	MSO	1 % v/v	D			
	Amsol AMS	3 lb ai/a	D			
9	Bicep II Magnum	2.2 lb ai/a	A	100.0 a	47.6 a-d	81.9 a-d
	Sinate	0.48 lb ai/a	D			
	AAtrex	1 lb ai/a	D			
	MSO	1 % v/v	D			
	Amsol AMS	3 lb ai/a	D			
10	Bicep II Magnum	2.2 lb ai/a	A	100.0 a	59.8 abc	62.5 a-e
	Sinate	0.56 lb ai/a	D			
	MSO	1 % v/v	D			
	Amsol AMS	3 lb ai/a	D			
11	Bicep II Magnum	2.2 lb ai/a	A	100.0 a	40.4 a-d	78.7 a-d
	Sinate	0.56 lb ai/a	D			
	AAtrex	1 lb ai/a	D			
	MSO	1 % v/v	D			
	Amsol AMS	3 lb ai/a	D			

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AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Trt No.	Treatment Name	Rate	Unit	Appl Code	16 dAL	17 dAS	18 dAA
12	Bicep II Magnum	2.2 lb ai/a	A		100.0 a	71.1 ab	91.8 ab
	IMPACT CORE	1.34 lb ai/a	D				
	Roundup PowerMAX 3	1.13 lb ae/a	D				
	AAtrex	1 lb ai/a	D				
	NIS	0.25 % v/v	D				
	Amsol AMS	2.5 lb ai/a	D				
13	Bicep II Magnum	2.2 lb ai/a	A		100.0 a	42.9 a-d	64.9 a-e
	Impact	0.0219 lb ai/a	D				
	AAtrex	0.5 lb ai/a	D				
	MSO	1 % v/v	D				
	Amsol AMS	2.5 lb ai/a	D				
14	Bicep II Magnum	2.2 lb ai/a	A		100.0 a	77.1 a	97.2 a
	Halex GT	1.98 lb ai/a	D				
	AAtrex	0.5 lb ai/a	D				
	NIS	0.25 % v/v	D				
	Amsol AMS	2.5 lb ai/a	D				
15	Bicep II Magnum	2.2 lb ai/a	A		94.6 a	87.4 a	92.1 ab
	Impact	0.044 lb ai/a	E				
	MSO	1 % v/v	E				
	Amsol AMS	2.5 lb ai/a	E				
LSD P=.05					26.55 - 54.52	16.88 - 43.21	20.78 - 32.88
Standard Deviation					0.24t	1.89t	13.58t
CV					12.99t	34.05t	24.92t
Levene's F^					1.202	1.481	1.052
Levene's Prob(F)					0.307	0.158	0.424
Skewness^					-3.7837*	0.2593	-0.5559
Kurtosis^					28.7158*	0.0971	-0.0164
Replicate F					1.121	5.723	5.853
Replicate Prob(F)					0.3514	0.0022	0.0020
Treatment F					20.109	8.253	9.719
Treatment Prob(F)					0.0001	0.0001	0.0001

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AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type				W, Weed
Pest Code				AMACH
Pest Scientific Name				Amaranthus hybr>
Pest Name				pigweed, smooth
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date				Jul-2-2021
SE Group No.				21
SE Name				WEED CONTROL
SE Description				WEED CONTROL 14>
Part Rated				PLANT, P
Rating Type				CONTRO
Rating Unit/Min/Max				%, 0, 100
Sample Size				2 ROW
Collection Basis				1 PLOT
Number of Subsamples				1
Days After First/Last Applic.				71, 28
ARM Action Codes				
Trt No.	Treatment Name	Rate	Appl Unit Code	19
1	Untreated Check			0.0 b
2	IMPACT CORE	1.68 lb ai/a	B	92.5 a
	AAAtrex	1 lb ai/a	B	
	MSO	0.5 % v/v	B	
	Amsol AMS	2.5 lb ai/a	B	
3	Liberty	0.585 lb ai/a	C	70.0 a
	Ammonium Sulfate	3 lb ai/a	C	
4	Sinate	0.48 lb ai/a	C	93.8 a
	MSO	1 % v/v	C	
	Amsol AMS	3 lb ai/a	C	

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AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type				W, Weed
Pest Code				AMACH
Pest Scientific Name				Amaranthus hybr>
Pest Name				pigweed, smooth
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date				Jul-2-2021
SE Group No.				21
SE Name				WEED CONTROL
SE Description				WEED CONTROL 14>
Part Rated				PLANT, P
Rating Type				CONTRO
Rating Unit/Min/Max				%, 0, 100
Sample Size				2 ROW
Collection Basis				1 PLOT
Number of Subsamples				1
Days After First/Last Applic.				71, 28
ARM Action Codes				
Trt No.	Treatment Name	Rate	Unit	Appl Code
				19
5	Sinate	0.48 lb ai/a	C	93.8 a
	AAtrex	0.5 lb ai/a	C	
	MSO	1 % v/v	C	
	Amsol AMS	3 lb ai/a	C	
6	Sinate	0.48 lb ai/a	C	92.5 a
	Dual II Magnum	1.43 lb ai/a	C	
	MSO	1 % v/v	C	
	Amsol AMS	3 lb ai/a	C	
7	Sinate	0.48 lb ai/a	C	90.0 a
	Dual II Magnum	1.43 lb ai/a	C	
	AAtrex	0.5 lb ai/a	C	
	MSO	1 % v/v	C	
	Amsol AMS	3 lb ai/a	C	
8	Bicep II Magnum	2.2 lb ai/a	A	95.0 a
	Sinate	0.48 lb ai/a	D	
	MSO	1 % v/v	D	
	Amsol AMS	3 lb ai/a	D	
9	Bicep II Magnum	2.2 lb ai/a	A	93.8 a
	Sinate	0.48 lb ai/a	D	
	AAtrex	1 lb ai/a	D	
	MSO	1 % v/v	D	
	Amsol AMS	3 lb ai/a	D	
10	Bicep II Magnum	2.2 lb ai/a	A	93.8 a
	Sinate	0.56 lb ai/a	D	
	MSO	1 % v/v	D	
	Amsol AMS	3 lb ai/a	D	
11	Bicep II Magnum	2.2 lb ai/a	A	93.8 a
	Sinate	0.56 lb ai/a	D	
	AAtrex	1 lb ai/a	D	
	MSO	1 % v/v	D	
	Amsol AMS	3 lb ai/a	D	

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AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type				W, Weed
Pest Code				AMACH
Pest Scientific Name				Amaranthus hybr>
Pest Name				pigweed, smooth
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date				Jul-2-2021
SE Group No.				21
SE Name				WEED CONTROL
SE Description				WEED CONTROL 14>
Part Rated				PLANT, P
Rating Type				CONTRO
Rating Unit/Min/Max				%, 0, 100
Sample Size				2 ROW
Collection Basis				1 PLOT
Number of Subsamples				1
Days After First/Last Applic.				71, 28
ARM Action Codes				
Trt No.	Treatment Name	Rate	Unit	Appl Code
				19
12	Bicep II Magnum	2.2 lb ai/a	A	93.8 a
	IMPACT CORE	1.34 lb ai/a	D	
	Roundup PowerMAX 3	1.13 lb ae/a	D	
	AAtrex	1 lb ai/a	D	
	NIS	0.25 % v/v	D	
	Amsol AMS	2.5 lb ai/a	D	
13	Bicep II Magnum	2.2 lb ai/a	A	93.8 a
	Impact	0.0219 lb ai/a	D	
	AAtrex	0.5 lb ai/a	D	
	MSO	1 % v/v	D	
	Amsol AMS	2.5 lb ai/a	D	
14	Bicep II Magnum	2.2 lb ai/a	A	96.3 a
	Halex GT	1.98 lb ai/a	D	
	AAtrex	0.5 lb ai/a	D	
	NIS	0.25 % v/v	D	
	Amsol AMS	2.5 lb ai/a	D	
15	Bicep II Magnum	2.2 lb ai/a	A	95.0 a
	Impact	0.044 lb ai/a	E	
	MSO	1 % v/v	E	
	Amsol AMS	2.5 lb ai/a	E	
LSD P=.05				17.53
Standard Deviation				12.29
CV				14.32
Levene's F^				0.78
Levene's Prob(F)				0.684
Skewness^				-3.9161*
Kurtosis^				27.8739*
Replicate F				1.343
Replicate Prob(F)				0.2733
Treatment F				15.970
Treatment Prob(F)				0.0001

University of Kentucky

AMVAC corn herbicide portfolio showcase for US university locations - medium to fine soils

Trial ID: 21-22_COR-REC Location: UKREC 109-B1 Trial Year: 2021
 Protocol ID: 21C04H055 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Joe Bruce
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, ragweed, giant = US
 DIGSA, Digitaria sanguinalis, crabgrass, large = US
 AMACH, Amaranthus hybridus, pigweed, smooth = US

Crop Type, Code

C = EPPO species (Bayer) codes
 ZEAMX, BCOR, Zea mays, Corn = US

Part Rated

PLANT = plant
 C = Crop is Part Rated
 P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury
 CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

ROW = row

PLOT = total plot

ARM Action Codes

AS = Automatic square root transformation of X+0.5
 AL = Automatic log transformation of X+1
 AA = Automatic arcsine square root % transformation

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BCS-720/CORN/PRE

Trial ID: 21-23 Location: LEXINGTON, KY Trial Year: 2021
 Protocol ID: HN21USAE0A Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

Reps: 4 Appl Code: A Plots: 3 by 10.1 meters
 Appl. Amount: 15 GAL/AC Mix Size: 2.2 L (total for 4 plots; minimum=1.7005 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
2	FFA+IFT+TCM+CSA ATRAZINE	489.8 4	g/L	SC L	g Al/ha g Al/ha	15 1	OZ/A QT/A	PRE PRE	A A	17.19 36.67	mL/mx mL/mx	102	205	309	406
3	CORVUS ATRAZINE	2.63 4		SC L	g Al/ha g Al/ha	4.5 1	OZ/A QT/A	PRE PRE	A A	5.156 36.67	mL/mx mL/mx	103	202	311	401
4	ACURON	3.44		ZC	g Al/ha	2.25	QT/A	PRE	A	82.5	mL/mx	104	212	308	402
5	RESICORE ATRAZINE	3.3 4		SC L	g Al/ha g Al/ha	2.25 1	QT/A QT/A	PRE PRE	A A	82.5 36.67	mL/mx mL/mx	105	204	301	403
6	ANTHEM ATZ	4.5		SE	g Al/ha	1.7	PT/A	PRE	A	31.17	mL/mx	106	201	310	409
7	FFA+IFT+TCM+CSA ATRAZINE	489.8 4	g/L	SC L	g Al/ha g Al/ha	17 1	OZ/A QT/A	PRE PRE	A A	19.48 36.67	mL/mx mL/mx	107	206	312	405
8	FFA+IFT+TCM+CSA ATRAZINE	489.8 4	g/L	SC L	g Al/ha g Al/ha	18.75 1	OZ/A QT/A	PRE PRE	A A	21.48 36.67	mL/mx mL/mx	108	210	306	404
9	CORVUS ATRAZINE	2.63 4		SC L	g Al/ha g Al/ha	5.6 1	OZ/A QT/A	PRE PRE	A A	6.416 36.67	mL/mx mL/mx	109	211	304	411
10	ACURON	3.44		ZC	g Al/ha	3	QT/A	PRE	A	110.0	mL/mx	110	207	305	407
11	RESICORE ATRAZINE	3.3 4		SC L	g Al/ha g Al/ha	3 1	QT/A QT/A	PRE PRE	A A	110.0 36.67	mL/mx mL/mx	111	203	302	410
12	ANTHEM ATZ	4.5		SE	g Al/ha	2.5	PT/A	PRE	A	45.83	mL/mx	112	209	307	412

* Forced to Sort by Application code because a leaf wall area Other Rate Unit is used.

Reps: 4 Appl Code: Plots: 3 by 10.1 meters

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	UNTREATED										101	208	303	408

* Forced to Sort by Application code because a leaf wall area Other Rate Unit is used.

Sort Order: Application Code, Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
72.680	mL	FFA+IFT+TCM+CSA	489.8	g/L	SC	

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
320.834	mL	ATRAZINE	4		L	
14.464	mL	CORVUS	2.63		SC	
240.625	mL	ACURON	3.44		ZC	
240.625	mL	RESICORE	3.3		SC	
96.250	mL	ANTHEM ATZ	4.5		SE	

* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

General Trial Information

Study Director: Sara Carter **Title:** Research Specialist

Discipline: H herbicide

Trial Status: F one-year/final

ARM Trial Created On: 4-20-2021

Initiation Date: 5-13-2021 **Planned Completion Date:** 10-1-2021

Completion Date: 10-20-2021

Trial Location

City: LEXINGTON

Country: USA United States

State/Prov.: KENTUCKY

Postal Code: 40511

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director

Study Director: Sara Carter **Title:** Research Specialist

Organization: University of Kentucky

Address 1: 2951 Agronomy Road, Unit 12

Mobile No.: 859-559-6710

E-mail: skcart0@uky..edu

City: Lexington, KY

Postal Code: 40511

Crop Description

Crop 1: C ZEAMX Zea mays Corn

Stage Scale: BBCH

Variety: DKC 65-95

Planting Date: 5-13-2021

Planting Rate: 32000

S/A

Depth: 1.5 IN

Rows per Plot: 6

Planting Method: PLANTD

planted

Row Spacing: 30 IN

Planting Equipment: FE

field equipment

Seed Bed: SMOOTH

smooth

Soil Moisture: GOOD

good

Soil Temperature: 59 F

Emergence Date: 5-19-2021

Harvest Date: 10-20-2021

Harvest Equipment: MASSEY FERGUSON 8XP

Harvested Width: 5 FT

Harvested Length: 28 FT

% Standard Moisture: 15.5

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Pest Description

Pest 1 Type: W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed **Stage Scale:** BBCH
Crop: 1 ZEAMX

Pest 2 Type: W **Code:** AMAVI *Amaranthus viridis*
Common Name: pigweed **Stage Scale:** BBCH
Crop: 1 ZEAMX

Pest 3 Type: W **Code:** IPOSS *Ipomoea* sp.
Common Name: Morning glory **Stage Scale:** BBCH
Crop: 1 ZEAMX

Pest 4 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail **Stage Scale:** BBCH
Crop: 1 ZEAMX

Site and Design

Treated Plot Width: 3 m **Site Type:** FIELD field
Treated Plot Length: 10.1 m
Treated Plot Area: 30.3 m² **Treatments:** 12 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

Description Name: MAURY
% Sand: 6 **% OM:** 2.6 **Texture:** SIL silt loam
% Silt: 62 **pH:** 6.4 **Soil Name:** MAURY SILT LOAM
% Clay: 32 **CEC:** 18 **Fert. Level:** E excellent
Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Closest Weather Station: Spindletop **Distance:** 1.5 mi

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Application Description	
	A
Application Date	5-15-2021
Appl. Start Time	12:40 PM
Appl. Stop Time	1:15 PM
Application Method	SPRAY
Application Timing	PRE
Application Placement	BROSOI
Applied By	SARA
Air Temperature Start, Stop	70, - F
% Relative Humidity Start, Stop	28, -
Wind Velocity+Dir. Start	5 MPH, SE
Soil Temperature	59 F
Soil Moisture	GOOD
Soil Surface Condition	SMOOTH
% Cloud Cover	10
Next Moisture Occurred On	5-16-2021

Crop Stage At Each Application	
	A
Crop 1 Code, BBCH Scale	ZEAMX, BCOR
Days after Emergence	-4

Pest Stage At Each Application	
	A
Pest 1 Code, Type, Scale	AMBTR, W, BBCH
Crop Part Attacked, Code	-, ZEAMX
Pest 2 Code, Type, Scale	AMAVI, W, BBCH
Crop Part Attacked, Code	-, ZEAMX
Pest 3 Code, Type, Scale	IPOSS, W, BBCH
Crop Part Attacked, Code	-, ZEAMX
Pest 4 Code, Type, Scale	SETFA, W, BBCH
Crop Part Attacked, Code	-, ZEAMX

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Pest Type		W, Weed AMBTR	W, Weed AMAVI	W, Weed IPOSS	W, Weed SETFA		W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA	W, Weed AMBTR		
Pest Code		Giant ragweed	pigweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail	Giant ragweed		
Pest Name												
Crop Type, Code	C, ZEAMX					C, ZEAMX						
Crop Scientific Name	Zea mays					Zea mays						
Crop Name	Corn					Corn						
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-3-2021	6-3-2021	6-3-2021	6-3-2021	6-19-2021		
Part Rated												
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-13-2021		
Rating Timing	14 DAY	14 DAY	14 DAY	14 DAY	14 DAY	21 DAY	21 DAY	21 DAY	21 DAY	35 DAY		
Days After First/Last Applic.	12, 12	12, 12	12, 12	12, 12	12, 12	19, 19	19, 19	19, 19	19, 19	35, 35		
Trt-Eval Interval	12 DA-A	12 DA-A	12 DA-A	12 DA-A	12 DA-A	19 DA-A	19 DA-A	19 DA-A	19 DA-A	35 DA-A		
Days After Emergence	8 DE-1	8 DE-1	8 DE-1	8 DE-1	8 DE-1	15 DE-1	15 DE-1	15 DE-1	15 DE-1	31 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl										
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9	10
2 FFA+IFT+TCM+CSA ATRAZINE	537 g Al/ha A 9.4 g Al/ha A	102	0.0	60.0	60.0	50.0	60.0	0.0	98.0	90.0	100.0	100.0
		205	0.0	95.0	100.0	95.0	100.0	0.0	99.0	98.0	100.0	100.0
		309	0.0	95.0	10.0	95.0	100.0	0.0	99.0	98.0	100.0	100.0
		406	0.0	98.0	100.0	98.0	100.0	0.0	98.0	98.0	100.0	100.0
		Mean =	0.0	87.0	67.5	84.5	90.0	0.0	98.5	96.0	100.0	100.0
3 CORVUS ATRAZINE	152.9 g Al/ha A 9.4 g Al/ha A	103	0.0	60.0	75.0	50.0	25.0	0.0	98.0	85.0	85.0	100.0
		202	0.0	90.0	100.0	90.0	100.0	0.0	98.0	95.0	100.0	100.0
		311	0.0	95.0	100.0	100.0	100.0	0.0	99.0	95.0	100.0	100.0
		401	0.0	80.0	100.0	90.0	95.0	0.0	90.0	85.0	100.0	100.0
		Mean =	0.0	81.3	93.8	82.5	80.0	0.0	96.3	90.0	96.3	100.0
4 ACURON	18.1 g Al/ha A	104	0.0	40.0	60.0	30.0	30.0	0.0	95.0	75.0	100.0	100.0
		212	0.0	90.0	95.0	85.0	100.0	0.0	98.0	90.0	100.0	100.0
		308	0.0	95.0	100.0	95.0	100.0	0.0	98.0	90.0	100.0	100.0
		402	0.0	98.0	100.0	98.0	100.0	0.0	98.0	98.0	100.0	100.0
		Mean =	0.0	80.8	88.8	77.0	82.5	0.0	97.3	88.3	100.0	100.0
5 RESICORE ATRAZINE	17.4 g Al/ha A 9.4 g Al/ha A	105	0.0	30.0	60.0	50.0	75.0	0.0	95.0	80.0	100.0	100.0
		204	0.0	90.0	100.0	90.0	85.0	0.0	99.0	98.0	100.0	100.0
		301	0.0	90.0	100.0	80.0	100.0	0.0	95.0	90.0	100.0	100.0
		403	0.0	98.0	100.0	98.0	100.0	0.0	99.0	98.0	100.0	100.0
		Mean =	0.0	77.0	90.0	79.5	90.0	0.0	97.0	91.5	100.0	100.0
6 ANTHEM ATZ	8.9 g Al/ha A	106	0.0	40.0	40.0	45.0	50.0	0.0	95.0	75.0	95.0	100.0
		201	0.0	80.0	100.0	100.0	100.0	0.0	99.0	95.0	100.0	100.0
		310	0.0	98.0	100.0	100.0	100.0	0.0	95.0	95.0	100.0	100.0
		409	0.0	90.0	100.0	100.0	100.0	0.0	95.0	98.0	100.0	100.0
		Mean =	0.0	77.0	85.0	86.3	87.5	0.0	96.0	90.8	98.8	100.0

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Pest Type		W, Weed AMBTR	W, Weed AMAVI	W, Weed IPOSS	W, Weed SETFA		W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA	W, Weed AMBTR		
Pest Code		Giant ragweed	pigweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail	Giant ragweed		
Pest Name												
Crop Type, Code	C, ZEAMX					C, ZEAMX						
Crop Scientific Name	Zea mays					Zea mays						
Crop Name	Corn					Corn						
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-3-2021	6-3-2021	6-3-2021	6-3-2021	6-19-2021		
Part Rated												
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-13-2021		
Rating Timing	14 DAY	14 DAY	14 DAY	14 DAY	14 DAY	21 DAY	21 DAY	21 DAY	21 DAY	35 DAY		
Days After First/Last Applic.	12, 12	12, 12	12, 12	12, 12	12, 12	19, 19	19, 19	19, 19	19, 19	35, 35		
Trt-Eval Interval	12 DA-A	12 DA-A	12 DA-A	12 DA-A	12 DA-A	19 DA-A	19 DA-A	19 DA-A	19 DA-A	35 DA-A		
Days After Emergence	8 DE-1	8 DE-1	8 DE-1	8 DE-1	8 DE-1	15 DE-1	15 DE-1	15 DE-1	15 DE-1	31 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl										
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9	10
7 FFA+IFT+TCM+CSA	610 g Al/ha A	107	0.0	80.0	100.0	90.0	100.0	0.0	98.0	80.0	100.0	100.0
ATRAZINE	9.4 g Al/ha A	206	0.0	90.0	100.0	100.0	100.0	0.0	98.0	95.0	100.0	100.0
		312	0.0	90.0	100.0	95.0	100.0	0.0	98.0	98.0	100.0	100.0
		405	0.0	98.0	100.0	95.0	100.0	0.0	100.0	98.0	100.0	100.0
		Mean =	0.0	89.5	100.0	95.0	100.0	0.0	98.5	92.8	100.0	100.0
8 FFA+IFT+TCM+CSA	670 g Al/ha A	108	0.0	90.0	100.0	100.0	100.0	0.0	98.0	75.0	100.0	100.0
ATRAZINE	9.4 g Al/ha A	210	0.0	80.0	100.0	85.0	100.0	0.0	90.0	95.0	100.0	100.0
		306	0.0	95.0	100.0	95.0	100.0	0.0	99.0	95.0	100.0	100.0
		404	0.0	95.0	100.0	95.0	100.0	0.0	99.0	98.0	100.0	100.0
		Mean =	0.0	90.0	100.0	93.8	100.0	0.0	96.5	90.8	100.0	100.0
9 CORVUS	1.08 g Al/ha A	109	0.0	95.0	80.0	75.0	100.0	0.0	98.0	95.0	100.0	100.0
ATRAZINE	9.4 g Al/ha A	211	0.0	75.0	100.0	90.0	100.0	0.0	98.0	95.0	100.0	100.0
		304	0.0	85.0	100.0	90.0	100.0	0.0	99.0	95.0	100.0	100.0
		411	0.0	85.0	100.0	100.0	95.0	0.0	99.0	98.0	100.0	100.0
		Mean =	0.0	85.0	95.0	88.8	98.8	0.0	98.5	95.8	100.0	100.0
10 ACURON	24.1 g Al/ha A	110	0.0	95.0	100.0	90.0	100.0	0.0	98.0	95.0	100.0	100.0
		207	0.0	90.0	100.0	100.0	100.0	0.0	98.0	98.0	100.0	100.0
		305	0.0	95.0	100.0	100.0	100.0	0.0	95.0	95.0	100.0	100.0
		407	0.0	98.0	100.0	100.0	100.0	0.0	99.0	98.0	100.0	100.0
		Mean =	0.0	94.5	100.0	97.5	100.0	0.0	97.5	96.5	100.0	100.0
11 RESICORE	23.2 g Al/ha A	111	0.0	95.0	95.0	100.0	100.0	0.0	100.0	95.0	100.0	100.0
ATRAZINE	9.4 g Al/ha A	203	0.0	95.0	95.0	90.0	100.0	0.0	98.0	99.0	100.0	100.0
		302	0.0	85.0	100.0	90.0	100.0	0.0	90.0	95.0	100.0	100.0
		410	0.0	98.0	100.0	98.0	100.0	0.0	99.0	98.0	100.0	100.0
		Mean =	0.0	93.3	97.5	94.5	100.0	0.0	96.8	96.8	100.0	100.0
12 ANTHEM ATZ	13.2 g Al/ha A	112	0.0	80.0	90.0	90.0	95.0	0.0	98.0	95.0	100.0	100.0
		209	0.0	75.0	90.0	85.0	100.0	0.0	98.0	95.0	100.0	100.0
		307	0.0	95.0	95.0	90.0	100.0	0.0	95.0	95.0	100.0	100.0
		412	0.0	95.0	100.0	9.0	100.0	0.0	99.0	98.0	100.0	100.0
		Mean =	0.0	86.3	93.8	68.5	98.8	0.0	97.5	95.8	100.0	100.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed							
Pest Code	IPOSS	SETFA	AMBTR	IPOSS	SETFA							
Pest Name	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail							
Crop Type, Code						C, ZEAMX	C, ZEAMX	C, ZEAMX				
Crop Scientific Name						Zea mays	Zea mays	Zea mays				
Crop Name						Corn	Corn	Corn				
Rating Date	6-19-2021	6-19-2021	7-10-2021	7-10-2021	7-10-2021	10-20-2021	10-20-2021	10-20-2021				
Part Rated												
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	YIELD	MOICON	YIELD				
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -				
Number of Subsamples	1	1	1	1	1	1	1	1				
Data Entry Date	9-13-2021	9-13-2021	9-13-2021	9-13-2021	9-13-2021	12-13-2021	12-13-2021					
Rating Timing	35 DAY	35 DAY	56 DAY	56 DAY	56 DAY							
Days After First/Last Applic.	35, 35	35, 35	56, 56	56, 56	56, 56	158, 158	158, 158	158, 158				
Trt-Eval Interval	35 DA-A	35 DA-A	56 DA-A	56 DA-A	56 DA-A	158 DA-A	158 DA-A	158 DA-A				
Days After Emergence	31 DE-1	31 DE-1	52 DE-1	52 DE-1	52 DE-1	154 DE-1	154 DE-1	154 DE-1				
ARM Action Codes										TY1		
Number of Decimals										1		
Trt Treatment	Rate	Appl										
No. Name	Rate	Unit	Code	Plot								
1 UNTREATED				11	12	13	14	15	16	17	18	19
				0.0	0.0	0.0	0.0	0.0		10.200	12.70	58.6
				208	0.0	0.0	0.0	0.0		9.080	11.90	52.6
				303	0.0	0.0	0.0	0.0		16.900	20.10	88.8
				408	0.0	0.0	0.0	0.0		9.460	12.10	54.7
				Mean =	0.0	0.0	0.0	0.0		11.410	14.20	63.7

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed						
Pest Code	IPOSS	SETFA	AMBTR	IPOSS	SETFA						
Pest Name	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail						
Crop Type, Code							C, ZEAMX	C, ZEAMX	C, ZEAMX		
Crop Scientific Name							Zea mays	Zea mays	Zea mays		
Crop Name							Corn	Corn	Corn		
Rating Date	6-19-2021	6-19-2021	7-10-2021	7-10-2021	7-10-2021		10-20-2021	10-20-2021	10-20-2021		
Part Rated											
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		YIELD	MOICON	YIELD		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		lb/plot, -, -	% , 0, 100	BU, -, -		
Number of Subsamples	1	1	1	1	1		1	1	1		
Data Entry Date	9-13-2021	9-13-2021	9-13-2021	9-13-2021	9-13-2021		12-13-2021	12-13-2021			
Rating Timing	35 DAY	35 DAY	56 DAY	56 DAY	56 DAY						
Days After First/Last Applic.	35, 35	35, 35	56, 56	56, 56	56, 56		158, 158	158, 158	158, 158		
Trt-Eval Interval	35 DA-A	35 DA-A	56 DA-A	56 DA-A	56 DA-A		158 DA-A	158 DA-A	158 DA-A		
Days After Emergence	31 DE-1	31 DE-1	52 DE-1	52 DE-1	52 DE-1		154 DE-1	154 DE-1	154 DE-1		
ARM Action Codes										TY1	
Number of Decimals										1	
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	11	12	13	14	15	16	17	18	19
2 FFA+IFT+TCM+CSA	537 g Al/ha A	102	98.0	100.0	85.0	95.0	95.0		30.540	19.60	161.5
ATRAZINE	9.4 g Al/ha A	205	95.0	100.0	85.0	95.0	95.0		41.940	17.70	227.0
		309	95.0	100.0	80.0	90.0	95.0		35.260	19.80	185.9
		406	98.0	100.0	85.0	92.0	98.0		39.260	18.40	210.6
		Mean =	96.5	100.0	83.8	93.0	95.8		36.750	18.88	196.2
3 CORVUS	152.9 g Al/ha A	103	95.0	95.0	85.0	95.0	98.0		31.180	16.90	170.4
ATRAZINE	9.4 g Al/ha A	202	95.0	100.0	90.0	90.0	95.0		37.360	17.90	201.7
		311	95.0	100.0	92.0	95.0	92.0		38.840	18.60	207.9
		401	95.0	100.0	80.0	92.0	98.0		28.080	17.50	152.3
		Mean =	95.0	98.8	86.8	93.0	95.8		33.865	17.73	183.1
4 ACURON	18.1 g Al/ha A	104	98.0	100.0	85.0	95.0	95.0		31.980	19.30	169.7
		212	98.0	100.0	85.0	95.0	99.0		45.470	18.90	242.5
		308	95.0	100.0	85.0	95.0	92.0		40.330	21.20	209.0
		402	95.0	100.0	95.0	95.0	98.0		37.980	18.80	202.8
		Mean =	96.5	100.0	87.5	95.0	96.0		38.940	19.55	206.0
5 RESICORE	17.4 g Al/ha A	105	99.0	100.0	90.0	95.0	98.0		34.220	22.00	175.5
ATRAZINE	9.4 g Al/ha A	204	98.0	100.0	95.0	92.0	95.0		44.370	19.50	234.9
		301	95.0	100.0	92.0	95.0	95.0		42.810	18.60	229.1
		403	98.0	100.0	92.0	90.0	98.0		36.440	18.80	194.6
		Mean =	97.5	100.0	92.3	93.0	96.5		39.460	19.73	208.5
6 ANTHEM ATZ	8.9 g Al/ha A	106	95.0	100.0	90.0	95.0	95.0		23.940	18.50	128.3
		201	98.0	100.0	98.0	92.0	98.0		37.290	16.90	203.8
		310	99.0	100.0	98.0	95.0	95.0		33.690	18.20	181.2
		409	95.0	100.0	98.0	95.0	92.0		43.790	20.40	229.2
		Mean =	96.8	100.0	96.0	94.3	95.0		34.678	18.50	185.6

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed						
Pest Code	IPOSS	SETFA	AMBTR	IPOSS	SETFA						
Pest Name	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail						
Crop Type, Code							C, ZEAMX	C, ZEAMX	C, ZEAMX		
Crop Scientific Name							Zea mays	Zea mays	Zea mays		
Crop Name							Corn	Corn	Corn		
Rating Date	6-19-2021	6-19-2021	7-10-2021	7-10-2021	7-10-2021		10-20-2021	10-20-2021	10-20-2021		
Part Rated											
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		YIELD	MOICON	YIELD		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		lb/plot, -, -	% , 0, 100	BU, -, -		
Number of Subsamples	1	1	1	1	1		1	1	1		
Data Entry Date	9-13-2021	9-13-2021	9-13-2021	9-13-2021	9-13-2021		12-13-2021	12-13-2021			
Rating Timing	35 DAY	35 DAY	56 DAY	56 DAY	56 DAY						
Days After First/Last Applic.	35, 35	35, 35	56, 56	56, 56	56, 56		158, 158	158, 158	158, 158		
Trt-Eval Interval	35 DA-A	35 DA-A	56 DA-A	56 DA-A	56 DA-A		158 DA-A	158 DA-A	158 DA-A		
Days After Emergence	31 DE-1	31 DE-1	52 DE-1	52 DE-1	52 DE-1		154 DE-1	154 DE-1	154 DE-1		
ARM Action Codes											
Number of Decimals										TY1 1	
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	11	12	13	14	15	16	17	18	19
7 FFA+IFT+TCM+CSA	610 g Al/ha A	107	95.0	100.0	98.0	95.0	92.0		38.780	19.20	206.0
ATRAZINE	9.4 g Al/ha A	206	98.0	100.0	90.0	92.0	95.0		39.480	16.40	217.0
		312	98.0	100.0	90.0	92.0	98.0		44.320	20.30	232.3
		405	99.0	100.0	98.0	92.0	98.0		34.990	18.10	188.4
		Mean =	97.5	100.0	94.0	92.8	95.8		39.393	18.50	210.9
8 FFA+IFT+TCM+CSA	670 g Al/ha A	108	95.0	100.0	95.0	90.0	95.0		36.890	19.60	195.0
ATRAZINE	9.4 g Al/ha A	210	95.0	100.0	92.0	95.0	95.0		41.080	19.50	217.4
		306	98.0	100.0	95.0	85.0	95.0		41.610	19.20	221.1
		404	98.0	100.0	95.0	95.0	92.0		35.610	19.80	187.8
		Mean =	96.5	100.0	94.3	91.3	94.3		38.798	19.53	205.3
9 CORVUS	1.08 g Al/ha A	109	98.0	100.0	95.0	95.0	92.0		30.290	17.10	165.1
ATRAZINE	9.4 g Al/ha A	211	95.0	100.0	95.0	95.0	95.0		32.430	16.30	178.5
		304	95.0	100.0	95.0	92.0	95.0		34.940	20.90	181.7
		411	98.0	100.0	95.0	95.0	95.0		28.980	19.90	152.6
		Mean =	96.5	100.0	95.0	94.3	94.3		31.660	18.55	169.5
10 ACURON	24.1 g Al/ha A	110	98.0	100.0	99.0	92.0	92.0		45.660	17.20	248.6
		207	95.0	100.0	92.0	92.0	92.0		39.850	17.50	216.2
		305	99.0	100.0	95.0	92.0	98.0		42.050	18.70	224.8
		407	99.0	100.0	95.0	90.0	98.0		23.420	19.60	123.8
		Mean =	97.8	100.0	95.3	91.5	95.0		37.745	18.25	203.3
11 RESICORE	23.2 g Al/ha A	111	98.0	100.0	85.0	90.0	92.0		45.060	18.30	242.1
ATRAZINE	9.4 g Al/ha A	203	95.0	100.0	95.0	98.0	92.0		39.190	17.60	212.3
		302	99.0	100.0	95.0	95.0	92.0		41.290	18.60	221.0
		410	95.0	100.0	92.0	95.0	92.0		4.840	10.30	28.5
		Mean =	96.8	100.0	91.8	94.5	92.0		32.595	16.20	176.0
12 ANTHEM ATZ	13.2 g Al/ha A	112	98.0	100.0	92.0	95.0	95.0		38.100	17.20	207.4
		209	95.0	100.0	99.0	95.0	95.0		33.380	18.90	178.0
		307	95.0	100.0	99.0	95.0	92.0		32.820	18.90	175.0
		412	98.0	100.0	92.0	99.0	92.0		30.000	19.90	158.0
		Mean =	96.5	100.0	95.5	96.0	93.5		33.575	18.73	179.6

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Pest Type		W, Weed AMBTR	W, Weed AMAVI	W, Weed IPOSS	W, Weed SETFA		W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA	W, Weed AMBTR		
Pest Code		Giant ragweed	pigweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail	Giant ragweed		
Pest Name												
Crop Type, Code	C, ZEAMX					C, ZEAMX						
Crop Scientific Name	Zea mays					Zea mays						
Crop Name	Corn					Corn						
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-3-2021	6-3-2021	6-3-2021	6-3-2021	6-19-2021		
Part Rated												
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-9-2021	9-13-2021		
Rating Timing	14 DAY	14 DAY	14 DAY	14 DAY	14 DAY	21 DAY	21 DAY	21 DAY	21 DAY	35 DAY		
Days After First/Last Applic.	12, 12	12, 12	12, 12	12, 12	12, 12	19, 19	19, 19	19, 19	19, 19	35, 35		
Trt-Eval Interval	12 DA-A	12 DA-A	12 DA-A	12 DA-A	12 DA-A	19 DA-A	19 DA-A	19 DA-A	19 DA-A	35 DA-A		
Days After Emergence	8 DE-1	8 DE-1	8 DE-1	8 DE-1	8 DE-1	15 DE-1	15 DE-1	15 DE-1	15 DE-1	31 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7	8	9	10
No. Name	Rate Unit	Code										
8 FFA+IFT+TCM+CSA	670 g AI/ha A		0.0 a	90.0 a	100.0 a	93.8 a	100.0 a	0.0 a	96.5 a	90.8 a	100.0 a	100.0 a
ATRAZINE	9.4 g AI/ha A											
9 CORVUS	1.08 g AI/ha A		0.0 a	85.0 a	95.0 a	88.8 a	98.8 a	0.0 a	98.5 a	95.8 a	100.0 a	100.0 a
ATRAZINE	9.4 g AI/ha A											
10 ACURON	24.1 g AI/ha A		0.0 a	94.5 a	100.0 a	97.5 a	100.0 a	0.0 a	97.5 a	96.5 a	100.0 a	100.0 a
11 RESICORE	23.2 g AI/ha A		0.0 a	93.3 a	97.5 a	94.5 a	100.0 a	0.0 a	96.8 a	96.8 a	100.0 a	100.0 a
ATRAZINE	9.4 g AI/ha A											
12 ANTHEM ATZ	13.2 g AI/ha A		0.0 a	86.3 a	93.8 a	68.5 a	98.8 a	0.0 a	97.5 a	95.8 a	100.0 a	100.0 a
LSD P=.05	.			19.55	22.95	26.82	21.19	.	3.73	6.87	3.19	.
Standard Deviation	0.00			13.59	15.95	18.64	14.73	0.00	2.59	4.78	2.22	0.00
CV	0.0			17.32	18.93	23.6	17.2	0.0	2.91	5.59	2.43	0.0
Levene's F^	.			0.238	1.079	0.72	0.235	.	0.706	0.168	0.625	.
Levene's Prob(F)	.			0.993	0.404	0.712	0.993	.	0.724	0.998	0.796	.
Skewness^	.			-0.4997	-1.6673*	-1.3069*	-0.9766*	.	-1.4854*	-0.2656	-3.0577*	.
Kurtosis^	.			0.6262	6.6199*	4.6903*	1.9763*	.	3.2064*	-0.3385	17.9043*	.
Replicate F	0.000			6.837	3.878	3.464	6.340	0.000	0.408	12.006	1.692	0.000
Replicate Prob(F)	1.0000			0.0010	0.0177	0.0272	0.0016	1.0000	0.7485	0.0001	0.1877	1.0000
Treatment F	0.000			13.944	12.360	7.954	14.389	0.000	469.457	128.248	671.769	0.000
Treatment Prob(F)	1.0000			0.0001	0.0001	0.0001	0.0001	1.0000	0.0001	0.0001	0.0001	1.0000

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Pest Type	W, Weed IPOSS	W, Weed SETFA	W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA					
Pest Code	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail					
Pest Name										
Crop Type, Code							C, ZEAMX	C, ZEAMX	C, ZEAMX	
Crop Scientific Name							Zea mays	Zea mays	Zea mays	
Crop Name							Corn	Corn	Corn	
Rating Date	6-19-2021	6-19-2021	7-10-2021	7-10-2021	7-10-2021		10-20-2021	10-20-2021	10-20-2021	
Part Rated										
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		YIELD	MOICON	YIELD	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		lb/plot, -, -	%, 0, 100	BU, -, -	
Number of Subsamples	1	1	1	1	1		1	1	1	
Data Entry Date	9-13-2021	9-13-2021	9-13-2021	9-13-2021	9-13-2021		12-13-2021	12-13-2021		
Rating Timing	35 DAY	35 DAY	56 DAY	56 DAY	56 DAY					
Days After First/Last Applic.	35, 35	35, 35	56, 56	56, 56	56, 56		158, 158	158, 158	158, 158	
Trt-Eval Interval	35 DA-A	35 DA-A	56 DA-A	56 DA-A	56 DA-A		158 DA-A	158 DA-A	158 DA-A	
Days After Emergence	31 DE-1	31 DE-1	52 DE-1	52 DE-1	52 DE-1		154 DE-1	154 DE-1	154 DE-1	
ARM Action Codes										TY1
Number of Decimals										1
Trt Treatment										
Rate										
Unit										
Appl Code										
No. Name	11	12	13	14	15	16	17	18	19	
8 FFA+IFT+TCM+CSA	670 g AI/ha A	670 g AI/ha A	670 g AI/ha A	670 g AI/ha A	670 g AI/ha A		38.798 a	19.53 a	205.3 a	
ATRAZINE	9.4 g AI/ha A	9.4 g AI/ha A	9.4 g AI/ha A	9.4 g AI/ha A	9.4 g AI/ha A					
9 CORVUS	1.08 g AI/ha A	1.08 g AI/ha A	1.08 g AI/ha A	1.08 g AI/ha A	1.08 g AI/ha A		31.660 a	18.55 a	169.5 a	
ATRAZINE	9.4 g AI/ha A	9.4 g AI/ha A	9.4 g AI/ha A	9.4 g AI/ha A	9.4 g AI/ha A					
10 ACURON	24.1 g AI/ha A	24.1 g AI/ha A	24.1 g AI/ha A	24.1 g AI/ha A	24.1 g AI/ha A		37.745 a	18.25 a	203.3 a	
11 RESICORE	23.2 g AI/ha A	23.2 g AI/ha A	23.2 g AI/ha A	23.2 g AI/ha A	23.2 g AI/ha A		32.595 a	16.20 ab	176.0 a	
ATRAZINE	9.4 g AI/ha A	9.4 g AI/ha A	9.4 g AI/ha A	9.4 g AI/ha A	9.4 g AI/ha A					
12 ANTHEM ATZ	13.2 g AI/ha A	13.2 g AI/ha A	13.2 g AI/ha A	13.2 g AI/ha A	13.2 g AI/ha A		33.575 a	18.73 a	179.6 a	
LSD P=.05	2.42	1.04	5.22	3.40	3.20	.	9.8856	2.728	52.84	
Standard Deviation	1.68	0.72	3.63	2.37	2.22	.	6.8716	1.897	36.73	
CV	1.89	0.79	4.3	2.76	2.56	.	20.17	10.42	20.15	
Levene's F^	1.849	0.758	1.321	2.393	2.135	.	1.351	0.626	1.396	
Levene's Prob(F)	0.081	0.678	0.253	0.024*	0.043*	.	0.238	0.795	0.217	
Skewness^	-0.2797	-3.5949*	-0.1077	-0.512	-0.3309	.	-0.9525*	-0.254	-0.9712*	
Kurtosis^	-1.1257	22.9943*	-0.1204	0.7141	-0.5918	.	5.2994*	2.8892*	4.9261*	
Replicate F	0.737	1.000	0.478	0.382	0.577		3.298	2.534	3.351	
Replicate Prob(F)	0.5377	0.4051	0.7000	0.7663	0.6341		0.0324	0.0738	0.0306	
Treatment F	1106.582	6386.455	219.474	522.348	608.157		4.977	2.746	4.727	
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001		0.0002	0.0122	0.0002	

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BCS-720/CORN/PRE

Trial ID: 21-23 Location: LEXINGTON, KY Trial Year: 2021
 Protocol ID: HN21USAEOA Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

AMAVI, Amaranthus viridis, pigweed = US

IPOSS, Ipomoea sp., Morning glory = US

SETFA, Setaria faberi, Giant foxtail = US

Crop Type, Code

C = EPPO species (Bayer) codes

ZEAMX, BCOR, Zea mays, Corn = US

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

YIELD = yield

MOICON = moisture content

Rating Unit/Min/Max

%, 0, 100 = percent

lb/plot, , = pounds per plot

BU, , = bushel

ARM Action Codes

TY1 = $5.55612245 * [17] * (100 - [18]) / 84.5$

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DIC PAIRED SOIL RESIDUAL

Trial ID: 21-24 Location: LEXINGTON, KY Trial Year: 2021
 Protocol ID: HN21USADHA Investigator (Creator): Sara Carter
 Project ID: Study Director:
 Sponsor Contact:

Reps: 4 Plots: 3 by 10.1 meters
 Appl. Amount: 15 GAL/AC Mix Size: 2.2 L (total for 4 plots; minimum=1.7005 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Rate Type	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check										101	202	306	410
2	MON 301668	553		CS mL-g/ha	30 OZ/A		PRE	A	34.37 mL/mx		102	204	303	409
3	MAULER	480		SL	8 OZ/A		PRE	A	9.166 mL/mx		103	201	305	407
4	WARRANT ULTRA	3.49 LBA/GAL		CS	50 OZ/A		PRE	A	57.28 mL/mx		104	212	308	412
5	FIERCE EZ	3.04 LBA/GAL		SC	6 OZ/A		PRE	A	6.874 mL/mx		105	207	312	405
6	VALOR EZ	4 LB/GAL		SC	2 OZ/A		PRE	A	2.291 mL/mx		106	205	304	403
7	AUTHORITY MTZ	45		DF	10 OZ/A		PRE	A	11.46 g/mx		107	213	311	404
8	MON 301668	553		CS	30 OZ/A		PRE	A	34.37 mL/mx		108	203	309	413
	MAULER	480		SL	8 OZ/A		PRE	A	9.166 mL/mx					
	XTENDIMAX	2.9		SL	22 OZ/A		PRE	A	25.21 mL/mx					
	MON 51817	394		SL	20 OZ/A		PRE	A	22.91 mL/mx					
9	MON 301668	553		CS	30 OZ/A		PRE	A	34.37 mL/mx		109	206	313	402
	XTENDIMAX	2.9		SL	22 OZ/A		PRE	A	25.21 mL/mx					
	MON 51817	394		SL	20 OZ/A		PRE	A	22.91 mL/mx					
10	WARRANT ULTRA	3.49 LBA/GAL		CS	50 OZ/A		PRE	A	57.28 mL/mx		110	211	307	401
	INTACT			L	0.5 % V/V		PRE	A	11.0 mL/mx					
	XTENDIMAX	2.9		SL	22 OZ/A		PRE	A	25.21 mL/mx					
	MON 51817	394		SL	20 OZ/A		PRE	A	22.91 mL/mx					
11	FIERCE EZ	3.04 LBA/GAL		SC	6 OZ/A		PRE	A	6.874 mL/mx		111	209	310	408
	XTENDIMAX	2.9		SL	22 OZ/A		PRE	A	25.21 mL/mx					
	MON 51817	394		SL	20 OZ/A		PRE	A	22.91 mL/mx					
	INTACT			L	0.5 % V/V		PRE	A	11.0 mL/mx					
12	VALOR EZ	4 LB/GAL		SC	2 OZ/A		PRE	A	2.291 mL/mx		112	208	302	411
	XTENDIMAX	2.9		SL	22 OZ/A		PRE	A	25.21 mL/mx					
	MON 51817	394		SL	20 OZ/A		PRE	A	22.91 mL/mx					
13	AUTHORITY MTZ	45		DF	10 OZ/A		PRE	A	11.46 g/mx		113	210	301	406
	XTENDIMAX	2.9		SL	22 OZ/A		PRE	A	25.21 mL/mx					
	MON 51817	394		SL	20 OZ/A		PRE	A	22.91 mL/mx					

Sort Order: Replicate 1

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
128.890	mL	MON 301668	553		CS	
22.914	mL	MAULER	480		SL	
143.211	mL	WARRANT ULTRA	3.49	LBA/GAL	CS	
17.185	mL	FIERCE EZ	3.04	LBA/GAL	SC	
5.728	mL	VALOR EZ	4	LB/GAL	SC	
28.642	g	AUTHORITY MTZ	45		DF	
189.039	mL	XTENDIMAX	2.9		SL	
171.853	mL	MON 51817	394		SL	
27.500	mL	INTACT			L	

* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2.2 L.

General Trial Information

Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

Discipline: H herbicide
Trial Status: I one-year/interim

ARM Trial Created On: 4-20-2021
Initiation Date: 5-13-2021

Trial Location

City: LEXINGTON **Country:** USA United States
State/Prov.: KENTUCKY
Postal Code: 40511

Conducted Under GLP: No
Conducted Under GEP: No

Role: INVEST investigator

Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

Organization: UNIVERSITY OF KENTUCKY

Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710

E-mail: sara.carter@uky.edu

City: LEXINGTON, KY

Postal Code: 40546-0312

Crop Description

Crop 1: C GLXMA Glycine max Soybean

Stage Scale: BBCH

Variety: AG35XF1

Attributes: XTENDFLEX

Planting Date: 5-13-2021

Planting Rate: 150000 S/A

Depth: 1.5 IN

Rows per Plot: 6

Planting Method: PLANTD planted

Row Spacing: 30 IN

Planting Equipment: FE field equipment

Seed Bed: SMOOTH smooth

Soil Temperature: 59 F

Emergence Date: 5-19-2021

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Pest Description		
Pest 1 Type: W	Code: AMBTR Ambrosia trifida Common Name: Giant ragweed Crop: 1 GLXMA	Stage Scale: BBCH
Pest 2 Type: W	Code: IPOSS Ipomoea sp. Common Name: Morning glory Crop: 1 GLXMA	Stage Scale: BBCH
Pest 3 Type: W	Code: SETFA Setaria faberi Common Name: Giant foxtail Crop: 1 GLXMA	Stage Scale: BBCH

Site and Design		
Treated Plot Width: 3 m	Site Type: FIELD field	
Treated Plot Length: 10.1 m		
Treated Plot Area: 30.3 m ²	Treatments: 13	Tillage Type: CONTIL conventional-till
Replications: 4		Study Design: RACOBL Randomized Complete Block (RCB)

Soil Description		
Description Name: MAURY		
% Sand: 6	% OM: 2.6	Texture: SIL silt loam
% Silt: 62	pH: 6.4	Soil Name: MAURY SILT LOAM
% Clay: 32	CEC: 18	Fert. Level: E excellent
Soil Drainage: E	excellent	

Weather Conditions	
Overall Moisture Conditions: WEWEDR wet-wet-dry	
Closest Weather Station: Spindletop	Distance: 1.5 mi

Application Description	
	A
Application Date	5-14-2021
Appl. Start Time	7:30 PM
Appl. Stop Time	8:15 PM
Application Method	SPRAY
Application Timing	PRE
Application Placement	BROSOI
Applied By	SARA
Air Temperature Start, Stop	65, - F
% Relative Humidity Start, Stop	32, -
Wind Velocity+Dir. Start	3 MPH, NNE
Soil Temperature	59 F
Soil Moisture	SLIDRY
Soil Surface Condition	SMOOTH
% Cloud Cover	30

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Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	GLXMA, BSOY
Days after Emergence	-5

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	AMBTR, W, BBCH
Crop Part Attacked, Code	-, GLXMA
Pest 2 Code, Type, Scale	IPOSS, W, BBCH
Crop Part Attacked, Code	-, GLXMA
Pest 3 Code, Type, Scale	SETFA, W, BBCH
Crop Part Attacked, Code	-, GLXMA

Application Equipment

	A
Appl. Equipment	BACKPACK
Equipment Type	BELSPR
Operation Pressure	30 PSI
Nozzle Model	8002 DG
Nozzle Type	FLAT FAN
Nozzle Spacing	20 IN
Boom Length	10 FT
Boom Height	30 IN
Ground Speed	4 MPH
Carrier	WATER
Application Amount	15 GPA
Mix Size	2.2 liters
Propellant	CO2

Treatment Appl. Comments

Trt No Treatment Application Comment

2 chemical did not arrive in time to be sprayed with other PRE was applied on 5-17-21
 8 chemical did not arrive in time to be sprayed with other PRE was applied on 5-17-21
 9 chemical did not arrive in time to be sprayed with other PRE was applied on 5-17-21

Notes

Context	Date	By	Notes
STATUS	4-20-2021	Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.

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DIC PAIRED SOIL RESIDUAL

Trial ID: 21-24 Location: LEXINGTON, KY Trial Year: 2021
 Protocol ID: HN21USADHA Investigator (Creator): Sara Carter
 Project ID: Study Director:
 Sponsor Contact:

Pest Type		W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA		W, Weed AMBTR	W, Weed IPOSS	W, Weed AMBTR	W, Weed IPOSS		
Pest Code		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant ragweed	Morning glory		
Pest Name											
Crop Type, Code	C, GLXMA				C, GLXMA						
Crop Scientific Name	Glycine max				Glycine max						
Crop Name	Soybean				Soybean						
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-3-2021	6-3-2021	6-3-2021	6-18-2021	6-18-2021		
Part Rated											
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	9-13-2021	9-14-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021		
Rating Timing	14 DAA	14 DAA	14 DAA	14 DAA	21 DAA	21 DAA	21 DAA	35 DAA	35 DAA		
Days After First/Last Applic.	13, 13	13, 13	13, 13	13, 13	20, 20	20, 20	20, 20	35, 35	35, 35		
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	20 DA-A	20 DA-A	20 DA-A	35 DA-A	35 DA-A		
Days After Emergence	8 DE-1	8 DE-1	8 DE-1	8 DE-1	15 DE-1	15 DE-1	15 DE-1	30 DE-1	30 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9
1 Untreated Check		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		202	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		306	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		410	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 MON 301668	2200 mL-g/ha A	102	0.0	75.0	90.0	100.0	10.0	60.0	50.0	50.0	40.0
		204	0.0	98.0	98.0	100.0	10.0	90.0	85.0	80.0	75.0
		303	0.0	95.0	95.0	100.0	10.0	90.0	75.0	80.0	70.0
		409	0.0	75.0	95.0	98.0	5.0	70.0	65.0	70.0	60.0
		Mean =	0.0	85.8	94.5	99.5	8.8	77.5	68.8	70.0	61.3
3 MAULER		A 103	0.0	80.0	95.0	100.0	5.0	60.0	50.0	50.0	45.0
		201	0.0	80.0	100.0	100.0	0.0	60.0	60.0	50.0	55.0
		305	0.0	80.0	90.0	100.0	0.0	60.0	60.0	50.0	50.0
		407	0.0	60.0	95.0	100.0	0.0	70.0	65.0	50.0	50.0
		Mean =	0.0	75.0	95.0	100.0	1.3	62.5	58.8	50.0	50.0
4 WARRANT ULTRA		A 104	0.0	90.0	95.0	100.0	5.0	70.0	70.0	60.0	60.0
		212	0.0	85.0	95.0	100.0	10.0	95.0	95.0	85.0	85.0
		308	0.0	75.0	90.0	100.0	5.0	85.0	95.0	80.0	85.0
		412	0.0	75.0	90.0	100.0	5.0	75.0	90.0	80.0	80.0
		Mean =	0.0	81.3	92.5	100.0	6.3	81.3	87.5	76.3	77.5
5 FIERCE EZ		A 105	0.0	90.0	90.0	100.0	5.0	75.0	75.0	65.0	65.0
		207	0.0	95.0	98.0	100.0	5.0	95.0	98.0	85.0	90.0
		312	0.0	95.0	95.0	100.0	5.0	98.0	100.0	90.0	90.0
		405	0.0	98.0	95.0	100.0	0.0	95.0	100.0	90.0	90.0
		Mean =	0.0	94.5	94.5	100.0	3.8	90.8	93.3	82.5	83.8

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Pest Type		W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA		W, Weed AMBTR	W, Weed IPOSS	W, Weed AMBTR	W, Weed IPOSS		
Pest Code		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant ragweed	Morning glory		
Pest Name											
Crop Type, Code	C, GLXMA				C, GLXMA						
Crop Scientific Name	Glycine max				Glycine max						
Crop Name	Soybean				Soybean						
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-3-2021	6-3-2021	6-3-2021	6-18-2021	6-18-2021		
Part Rated											
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	9-13-2021	9-14-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021		
Rating Timing	14 DAA	14 DAA	14 DAA	14 DAA	21 DAA	21 DAA	21 DAA	35 DAA	35 DAA		
Days After First/Last Applic.	13, 13	13, 13	13, 13	13, 13	20, 20	20, 20	20, 20	35, 35	35, 35		
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	20 DA-A	20 DA-A	20 DA-A	35 DA-A	35 DA-A		
Days After Emergence	8 DE-1	8 DE-1	8 DE-1	8 DE-1	15 DE-1	15 DE-1	15 DE-1	30 DE-1	30 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9
6 VALOR EZ	A	106	0.0	90.0	90.0	95.0	0.0	75.0	85.0	65.0	80.0
		205	0.0	95.0	98.0	100.0	10.0	98.0	100.0	90.0	90.0
		304	0.0	90.0	95.0	100.0	0.0	90.0	90.0	80.0	85.0
		403	0.0	95.0	95.0	100.0	0.0	98.0	98.0	90.0	90.0
		Mean =	0.0	92.5	94.5	98.8	2.5	90.3	93.3	81.3	86.3
7 AUTHORITY MTZ	A	107	0.0	95.0	99.0	100.0	0.0	70.0	90.0	60.0	85.0
		213	0.0	90.0	95.0	100.0	0.0	70.0	95.0	60.0	85.0
		311	0.0	90.0	95.0	100.0	0.0	80.0	92.0	70.0	85.0
		404	0.0	70.0	95.0	100.0	0.0	50.0	98.0	50.0	90.0
		Mean =	0.0	86.3	96.0	100.0	0.0	67.5	93.8	60.0	86.3
8 MON 301668	A	108	0.0	90.0	90.0	100.0	5.0	80.0	90.0	70.0	80.0
MAULER	A	203	0.0	98.0	98.0	95.0	10.0	100.0	98.0	90.0	85.0
XTENDIMAX	A	309	0.0	90.0	95.0	100.0	5.0	95.0	95.0	90.0	85.0
MON 51817	A	413	0.0	90.0	95.0	100.0	10.0	95.0	100.0	90.0	90.0
		Mean =	0.0	92.0	94.5	98.8	7.5	92.5	95.8	85.0	85.0
9 MON 301668	A	109	0.0	95.0	100.0	100.0	10.0	95.0	98.0	90.0	90.0
XTENDIMAX	A	206	0.0	98.0	98.0	100.0	10.0	99.0	98.0	90.0	85.0
MON 51817	A	313	0.0	95.0	95.0	100.0	10.0	98.0	98.0	90.0	90.0
		402	0.0	90.0	95.0	100.0	5.0	90.0	90.0	80.0	80.0
		Mean =	0.0	94.5	97.0	100.0	8.8	95.5	96.0	87.5	86.3
10 WARRANT ULTRA	A	110	0.0	95.0	98.0	100.0	5.0	95.0	95.0	85.0	85.0
INTACT	A	211	0.0	90.0	95.0	100.0	5.0	95.0	95.0	85.0	85.0
XTENDIMAX	A	307	0.0	95.0	95.0	100.0	5.0	98.0	100.0	90.0	90.0
MON 51817	A	401	0.0	85.0	90.0	100.0	5.0	85.0	90.0	80.0	80.0
		Mean =	0.0	91.3	94.5	100.0	5.0	93.3	95.0	85.0	85.0

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Pest Type		W, Weed	W, Weed	W, Weed		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code		AMBTR	IPOSS	SETFA		AMBTR	IPOSS	AMBTR	IPOSS	IPOSS	
Pest Name		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant ragweed	Morning glory	Morning glory	
Crop Type, Code	C, GLXMA				C, GLXMA						
Crop Scientific Name	Glycine max				Glycine max						
Crop Name	Soybean				Soybean						
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-3-2021	6-3-2021	6-3-2021	6-18-2021	6-18-2021	6-18-2021	
Part Rated											
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Number of Subsamples	1	1	1	1	1	1	1	1	1	1	
Data Entry Date	9-13-2021	9-14-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	
Rating Timing	14 DAA	14 DAA	14 DAA	14 DAA	21 DAA	21 DAA	21 DAA	35 DAA	35 DAA	35 DAA	
Days After First/Last Applic.	13, 13	13, 13	13, 13	13, 13	20, 20	20, 20	20, 20	35, 35	35, 35	35, 35	
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	20 DA-A	20 DA-A	20 DA-A	35 DA-A	35 DA-A	35 DA-A	
Days After Emergence	8 DE-1	8 DE-1	8 DE-1	8 DE-1	15 DE-1	15 DE-1	15 DE-1	30 DE-1	30 DE-1	30 DE-1	
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9
11 FIERCE EZ	A 111	0.0	95.0	98.0	100.0	5.0	98.0	100.0	90.0	85.0	
XTENDIMAX	A 209	0.0	90.0	90.0	100.0	5.0	95.0	98.0	90.0	90.0	
MON 51817	A 310	0.0	95.0	98.0	100.0	5.0	98.0	98.0	85.0	95.0	
INTACT	A 408	0.0	40.0	90.0	98.0	5.0	95.0	100.0	85.0	90.0	
Mean =		0.0	80.0	94.0	99.5	5.0	96.5	99.0	87.5	90.0	
12 VALOR EZ	A 112	0.0	95.0	98.0	100.0	10.0	98.0	98.0	85.0	95.0	
XTENDIMAX	A 208	0.0	80.0	90.0	100.0	5.0	90.0	98.0	75.0	90.0	
MON 51817	A 302	0.0	95.0	95.0	100.0	5.0	99.0	98.0	80.0	90.0	
	411	0.0	85.0	100.0	100.0	5.0	95.0	100.0	80.0	95.0	
Mean =		0.0	88.8	95.8	100.0	6.3	95.5	98.5	80.0	92.5	
13 AUTHORITY MTZ	A 113	0.0	98.0	100.0	100.0	0.0	95.0	98.0	85.0	90.0	
XTENDIMAX	A 210	0.0	95.0	95.0	100.0	0.0	98.0	100.0	85.0	95.0	
MON 51817	A 301	0.0	90.0	95.0	100.0	0.0	90.0	95.0	75.0	90.0	
	406	0.0	95.0	100.0	100.0	0.0	95.0	98.0	80.0	85.0	
Mean =		0.0	94.5	97.5	100.0	0.0	94.5	97.8	81.3	90.0	

Pest Type
W, Weed = Weed or volunteer crop

Pest Code
AMBTR, Ambrosia trifida, Giant ragweed = US
IPOSS, Ipomoea sp., Morning glory = US
SETFA, Setaria faberi, Giant foxtail = US

Crop Type, Code
C = EPPO species (Bayer) codes
GLXMA, BSOY, Glycine max, Soybean = US

Rating Type
PHYGEN = phytotoxicity - general / injury
CONTRO = control / burndown or knockdown

Rating Unit/Min/Max
%, 0, 100 = percent

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Pest Type		W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA		W, Weed AMBTR	W, Weed IPOSS	W, Weed AMBTR	W, Weed IPOSS		
Pest Code		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant ragweed	Morning glory		
Pest Name											
Crop Type, Code	C, GLXMA				C, GLXMA						
Crop Scientific Name	Glycine max				Glycine max						
Crop Name	Soybean				Soybean						
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-3-2021	6-3-2021	6-3-2021	6-18-2021	6-18-2021		
Part Rated											
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	9-13-2021	9-14-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021	9-15-2021		
Rating Timing	14 DAA	14 DAA	14 DAA	14 DAA	21 DAA	21 DAA	21 DAA	35 DAA	35 DAA		
Days After First/Last Applic.	13, 13	13, 13	13, 13	13, 13	20, 20	20, 20	20, 20	35, 35	35, 35		
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	20 DA-A	20 DA-A	20 DA-A	35 DA-A	35 DA-A		
Days After Emergence	8 DE-1	8 DE-1	8 DE-1	8 DE-1	15 DE-1	15 DE-1	15 DE-1	30 DE-1	30 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7	8	9
No. Name	Rate Unit	Code									
13 AUTHORITY MTZ		A	0.0 a	94.5 a	97.5 a	100.0 a	0.0 e	94.5 a	97.8 a	81.3 a	90.0 a
XTENDIMAX		A									
MON 51817		A									
LSD P=.05				12.81	4.79	1.55	3.15	10.79	8.80	10.66	9.09
Standard Deviation	0.00			8.93	3.34	1.08	2.20	7.53	6.14	7.43	6.34
CV	0.0			10.99	3.81	1.18	51.97	9.43	7.41	10.43	8.46
Levene's F^				0.708	0.867	0.902	0.70	0.993	1.097	0.474	0.986
Levene's Prob(F)				0.735	0.586	0.553	0.742	0.473	0.39	0.918	0.479
Skewness^				-1.4987*	-0.4744	-2.4446*	0.8398*	-0.2977	-0.2594	-0.3845	-0.62
Kurtosis^				5.7218*	-0.5736	8.8389*	1.6264*	-0.5501	0.489	-0.6012	0.917
Replicate F	0.000			4.152	0.420	0.372	2.652	4.151	5.838	3.585	4.959
Replicate Prob(F)	1.0000			0.0126	0.7398	0.7737	0.0633	0.0126	0.0023	0.0229	0.0055
Treatment F	0.000			31.824	249.586	2610.791	8.735	49.336	81.488	42.208	65.202
Treatment Prob(F)	1.0000			0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

IPOSS, Ipomoea sp., Morning glory = US

SETFA, Setaria faberi, Giant foxtail = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

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ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT		
Trial ID: 21-27_SOY-REC	Location: UKREC 505-D1	Trial Year: 2021
Protocol ID: MKD-F-2021-US-D0G-B-00.0	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Tracy Rowlandson	
Sponsor Contact:		

Reps: 4 Plots: 6.67 by 30 feet
 Mix Size: 2 L

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Appl Amount	Amount Unit	Amt Product to Measure
1	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 fl oz/a	1260 g ai/ha	VA	A		15 GAL/AC		31.25 mL/m ²
	ADJUVANT-COC			OL	1.0 % v/v	1.0 % v/v	VA	A		15 GAL/AC		20.0 mL/mx
	CHECK						VA	A		15 GAL/AC		
2	ENGENIA PRIME	627.9	GA/L	SC	16.0 fl oz/a	734.0 g ai/ha	VA	A		15 GAL/AC		16.67 mL/m ²
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 fl oz/a	1260 g ai/ha	VA	A		15 GAL/AC		31.25 mL/m ²
	SENTRIS	703	GA/L	SL	8.0 fl oz/a		VA	A		15 GAL/AC		8.333 mL/m ²
	INDUCE	998	GA/L	TK	0.25 % v/v	0.25 % v/v	VA	A		15 GAL/AC		4.999 mL/m ²
3	TAVIUM PLUS VAPORGRIP	405	GA/L	CS	56.5 fl oz/a	1670.0 g ai/ha	VA	A		15 GAL/AC		58.85 mL/m ²
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 fl oz/a	1260.0 g ai/ha	VA	A		15 GAL/AC		31.25 mL/m ²
	SENTRIS	703	GA/L	SL	8.0 fl oz/a	410.0 g ai/ha	VA	A		15 GAL/AC		8.333 mL/m ²
	INDUCE	998	GA/L	TK	0.25 % v/v	0.25 % v/v	VA	A		15 GAL/AC		4.999 mL/m ²
4	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 fl oz/a	1260.0 g ai/ha	VA	A		15 GAL/AC		31.25 mL/m ²
	AUTHORITY SUPREME	500	GA/L	SC	6.5 fl oz/a	237.0 g ai/ha	VA	A		15 GAL/AC		6.771 mL/m ²
	ADJUVANT-COC			OL	1.0 % v/v	1.0 % v/v	VA	A		15 GAL/AC		20.0 mL/mx
5	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 fl oz/a	1260.0 g ai/ha	VA	A		15 GAL/AC		31.25 mL/m ²
	FIERCE	76	%	WG	3.75 oz wt/a	200.0 g ai/ha	VA	A		15 GAL/AC		3.745 g/mx
	ADJUVANT-COC			OL	1.0 % v/v	1.0 % v/v	VA	A		15 GAL/AC		20.0 mL/mx
6	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 fl oz/a	1260.0 g ai/ha	VA	A		15 GAL/AC		31.25 mL/m ²
	ZIDUA PRO	490	GA/L	SC	6.0 fl oz/a	215.0 g ai/ha	VA	A		15 GAL/AC		6.25 mL/mx
	ADJUVANT-COC			OL	1.0 % v/v	1.0 % v/v	VA	A		15 GAL/AC		20.0 mL/mx
7	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 fl oz/a	1260.0 g ai/ha	VA	A		15 GAL/AC		31.25 mL/m ²
	BOUNDARY 6.5 EC	780	GA/L	EC	32.0 fl oz/a	1820.0 g ai/ha	VA	A		15 GAL/AC		33.33 mL/m ²
	ADJUVANT-COC			OL	1.0 % v/v	1.0 % v/v	VA	A		15 GAL/AC		20.0 mL/mx
8	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 fl oz/a	1260.0 g ai/ha	VA	A		15 GAL/AC		31.25 mL/m ²
	ADJUVANT-COC			OL	1.0 % v/v	1.0 % v/v	VA	A		15 GAL/AC		20.0 mL/mx
	Sonic	70	%	DG	6.45 oz wt/a	316.0 g ai/ha	VA	A		15 GAL/AC		6.441 g/mx
9	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 fl oz/a	1260.0 g ai/ha	VA	A		15 GAL/AC		31.25 mL/m ²
	KYBER	316.8	GA/L	SC	16.0 fl oz/a	370.0 g ai/ha	VA	A		15 GAL/AC		16.67 mL/m ²
	ADJUVANT-COC			OL	1.0 % v/v	1.0 % v/v	VA	A		15 GAL/AC		20.0 mL/mx
10	ENGENIA PRIME	627.9	GA/L	SC	16.0 fl oz/a	734.0 g ai/ha	VA	A		15 GAL/AC		16.67 mL/m ²
	SENTRIS	703	GA/L	SL	8.0 fl oz/a		VA	A		15 GAL/AC		8.333 mL/m ²
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 fl oz/a	1260.0 g ai/ha	VA	A		15 GAL/AC		31.25 mL/m ²
	LIBERTY 280 SL	280	GA/L	SL	32.0 fl oz/a	655.0 g ai/ha	NA2	B		20 GAL/AC		25.0 mL/mx
	OUTLOOK	720	GA/L	EC	10.0 fl oz/a	526.0 g ai/ha	NA2	B		20 GAL/AC		7.812 mL/m ²
	AMS - Liquid	3.4	lba/gal	SL	3.0 lb ai/a	18.0 g/l	NA2	B		20 GAL/AC		88.23 mL/m ²

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
390.625	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
174.981	mL	ADJUVANT-COC			OL	
41.667	mL	ENGENIA PRIME	627.9	GA/L	SC	
31.250	mL	SENTRIS	703	GA/L	SL	
12.499	mL	INDUCE	998	GA/L	TK	
73.568	mL	TAVIUM PLUS VAPORGRIP	405	GA/L	CS	
8.464	mL	AUTHORITY SUPREME	500	GA/L	SC	
4.681	g	FIERCE	76	%	WG	

University of Kentucky

ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC Location: UKREC 505-D1 Trial Year: 2021
 Protocol ID: MKD-F-2021-US-D0G-B-00.0 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Tracy Rowlandson
 Sponsor Contact:

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
7.812	mL	ZIDUA PRO	490	GA/L	SC	
41.667	mL	BOUNDARY 6.5 EC	780	GA/L	EC	
8.051	g	Sonic	70	%	DG	
20.833	mL	KYBER	316.8	GA/L	SC	
31.250	mL	LIBERTY 280 SL	280	GA/L	SL	
9.766	mL	OUTLOOK	720	GA/L	EC	
110.282	mL	AMS - Liquid	3.4	lba/gal	SL	

* 'Per area' calculations based on application amount= 15,20 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15,20 GAL/AC, mix size= 2 L.

General Trial Information

Study Director: Tracy Rowlandson

Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established

ARM Trial Created On: Apr-2-2021

Trial Location

City: Princeton

State/Prov.: Kentucky

Postal Code: 42445

Latitude of LL Corner °: 37.10676 N

Longitude of LL Corner °: -87.82417 W

Conducted Under GLP: No

Conducted Under GEP: No

Objectives:

PRE residual performance of Engenia Prime vs. competitors in DT-soybean.

Contacts

Role: STYDIR study director

Study Director: Tracy Rowlandson

Role: INVEST investigator

Investigator: Travis Legleiter

Title: Assistant Extension Professor

Organization: University of Kentucky

Address 1: 348 University Drive

Phone No.: 859-562-1323

Country: USA United States

E-mail: Travis.Legleiter@uky.edu

City: Princeton, KY

Postal Code: 42445

Crop Description

Crop 1: C GLXMA Glycine max Soybean

Entry Date: Sep-21-2021

Stage Scale: BBCH

Variety: AG38XF1

Attributes: RR2XTEND

Planting Date: May-24-2021

Planting Rate: 140000 S/A

Depth: 1.25 IN

Planting Method: PLANTD planted

Row Spacing: 15 IN

Planting Equipment: KINZE

Soil Temperature: 80 F

Soil Moisture: DRY dry

University of Kentucky

ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC Location: UKREC 505-D1 Trial Year: 2021
 Protocol ID: MKD-F-2021-US-D0G-B-00.0 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Tracy Rowlandson
 Sponsor Contact:

Pest Description

Pest 1 Type: W **Code:** AMATU *Amaranthus tuberculatus* **Entry Date:** Sep-21-2021
Common Name: tall waterhemp **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 6.67 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 200.1 FT2 **Treatments:** 10 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Description	Rate	Rate Unit
1.	May-11-2021	HERB	Gramoxone	3	lba/gal	L		2.5	pt/a
2.	Apr-7-2021	FERT	Muriate of Potash 0-0-60	60	%	GR	0-0-60	133	lb/a
3.	Apr-7-2021	FERT	DAP	46	% P2O5	GR	18-46-0	146	lb/a

Soil Description

Description Name: 505-D1
% Sand: 10.7 **% OM:** 2.5 **Texture:** SIL silt loam
% Silt: 76 **pH:** 5.69 **Soil Name:** Sadler Silt Loam
% Clay: 13.2

Application Description

	A	B
Application Date	May-24-2021	Jun-14-2021
Appl. Start Time	5:25 PM	11:55 AM
Appl. Stop Time	5:47 PM	11:57 AM
Application Method	SP	SP
Application Timing	VA	NA2
Application Placement	SOIL	FOLIAR
Applied By	JLG	JLG
Appl. Entry Date	Sep-21-2021	Sep-21-2021
Air Temperature Start, Stop	88.1, 87 F	87.1, 86.9 F
% Relative Humidity Start, Stop	39.4, 40.2	42.6, 43.9
Wind Velocity+Dir. Start	3.2 MPH, SSE	3.8 MPH, NNW
Wind Velocity+Dir. Stop	2.4 MPH, S	4.3 MPH, N
Wind Velocity+Dir. Max	9.4 MPH, -	6.8 MPH, -
Wet Leaves (Y/N)	N, no	N, no
Soil Temperature	80 F	88.5 F
Soil Moisture	DRY	DRY
% Cloud Cover	40	10

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ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC Location: UKREC 505-D1 Trial Year: 2021
 Protocol ID: MKD-F-2021-US-D0G-B-00.0 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Tracy Rowlandson
 Sponsor Contact:

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Stage Majority, Percent		V1, -
Stage Minimum, Percent		V1, -
Stage Maximum, Percent		V1, -
Height Average		4.25 IN
Height Minimum, Maximum		2.75, 5.75

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMATU, W, BBCH	AMATU, W, BBCH
Height Average		0.5 IN
Height Minimum, Maximum		0.25, 0.75
Density Average		90.5 FT2
Density Minimum, Maximum		54, 122

Application Equipment

	A	B
Equipment Type	SPRBAC	SPRBAC
Operation Pressure	50 PSI	26 PSI
Nozzle Model	TurboTeeJetInduction	XR11003
Nozzle Type	TEEJAI	FLAFXR
Nozzle TradeName	TEEJET	XR TeeJet
Nozzle Tip Size, Color	015, Green	03, Blue
Nozzle Spacing	20.0 IN	20.0 IN
Boom ID	RED	ORANGE
Boom Length	6.7 FT	6.7 FT
Boom Height	18.0 IN	18.0 IN
Ground Speed	3 MPH	3 MPH
Carrier	H2O	H2O
Application Amount	15 GAL/AC	20 GAL/AC
Mix Overage	0 mL	0.0 mL
Mix Size	2.0 L	2.0 L
Propellant	COMCO2	COMCO2

Treatment Appl. Comments

Trt No Treatment Application Comment

10 At time of application there was a fair amount of deer feeding on soybeans.

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ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC	Location: UKREC 505-D1	Trial Year: 2021
Protocol ID: MKD-F-2021-US-D0G-B-00.0	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Tracy Rowlandson	
Sponsor Contact:		

Pest Type			W, Weed AMATA	W, Weed AMATA	
Pest Code			Amaranthus x ta>	Amaranthus x ta>	
Pest Scientific Name			common water he>	common water he>	
Pest Name					
Crop Type, Code	C, GLXMA				
Crop Name	Soybean				
Rating Date	Jun-10-2021		Jun-10-2021	Jun-14-2021	
SE Name	PHYTOX		CONTRO_1	CONTRO_1	
Part Rated	PLANT, C		PLANT, P	PLANT, P	
Rating Type	PHYGEN		CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100		%, 0, 100	%, 0, 100	
Reporting Basis	1 PLOT		1 PLOT	1 PLOT	
Number of Subsamples	1		1	1	
Crop Stage Scale	BBCH		BBCH	BBCH	
Assessed By	TL		TL	TL	
Days After First/Last Applic.	17, 17		17, 17	21, 21	
Trt-Eval Interval	17 DA-A		17 DA-A	0 DA-B	
ARM Action Codes			AA	ET8	
Trt Treatment No. Name	Rate	Appl Code	1	2	3
1 Roundup PowerMAX 3	30 fl oz/a	A 101	0.0	0.0	0.0
ADJUVANT-COC	1.0 % v/v	A 208	0.0	0.0	0.0
CHECK		A 306	0.0	0.0	0.0
		410	0.0	0.0	0.0
		Mean =	0.0	0.0d	0.0
2 ENGENIA PRIME	16.0 fl oz/a	A 102	0.0	100.0	90.0
Roundup PowerMAX 3	30 fl oz/a	A 207	0.0	100.0	95.0
SENTRIS	8.0 fl oz/a	A 310	0.0	100.0	90.0
INDUCE	0.25 % v/v	A 403	0.0	90.0	100.0
		Mean =	0.0	99.4d	93.8
3 TAVIUM PLUS VAPORGRIP	56.5 fl oz/a	A 103	0.0	80.0	60.0
Roundup PowerMAX 3	30 fl oz/a	A 204	0.0	80.0	65.0
SENTRIS	8.0 fl oz/a	A 301	0.0	80.0	80.0
INDUCE	0.25 % v/v	A 409	0.0	80.0	65.0
		Mean =	0.0	80.0d	67.5
4 Roundup PowerMAX 3	30 fl oz/a	A 104	0.0	100.0	90.0
AUTHORITY SUPREME	6.5 fl oz/a	A 206	0.0	100.0	90.0
ADJUVANT-COC	1.0 % v/v	A 309	0.0	100.0	90.0
		405	0.0	100.0	95.0
		Mean =	0.0	100.0d	91.3
5 Roundup PowerMAX 3	30 fl oz/a	A 105	0.0	100.0	100.0
FIERCE	3.75 oz wt/a	A 201	0.0	100.0	95.0
ADJUVANT-COC	1.0 % v/v	A 304	0.0	100.0	100.0
		408	0.0	100.0	95.0
		Mean =	0.0	100.0d	97.5
6 Roundup PowerMAX 3	30 fl oz/a	A 106	0.0	90.0	95.0
ZIDUA PRO	6.0 fl oz/a	A 203	0.0	90.0	80.0
ADJUVANT-COC	1.0 % v/v	A 305	0.0	100.0	90.0
		406	0.0	90.0	97.0
		Mean =	0.0	94.3d	90.5
7 Roundup PowerMAX 3	30 fl oz/a	A 107	0.0	90.0	55.0
BOUNDARY 6.5 EC	32.0 fl oz/a	A 210	0.0	80.0	80.0
ADJUVANT-COC	1.0 % v/v	A 308	0.0	95.0	90.0
		407	0.0	100.0	80.0
		Mean =	0.0	93.7d	76.3

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University of Kentucky

ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC	Location: UKREC 505-D1	Trial Year: 2021
Protocol ID: MKD-F-2021-US-D0G-B-00.0	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Tracy Rowlandson	
Sponsor Contact:		

Pest Type		W, Weed	W, Weed		
Pest Code		AMATA	AMATA		
Pest Scientific Name		Amaranthus x ta>	Amaranthus x ta>		
Pest Name		common water he>	common water he>		
Crop Type, Code	C, GLXMA				
Crop Name	Soybean				
Rating Date	Jun-10-2021	Jun-10-2021	Jun-14-2021		
SE Name	PHYTOX	CONTRO_1	CONTRO_1		
Part Rated	PLANT, C	PLANT, P	PLANT, P		
Rating Type	PHYGEN	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1		
Crop Stage Scale	BBCH	BBCH	BBCH		
Assessed By	TL	TL	TL		
Days After First/Last Applic.	17, 17	17, 17	21, 21		
Trt-Eval Interval	17 DA-A	17 DA-A	0 DA-B		
ARM Action Codes		AA	ET8		
Trt Treatment No. Name	Rate Unit	Appl Code Plot	1	2	3
8 Roundup PowerMAX 3	30 fl oz/a	A 108	0.0	50.0	25.0
ADJUVANT-COC	1.0 % v/v	A 209	0.0	50.0	20.0
Sonic	6.45 oz wt/a	A 303	0.0	80.0	75.0
		401	0.0	80.0	77.0
		Mean =	0.0	65.8d	49.3
9 Roundup PowerMAX 3	30 fl oz/a	A 109	0.0	100.0	95.0
KYBER	16.0 fl oz/a	A 202	0.0	90.0	75.0
ADJUVANT-COC	1.0 % v/v	A 307	0.0	100.0	87.0
		402	0.0	100.0	95.0
		Mean =	0.0	99.4d	88.0
10 ENGENIA PRIME	16.0 fl oz/a	A 110	0.0	100.0	85.0
SENTRIS	8.0 fl oz/a	A 205	0.0	100.0	90.0
Roundup PowerMAX 3	30 fl oz/a	A 302	0.0	95.0	90.0
LIBERTY 280 SL	32.0 fl oz/a	B 404	0.0	95.0	95.0
OUTLOOK	10.0 fl oz/a	B			
AMS - Liquid	3.0 lb ai/a	B			
		Mean =	0.0	98.7d	90.0

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University of Kentucky

ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC	Location: UKREC 505-D1	Trial Year: 2021
Protocol ID: MKD-F-2021-US-D0G-B-00.0	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Tracy Rowlandson	
	Sponsor Contact:	

Pest Type		W, Weed AMATA	W, Weed AMATA
Pest Code		Amaranthus x ta>	Amaranthus x ta>
Pest Scientific Name		common water he>	common water he>
Pest Name			
Crop Type, Code	C, GLXMA		
Crop Name	Soybean		
Rating Date	Jun-22-2021	Jun-22-2021	Jun-30-2021
SE Name	PHYTOX	CONTRO_1	CONTRO_1
Part Rated	PLANT, C	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Crop Stage Scale	BBCH	BBCH	BBCH
Assessed By	TL	TL	TL
Days After First/Last Applic.	29, 8	29, 8	37, 16
Trt-Eval Interval	8 DA-B	8 DA-B	16 DA-B
ARM Action Codes		EC	
Trt Treatment No. Name	Rate Unit	Appl Code Plot	
			4
			5
			6
1 Roundup PowerMAX 3	30 fl oz/a	A 101	0.0
ADJUVANT-COC	1.0 % v/v	A 208	0.0
CHECK		A 306	0.0
		410	0.0
		Mean =	0.0
2 ENGENIA PRIME	16.0 fl oz/a	A 102	0.0
Roundup PowerMAX 3	30 fl oz/a	A 207	0.0
SENTRIS	8.0 fl oz/a	A 310	0.0
INDUCE	0.25 % v/v	A 403	0.0
		Mean =	0.0
3 TAVIUM PLUS VAPORGRIP	56.5 fl oz/a	A 103	0.0
Roundup PowerMAX 3	30 fl oz/a	A 204	0.0
SENTRIS	8.0 fl oz/a	A 301	0.0
INDUCE	0.25 % v/v	A 409	0.0
		Mean =	0.0
4 Roundup PowerMAX 3	30 fl oz/a	A 104	0.0
AUTHORITY SUPREME	6.5 fl oz/a	A 206	0.0
ADJUVANT-COC	1.0 % v/v	A 309	0.0
		405	0.0
		Mean =	0.0
5 Roundup PowerMAX 3	30 fl oz/a	A 105	0.0
FIERCE	3.75 oz wt/a	A 201	0.0
ADJUVANT-COC	1.0 % v/v	A 304	0.0
		408	0.0
		Mean =	0.0
6 Roundup PowerMAX 3	30 fl oz/a	A 106	0.0
ZIDUA PRO	6.0 fl oz/a	A 203	0.0
ADJUVANT-COC	1.0 % v/v	A 305	0.0
		406	0.0
		Mean =	0.0
7 Roundup PowerMAX 3	30 fl oz/a	A 107	0.0
BOUNDARY 6.5 EC	32.0 fl oz/a	A 210	0.0
ADJUVANT-COC	1.0 % v/v	A 308	0.0
		407	0.0
		Mean =	0.0

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University of Kentucky

ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC	Location: UKREC 505-D1	Trial Year: 2021
Protocol ID: MKD-F-2021-US-D0G-B-00.0	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Tracy Rowlandson	
Sponsor Contact:		

		W, Weed AMATA Amaranthus x ta> common water he>	W, Weed AMATA Amaranthus x ta> common water he>
Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C, GLXMA		
Crop Name	Soybean		
Rating Date	Jun-22-2021	Jun-22-2021	Jun-30-2021
SE Name	PHYTOX	CONTRO_1	CONTRO_1
Part Rated	PLANT, C	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Crop Stage Scale	BBCH	BBCH	BBCH
Assessed By	TL	TL	TL
Days After First/Last Applic.	29, 8	29, 8	37, 16
Trt-Eval Interval	8 DA-B	8 DA-B	16 DA-B
ARM Action Codes		EC	
Trt Treatment No. Name	Rate Unit	Appl Code Plot	
			4
			5
			6
8 Roundup PowerMAX 3	30 fl oz/a	A 108	0.0
ADJUVANT-COC	1.0 % v/v	A 209	0.0
Sonic	6.45 oz wt/a	A 303	0.0
		401	0.0
		Mean =	0.0
9 Roundup PowerMAX 3	30 fl oz/a	A 109	0.0
KYBER	16.0 fl oz/a	A 202	0.0
ADJUVANT-COC	1.0 % v/v	A 307	0.0
		402	0.0
		Mean =	0.0
10 ENGENIA PRIME	16.0 fl oz/a	A 110	0.0
SENTRIS	8.0 fl oz/a	A 205	0.0
Roundup PowerMAX 3	30 fl oz/a	A 302	0.0
LIBERTY 280 SL	32.0 fl oz/a	B 404	0.0
OUTLOOK	10.0 fl oz/a	B	0.0
AMS - Liquid	3.0 lb ai/a	B	0.0
		Mean =	0.0

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University of Kentucky

ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC Location: UKREC 505-D1 Trial Year: 2021
 Protocol ID: MKD-F-2021-US-D0G-B-00.0 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Tracy Rowlandson
 Sponsor Contact:

Pest Type				W, Weed
Pest Code				AMATA
Pest Scientific Name				Amaranthus x ta>
Pest Name				common water he>
Crop Type, Code				
Crop Name				
Rating Date				Jul-13-2021
SE Name				CONTRO_1
Part Rated				PLANT, P
Rating Type				CONTRO
Rating Unit/Min/Max				%, 0, 100
Reporting Basis				1 PLOT
Number of Subsamples				1
Crop Stage Scale				BBCH
Assessed By				TL
Days After First/Last Applic.				50, 29
Trt-Eval Interval				29 DA-B
ARM Action Codes				
Trt Treatment No. Name	Rate	Appl		
	Rate Unit	Code Plot		7
1 Roundup PowerMAX 3	30 fl oz/a	A 101		0.0
ADJUVANT-COC	1.0 % v/v	A 208		0.0
CHECK		A 306		0.0
		410		0.0
		Mean =		0.0
2 ENGENIA PRIME	16.0 fl oz/a	A 102		0.0
Roundup PowerMAX 3	30 fl oz/a	A 207		0.0
SENTRIS	8.0 fl oz/a	A 310		0.0
INDUCE	0.25 % v/v	A 403		0.0
		Mean =		0.0
3 TAVIUM PLUS VAPORGRIP	56.5 fl oz/a	A 103		10.0
Roundup PowerMAX 3	30 fl oz/a	A 204		0.0
SENTRIS	8.0 fl oz/a	A 301		0.0
INDUCE	0.25 % v/v	A 409		0.0
		Mean =		2.5
4 Roundup PowerMAX 3	30 fl oz/a	A 104		0.0
AUTHORITY SUPREME	6.5 fl oz/a	A 206		0.0
ADJUVANT-COC	1.0 % v/v	A 309		0.0
		405		0.0
		Mean =		0.0
5 Roundup PowerMAX 3	30 fl oz/a	A 105		0.0
FIERCE	3.75 oz wt/a	A 201		0.0
ADJUVANT-COC	1.0 % v/v	A 304		0.0
		408		10.0
		Mean =		2.5
6 Roundup PowerMAX 3	30 fl oz/a	A 106		0.0
ZIDUA PRO	6.0 fl oz/a	A 203		0.0
ADJUVANT-COC	1.0 % v/v	A 305		0.0
		406		0.0
		Mean =		0.0
7 Roundup PowerMAX 3	30 fl oz/a	A 107		0.0
BOUNDARY 6.5 EC	32.0 fl oz/a	A 210		0.0
ADJUVANT-COC	1.0 % v/v	A 308		0.0
		407		0.0
		Mean =		0.0

d=Means are reported in de-transformed data units

University of Kentucky

ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC Location: UKREC 505-D1 Trial Year: 2021
 Protocol ID: MKD-F-2021-US-D0G-B-00.0 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Tracy Rowlandson
 Sponsor Contact:

Pest Type
 W, Weed = Weed or volunteer crop
Pest Code
 AMATA, Amaranthus x tamariscinus, common water hemp = US
Crop Type, Code
 C = EPPO species (Bayer) codes
 GLXMA, BSOY, Glycine max, Soybean = US
Part Rated
 PLANT = plant
 C = Crop is Part Rated
 P = Pest is Part Rated
Rating Type
 PHYGEN = phytotoxicity - general / injury
 CONTRO = control / burndown or knockdown
Rating Unit/Min/Max
 %, 0, 100 = percent

 PLOT = total plot
Crop Stage Scale
 BBCH = BBCH uniform plant stages
ARM Action Codes
 AA = Automatic arcsine square root % transformation
 ET8 = Excluded treatment 8
 EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

			W, Weed AMATA Amaranthus x ta> common water he>	W, Weed AMATA Amaranthus x ta> common water he>		
Pest Type						
Pest Code						
Pest Scientific Name						
Pest Name						
Crop Type, Code	C, GLXMA				C, GLXMA	
Crop Name	Soybean				Soybean	
Rating Date	Jun-10-2021		Jun-10-2021	Jun-14-2021	Jun-22-2021	
SE Name	PHYTOX		CONTRO_1	CONTRO_1	PHYTOX	
Part Rated	PLANT, C		PLANT, P	PLANT, P	PLANT, C	
Rating Type	PHYGEN		CONTRO	CONTRO	PHYGEN	
Rating Unit/Min/Max	%, 0, 100		%, 0, 100	%, 0, 100	%, 0, 100	
Reporting Basis	1 PLOT		1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1		1	1	1	
Crop Stage Scale	BBCH		BBCH	BBCH	BBCH	
Assessed By	TL		TL	TL	TL	
Days After First/Last Applic.	17, 17		17, 17	21, 21	29, 8	
Trt-Eval Interval	17 DA-A		17 DA-A	0 DA-B	8 DA-B	
ARM Action Codes			AA	ET8		
Trt Treatment No. Name	Rate Rate Unit	Appl Code	1	2 dAA	3	4
1 Roundup PowerMAX 3 ADJUVANT-COC CHECK	30 fl oz/a 1.0 % v/v A	A A A	0.0 a	0.0 d	0.0 c	0.0 a
2 ENGENIA PRIME Roundup PowerMAX 3 SENTRIS INDUCE	16.0 fl oz/a 30 fl oz/a 8.0 fl oz/a 0.25 % v/v	A A A A	0.0 a	99.4 a	93.8 a	0.0 a
3 TAVIUM PLUS VAPORGRIP Roundup PowerMAX 3 SENTRIS INDUCE	56.5 fl oz/a 30 fl oz/a 8.0 fl oz/a 0.25 % v/v	A A A A	0.0 a	80.0 bc	67.5 b	0.0 a
4 Roundup PowerMAX 3 AUTHORITY SUPREME ADJUVANT-COC	30 fl oz/a 6.5 fl oz/a 1.0 % v/v	A A A	0.0 a	100.0 a	91.3 a	0.0 a

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ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC	Location: UKREC 505-D1	Trial Year: 2021
Protocol ID: MKD-F-2021-US-D0G-B-00.0	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Tracy Rowlandson	
Sponsor Contact:		

Pest Type		W, Weed AMATA	W, Weed AMATA			
Pest Code		Amaranthus x ta>	Amaranthus x ta>			
Pest Scientific Name		common water he>	common water he>			
Pest Name						
Crop Type, Code	C, GLXMA			C, GLXMA		
Crop Name	Soybean			Soybean		
Rating Date	Jun-10-2021	Jun-10-2021	Jun-14-2021	Jun-22-2021		
SE Name	PHYTOX	CONTRO_1	CONTRO_1	PHYTOX		
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C		
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1		
Crop Stage Scale	BBCH	BBCH	BBCH	BBCH		
Assessed By	TL	TL	TL	TL		
Days After First/Last Applic.	17, 17	17, 17	21, 21	29, 8		
Trt-Eval Interval	17 DA-A	17 DA-A	0 DA-B	8 DA-B		
ARM Action Codes		AA	ET8			
Trt Treatment No. Name	Rate Unit	Appl Code	1	2	3	4
5 Roundup PowerMAX 3 FIERCE ADJUVANT-COC	30 fl oz/a 3.75 oz wt/a 1.0 % v/v	A A A	0.0 a	100.0 a	97.5 a	0.0 a
6 Roundup PowerMAX 3 ZIDUA PRO ADJUVANT-COC	30 fl oz/a 6.0 fl oz/a 1.0 % v/v	A A A	0.0 a	94.3 ab	90.5 a	0.0 a
7 Roundup PowerMAX 3 BOUNDARY 6.5 EC ADJUVANT-COC	30 fl oz/a 32.0 fl oz/a 1.0 % v/v	A A A	0.0 a	93.7 ab	76.3 b	0.0 a
8 Roundup PowerMAX 3 ADJUVANT-COC Sonic	30 fl oz/a 1.0 % v/v 6.45 oz wt/a	A A A	0.0 a	65.8 c	49.3	0.0 a
9 Roundup PowerMAX 3 KYBER ADJUVANT-COC	30 fl oz/a 16.0 fl oz/a 1.0 % v/v	A A A	0.0 a	99.4 a	88.0 a	0.0 a
10 ENGENIA PRIME SENTRIS Roundup PowerMAX 3 LIBERTY 280 SL OUTLOOK AMS - Liquid	16.0 fl oz/a 8.0 fl oz/a 30 fl oz/a 32.0 fl oz/a 10.0 fl oz/a 3.0 lb ai/a	A A A B B B	0.0 a	98.7 a	90.0 a	0.0 a
LSD P=.05			.	3.49 - 16.31	10.42	.
Standard Deviation			0.00	7.42t	7.14	0.00
CV			0.0	10.55t	9.25	0.0
Levene's F^			.	1.392	1.428	.
Levene's Prob(F)			.	0.235	0.23	.
Skewness^			.	-0.0313	-0.6294	.
Kurtosis^			.	0.0128	1.6601*	.
Replicate F			0.000	0.960	1.789	0.000
Replicate Prob(F)			1.0000	0.4256	0.1761	1.0000
Treatment F			0.000	54.217	72.529	0.000
Treatment Prob(F)			1.0000	0.0001	0.0001	1.0000

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ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC	Location: UKREC 505-D1	Trial Year: 2021
Protocol ID: MKD-F-2021-US-D0G-B-00.0	Investigator (Creator): Travis Legleiter	
Project ID:	Study Director: Tracy Rowlandson	
	Sponsor Contact:	

Pest Type	W, Weed	W, Weed	W, Weed	
Pest Code	AMATA	AMATA	AMATA	
Pest Scientific Name	Amaranthus x ta>	Amaranthus x ta>	Amaranthus x ta>	
Pest Name	common water he>	common water he>	common water he>	
Crop Type, Code				
Crop Name				
Rating Date	Jun-22-2021	Jun-30-2021	Jul-13-2021	
SE Name	CONTRO_1	CONTRO_1	CONTRO_1	
Part Rated	PLANT, P	PLANT, P	PLANT, P	
Rating Type	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	
Crop Stage Scale	BBCH	BBCH	BBCH	
Assessed By	TL	TL	TL	
Days After First/Last Applic.	29, 8	37, 16	50, 29	
Trt-Eval Interval	8 DA-B	16 DA-B	29 DA-B	
ARM Action Codes	EC			
Trt Treatment	Rate	Appl	5	6
No. Name	Rate Unit	Code		
1 Roundup PowerMAX 3	30 fl oz/a	A	0.0	0.0 b
ADJUVANT-COC	1.0 % v/v	A		
CHECK		A		
2 ENGENIA PRIME	16.0 fl oz/a	A	58.8 bc	2.5 b
Roundup PowerMAX 3	30 fl oz/a	A		
SENTRIS	8.0 fl oz/a	A		
INDUCE	0.25 % v/v	A		
3 TAVIUM PLUS VAPORGRIP	56.5 fl oz/a	A	8.8 e	0.0 b
Roundup PowerMAX 3	30 fl oz/a	A		
SENTRIS	8.0 fl oz/a	A		
INDUCE	0.25 % v/v	A		
4 Roundup PowerMAX 3	30 fl oz/a	A	71.3 b	6.3 b
AUTHORITY SUPREME	6.5 fl oz/a	A		
ADJUVANT-COC	1.0 % v/v	A		

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ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC Location: UKREC 505-D1 Trial Year: 2021
 Protocol ID: MKD-F-2021-US-D0G-B-00.0 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Tracy Rowlandson
 Sponsor Contact:

Pest Type	W, Weed		
Pest Code	AMATA		
Pest Scientific Name	Amaranthus x ta>		
Pest Name	common water he>		
Crop Type, Code			
Crop Name			
Rating Date	Jun-22-2021	Jun-30-2021	Jul-13-2021
SE Name	CONTRO_1	CONTRO_1	CONTRO_1
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Crop Stage Scale	BBCH	BBCH	BBCH
Assessed By	TL	TL	TL
Days After First/Last Applic.	29, 8	37, 16	50, 29
Trt-Eval Interval	8 DA-B	16 DA-B	29 DA-B
ARM Action Codes	EC		
Trt Treatment	5	6	7
No. Name	Rate Unit	Appl Code	
5 Roundup PowerMAX 3	30 fl oz/a	A	73.8 b
FIERCE	3.75 oz wt/a	A	16.3 b
ADJUVANT-COC	1.0 % v/v	A	2.5 b
6 Roundup PowerMAX 3	30 fl oz/a	A	52.5 c
ZIDUA PRO	6.0 fl oz/a	A	5.0 b
ADJUVANT-COC	1.0 % v/v	A	0.0 b
7 Roundup PowerMAX 3	30 fl oz/a	A	31.3 d
BOUNDARY 6.5 EC	32.0 fl oz/a	A	0.0 b
ADJUVANT-COC	1.0 % v/v	A	0.0 b
8 Roundup PowerMAX 3	30 fl oz/a	A	15.0 de
ADJUVANT-COC	1.0 % v/v	A	1.3 b
Sonic	6.45 oz wt/a	A	0.0 b
9 Roundup PowerMAX 3	30 fl oz/a	A	30.0 d
KYBER	16.0 fl oz/a	A	0.0 b
ADJUVANT-COC	1.0 % v/v	A	0.0 b
10 ENGENIA PRIME	16.0 fl oz/a	A	100.0 a
SENTRIS	8.0 fl oz/a	A	88.8 a
Roundup PowerMAX 3	30 fl oz/a	A	50.0 a
LIBERTY 280 SL	32.0 fl oz/a	B	
OUTLOOK	10.0 fl oz/a	B	
AMS - Liquid	3.0 lb ai/a	B	
LSD P=.05	13.81		3.30
Standard Deviation	9.46		2.28
CV	19.31		41.4
Levene's F^	0.824		0.749
Levene's Prob(F)	0.589		0.663
Skewness^	0.3086		2.381*
Kurtosis^	-0.6114		8.429*
Replicate F	3.419		0.643
Replicate Prob(F)	0.0334		0.5941
Treatment F	40.566		189.429
Treatment Prob(F)	0.0001		0.0001

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ENGENIA PRIME VS. COMPETITORS / PRE / ALL SOILS / NT

Trial ID: 21-27_SOY-REC Location: UKREC 505-D1 Trial Year: 2021
 Protocol ID: MKD-H-2021-US-D0G-B-00.0 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Tracy Rowlandson
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMATA, Amaranthus x tamariscinus, common water hemp = US

Crop Type Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

Crop Stage Scale

BBCH = BBCH uniform plant stages

ARM Action Codes

AA = Automatic arcsine square root % transformation

ET8 = Excluded treatment 8

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

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ENGENIA PRIME VS. COMPETITORS / VEPOST / ALL SOILS

Trial ID: 21-28_SOY-REC Location: UKREC 505-D4 Trial Year: 2021
 Protocol ID: MKD-F-2021-US-D0H-A-99.0 Investigator (Creator): Travis Legleiter
 Project ID: Study Director: Greg Stapleton
 Sponsor Contact:

Reps: 4 Plots: 6.67 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.0433 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	CHECK								NA1	A			101	208	302	406
2	ENGENIA PRIME	627.9	GAL/L	SC	16.0	FL OZ/A	734.0	g AI/ha	NA1	A	16.69	mL/mx	102	201	307	404
	Roundup PowerMAX 3	4.8	LB AE/GAL	SL	30	FL OZ/A	1260	g AI/ha	NA1	A	31.23	mL/mx				
	SENTRIS	703	GAL/L	SL	8.0	FL OZ/A			NA1	A	8.333	mL/mx				
	NIS	998	GAL/L	TK	0.25	% V/V			NA1	A	4.999	mL/mx				
3	XTENDIMAX WITH VAPORGRIP TECHN WARRANT	350	GAL/L	SL	22.0	FL OZ/A	560.0	g AI/ha	NA1	A	22.84	mL/mx	103	204	301	402
	Roundup PowerMAX 3	360	GAL/L	CS	48.0	FL OZ/A	1260.0	g AI/ha	NA1	A	49.96	mL/mx				
	SENTRIS	4.8	LB AE/GAL	SL	30	FL OZ/A	1260.0	g AI/ha	NA1	A	31.23	mL/mx				
	NIS	703	GAL/L	SL	8.0	FL OZ/A			NA1	A	8.333	mL/mx				
	NIS	998	GAL/L	TK	0.25	% V/V			NA1	A	4.999	mL/mx				
4	TAVIUM PLUS VAPORGRIP	405	GAL/L	CS	56.5	FL OZ/A	1670.0	g AI/ha	NA1	A	58.86	mL/mx	104	203	306	408
	Roundup PowerMAX 3	4.8	LB AE/GAL	SL	30	FL OZ/A	1260.0	g AI/ha	NA1	A	31.23	mL/mx				
	SENTRIS	703	GAL/L	SL					NA1	A						
	NIS	998	GAL/L	TK	0.25	% V/V			NA1	A	4.999	mL/mx				
5	PREFIX	634.8	GAL/L	ME	32.0	FL OZ/A	1484.0	g AI/ha	NA1	A	33.37	mL/mx	105	207	304	407
	Roundup PowerMAX 3	4.8	LB AE/GAL	SL	30	FL OZ/A	1260.0	g AI/ha	NA1	A	31.23	mL/mx				
	ADJUVANT-COC			OL	1.0	% V/V			NA1	A	20.0	mL/mx				
6	ANTHEM MAXX	516	GAL/L	SC	3.25	FL OZ/A	122.5	g AI/ha	NA1	A	3.389	mL/mx	106	205	308	403
	Roundup PowerMAX 3	4.8	LB AE/GAL	SL	30	FL OZ/A	1260.0	g AI/ha	NA1	A	31.23	mL/mx				
	ADJUVANT-COC			OL	1.0	% V/V			NA1	A	20.0	mL/mx				
7	ENGENIA	600	GAL/L	SL	16.0	FL OZ/A	700.0	g AI/ha	NA1	A	16.65	mL/mx	107	202	303	405
	ZIDUA SC	500	GAL/L	SC	3.25	FL OZ/A				A	3.385	mL/mx				
	Roundup PowerMAX 3	4.8	LB AE/GAL	SL	30	FL OZ/A	1260.0	g AI/ha	NA1	A	31.23	mL/mx				
	SENTRIS	703	GAL/L	SL	8.0	FL OZ/A			NA1	A	8.333	mL/mx				
	NIS	998	GAL/L	TK	0.25	% V/V			NA1	A	4.999	mL/mx				
8	ENGENIA	600	GAL/L	SL	16.0	FL OZ/A	700.0	g AI/ha	NA1	A	16.65	mL/mx	108	206	305	401
	OUTLOOK	720	GAL/L	EC	14	FL OZ/A				A	14.58	mL/mx				
	Roundup PowerMAX 3	4.8	LB AE/GAL	SL	30	FL OZ/A	1260.0	g AI/ha	NA1	A	31.23	mL/mx				
	SENTRIS	703	GAL/L	SL	8.0	FL OZ/A			NA1	A	8.333	mL/mx				
	NIS	998	GAL/L	TK	0.25	% V/V			NA1	A	4.999	mL/mx				

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

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Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
20.859	mL	ENGENIA PRIME	627.9	GA/L	SC	
273.230	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
41.667	mL	SENTRIS	703	GA/L	SL	
31.247	mL	NIS	998	GA/L	TK	
28.550	mL	XTENDIMAX WITH VAPORGRIP TECHN	350	GA/L	SL	
62.453	mL	WARRANT	360	GA/L	CS	
73.577	mL	TAVIUM PLUS VAPORGRIP	405	GA/L	CS	
41.714	mL	PREFIX	634.8	GA/L	ME	
49.995	mL	ADJUVANT-COC			OL	
4.236	mL	ANTHEM MAXX	516	GA/L	SC	
41.635	mL	ENGENIA	600	GA/L	SL	
4.232	mL	ZIDUA SC	500	GA/L	SC	
18.229	mL	OUTLOOK	720	GA/L	EC	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

General Trial Information

Study Director: Greg Stapleton

Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established

ARM Trial Created On: 4-2-2021

Trial Location

City: Princeton **Country:** USA United States

State/Prov.: Kentucky

Postal Code: 42445

Latitude of LL Corner °: 37.10749 N

Longitude of LL Corner °: -87.82442 W

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director

Study Director: Greg Stapleton

Role: INVEST investigator

Investigator: Travis Legleiter

Title: Assistant Extension Professor

Organization: University of Kentucky

Address 1: 348 University Drive

Phone No.: 859-562-1323

Country: USA United States

E-mail: Travis.Legleiter@uky.edu

City: Princeton, KY

Postal Code: 42445

Crop Description

Crop 1: C GLXMA Glycine max

Soybean

BBCH Scale: BSOY

Entry Date: 9-21-2021

Stage Scale: BBCH

Variety: AG38XF1

Attributes: RR2XTENDFLEX

Planting Date: 5-24-2021

Planting Rate: 140000 S/A

Depth: 1 IN

Planting Method: PLANTD planted

Row Spacing: 15 IN

Planting Equipment: KINZE

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Pest Description

- Pest 1** Type: W Code: AMAPA Amaranthus palmeri Entry Date: 9-21-2021
Common Name: amaranth, Palmer Stage Scale: BBCH
- Pest 2** Type: W Code: ELEIN Eleusine indica Entry Date: 9-21-2021
Common Name: goosegrass Stage Scale: BBCH
- Pest 3** Type: W Code: DIGSA Digitaria sanguinalis Entry Date: 9-21-2021
Common Name: crabgrass, large Stage Scale: BBCH
- Pest 4** Type: W Code: OXAST Oxalis stricta Entry Date: 9-21-2021
Common Name: woodsorrel, yellow Stage Scale: BBCH
- Pest 5** Type: W Code: ERICA Conyza canadensis Entry Date: 9-21-2021
Common Name: horseweed Stage Scale: BBCH
- Pest 6** Type: W Code: ERIAN Erigeron annuus Entry Date: 9-21-2021
Common Name: fleabane, annual Stage Scale: BBCH
- Pest 7** Type: W Code: AMBEL Ambrosia artemisiifolia Entry Date: 9-21-2021
Common Name: ragweed, common Stage Scale: BBCH

Site and Design

Treated Plot Width: 6.67 FT Site Type: FIELD field
Treated Plot Length: 30 FT Experimental Unit: 1 PLOT plot
Treated Plot Area: 200.1 FT² Treatments: 8 Tillage Type: NOTILL no-till
Replications: 4 Study Design: RACOB� Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type Description	Rate	Unit
1.	5-11-2021	HERB	Gramoxone	3.0	lba/gal	L	2.5	pt/a
2.	4-7-2021	FERT	Muriate of Potash 0-0-60	60.0	%	GR 0-0-60	133	lb/a
3.	4-7-2021	FERT	DAP	46.0	% P2O5	GR 18-46-0	146	lb/a

Soil Description

Description Name: 505-D1
% Sand: 10.7 % OM: 2.5 Texture: SIL silt loam
% Silt: 76 pH: 5.69 Soil Name: Sadler Silt Loam
% Clay: 13.2

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Application Description

Application Date 6-7-2021 **A**
Appl. Start Time 5:58 PM
Appl. Stop Time 6:17 PM
Application Method SP
Application Timing NA1
Application Placement FOLIAR
Applied By JLG
Appl. Entry Date 9-21-2021
Air Temperature Start, Stop 78.2, 79.1 F
% Relative Humidity Start, Stop 68.6, 72.3
Wind Velocity+Dir. Start 2.2 MPH, SSW
Wind Velocity+Dir. Stop 0.7 MPH, SSW
Wind Velocity+Dir. Max 7.9 MPH, SSW
Wet Leaves (Y/N) N, no
Soil Temperature 75 F
Soil Moisture WET
% Cloud Cover 90

Crop Stage At Each Application

Crop 1 Code, BBCH Scale GLXMA, BSOY **A**
Stage Majority, Percent VC, -
Stage Minimum, Percent VC, -
Stage Maximum, Percent VC, -
Height Average 2.75 IN
Height Minimum, Maximum 2, 3.5

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Pest Stage At Each Application

A

Pest 1 Code, Type, Scale	AMAPA, W, BBCH
Height Average	0.75 IN
Height Minimum, Maximum	0.25, 1.25
Density Average	49.88 FT2
Density Minimum, Maximum	1, 130
Pest 2 Code, Type, Scale	ELEIN, W, BBCH
Height Average	0.875 IN
Height Minimum, Maximum	0.25, 1.5
Density Average	62.75 FT2
Density Minimum, Maximum	7, 169
Pest 3 Code, Type, Scale	DIGSA, W, BBCH
Height Average	0.75 IN
Height Minimum, Maximum	0.25, 1.25
Density Average	3 FT2
Density Minimum, Maximum	1, 21
Pest 4 Code, Type, Scale	OXAST, W, BBCH
Height Average	0.25 IN
Height Minimum, Maximum	0.25, 0.25
Density Average	0.25 FT2
Density Minimum, Maximum	1, 1
Pest 5 Code, Type, Scale	ERICA, W, BBCH
Height Average	0.375 IN
Height Minimum, Maximum	0.25, 0.5
Density Average	0.63 FT2
Density Minimum, Maximum	1, 4
Pest 6 Code, Type, Scale	ERIAN, W, BBCH
Height Average	0.75 IN
Height Minimum, Maximum	0.5, 1
Density Average	0.38 FT2
Density Minimum, Maximum	0, 3
Pest 7 Code, Type, Scale	AMBEL, W, BBCH
Height Average	0.25 IN
Height Minimum, Maximum	0.1, 0.5
Density Average	0.13 FT2
Density Minimum, Maximum	0, 1

Application Equipment

A

Equipment Type	SPRBAC
Operation Pressure	50 PSI
Nozzle Model	TurboTeeJetInduction
Nozzle Type	TEEJAI
Nozzle TradeName	TEEJET
Nozzle Tip Size, Color	015, Green
Nozzle Spacing	20.0 IN
Boom ID	BLACK
Boom Length	6.7 FT
Boom Height	18.0 IN
Ground Speed	3 MPH
Carrier	H2O
Application Amount	15 GAL/AC
Mix Size	2.0 L
Propellant	COMCO2

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Notes

Context Date By
 STATUS 4-2-2021 Travis Legleiter Automatically added by ARM: Trial Status updated to 'S' during trial creation.
 STATUS 9-21-2021 Travis Legleiter Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

Notes

Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMAPA	DIGSA	ELEIN	AMAPA	DIGSA	ELEIN
Pest Scientific Name		Amaranthus palm>	Digitaria sangu>	Eleusine indica	Amaranthus palm>	Digitaria sangu>	Eleusine indica
Pest Name		Palmer amaranth	crabgrass	Goosegrass	Palmer amaranth	crabgrass	Goosegrass
Crop Type, Code	C, GLXMA						
BBCH Scale	BSOY						
Crop Scientific Name	Glycine max						
Crop Name	Soybean						
Rating Date	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-30-2021	6-30-2021	6-30-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Assessed By	TL	TL	TL	TL	TL	TL	TL
Rating Timing							
Days After First/Last Applic.	15, 15	15, 15	15, 15	15, 15	23, 23	23, 23	23, 23
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	15 DA-A	23 DA-A	23 DA-A	23 DA-A
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	29 DP-1	37 DP-1	37 DP-1	37 DP-1
Days After Emergence							
ARM Action Codes		ET4		AA	AA	EC	
Number of Decimals							

Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7
1 CHECK		A 101	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		208	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		302	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		406	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0d	0.0d	0.0	0.0
2 ENGENIA PRIME	16.0 FL OZ/A	A 102	0.0	100.0	97.0	100.0	90.0	90.0	95.0
Roundup PowerMAX 3	30 FL OZ/A	A 201	0.0	100.0	100.0	97.0	90.0	90.0	90.0
SENTRIS	8.0 FL OZ/A	A 307	0.0	100.0	100.0	97.0	80.0	97.0	80.0
NIS	0.25 % V/V	A 404	0.0	100.0	100.0	100.0	80.0	95.0	80.0
		Mean =	0.0	100.0	99.3	99.2d	85.4d	93.0	86.3
3 XTENDIMAX WITH VAPORGRIP TECHN	22.0 FL OZ/A	A 103	0.0	100.0	100.0	90.0	70.0	100.0	0.0
WARRANT	48.0 FL OZ/A	A 204	0.0	95.0	100.0	50.0	80.0	95.0	0.0
Roundup PowerMAX 3	30 FL OZ/A	A 301	0.0	100.0	100.0	70.0	80.0	100.0	0.0
SENTRIS	8.0 FL OZ/A	A 402	0.0	95.0	100.0	25.0	95.0	95.0	0.0
NIS	0.25 % V/V	A							
		Mean =	0.0	97.5	100.0	60.1d	82.4d	97.5	0.0
4 TAVIUM PLUS VAPORGRIP	56.5 FL OZ/A	A 104	0.0	80.0	100.0	100.0	0.0	100.0	100.0
Roundup PowerMAX 3	30 FL OZ/A	A 203	0.0	90.0	100.0	100.0	50.0	90.0	90.0
SENTRIS	A	A 306	0.0	60.0	100.0	97.0	0.0	100.0	90.0
NIS	0.25 % V/V	A 408	0.0	90.0	100.0	97.0	70.0	95.0	95.0
		Mean =	0.0	80.0	100.0	99.2d	18.5d	96.3	93.8

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMAPA	DIGSA	ELEIN	AMAPA	DIGSA	ELEIN
Pest Scientific Name		Amaranthus palm>	Digitaria sangu>	Eleusine indica	Amaranthus palm>	Digitaria sangu>	Eleusine indica
Pest Name		Palmer amaranth	crabgrass	Goosegrass	Palmer amaranth	crabgrass	Goosegrass
Crop Type, Code	C, GLXMA						
BBCH Scale	BSOY						
Crop Scientific Name	Glycine max						
Crop Name	Soybean						
Rating Date	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-30-2021	6-30-2021	6-30-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Assessed By	TL	TL	TL	TL	TL	TL	TL
Rating Timing							
Days After First/Last Applic.	15, 15	15, 15	15, 15	15, 15	23, 23	23, 23	23, 23
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	15 DA-A	23 DA-A	23 DA-A	23 DA-A
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	29 DP-1	37 DP-1	37 DP-1	37 DP-1
Days After Emergence							
ARM Action Codes		ET4		AA	AA	EC	
Number of Decimals							

Trt	Treatment	Rate	Appl	1	2	3	4	5	6	7
No.	Name	Rate Unit	Code Plot							
5	PREFIX	32.0 FL OZ/A	A 105	0.0	100.0	100.0	97.0	80.0	100.0	95.0
	Roundup PowerMAX 3	30 FL OZ/A	A 207	0.0	80.0	100.0	100.0	50.0	90.0	90.0
	ADJUVANT-COC	1.0 % V/V	A 304	0.0	86.0	100.0	100.0	80.0	97.0	90.0
			A 407	0.0	98.0	100.0	97.0	70.0	90.0	50.0
			Mean =	0.0	91.0	100.0	99.2d	70.6d	94.3	81.3
6	ANTHEM MAXX	3.25 FL OZ/A	A 106	0.0	80.0	100.0	100.0	20.0	100.0	100.0
	Roundup PowerMAX 3	30 FL OZ/A	A 205	0.0	75.0	100.0	100.0	20.0	100.0	100.0
	ADJUVANT-COC	1.0 % V/V	A 308	0.0	60.0	100.0	100.0	0.0	95.0	95.0
			A 403	0.0	60.0	100.0	80.0	10.0	95.0	90.0
			Mean =	0.0	68.8	100.0	98.7d	9.4d	97.5	96.3
7	ENGENIA	16.0 FL OZ/A	A 107	0.0	80.0	100.0	97.0	25.0	100.0	100.0
	ZIDUA SC	3.25 FL OZ/A	A 202	0.0	85.0	100.0	100.0	50.0	95.0	95.0
	Roundup PowerMAX 3	30 FL OZ/A	A 303	0.0	90.0	100.0	100.0	50.0	95.0	95.0
	SENTRIS	8.0 FL OZ/A	A 405	0.0	80.0	100.0	100.0	50.0	90.0	90.0
	NIS	0.25 % V/V	A							
			Mean =	0.0	83.8	100.0	99.8d	43.5d	95.0	95.0
8	ENGENIA	16.0 FL OZ/A	A 108	0.0	80.0	100.0	100.0	5.0	95.0	95.0
	OUTLOOK	14 FL OZ/A	A 206	0.0	70.0	100.0	100.0	0.0	90.0	90.0
	Roundup PowerMAX 3	30 FL OZ/A	A 305	0.0	75.0	100.0	100.0	0.0	90.0	85.0
	SENTRIS	8.0 FL OZ/A	A 401	0.0	80.0	100.0	97.0	50.0	95.0	80.0
	NIS	0.25 % V/V	A							
			Mean =	0.0	76.3	100.0	99.8d	6.3d	92.5	87.5

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMAPA	DIGSA	ELEIN	AMAPA	DIGSA	ELEIN	AMAPA
Pest Scientific Name	Amaranthus palm>	Digitaria sangu>	Eleusine indica	Amaranthus palm>	Digitaria sangu>	Eleusine indica	Amaranthus palm>
Pest Name	Palmer amaranth	crabgrass	Goosegrass	Palmer amaranth	crabgrass	Goosegrass	Palmer amaranth
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date	7-9-2021	7-9-2021	7-9-2021	7-13-2021	7-13-2021	7-13-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Assessed By	TL	TL	TL	TL	TL	TL	TL
Rating Timing							
Days After First/Last Applic.	32, 32	32, 32	32, 32	36, 36	36, 36	36, 36	45, 45
Trt-Eval Interval	32 DA-A	32 DA-A	32 DA-A	36 DA-A	36 DA-A	36 DA-A	45 DA-A
Plant-Eval Interval	46 DP-1	46 DP-1	46 DP-1	50 DP-1	50 DP-1	50 DP-1	59 DP-1
Days After Emergence							
ARM Action Codes			AS		ET2		AL
Number of Decimals							

Trt	Treatment	Rate	Appl	8	9	10	11	12	13	14
No.	Name	Rate Unit	Code Plot							
1	CHECK		A 101	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			208	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			302	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			406	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0d	0.0	0.0	0.0	0.0d
2	ENGENIA PRIME	16.0 FL OZ/A	A 102	70.0	60.0	60.0	80.0	50.0	50.0	80.0
	Roundup PowerMAX 3	30 FL OZ/A	A 201	50.0	95.0	50.0	80.0	90.0	25.0	70.0
	SENTRIS	8.0 FL OZ/A	A 307	50.0	90.0	70.0	80.0	25.0	70.0	50.0
	NIS	0.25 % V/V	A 404	90.0	95.0	0.0	80.0	90.0	0.0	70.0
			Mean =	65.0	85.0	35.5d	80.0	63.8	36.3	66.6d
3	XTENDIMAX WITH VAPORGRIP TECHN	22.0 FL OZ/A	A 103	70.0	80.0	0.0	80.0	90.0	0.0	80.0
	WARRANT	48.0 FL OZ/A	A 204	70.0	95.0	0.0	80.0	90.0	0.0	90.0
	Roundup PowerMAX 3	30 FL OZ/A	A 301	70.0	95.0	0.0	90.0	90.0	0.0	90.0
	SENTRIS	8.0 FL OZ/A	A 402	90.0	96.0	0.0	90.0	90.0	0.0	90.0
	NIS	0.25 % V/V	A							
			Mean =	75.0	91.5	0.0d	85.0	90.0	0.0	87.4d
4	TAVIUM PLUS VAPORGRIP	56.5 FL OZ/A	A 104	0.0	100.0	100.0	0.0	100.0	90.0	0.0
	Roundup PowerMAX 3	30 FL OZ/A	A 203	0.0	90.0	90.0	0.0	80.0	80.0	0.0
	SENTRIS		A 306	0.0	90.0	90.0	0.0	95.0	85.0	0.0
	NIS	0.25 % V/V	A 408	0.0	50.0	90.0	0.0	50.0	80.0	0.0
			Mean =	0.0	82.5	92.5d	0.0	81.3	83.8	0.0d

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMAPA	DIGSA	ELEIN	AMAPA	DIGSA	ELEIN	AMAPA
Pest Scientific Name	Amaranthus palm>	Digitaria sangu>	Eleusine indica	Amaranthus palm>	Digitaria sangu>	Eleusine indica	Amaranthus palm>
Pest Name	Palmer amaranth	crabgrass	Goosegrass	Palmer amaranth	crabgrass	Goosegrass	Palmer amaranth
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date	7-9-2021	7-9-2021	7-9-2021	7-13-2021	7-13-2021	7-13-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Assessed By	TL	TL	TL	TL	TL	TL	TL
Rating Timing							
Days After First/Last Applic.	32, 32	32, 32	32, 32	36, 36	36, 36	36, 36	45, 45
Trt-Eval Interval	32 DA-A	32 DA-A	32 DA-A	36 DA-A	36 DA-A	36 DA-A	45 DA-A
Plant-Eval Interval	46 DP-1	46 DP-1	46 DP-1	50 DP-1	50 DP-1	50 DP-1	59 DP-1
Days After Emergence							
ARM Action Codes			AS		ET2		AL
Number of Decimals							

Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot	8	9	10	11	12	13	14
5 PREFIX	32.0 FL OZ/A	A 105	50.0	100.0	90.0	10.0	90.0	90.0	60.0
Roundup PowerMAX 3	30 FL OZ/A	A 207	0.0	70.0	100.0	0.0	80.0	96.0	0.0
ADJUVANT-COC	1.0 % V/V	A 304	25.0	90.0	50.0	50.0	80.0	25.0	50.0
		A 407	0.0	25.0	25.0	70.0	35.0	25.0	50.0
		Mean =	18.8	71.3	62.3d	32.5	71.3	59.0	19.0d
6 ANTHEM MAXX	3.25 FL OZ/A	A 106	0.0	100.0	100.0	0.0	95.0	95.0	0.0
Roundup PowerMAX 3	30 FL OZ/A	A 205	0.0	100.0	100.0	0.0	85.0	95.0	0.0
ADJUVANT-COC	1.0 % V/V	A 308	0.0	90.0	70.0	0.0	80.0	80.0	0.0
		A 403	0.0	90.0	70.0	0.0	90.0	60.0	0.0
		Mean =	0.0	95.0	84.3d	0.0	87.5	82.5	0.0d
7 ENGENIA	16.0 FL OZ/A	A 107	0.0	100.0	100.0	0.0	95.0	80.0	0.0
ZIDUA SC	3.25 FL OZ/A	A 202	0.0	95.0	80.0	0.0	90.0	80.0	0.0
Roundup PowerMAX 3	30 FL OZ/A	A 303	0.0	95.0	90.0	0.0	80.0	80.0	25.0
SENTRIS	8.0 FL OZ/A	A 405	0.0	90.0	90.0	0.0	90.0	80.0	0.0
NIS	0.25 % V/V	A							
		Mean =	0.0	95.0	89.9d	0.0	88.8	80.0	1.3d
8 ENGENIA	16.0 FL OZ/A	A 108	0.0	100.0	100.0	0.0	96.0	90.0	0.0
OUTLOOK	14 FL OZ/A	A 206	0.0	90.0	80.0	0.0	80.0	80.0	0.0
Roundup PowerMAX 3	30 FL OZ/A	A 305	0.0	100.0	100.0	0.0	90.0	80.0	0.0
SENTRIS	8.0 FL OZ/A	A 401	0.0	90.0	70.0	0.0	95.0	75.0	0.0
NIS	0.25 % V/V	A							
		Mean =	0.0	95.0	87.0d	0.0	90.3	81.3	0.0d

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Pest Type	W, Weed	W, Weed
Pest Code	DIGSA	ELEIN
Pest Scientific Name	Digitaria sangu>	Eleusine indica
Pest Name	crabgrass	Goosegrass
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Crop Stage Scale	BBCH	BBCH
Assessed By	TL	TL
Rating Timing		
Days After First/Last Applic.	45, 45	45, 45
Trt-Eval Interval	45 DA-A	45 DA-A
Plant-Eval Interval	59 DP-1	59 DP-1
Days After Emergence		
ARM Action Codes	AS	
Number of Decimals		

Trt	Treatment	Rate	Appl	15	16
No.	Name	Rate Unit	Code Plot		
1	CHECK		A 101	0.0	0.0
			208	0.0	0.0
			302	0.0	0.0
			406	0.0	0.0
			Mean =	0.0d	0.0
2	ENGENIA PRIME	16.0 FL OZ/A	A 102	50.0	90.0
	Roundup PowerMAX 3	30 FL OZ/A	A 201	60.0	60.0
	SENTRIS	8.0 FL OZ/A	A 307	25.0	25.0
	NIS	0.25 % V/V	A 404	0.0	0.0
			Mean =	26.1d	43.8
3	XTENDIMAX WITH VAPORGRIP TECHN	22.0 FL OZ/A	A 103	50.0	0.0
	WARRANT	48.0 FL OZ/A	A 204	90.0	0.0
	Roundup PowerMAX 3	30 FL OZ/A	A 301	80.0	0.0
	SENTRIS	8.0 FL OZ/A	A 402	90.0	0.0
	NIS	0.25 % V/V	A		
			Mean =	76.5d	0.0
4	TAVIUM PLUS VAPORGRIP	56.5 FL OZ/A	A 104	80.0	90.0
	Roundup PowerMAX 3	30 FL OZ/A	A 203	80.0	90.0
	SENTRIS		A 306	80.0	80.0
	NIS	0.25 % V/V	A 408	50.0	50.0
			Mean =	71.8d	77.5

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Pest Type	W, Weed	W, Weed
Pest Code	DIGSA	ELEIN
Pest Scientific Name	Digitaria sangu>	Eleusine indica
Pest Name	crabgrass	Goosegrass
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Crop Stage Scale	BBCH	BBCH
Assessed By	TL	TL
Rating Timing		
Days After First/Last Applic.	45, 45	45, 45
Trt-Eval Interval	45 DA-A	45 DA-A
Plant-Eval Interval	59 DP-1	59 DP-1
Days After Emergence		
ARM Action Codes	AS	
Number of Decimals		

Trt	Treatment	Rate	Appl		
No.	Name	Rate Unit	Code Plot	15	16
5	PREFIX	32.0 FL OZ/A	A 105	90.0	90.0
	Roundup PowerMAX 3	30 FL OZ/A	A 207	50.0	70.0
	ADJUVANT-COC	1.0 % V/V	A 304	80.0	50.0
			407	0.0	25.0
			Mean =	42.7d	58.8
6	ANTHEM MAXX	3.25 FL OZ/A	A 106	80.0	90.0
	Roundup PowerMAX 3	30 FL OZ/A	A 205	80.0	80.0
	ADJUVANT-COC	1.0 % V/V	A 308	80.0	80.0
			403	70.0	70.0
			Mean =	77.4d	80.0
7	ENGENIA	16.0 FL OZ/A	A 107	90.0	80.0
	ZIDUA SC	3.25 FL OZ/A	A 202	80.0	80.0
	Roundup PowerMAX 3	30 FL OZ/A	A 303	80.0	80.0
	SENTRIS	8.0 FL OZ/A	A 405	80.0	80.0
	NIS	0.25 % V/V	A		
			Mean =	82.4d	80.0
8	ENGENIA	16.0 FL OZ/A	A 108	80.0	80.0
	OUTLOOK	14 FL OZ/A	A 206	90.0	90.0
	Roundup PowerMAX 3	30 FL OZ/A	A 305	90.0	90.0
	SENTRIS	8.0 FL OZ/A	A 401	80.0	80.0
	NIS	0.25 % V/V	A		
			Mean =	84.9d	85.0

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ENGENIA PRIME VS. COMPETITORS / VEPOST / ALL SOILS

Trial ID: 21-28_SOY-REC Location: UKREC 505-D4 Trial Year: 2021
Protocol ID: MKD-F-2021-US-D0H-A-99.0 Investigator (Creator): Travis Legleiter
Project ID: Study Director: Greg Stapleton
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMAPA, Amaranthus palmeri, Palmer amaranth = US

DIGSA, Digitaria sanguinalis, crabgrass = US

ELEIN, Eleusine indica, Goosegrass = US

Crop Type Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

Crop Stage Scale

BBCH = BBCH uniform plant stages

Plant-Eval Interval

29 DP-1 = 1 GLXMA 5-24-2021

37 DP-1 = 1 GLXMA 5-24-2021

46 DP-1 = 1 GLXMA 5-24-2021

50 DP-1 = 1 GLXMA 5-24-2021

59 DP-1 = 1 GLXMA 5-24-2021

ARM Action Codes

ET4 = Excluded treatment 4

AA = Automatic arcsine square root % transformation

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

AS = Automatic square root transformation of X+0.5

ET2 = Excluded treatment 2

AL = Automatic log transformation of X+1

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMAPA	DIGSA	ELEIN	AMAPA	DIGSA	ELEIN
Pest Scientific Name		Amaranthus palm>	Digitaria sangu>	Eleusine indica	Amaranthus palm>	Digitaria sangu>	Eleusine indica
Pest Name		Palmer amaranth	crabgrass	Goosegrass	Palmer amaranth	crabgrass	Goosegrass
Crop Type, Code	C, GLXMA						
BBCH Scale	BSOY						
Crop Scientific Name	Glycine max						
Crop Name	Soybean						
Rating Date	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-30-2021	6-30-2021	6-30-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Assessed By	TL	TL	TL	TL	TL	TL	TL
Rating Timing							
Days After First/Last Applic.	15, 15	15, 15	15, 15	15, 15	23, 23	23, 23	23, 23
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	15 DA-A	23 DA-A	23 DA-A	23 DA-A
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	29 DP-1	37 DP-1	37 DP-1	37 DP-1
Days After Emergence							
ARM Action Codes		ET4		AA	AA	EC	
Number of Decimals							

Trt No.	Treatment Name	Rate Unit	Appl Code	1	2	3	4 dAA	5 dAA	6	7
1	CHECK		A	0.0 a	0.0 e	0.0 b	0.0 c	0.0 c	0.0	0.0 b
2	GENGENIA PRIME	16.0 FL OZ/A	A	0.0 a	100.0 a	99.3 a	99.2 a	85.4 a	93.0 a	86.3 a
	Roundup PowerMAX 3	30 FL OZ/A	A							
	SENTRIS	8.0 FL OZ/A	A							
	NIS	0.25 % V/V	A							
3	XTENDIMAX WITH VAPORGRIP TECHN	22.0 FL OZ/A	A	0.0 a	97.5 a	100.0 a	60.1 b	82.4 a	97.5 a	0.0 b
	WARRANT	48.0 FL OZ/A	A							
	Roundup PowerMAX 3	30 FL OZ/A	A							
	SENTRIS	8.0 FL OZ/A	A							
	NIS	0.25 % V/V	A							
4	TAVIUM PLUS VAPORGRIP	56.5 FL OZ/A	A	0.0 a	80.0	100.0 a	99.2 a	18.5 bc	96.3 a	93.8 a
	Roundup PowerMAX 3	30 FL OZ/A	A							
	SENTRIS		A							
	NIS	0.25 % V/V	A							
5	PREFIX	32.0 FL OZ/A	A	0.0 a	91.0 ab	100.0 a	99.2 a	70.6 a	94.3 a	81.3 a
	Roundup PowerMAX 3	30 FL OZ/A	A							
	ADJUVANT-COC	1.0 % V/V	A							
6	ANTHEM MAXX	3.25 FL OZ/A	A	0.0 a	68.8 d	100.0 a	98.7 a	9.4 bc	97.5 a	96.3 a
	Roundup PowerMAX 3	30 FL OZ/A	A							
	ADJUVANT-COC	1.0 % V/V	A							
7	GENGENIA	16.0 FL OZ/A	A	0.0 a	83.8 bc	100.0 a	99.8 a	43.5 ab	95.0 a	95.0 a
	ZIDUA SC	3.25 FL OZ/A	A							
	Roundup PowerMAX 3	30 FL OZ/A	A							
	SENTRIS	8.0 FL OZ/A	A							
	NIS	0.25 % V/V	A							

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMAPA	DIGSA	ELEIN	AMAPA	DIGSA	ELEIN
Pest Scientific Name		Amaranthus palm>	Digitaria sangu>	Eleusine indica	Amaranthus palm>	Digitaria sangu>	Eleusine indica
Pest Name		Palmer amaranth	crabgrass	Goosegrass	Palmer amaranth	crabgrass	Goosegrass
Crop Type, Code	C, GLXMA						
BBCH Scale	BSOY						
Crop Scientific Name	Glycine max						
Crop Name	Soybean						
Rating Date	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-30-2021	6-30-2021	6-30-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Assessed By	TL	TL	TL	TL	TL	TL	TL
Rating Timing							
Days After First/Last Applic.	15, 15	15, 15	15, 15	15, 15	23, 23	23, 23	23, 23
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	15 DA-A	23 DA-A	23 DA-A	23 DA-A
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	29 DP-1	37 DP-1	37 DP-1	37 DP-1
Days After Emergence							
ARM Action Codes		ET4		AA	AA	EC	
Number of Decimals							

Trt Treatment No. Name	Rate Rate Unit	Appl Code	1	2	3	4 dAA	5 dAA	6	7
8 ENGENIA	16.0 FL OZ/A A		0.0 a	76.3 cd	100.0 a	99.8 a	6.3 bc	92.5 a	87.5 a
OUTLOOK	14 FL OZ/A A								
Roundup PowerMAX 3	30 FL OZ/A A								
SENTRIS	8.0 FL OZ/A A								
NIS	0.25 % V/V A								
LSD P=.05			.	8.95	0.78	6.30 - 19.41	26.38 - 31.62	4.88	10.82
Standard Deviation			0.00	6.03	0.53	8.34t	13.84t	3.28	7.36
CV			0.0	8.16	0.61	11.82t	38.33t	3.45	10.9
Levene's F^			.	8.226	0.643	1.365	5.084	0.766	0.727
Levene's Prob(F)			.	0.00*	0.716	0.265	0.001*	0.605	0.651
Skewness^			.	-0.0827	-2.7492*	-0.0585	0.093	-0.1924	-1.9084*
Kurtosis^			.	-0.6187	13.5402*	0.5976	-0.6007	-0.5852	7.75*
Replicate F			0.000	0.950	1.000	2.155	1.982	3.545	4.077
Replicate Prob(F)			1.0000	0.4373	0.4123	0.1236	0.1476	0.0355	0.0198
Treatment F			0.000	130.715	17740.684	55.314	13.472	1.530	130.022
Treatment Prob(F)			1.0000	0.0001	0.0001	0.0001	0.0001	0.2246	0.0001

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMAPA	DIGSA	ELEIN	AMAPA	DIGSA	ELEIN	AMAPA
Pest Scientific Name	Amaranthus palm>	Digitaria sangu>	Eleusine indica	Amaranthus palm>	Digitaria sangu>	Eleusine indica	Amaranthus palm>
Pest Name	Palmer amaranth	crabgrass	Goosegrass	Palmer amaranth	crabgrass	Goosegrass	Palmer amaranth
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date	7-9-2021	7-9-2021	7-9-2021	7-13-2021	7-13-2021	7-13-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Assessed By	TL	TL	TL	TL	TL	TL	TL
Rating Timing							
Days After First/Last Applic.	32, 32	32, 32	32, 32	36, 36	36, 36	36, 36	45, 45
Trt-Eval Interval	32 DA-A	32 DA-A	32 DA-A	36 DA-A	36 DA-A	36 DA-A	45 DA-A
Plant-Eval Interval	46 DP-1	46 DP-1	46 DP-1	50 DP-1	50 DP-1	50 DP-1	59 DP-1
Days After Emergence							
ARM Action Codes			AS		ET2		AL
Number of Decimals							

Trt Treatment No. Name	Rate Rate Unit	Appl Code	8	9	10 dAS	11	12	13	14 dAL
1 CHECK		A	0.0 b	0.0 b	0.0 c	0.0 c	0.0 b	0.0 c	0.0 b
2 ENGENIA PRIME	16.0 FL OZ/A	A	65.0 a	85.0 a	35.5 b	80.0 a	63.8	36.3 b	66.6 a
Roundup PowerMAX 3	30 FL OZ/A	A							
SENTRIS	8.0 FL OZ/A	A							
NIS	0.25 % V/V	A							
3 XTENDIMAX WITH VAPORGRIP TECHN	22.0 FL OZ/A	A	75.0 a	91.5 a	0.0 c	85.0 a	90.0 a	0.0 c	87.4 a
WARRANT	48.0 FL OZ/A	A							
Roundup PowerMAX 3	30 FL OZ/A	A							
SENTRIS	8.0 FL OZ/A	A							
NIS	0.25 % V/V	A							
4 TAVIUM PLUS VAPORGRIP	56.5 FL OZ/A	A	0.0 b	82.5 a	92.5 a	0.0 c	81.3 a	83.8 a	0.0 b
Roundup PowerMAX 3	30 FL OZ/A	A							
SENTRIS		A							
NIS	0.25 % V/V	A							
5 PREFIX	32.0 FL OZ/A	A	18.8 b	71.3 a	62.3 ab	32.5 b	71.3 a	59.0 ab	19.0 a
Roundup PowerMAX 3	30 FL OZ/A	A							
ADJUVANT-COC	1.0 % V/V	A							
6 ANTHEM MAXX	3.25 FL OZ/A	A	0.0 b	95.0 a	84.3 a	0.0 c	87.5 a	82.5 a	0.0 b
Roundup PowerMAX 3	30 FL OZ/A	A							
ADJUVANT-COC	1.0 % V/V	A							
7 ENGENIA	16.0 FL OZ/A	A	0.0 b	95.0 a	89.9 a	0.0 c	88.8 a	80.0 a	1.3 b
ZIDUA SC	3.25 FL OZ/A	A							
Roundup PowerMAX 3	30 FL OZ/A	A							
SENTRIS	8.0 FL OZ/A	A							
NIS	0.25 % V/V	A							

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Pest Type	W, Weed	W, Weed
Pest Code	DIGSA	ELEIN
Pest Scientific Name	Digitaria sangu>	Eleusine indica
Pest Name	crabgrass	Goosegrass
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Crop Stage Scale	BBCH	BBCH
Assessed By	TL	TL
Rating Timing		
Days After First/Last Applic.	45, 45	45, 45
Trt-Eval Interval	45 DA-A	45 DA-A
Plant-Eval Interval	59 DP-1	59 DP-1
Days After Emergence		
ARM Action Codes	AS	
Number of Decimals		

Trt No.	Treatment Name	Rate	Appl Code	15 dAS	16
		Rate Unit			
1	CHECK		A	0.0 c	0.0 c
2	GENGENIA PRIME	16.0 FL OZ/A	A	26.1 b	43.8 b
	Roundup PowerMAX 3	30 FL OZ/A	A		
	SENTRIS	8.0 FL OZ/A	A		
	NIS	0.25 % V/V	A		
3	XTENDIMAX WITH VAPORGRIP TECHN	22.0 FL OZ/A	A	76.5 a	0.0 c
	WARRANT	48.0 FL OZ/A	A		
	Roundup PowerMAX 3	30 FL OZ/A	A		
	SENTRIS	8.0 FL OZ/A	A		
	NIS	0.25 % V/V	A		
4	TAVIUM PLUS VAPORGRIP	56.5 FL OZ/A	A	71.8 a	77.5 a
	Roundup PowerMAX 3	30 FL OZ/A	A		
	SENTRIS		A		
	NIS	0.25 % V/V	A		
5	PREFIX	32.0 FL OZ/A	A	42.7 ab	58.8 ab
	Roundup PowerMAX 3	30 FL OZ/A	A		
	ADJUVANT-COC	1.0 % V/V	A		
6	ANTHEM MAXX	3.25 FL OZ/A	A	77.4 a	80.0 a
	Roundup PowerMAX 3	30 FL OZ/A	A		
	ADJUVANT-COC	1.0 % V/V	A		
7	GENGENIA	16.0 FL OZ/A	A	82.4 a	80.0 a
	ZIDUA SC	3.25 FL OZ/A	A		
	Roundup PowerMAX 3	30 FL OZ/A	A		
	SENTRIS	8.0 FL OZ/A	A		
	NIS	0.25 % V/V	A		

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Pest Type	W, Weed	W, Weed
Pest Code	DIGSA	ELEIN
Pest Scientific Name	Digitaria sangu>	Eleusine indica
Pest Name	crabgrass	Goosegrass
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Reporting Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Crop Stage Scale	BBCH	BBCH
Assessed By	TL	TL
Rating Timing		
Days After First/Last Applic.	45, 45	45, 45
Trt-Eval Interval	45 DA-A	45 DA-A
Plant-Eval Interval	59 DP-1	59 DP-1
Days After Emergence		
ARM Action Codes	AS	
Number of Decimals		

Trt	Treatment	Rate	Appl	15	16
No.	Name	Rate Unit	Code	dAS	
8	ENGENIA	16.0 FL OZ/A	A	84.9 a	85.0 a
	OUTLOOK	14 FL OZ/A	A		
	Roundup PowerMAX 3	30 FL OZ/A	A		
	SENTRIS	8.0 FL OZ/A	A		
	NIS	0.25 % V/V	A		
LSD	P=.05			32.91 - 40.72	22.99
Standard Deviation				1.74t	15.63
CV				24.44t	29.42
Levene's F^				1.877	2.564
Levene's Prob(F)				0.118	0.04*
Skewness^				-0.8145	0.2272
Kurtosis^				2.1197*	0.6403
Replicate F				2.583	4.408
Replicate Prob(F)				0.0805	0.0149
Treatment F				11.593	20.624
Treatment Prob(F)				0.0001	0.0001

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ENGENIA PRIME VS. COMPETITORS / VEPOST / ALL SOILS

Trial ID: 21-28_SOY-REC Location: UKREC 505-D4 Trial Year: 2021
Protocol ID: MKD-F-2021-US-D0H-A-99.0 Investigator (Creator): Travis Legleiter
Project ID: Study Director: Greg Stapleton
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMAPA, Amaranthus palmeri, Palmer amaranth = US

DIGSA, Digitaria sanguinalis, crabgrass = US

ELEIN, Eleusine indica, Goosegrass = US

Crop Type Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

Crop Stage Scale

BBCH = BBCH uniform plant stages

Plant-Eval Interval

29 DP-1 = 1 GLXMA 5-24-2021

37 DP-1 = 1 GLXMA 5-24-2021

46 DP-1 = 1 GLXMA 5-24-2021

50 DP-1 = 1 GLXMA 5-24-2021

59 DP-1 = 1 GLXMA 5-24-2021

ARM Action Codes

ET4 = Excluded treatment 4

AA = Automatic arcsine square root % transformation

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

AS = Automatic square root transformation of X+0.5

ET2 = Excluded treatment 2

AL = Automatic log transformation of X+1

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Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: USNG0H5002021 Location: Cully Scott FS Trial Year: 2021
 Protocol ID: HBI008A4-2021US Investigator (Creator): Scott Cully
 Master Protocol ID: Study Director: Sara Carter
 Official Trial ID: Sponsor Contact:
 Conducted Under GEP: No Trial Origin: P public institution trial

Reps: 4 Appl Code: A Plots: 10 by 33 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2.7 L (total for 4 plots; minimum=1.7206 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Rate Unit	Other Rate	Other Rate Unit	Appl Unit	Appl Timing	Appl Code	Amt to Measure	Rep 1	2	3	4
2	BICEP II MAGNUM	660 gA/L	SC	g Al/ha	1.6 QT/A		PRE	A		72.0 mL/mx	102	211	310	411
3	LEXAR EZ 3.7 ZC	443.8 gA/L	ZC	g Al/ha	1.8 QT/A		PRE	A		81.0 mL/mx	103	207	303	408
4	SURESTART II 4.25 SC	509.26 gA/L	SC	g Al/ha	1.75 PT/A		PRE	A		39.38 mL/mx	104	210	306	405
5	HARNESS XTRA 5.6L	672 gA/L	SC	g Al/ha	1.8 QT/A		PRE	A		81.0 mL/mx	105	209	307	409
6	VERDICT 5.57 EC	667 gA/L	EC	g Al/ha	14 FL OZ/A		PRE	A		19.69 mL/mx	106	212	305	404
7	SURESTART II 4.25 SC	509.26 gA/L	SC	g Al/ha	1.75 PT/A		PRE	A		39.38 mL/mx	107	202	308	401
8	HARNESS XTRA 5.6L	672 gA/L	SC	g Al/ha	1.8 QT/A		PRE	A		81.0 mL/mx	108	201	312	402
9	VERDICT 5.57 EC	667 gA/L	EC	g Al/ha	10 FL OZ/A		PRE	A		14.06 mL/mx	109	208	309	406
10	ACURON XR	424.57 gA/L	ZC	g Al/ha	3.5 QT/A		PRE	A		157.5 mL/mx	110	203	304	410
11	ACURON XR	424.57 gA/L	ZC	g Al/ha	3 QT/A		PRE	A		135.0 mL/mx	111	206	301	403
12	HARNESS MAX 3.85 SC	462 gA/L	SC	g Al/ha	75 FL OZ/A		PRE	A		105.5 mL/mx	112	204	302	412

* Forced to Sort by Application code because a leaf wall area Other Rate Unit is used.

Reps: 4 Appl Code: B Plots: 10 by 33 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2.7 L (total for 4 plots; minimum=1.7206 L)

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Reps: 4 Appl Code: B Plots: 10 by 33 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2.7 L (total for 4 plots; minimum=1.7206 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Rep 1	Rep 2	Rep 3	Rep 4
2	AMSOL			SL L/ha	2.5 QT/A		V2	B	112.5 mL/mx	102	211	310	411
	NIS			SL % V/V	0.25 % V/V		V2	B	6.75 mL/mx				
	ACURON GT	514.35 gA/L		ZC g AI/ha	3.75 PT/A		V2	B	84.38 mL/mx				
3	AMSOL			SL L/ha	2.5 QT/A		V2	B	112.5 mL/mx	103	207	303	408
	NIS			SL % V/V	0.25 % V/V		V2	B	6.75 mL/mx				
	ACURON GT	514.35 gA/L		ZC g AI/ha	3.75 PT/A		V2	B	84.38 mL/mx				
4	AMSOL			SL L/ha	2.5 QT/A		V2	B	112.5 mL/mx	104	210	306	405
	NIS			SL % V/V	0.25 % V/V		V2	B	6.75 mL/mx				
	ACURON GT	514.35 gA/L		ZC g AI/ha	3.75 PT/A		V2	B	84.38 mL/mx				
5	AMSOL			SL L/ha	2.5 QT/A		V2	B	112.5 mL/mx	105	209	307	409
	NIS			SL % V/V	0.25 % V/V		V2	B	6.75 mL/mx				
	ACURON GT	514.35 gA/L		ZC g AI/ha	3.75 PT/A		V2	B	84.38 mL/mx				
6	AMSOL			SL L/ha	2.5 QT/A		V2	B	112.5 mL/mx	106	212	305	404
	NIS			SL % V/V	0.25 % V/V		V2	B	6.75 mL/mx				
	ACURON GT	514.35 gA/L		ZC g AI/ha	3.75 PT/A		V2	B	84.38 mL/mx				
7	AMSOL			SL L/ha	2.5 QT/A		V2	B	112.5 mL/mx	107	202	308	401
	RESICORE 3.29 SC	394.4 gA/L		SC g AI/ha	1.25 QT/A		V2	B	56.25 mL/mx				
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L		SL g AE/ha	26.6 FL OZ/A		V2	B	37.41 mL/mx				
8	AMSOL			SL L/ha	2.5 QT/A		V2	B	112.5 mL/mx	108	201	312	402
	LAUDIS 3.5 SC	420 gA/L		SC g AI/ha	3 FL OZ/A		V2	B	4.219 mL/mx				
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L		SL g AE/ha	26.6 FL OZ/A		V2	B	37.41 mL/mx				
	SUPERB HC			SL % V/V	0.5 % V/V		V2	B	13.5 mL/mx				
9	AMSOL			SL L/ha	2.5 QT/A		V2	B	112.5 mL/mx	109	208	309	406
	ARMEZON PRO	642.5 gA/L		EC g AI/ha	18 FL OZ/A		V2	B	25.31 mL/mx				
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L		SL g AE/ha	26.6 FL OZ/A		V2	B	37.41 mL/mx				

* Forced to Sort by Application code because a leaf wall area Other Rate Unit is used.

Reps: 4 Appl Code: _ Plots: 10 by 33 feet

Trt No.	Treatment Name	Form Conc	Form Unit	Form Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	UNTREATED CHECK									101	205	311	407

* Forced to Sort by Application code because a leaf wall area Other Rate Unit is used.

Sort Order: Application Code, Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
90.000	mL	BICEP II MAGNUM	660	gA/L	SC	

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
1,125.001	mL	AMSOL			SL	
42.188	mL	NIS			SL	
527.344	mL	ACURON GT	514.35	gA/L	ZC	
101.250	mL	LEXAR EZ 3.7 ZC	443.8	gA/L	ZC	
98.438	mL	SURESTART II 4.25 SC	509.26	gA/L	SC	
202.500	mL	HARNESS XTRA 5.6L	672	gA/L	SC	
42.188	mL	VERDICT 5.57 EC	667	gA/L	EC	
70.313	mL	RESICORE 3.29 SC	394.4	gA/L	SC	
140.274	mL	ROUNDUP POWERMAX 4.5 SL	540	gAE/L	SL	
5.273	mL	LAUDIS 3.5 SC	420	gA/L	SC	
16.875	mL	SUPERB HC			SL	
31.641	mL	ARMEZON PRO	642.5	gA/L	EC	
365.625	mL	ACURON XR	424.57	gA/L	ZC	
131.836	mL	HARNESS MAX 3.85 SC	462	gA/L	SC	

* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.7 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2.7 L.

General Trial Information

Study Director: Sara Carter **Title:** Research Specialist

Discipline: H herbicide
Trial Status: F one-year/final

Trial Status Date: 12-7-2021 2:10 PM

Last Changed By: Sara Carter

ARM Trial Created On: 3-23-2021

Trial Usage/Type: 0 Research and Development

Initiation Date: 5-13-2021

Planned Completion Date: 10-10-2021

Completion Date: 10-20-2021

Protocol Revision Number: 1.0

Protocol Revision Date: 3-23-2021

Trial Location

Address (Location): 2951 Agronomy Road

City: Lexington

Country: USA United States

State/Prov.: Kentucky KY **Region:** Central

Postal Code: 40511

USAKY 39.147732 - 36.497058
-81.964788 - -89.571203

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director

Study Director: Sara Carter

Title: Research Specialist

Organization: University of Kentucky

Address 1: 2951 Agronomy Road, Unit 12

Mobile No.: 859-559-6710

E-mail: skcart0@uky.edu

City: Lexington, KY

Postal Code: 40511

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Crop Description			
Crop 1: C	ZEAMX Zea mays	Corn	BBCH Scale: BCOR
	Variety: DKC 65-95	Stage Scale: BBCH	
	Attributes: GLYPHOSATE-R		
Planting Date: 5-13-2021	Planting Rate: 32000	S/A	
Depth: 1.5 IN	Planting Method: PLANTD	planted	
Rows per Plot: 6	Planting Equipment: FE	field equipment	
Row Spacing: 30 IN	Seed Bed: SMOOTH	smooth	
Soil Temperature: 59 F	Soil Moisture: GOOD	good	
Emergence Date: 5-19-2021	Harvest Equipment: MASSEY FERGUSON 8XP		
Harvest Date: 10-20-2021	Harvested Width: 5 FT		
% Standard Moisture: 15.5	Harvested Length: 28 FT		

Pest Description			
Pest 1 Type: W	Code: AMBTR Ambrosia trifida		
	Common Name: Giant ragweed	Stage Scale: BBCH	
	Crop: 1 ZEAMX		
Pest 2 Type: W	Code: IPOSS Ipomoea sp.		
	Common Name: Morning glory	Stage Scale: BBCH	
	Crop: 1 ZEAMX		
Pest 3 Type: W	Code: SETFA Setaria faberi		
	Common Name: Giant foxtail	Stage Scale: BBCH	
	Crop: 1 ZEAMX		

Site and Design			
Treated Plot Width: 10 FT	Total Plot Width: 15 FT	Site Type: FIELD	field
Treated Plot Length: 33 FT	Total Plot Length: 33 FT		
Treated Plot Area: 330.0 FT ²	Treatments: 12	Tillage Type: CONTIL	conventional-till
Replications: 4		Study Design: RACOBL	Randomized Complete Block (RCB)

Soil Description			
Description Name: MAURY			
% Sand: 6	% OM: 2.6	Texture: SIL	silt loam
% Silt: 62	pH: 6.4	Soil Name: MAURY SILT LOAM	
% Clay: 32	CEC: 18	Fert. Level: E	excellent
Soil Drainage: E	excellent		

Weather Conditions	
Overall Moisture Conditions: WEWEDR	wet-wet-dry
Closest Weather Station: SPINDLETOP	Distance: 1.5 MI

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Application Description		
	A	B
Application Date	5-15-2021	6-10-2021
Appl. Start Time	1:30 PM	4:30 PM
Appl. Stop Time	2:30 PM	5:30 PM
Interval to Prev. Appl.		26 DAYS
Application Method	SPRAY	SPRAY
Application Timing	PRE	V2
Application Placement	BROSOI	BROFOL
Applied By	SARA	SARA
Air Temperature Start, Stop	70, - F	75, - F
% Relative Humidity Start, Stop	28, -	80, -
Wind Velocity+Dir. Start	5 MPH, SE	4 MPH, SW
Soil Temperature	59 F	71 F
Soil Moisture	GOOD	WET
% Cloud Cover	10	60
Next Moisture Occurred On	5-16-2021	6-11-2021

Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR
Stage Scale Used	BBCH	BBCH
Stage Majority, Percent		V2, 95
Height Average		4 IN

Pest Stage At Each Application		
	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Stage Majority, Percent		14, 95
Height Average		4 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX
Pest 2 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH
Stage Majority, Percent		13, -
Height Average		2 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Stage Majority, Percent		12, 95
Height Average		3 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX

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Pest ID Code			1, W, Weed	2, W, Weed	3, W, Weed			1, W, Weed	2, W, Weed	3, W, Weed	
Pest Code			AMBTR	IPOSS	SETFA			AMBTR	IPOSS	SETFA	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Setaria faberi			Ambrosia trifida	Ipomoea sp.	Setaria faberi	
Pest Name			Giant ragweed	Morning glory	Giant foxtail			Giant ragweed	Morning glory	Giant foxtail	
Crop ID Code	1, ZEAMX		1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	
BBCH Scale	BCOR		BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	
Crop Scientific Name	Zea mays		Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	
Crop Name	Corn		Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	
Crop Variety	DKC 65-95		DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	
Rating Date	6-10-2021		6-10-2021	6-10-2021	6-10-2021	6-17-2021	7-8-2021	7-8-2021	7-8-2021	7-8-2021	
SE Group No.	1		2	3	4	5	5	6	7	8	
Part Rated	PLOT, P		PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	
Rating Type	PHYGEN		CONTRO	CONTRO	CONTRO	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Calculation	NC		NC	NC	NC	NC	NC	NC	NC	NC	
Sample Size											
Reporting Basis	1 PLOT		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1		1	1	1	1	1	1	1	1	
Data Entry Date	12-9-2021		12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	
Days After First/Last Applic.	26, 26		26, 26	26, 26	26, 26	33, 7	54, 28	54, 28	54, 28	54, 28	
Plant-Eval Interval	28 DP-1		28 DP-1	28 DP-1	28 DP-1	35 DP-1	56 DP-1	56 DP-1	56 DP-1	56 DP-1	
Days After Emergence	22 DE-1		22 DE-1	22 DE-1	22 DE-1	29 DE-1	50 DE-1	50 DE-1	50 DE-1	50 DE-1	
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9
		407	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 BICEP II MAGNUM	2470 g Al/ha	A 102	0.0	95.0	85.0	95.0	0.0	0.0	95.0	95.0	95.0
AMSOL	5.85 L/ha	B 211	0.0	95.0	80.0	98.0	0.0	0.0	98.0	98.0	90.0
NIS	0.25 % V/V	B 310	0.0	95.0	95.0	95.0	0.0	0.0	98.0	95.0	95.0
ACURON GT	2260 g Al/ha	B 411	0.0	95.0	90.0	90.0	0.0	0.0	98.0	98.0	95.0
		Mean =	0.0	95.0	87.5	94.5	0.0	0.0	97.3	96.5	93.8
3 LEXAR EZ 3.7 ZC	1870 g Al/ha	A 103	0.0	95.0	95.0	95.0	0.0	0.0	98.0	98.0	90.0
AMSOL	5.85 L/ha	B 207	0.0	95.0	95.0	95.0	0.0	0.0	95.0	95.0	98.0
NIS	0.25 % V/V	B 303	0.0	95.0	95.0	95.0	0.0	0.0	95.0	95.0	95.0
ACURON GT	2260 g Al/ha	B 408	0.0	95.0	95.0	95.0	0.0	0.0	95.0	98.0	95.0
		Mean =	0.0	95.0	95.0	95.0	0.0	0.0	95.8	96.5	94.5
4 SURESTART II 4.25 SC	1040 g Al/ha	A 104	0.0	95.0	95.0	98.0	0.0	0.0	98.0	98.0	98.0
AMSOL	5.85 L/ha	B 210	0.0	95.0	80.0	95.0	0.0	0.0	95.0	98.0	95.0
NIS	0.25 % V/V	B 306	0.0	95.0	85.0	90.0	0.0	0.0	95.0	95.0	95.0
ACURON GT	2260 g Al/ha	B 405	0.0	95.0	85.0	95.0	0.0	0.0	95.0	95.0	95.0
		Mean =	0.0	95.0	86.3	94.5	0.0	0.0	95.8	96.5	95.8
5 HARNESS XTRA 5.6L	2830 g Al/ha	A 105	0.0	95.0	90.0	98.0	0.0	0.0	95.0	98.0	95.0
AMSOL	5.85 L/ha	B 209	0.0	95.0	90.0	95.0	0.0	0.0	95.0	98.0	95.0
NIS	0.25 % V/V	B 307	0.0	95.0	90.0	98.0	0.0	0.0	98.0	95.0	95.0
ACURON GT	2260 g Al/ha	B 409	0.0	95.0	85.0	95.0	0.0	0.0	98.0	98.0	95.0
		Mean =	0.0	95.0	88.8	96.5	0.0	0.0	96.5	97.3	95.0

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Pest ID Code		1, W, Weed AMBTR	2, W, Weed IPOSS	3, W, Weed SETFA			1, W, Weed AMBTR	2, W, Weed IPOSS	3, W, Weed SETFA			
Pest Code												
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Setaria faberi			Ambrosia trifida	Ipomoea sp.	Setaria faberi			
Pest Name		Giant ragweed	Morning glory	Giant foxtail			Giant ragweed	Morning glory	Giant foxtail			
Crop ID Code	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX			
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR			
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays			
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn			
Crop Variety	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95			
Rating Date	6-10-2021	6-10-2021	6-10-2021	6-10-2021	6-17-2021	7-8-2021	7-8-2021	7-8-2021	7-8-2021			
SE Group No.	1	2	3	4	5	5	6	7	8			
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P			
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Calculation	NC	NC	NC	NC	NC	NC	NC	NC	NC			
Sample Size												
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1	1	1			
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021			
Days After First/Last Applic.	26, 26	26, 26	26, 26	26, 26	33, 7	54, 28	54, 28	54, 28	54, 28			
Plant-Eval Interval	28 DP-1	28 DP-1	28 DP-1	28 DP-1	35 DP-1	56 DP-1	56 DP-1	56 DP-1	56 DP-1			
Days After Emergence	22 DE-1	22 DE-1	22 DE-1	22 DE-1	29 DE-1	50 DE-1	50 DE-1	50 DE-1	50 DE-1			
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl										
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9	
6 VERDICT 5.57 EC	682 g Al/ha	A 106	0.0	95.0	85.0	95.0	0.0	0.0	98.0	95.0	95.0	
AMSOL	5.85 L/ha	B 212	0.0	95.0	85.0	95.0	0.0	0.0	98.0	98.0	98.0	
NIS	0.25 % V/V	B 305	0.0	95.0	90.0	90.0	0.0	0.0	98.0	98.0	95.0	
ACURON GT	2260 g Al/ha	B 404	0.0	95.0	85.0	95.0	0.0	0.0	98.0	98.0	95.0	
		Mean =	0.0	95.0	86.3	93.8	0.0	0.0	98.0	97.3	95.8	
7 SURESTART II 4.25 SC	1040 g Al/ha	A 107	0.0	95.0	90.0	95.0	0.0	0.0	98.0	95.0	95.0	
AMSOL	5.85 L/ha	B 202	0.0	95.0	95.0	95.0	0.0	0.0	98.0	98.0	95.0	
RESICORE 3.29 SC	1150 g Al/ha	B 308	0.0	95.0	95.0	95.0	0.0	0.0	98.0	95.0	95.0	
ROUNDUP POWERMAX 4.5 SL	1050 g AE/ha	B 401	0.0	95.0	90.0	95.0	0.0	0.0	98.0	98.0	95.0	
		Mean =	0.0	95.0	92.5	95.0	0.0	0.0	98.0	96.5	95.0	
8 HARNESS XTRA 5.6L	2830 g Al/ha	A 108	0.0	95.0	95.0	98.0	0.0	0.0	98.0	98.0	95.0	
AMSOL	5.85 L/ha	B 201	0.0	95.0	95.0	98.0	0.0	0.0	98.0	98.0	95.0	
LAUDIS 3.5 SC	92.1 g Al/ha	B 312	0.0	95.0	95.0	98.0	0.0	0.0	98.0	95.0	95.0	
ROUNDUP POWERMAX 4.5 SL	1050 g AE/ha	B 402	0.0	95.0	90.0	95.0	0.0	0.0	98.0	98.0	95.0	
SUPERB HC	0.5 % V/V	B										
		Mean =	0.0	95.0	93.8	97.3	0.0	0.0	98.0	97.3	95.0	
9 VERDICT 5.57 EC	487 g Al/ha	A 109	0.0	95.0	95.0	98.0	0.0	0.0	98.0	98.0	95.0	
AMSOL	5.85 L/ha	B 208	0.0	95.0	95.0	98.0	0.0	0.0	98.0	98.0	95.0	
ARMEZON PRO	845 g Al/ha	B 309	0.0	95.0	95.0	95.0	0.0	0.0	98.0	95.0	95.0	
ROUNDUP POWERMAX 4.5 SL	1050 g AE/ha	B 406	0.0	95.0	98.0	98.0	0.0	0.0	98.0	98.0	95.0	
		Mean =	0.0	95.0	95.8	97.3	0.0	0.0	98.0	97.3	95.0	

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Pest ID Code		1, W, Weed AMBTR	2, W, Weed IPOSS	3, W, Weed SETFA			1, W, Weed AMBTR	2, W, Weed IPOSS	3, W, Weed SETFA		
Pest Code											
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Setaria faberi			Ambrosia trifida	Ipomoea sp.	Setaria faberi		
Pest Name		Giant ragweed	Morning glory	Giant foxtail			Giant ragweed	Morning glory	Giant foxtail		
Crop ID Code	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn		
Crop Variety	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95		
Rating Date	6-10-2021	6-10-2021	6-10-2021	6-10-2021	6-17-2021	7-8-2021	7-8-2021	7-8-2021	7-8-2021		
SE Group No.	1	2	3	4	5	5	6	7	8		
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Calculation	NC	NC	NC	NC	NC	NC	NC	NC	NC		
Sample Size											
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021		
Days After First/Last Applic.	26, 26	26, 26	26, 26	26, 26	33, 7	54, 28	54, 28	54, 28	54, 28		
Plant-Eval Interval	28 DP-1	28 DP-1	28 DP-1	28 DP-1	35 DP-1	56 DP-1	56 DP-1	56 DP-1	56 DP-1		
Days After Emergence	22 DE-1	22 DE-1	22 DE-1	22 DE-1	29 DE-1	50 DE-1	50 DE-1	50 DE-1	50 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9
10 ACURON XR	3470 g AI/ha	A	110	95.0	95.0	98.0	0.0	0.0	90.0	90.0	90.0
			203	0.0	95.0	95.0	0.0	0.0	90.0	90.0	85.0
			304	0.0	95.0	95.0	0.0	0.0	85.0	90.0	85.0
			410	0.0	95.0	95.0	0.0	0.0	85.0	90.0	90.0
			Mean =	0.0	95.0	95.0	95.8	0.0	87.5	90.0	87.5
11 ACURON XR	2980 g AI/ha	A	111	0.0	95.0	95.0	95.0	0.0	90.0	90.0	85.0
			206	0.0	95.0	95.0	95.0	0.0	95.0	90.0	85.0
			301	0.0	95.0	95.0	95.0	0.0	90.0	90.0	90.0
			403	0.0	95.0	95.0	95.0	0.0	95.0	90.0	85.0
			Mean =	0.0	95.0	95.0	95.0	0.0	92.5	90.0	86.3
12 HARNESS MAX 3.85 SC	2530 g AI/ha	A	112	0.0	95.0	95.0	95.0	0.0	90.0	90.0	90.0
			204	0.0	95.0	95.0	95.0	0.0	95.0	90.0	85.0
			302	0.0	95.0	95.0	95.0	0.0	95.0	90.0	90.0
			412	0.0	95.0	95.0	95.0	0.0	95.0	90.0	85.0
			Mean =	0.0	95.0	95.0	95.0	0.0	93.8	90.0	87.5

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Pest ID Code	1, W, Weed	2, W, Weed	3, W, Weed					
Pest Code	AMBTR	IPOSS	SETFA					
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi					
Pest Name	Giant ragweed	Morning glory	Giant foxtail					
Crop ID Code	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn		
Crop Variety	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95		
Rating Date	8-5-2021	8-5-2021	8-5-2021	10-20-2021	10-20-2021	10-20-2021		
SE Group No.	10	11	12	13	14	15		
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, C		
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	MOICON	YIELD		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	LB/P, -, -	%, 0, 100	BU, -, -		
Calculation	NC	NC	NC	NC	NC	NC		
Sample Size				1 PLOT		1 A		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT					
Number of Subsamples	1	1	1	1	1	1		
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021			
Days After First/Last Applic.	82, 56	82, 56	82, 56	158, 132	158, 132	158, 132		
Plant-Eval Interval	84 DP-1	84 DP-1	84 DP-1	160 DP-1	160 DP-1	160 DP-1		
Days After Emergence	78 DE-1	78 DE-1	78 DE-1	154 DE-1	154 DE-1	154 DE-1		
ARM Action Codes						TY1		
Number of Decimals						1		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	10	11	12	14	15	16
1 UNTREATED CHECK	101	0.0	0.0	0.0	0.0	12.920	14.30	72.8
	205	0.0	0.0	0.0	0.0	23.440	14.90	131.2
	311	0.0	0.0	0.0	0.0	21.270	18.50	114.0

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				1, W, Weed AMBTR Ambrosia trifida Giant ragweed	2, W, Weed IPOSS Ipomoea sp. Morning glory	3, W, Weed SETFA Setaria faberi Giant foxtail			
Pest ID Code									
Pest Code									
Pest Scientific Name									
Pest Name									
Crop ID Code				1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX
BBCH Scale				BCOR	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name				Corn	Corn	Corn	Corn	Corn	Corn
Crop Variety				DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95
Rating Date				8-5-2021	8-5-2021	8-5-2021	10-20-2021	10-20-2021	10-20-2021
SE Group No.				10	11	12	13	14	15
Part Rated				PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, C
Rating Type				CONTRO	CONTRO	CONTRO	YIELD	MOICON	YIELD
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	LB/P, -, -	%, 0, 100	BU, -, -
Calculation				NC	NC	NC	NC	NC	NC
Sample Size							1 PLOT		1 A
Reporting Basis				1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples				1	1	1	1	1	1
Data Entry Date				12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	
Days After First/Last Applic.				82, 56	82, 56	82, 56	158, 132	158, 132	158, 132
Plant-Eval Interval				84 DP-1	84 DP-1	84 DP-1	160 DP-1	160 DP-1	160 DP-1
Days After Emergence				78 DE-1	78 DE-1	78 DE-1	154 DE-1	154 DE-1	154 DE-1
ARM Action Codes									TY1
Number of Decimals									1
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot		10	11	12	14	15	16
			407	0.0	0.0	0.0	19.820	16.30	109.1
			Mean =	0.0	0.0	0.0	19.363	16.00	106.8
2 BICEP II MAGNUM	2470 g Al/ha	A 102		80.0	65.0	75.0	42.360	20.20	222.3
AMSOL	5.85 L/ha	B 211		85.0	65.0	75.0	37.210	18.50	199.4
NIS	0.25 % V/V	B 310		85.0	75.0	70.0	41.870	17.00	228.5
ACURON GT	2260 g Al/ha	B 411		80.0	75.0	75.0	37.580	17.50	203.9
			Mean =	82.5	70.0	73.8	39.755	18.30	213.5
3 LEXAR EZ 3.7 ZC	1870 g Al/ha	A 103		80.0	75.0	70.0	44.190	19.60	233.6
AMSOL	5.85 L/ha	B 207		75.0	75.0	75.0	44.860	17.60	243.1
NIS	0.25 % V/V	B 303		80.0	85.0	70.0	40.120	19.70	211.8
ACURON GT	2260 g Al/ha	B 408		85.0	80.0	70.0	34.550	17.00	188.6
			Mean =	80.0	78.8	71.3	40.930	18.48	219.3
4 SURESTART II 4.25 SC	1040 g Al/ha	A 104		70.0	75.0	70.0	44.520	18.80	237.7
AMSOL	5.85 L/ha	B 210		75.0	85.0	70.0	44.180	16.80	241.7
NIS	0.25 % V/V	B 306		75.0	80.0	70.0	43.340	18.20	233.1
ACURON GT	2260 g Al/ha	B 405		80.0	80.0	70.0	40.250	18.20	216.5
			Mean =	75.0	80.0	70.0	43.073	18.00	232.2
5 HARNESS XTRA 5.6L	2830 g Al/ha	A 105		85.0	80.0	75.0	40.940	18.90	218.3
AMSOL	5.85 L/ha	B 209		80.0	80.0	70.0	44.470	16.80	243.3
NIS	0.25 % V/V	B 307		85.0	75.0	85.0	44.250	19.20	235.1
ACURON GT	2260 g Al/ha	B 409		80.0	65.0	85.0	36.150	18.80	193.0
			Mean =	82.5	75.0	78.8	41.453	18.43	222.4

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Pest ID Code	1, W, Weed	2, W, Weed	3, W, Weed			
Pest Code	AMBTR	IPOSS	SETFA			
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi			
Pest Name	Giant ragweed	Morning glory	Giant foxtail			
Crop ID Code	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn
Crop Variety	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95
Rating Date	8-5-2021	8-5-2021	8-5-2021	10-20-2021	10-20-2021	10-20-2021
SE Group No.	10	11	12	13	14	15
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, C
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	MOICON	YIELD
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	LB/P, -, -	%, 0, 100	BU, -, -
Calculation	NC	NC	NC	NC	NC	NC
Sample Size				1 PLOT		1 A
Reporting Basis	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	
Days After First/Last Applic.	82, 56	82, 56	82, 56	158, 132	158, 132	158, 132
Plant-Eval Interval	84 DP-1	84 DP-1	84 DP-1	160 DP-1	160 DP-1	160 DP-1
Days After Emergence	78 DE-1	78 DE-1	78 DE-1	154 DE-1	154 DE-1	154 DE-1
ARM Action Codes						TY1
Number of Decimals						1

Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	10	11	12	14	15	16
6 VERDICT 5.57 EC	682 g Al/ha	A 106	85.0	70.0	70.0	42.050	19.70	222.0
AMSOL	5.85 L/ha	B 212	75.0	70.0	75.0	39.750	16.40	218.5
NIS	0.25 % V/V	B 305	75.0	85.0	75.0	41.970	19.50	222.2
ACURON GT	2260 g Al/ha	B 404	80.0	85.0	75.0	38.730	16.40	212.9
		Mean =	78.8	77.5	73.8	40.625	18.00	218.9
7 SURESTART II 4.25 SC	1040 g Al/ha	A 107	85.0	70.0	80.0	37.560	20.30	196.8
AMSOL	5.85 L/ha	B 202	75.0	85.0	75.0	38.940	18.00	210.0
RESICORE 3.29 SC	1150 g Al/ha	B 308	75.0	75.0	75.0	43.600	17.40	236.8
ROUNDUP POWERMAX 4.5 SL	1050 g AE/ha	B 401	85.0	75.0	80.0	40.950	19.00	218.1
		Mean =	80.0	76.3	77.5	40.263	18.68	215.4
8 HARNESS XTRA 5.6L	2830 g Al/ha	A 108	85.0	75.0	80.0	38.330	22.40	195.6
AMSOL	5.85 L/ha	B 201	80.0	65.0	75.0	40.510	19.40	214.7
LAUDIS 3.5 SC	92.1 g Al/ha	B 312	80.0	70.0	75.0	40.810	18.40	219.0
ROUNDUP POWERMAX 4.5 SL	1050 g AE/ha	B 402	85.0	70.0	85.0	41.270	18.50	221.2
SUPERB HC	0.5 % V/V	B						
		Mean =	82.5	70.0	78.8	40.230	19.68	212.6
9 VERDICT 5.57 EC	487 g Al/ha	A 109	85.0	80.0	85.0	39.200	18.60	209.8
AMSOL	5.85 L/ha	B 208	75.0	80.0	70.0	45.290	16.50	248.7
ARMEZON PRO	845 g Al/ha	B 309	75.0	75.0	80.0	38.920	20.60	203.2
ROUNDUP POWERMAX 4.5 SL	1050 g AE/ha	B 406	80.0	75.0	80.0	42.080	22.30	215.0
		Mean =	78.8	77.5	78.8	41.373	19.50	219.2

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Pest ID Code	1, W, Weed	2, W, Weed	3, W, Weed						
Pest Code	AMBTR	IPOSS	SETFA						
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi						
Pest Name	Giant ragweed	Morning glory	Giant foxtail						
Crop ID Code	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX			
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR			
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays			
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn			
Crop Variety	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95			
Rating Date	8-5-2021	8-5-2021	8-5-2021	10-20-2021	10-20-2021	10-20-2021			
SE Group No.	10	11	12	13	14	15			
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, C			
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	MOICON	YIELD			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	LB/P, -, -	%, 0, 100	BU, -, -			
Calculation	NC	NC	NC	NC	NC	NC			
Sample Size				1 PLOT		1 A			
Reporting Basis	1 PLOT	1 PLOT	1 PLOT						
Number of Subsamples	1	1	1	1	1	1			
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021				
Days After First/Last Applic.	82, 56	82, 56	82, 56	158, 132	158, 132	158, 132			
Plant-Eval Interval	84 DP-1	84 DP-1	84 DP-1	160 DP-1	160 DP-1	160 DP-1			
Days After Emergence	78 DE-1	78 DE-1	78 DE-1	154 DE-1	154 DE-1	154 DE-1			
ARM Action Codes						TY1			
Number of Decimals						1			
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot	10	11	12	14	15	16	
10 ACURON XR	3470 g AI/ha	A	110	70.0	85.0	80.0	38.440	17.60	208.3
			203	85.0	85.0	75.0	38.210	18.60	204.5
			304	85.0	75.0	75.0	40.940	17.90	221.0
			410	75.0	70.0	85.0	36.670	16.10	202.3
			Mean =	78.8	78.8	78.8	38.565	17.55	209.0
11 ACURON XR	2980 g AI/ha	A	111	75.0	70.0	80.0	38.500	18.30	206.8
			206	85.0	65.0	80.0	34.190	14.50	192.2
			301	85.0	65.0	75.0	41.840	17.90	225.9
			403	85.0	65.0	75.0	38.820	18.50	208.0
			Mean =	82.5	66.3	77.5	38.338	17.30	208.2
12 HARNESS MAX 3.85 SC	2530 g AI/ha	A	112	75.0	80.0	80.0	33.380	20.60	174.3
			204	75.0	70.0	80.0	37.260	17.00	203.3
			302	75.0	75.0	75.0	37.250	17.20	202.8
			412	75.0	70.0	65.0	33.880	14.60	190.2
			Mean =	75.0	73.8	75.0	35.443	17.35	192.7

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Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: USNG0H5002021	Location: Cully Scott FS	Trial Year: 2021
Protocol ID: HBI008A4-2021US	Investigator (Creator): Scott Cully	
Master Protocol ID:	Study Director: Sara Carter	
Official Trial ID:	Sponsor Contact:	
Conducted Under GEP: No	Trial Origin: P public institution trial	

Crop ID Code
 1, ZEAMX, BCOR, Zea mays, Corn, DKC 65-95 = GLYPHOSATE-R

Part Rated
 PLOT = plot
 P = Pest is Part Rated
 C = Crop is Part Rated

Rating Type
 PHYGEN = phytotoxicity - general / injury
 CONTRO = control / burndown or knockdown
 YIELD = yield

Rating Unit/Min/Max
 %, 0, 100 = percent
 BU, , = bushel

Calculation
 NC = no calculation

PLOT = total plot
 A = acre

PLOT = total plot

Plant-Eval Interval
 28 DP-1 = 1 ZEAMX 5-13-2021
 35 DP-1 = 1 ZEAMX 5-13-2021
 56 DP-1 = 1 ZEAMX 5-13-2021
 84 DP-1 = 1 ZEAMX 5-13-2021
 160 DP-1 = 1 ZEAMX 5-13-2021

ARM Action Codes
 TY1 = 5.55612245*[14]*(100-[15])/84.5

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Pest ID Code		1, W, Weed AMBTR	2, W, Weed IPOSS	3, W, Weed SETFA			1, W, Weed AMBTR	2, W, Weed IPOSS	3, W, Weed SETFA		
Pest Code											
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Setaria faberi			Ambrosia trifida	Ipomoea sp.	Setaria faberi		
Pest Name		Giant ragweed	Morning glory	Giant foxtail			Giant ragweed	Morning glory	Giant foxtail		
Crop ID Code	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn	Corn		
Crop Variety	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95		
Rating Date	6-10-2021	6-10-2021	6-10-2021	6-10-2021	6-17-2021	7-8-2021	7-8-2021	7-8-2021	7-8-2021		
SE Group No.	1	2	3	4	5	5	6	7	8		
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Calculation	NC	NC	NC	NC	NC	NC	NC	NC	NC		
Sample Size											
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021		
Days After First/Last Applic.	26, 26	26, 26	26, 26	26, 26	33, 7	54, 28	54, 28	54, 28	54, 28		
Plant-Eval Interval	28 DP-1	28 DP-1	28 DP-1	28 DP-1	35 DP-1	56 DP-1	56 DP-1	56 DP-1	56 DP-1		
Days After Emergence	22 DE-1	22 DE-1	22 DE-1	22 DE-1	29 DE-1	50 DE-1	50 DE-1	50 DE-1	50 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7	8	9
No. Name	Rate Unit	Code									
9 VERDICT 5.57 EC	487 g AI/ha	A	0.0 a	95.0 a	95.8 a	97.3 a	0.0 a	0.0 a	98.0 a	97.3 a	95.0 a
AMSOL	5.85 L/ha	B									
ARMEZON PRO	845 g AI/ha	B									
ROUNDUP POWERMAX 4.5 SL	1050 g AE/ha	B									
10 ACURON XR	3470 g AI/ha	A	0.0 a	95.0 a	95.0 ab	95.8 a	0.0 a	0.0 a	87.5 d	90.0 b	87.5 b
11 ACURON XR	2980 g AI/ha	A	0.0 a	95.0 a	95.0 ab	95.0 a	0.0 a	0.0 a	92.5 c	90.0 b	86.3 b
12 HARNESS MAX 3.85 SC	2530 g AI/ha	A	0.0 a	95.0 a	95.0 ab	95.0 a	0.0 a	0.0 a	93.8 bc	90.0 b	87.5 b
LSD P=.05			.	.	4.33	2.42	.	.	2.44	1.68	2.86
Standard Deviation			0.00	0.00	3.01	1.68	0.00	0.00	1.70	1.17	1.99
CV			0.0	0.0	3.57	1.93	0.0	0.0	1.94	1.34	2.33
Levene's F^			.	.	2.629	1.206	.	.	2.868	0.893	1.884
Levene's Prob(F)			.	.	0.014*	0.318	.	.	0.008*	0.556	0.075
Skewness^			.	.	0.5441	-0.6825	.	.	-0.1317	-0.4266	-0.0819
Kurtosis^			.	.	2.8287*	1.4537*	.	.	0.0141	-0.3978	0.9484
Replicate F			0.000	0.000	1.218	2.400	0.000	0.000	0.367	4.400	0.324
Replicate Prob(F)			1.0000	1.0000	0.3187	0.0855	1.0000	1.0000	0.7770	0.0104	0.8080
Treatment F			0.000	0.000	316.974	1071.663	0.000	0.000	1072.207	2233.911	740.919
Treatment Prob(F)			1.0000	1.0000	0.0001	0.0001	1.0000	1.0000	0.0001	0.0001	0.0001

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Pest ID Code	1, W, Weed	2, W, Weed	3, W, Weed					
Pest Code	AMBTR	IPOSS	SETFA					
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi					
Pest Name	Giant ragweed	Morning glory	Giant foxtail					
Crop ID Code	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn		
Crop Variety	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95		
Rating Date	8-5-2021	8-5-2021	8-5-2021	10-20-2021	10-20-2021	10-20-2021		
SE Group No.	10	11	12	13	14	15		
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, C		
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	MOICON	YIELD		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	LB/P, -, -	%, 0, 100	BU, -, -		
Calculation	NC	NC	NC	NC	NC	NC		
Sample Size				1 PLOT		1 A		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT					
Number of Subsamples	1	1	1	1	1	1		
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021			
Days After First/Last Applic.	82, 56	82, 56	82, 56	158, 132	158, 132	158, 132		
Plant-Eval Interval	84 DP-1	84 DP-1	84 DP-1	160 DP-1	160 DP-1	160 DP-1		
Days After Emergence	78 DE-1	78 DE-1	78 DE-1	154 DE-1	154 DE-1	154 DE-1		
ARM Action Codes						TY1		
Number of Decimals						1		
Trt Treatment	Rate	Appl	10	11	12	14	15	16
No. Name	Rate Unit	Code						
1 UNTREATED CHECK			0.0 b	0.0 c	0.0 b	19.363 c	16.00 a	106.8 c
2 BICEP II MAGNUM	2470 g Al/ha	A	82.5 a	70.0 ab	73.8 a	39.755 ab	18.30 a	213.5 ab
AMSOL	5.85 L/ha	B						
NIS	0.25 % V/V	B						
ACURON GT	2260 g Al/ha	B						
3 LEXAR EZ 3.7 ZC	1870 g Al/ha	A	80.0 a	78.8 ab	71.3 a	40.930 ab	18.48 a	219.3 ab
AMSOL	5.85 L/ha	B						
NIS	0.25 % V/V	B						
ACURON GT	2260 g Al/ha	B						
4 SURESTART II 4.25 SC	1040 g Al/ha	A	75.0 a	80.0 a	70.0 a	43.073 a	18.00 a	232.2 a
AMSOL	5.85 L/ha	B						
NIS	0.25 % V/V	B						
ACURON GT	2260 g Al/ha	B						
5 HARNESS XTRA 5.6L	2830 g Al/ha	A	82.5 a	75.0 ab	78.8 a	41.453 ab	18.43 a	222.4 ab
AMSOL	5.85 L/ha	B						
NIS	0.25 % V/V	B						
ACURON GT	2260 g Al/ha	B						
6 VERDICT 5.57 EC	682 g Al/ha	A	78.8 a	77.5 ab	73.8 a	40.625 ab	18.00 a	218.9 ab
AMSOL	5.85 L/ha	B						
NIS	0.25 % V/V	B						
ACURON GT	2260 g Al/ha	B						
7 SURESTART II 4.25 SC	1040 g Al/ha	A	80.0 a	76.3 ab	77.5 a	40.263 ab	18.68 a	215.4 ab
AMSOL	5.85 L/ha	B						
RESICORE 3.29 SC	1150 g Al/ha	B						
ROUNDUP POWERMAX 4.5 SL	1050 g AE/ha	B						
8 HARNESS XTRA 5.6L	2830 g Al/ha	A	82.5 a	70.0 ab	78.8 a	40.230 ab	19.68 a	212.6 ab
AMSOL	5.85 L/ha	B						
LAUDIS 3.5 SC	92.1 g Al/ha	B						
ROUNDUP POWERMAX 4.5 SL	1050 g AE/ha	B						
SUPERB HC	0.5 % V/V	B						

University of Kentucky

Pest ID Code	1, W, Weed	2, W, Weed	3, W, Weed					
Pest Code	AMBTR	IPOSS	SETFA					
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi					
Pest Name	Giant ragweed	Morning glory	Giant foxtail					
Crop ID Code	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX	1, ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn		
Crop Variety	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95	DKC 65-95		
Rating Date	8-5-2021	8-5-2021	8-5-2021	10-20-2021	10-20-2021	10-20-2021		
SE Group No.	10	11	12	13	14	15		
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, C		
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	MOICON	YIELD		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	LB/P, -, -	%, 0, 100	BU, -, -		
Calculation	NC	NC	NC	NC	NC	NC		
Sample Size				1 PLOT		1 A		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT					
Number of Subsamples	1	1	1	1	1	1		
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021			
Days After First/Last Applic.	82, 56	82, 56	82, 56	158, 132	158, 132	158, 132		
Plant-Eval Interval	84 DP-1	84 DP-1	84 DP-1	160 DP-1	160 DP-1	160 DP-1		
Days After Emergence	78 DE-1	78 DE-1	78 DE-1	154 DE-1	154 DE-1	154 DE-1		
ARM Action Codes						TY1		
Number of Decimals						1		
Trt Treatment	Rate	Appl	10	11	12	14	15	16
No. Name	Rate Unit	Code						
9 VERDICT 5.57 EC	487 g Al/ha	A	78.8 a	77.5 ab	78.8 a	41.373 ab	19.50 a	219.2 ab
AMSOL	5.85 L/ha	B						
ARMEZON PRO	845 g Al/ha	B						
ROUNDUP POWERMAX 4.5 SL	1050 g AE/ha	B						
10 ACURON XR	3470 g Al/ha	A	78.8 a	78.8 ab	78.8 a	38.565 ab	17.55 a	209.0 ab
11 ACURON XR	2980 g Al/ha	A	82.5 a	66.3 b	77.5 a	38.338 ab	17.30 a	208.2 ab
12 HARNESS MAX 3.85 SC	2530 g Al/ha	A	75.0 a	73.8 ab	75.0 a	35.443 b	17.35 a	192.7 b
LSD P=.05	6.28		6.28	7.99	6.33	4.0249	2.199	21.90
Standard Deviation	4.37		4.37	5.55	4.40	2.7978	1.529	15.22
CV	5.98		5.98	8.09	6.33	7.31	8.44	7.4
Levene's F^	2.521		2.521	2.904	1.625	1.263	1.369	0.963
Levene's Prob(F)	0.018*		0.018*	0.008*	0.133	0.284	0.229	0.496
Skewness^	-0.0864		-0.0864	0.0266	-0.5002	-0.5605	0.0308	-0.4108
Kurtosis^	-0.349		-0.349	-0.9154	0.8188	-0.1632	-0.1628	-0.5576
Replicate F	0.464		0.464	0.287	0.745	2.690	3.920	3.222
Replicate Prob(F)	0.7093		0.7093	0.8343	0.5328	0.0622	0.0169	0.0351
Treatment F	112.345		112.345	62.948	101.003	20.024	1.711	18.361
Treatment Prob(F)	0.0001		0.0001	0.0001	0.0001	0.0001	0.1144	0.0001

University of Kentucky

Acuron GT: Evaluation of weed control, crop tolerance and yield in a two pass system - Mid and South University

Trial ID: USNG0H5002021	Location: Cully Scott FS	Trial Year: 2021
Protocol ID: HBI008A4-2021US	Investigator (Creator): Scott Cully	
Master Protocol ID:	Study Director: Sara Carter	
Official Trial ID:	Sponsor Contact:	
Conducted Under GEP: No	Trial Origin: P public institution trial	

Crop ID Code
 1, ZEAMX, BCOR, Zea mays, Corn, DKC 65-95 = GLYPHOSATE-R

Part Rated
 PLOT = plot
 P = Pest is Part Rated
 C = Crop is Part Rated

Rating Type
 PHYGEN = phytotoxicity - general / injury
 CONTRO = control / burndown or knockdown
 YIELD = yield

Rating Unit/Min/Max
 %, 0, 100 = percent
 BU, , = bushel

Calculation
 NC = no calculation

PLOT = total plot
 A = acre

PLOT = total plot

Plant-Eval Interval
 28 DP-1 = 1 ZEAMX 5-13-2021
 35 DP-1 = 1 ZEAMX 5-13-2021
 56 DP-1 = 1 ZEAMX 5-13-2021
 84 DP-1 = 1 ZEAMX 5-13-2021
 160 DP-1 = 1 ZEAMX 5-13-2021

ARM Action Codes
 TY1 = 5.55612245*[14]*(100-[15])/84.5

University of Kentucky

A23372A: Crop Tolerance and Efficacy in No-Till Soybean (University)

Trial ID: USNG0H5012021 Location: Cully Scott FS Trial Year: 2021
 Protocol ID: HSM051A4-2021US Investigator (Creator): Scott Cully
 Master Protocol ID: Study Director: Sara Carter
 Official Trial ID: Sponsor Contact:
 Conducted Under GEP: No Trial Origin: P public institution trial

Reps: 3 Appl Code: A Plots: 10 by 44 feet
 Appl. Amount: 20 GAL/AC Mix Size: 2.7 L (total for 3 plots; minimum=2.294 L, overage=245.5 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Rate Unit	Other Rate	Other Unit	Appl Timing	Appl Code	Amt to Measure	Rep 1	Rep 2	Rep 3
2	NIS		SL	% V/V	0.25 %	V/V	PREEM A		6.75 mL/mx	102	208	305
	A23372 [A]	495.7 gA/L	ZC	g AI/ha	4.2 PT/A		PREEM A		70.88 mL/mx			
	GRAMOXONE SL 3.0	360 gA/L	SL	g AI/ha	2 PT/A		PREEM A		33.75 mL/mx			
3	AMSOL		SL	% V/V	2.5 %	V/V	PREEM A		67.5 mL/mx	103	210	311
	A23372 [A]	495.7 gA/L	ZC	g AI/ha	4.2 PT/A		PREEM A		70.88 mL/mx			
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L	SL	g AE/ha	2 PT/A		PREEM A		33.75 mL/mx			
4	VOLT-EDGE		L	L/ha	20 FL OZ/A		PREEM A		21.09 mL/mx	104	209	301
	INTACT		SL	% V/V	0.5 %	V/V	PREEM A		13.5 mL/mx			
	CLASS ACT RIDION		SL	% V/V	1 %	V/V	PREEM A		27.0 mL/mx			
	A23372 [A]	495.7 gA/L	ZC	g AI/ha	4.2 PT/A		PREEM A		70.88 mL/mx			
	XTENDIMAX 2.9 SL	350.2 gAE/L	SL	g AE/ha	22 FL OZ/A		PREEM A		23.2 mL/mx			
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L	SL	g AE/ha	2 PT/A		PREEM A		33.75 mL/mx			
5	NIS		SL	% V/V	0.25 %	V/V	PREEM A		6.75 mL/mx	105	203	310
	BOUNDARY 6.5 EC	777.5 gA/L	EC	g AI/ha	2 PT/A		PREEM A		33.75 mL/mx			
	GRAMOXONE SL 3.0	360 gA/L	SL	g AI/ha	2 PT/A		PREEM A		33.75 mL/mx			
6	AMSOL		SL	% V/V	2.5 %	V/V	PREEM A		67.5 mL/mx	106	202	303
	BOUNDARY 6.5 EC	777.5 gA/L	EC	g AI/ha	2 PT/A		PREEM A		33.75 mL/mx			
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L	SL	g AE/ha	2 PT/A		PREEM A		33.75 mL/mx			
7	VOLT-EDGE		L	L/ha	20 FL OZ/A		PREEM A		21.09 mL/mx	107	204	306
	INTACT		SL	% V/V	0.5 %	V/V	PREEM A		13.5 mL/mx			
	CLASS ACT RIDION		SL	% V/V	1 %	V/V	PREEM A		27.0 mL/mx			
	BOUNDARY 6.5 EC	777.5 gA/L	EC	g AI/ha	2 PT/A		PREEM A		33.75 mL/mx			
	XTENDIMAX 2.9 SL	350.2 gAE/L	SL	g AE/ha	22 FL OZ/A		PREEM A		23.2 mL/mx			
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L	SL	g AE/ha	2 PT/A		PREEM A		33.75 mL/mx			
8	AMSOL		SL	% V/V	2.5 %	V/V	PREEM A		67.5 mL/mx	108	206	312
	PREMIUM MSO		SL	% V/V	1 %	V/V	PREEM A		27.0 mL/mx			
	ZIDUA PRO 4.09 SC	490.09 gA/L	SC	g AI/ha	4.5 FL OZ/A		PREEM A		4.746 mL/mx			
	GRAMOXONE SL 3.0	360 gA/L	SL	g AI/ha	2 PT/A		PREEM A		33.75 mL/mx			
9	AMSOL		SL	% V/V	2.5 %	V/V	PREEM A		67.5 mL/mx	109	201	309
	ZIDUA PRO 4.09 SC	490.09 gA/L	SC	g AI/ha	4.5 FL OZ/A		PREEM A		4.746 mL/mx			
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L	SL	g AE/ha	2 PT/A		PREEM A		33.75 mL/mx			
	PREMIUM MSO		SL	% V/V	1 %	V/V	PREEM A		27.0 mL/mx			
10	VOLT-EDGE		L	L/ha	20 FL OZ/A		PREEM A		21.09 mL/mx	110	207	304

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Reps: 3 Appl Code: A Plots: 10 by 44 feet
 Appl. Amount: 20 GAL/AC Mix Size: 2.7 L (total for 3 plots; minimum=2.294 L, overage=245.5 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3
	INTACT			SL	% V/V	0.5 % V/V		PREEM A		13.5 mL/mx			
	CLASS ACT RIDION			SL	% V/V	1 % V/V		PREEM A		27.0 mL/mx			
	ZIDUA PRO 4.09 SC	490.09 gA/L		SC	g AI/ha	4.5 FL OZ/A		PREEM A		4.746 mL/mx			
	XTENDIMAX 2.9 SL	350.2 gAE/L		SL	g AE/ha	22 FL OZ/A		PREEM A		23.2 mL/mx			
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L		SL	g AE/ha	2 PT/A		PREEM A		33.75 mL/mx			
	PREMIUM MSO			SL	% V/V	1 % V/V		PREEM A		27.0 mL/mx			
11	VOLT-EDGE			L	L/ha	20 FL OZ/A		PREEM A		21.09 mL/mx	111	212	308
	INTACT			SL	% V/V	0.5 % V/V		PREEM A		13.5 mL/mx			
	CLASS ACT RIDION			SL	% V/V	1 % V/V		PREEM A		27.0 mL/mx			
	PREFIX [F]	631.68 gA/L		EC	g AI/ha	2 PT/A		PREEM A		33.75 mL/mx			
	XTENDIMAX 2.9 SL	350.2 gAE/L		SL	g AE/ha	22 FL OZ/A		PREEM A		23.2 mL/mx			
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L		SL	g AE/ha	2 PT/A		PREEM A		33.75 mL/mx			
12	VOLT-EDGE			L	L/ha	20 FL OZ/A		PREEM A		21.09 mL/mx	112	205	307
	INTACT			SL	% V/V	0.5 % V/V		PREEM A		13.5 mL/mx			
	CLASS ACT RIDION			SL	% V/V	1 % V/V		PREEM A		27.0 mL/mx			
	TAVIUM PLUS VAPORGRIP TECH	406.8 gAE/L		CS	g AI/ha	56.5 FL OZ/A		PREEM A		59.59 mL/mx			
	ROUNDUP POWERMAX 4.5 SL	540 gAE/L		SL	g AE/ha	2 PT/A		PREEM A		33.75 mL/mx			

* Forced to Sort by Application code because a leaf wall area Other Rate Unit is used.

Reps: 3 Appl Code: _ Plots: 10 by 44 feet

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3
1	CHECK										101	211	302

* Forced to Sort by Application code because a leaf wall area Other Rate Unit is used.

Sort Order: Application Code, Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
16.875	mL	NIS			SL	
265.781	mL	A23372 [A]	495.7	gA/L	ZC	
126.563	mL	GRAMOXONE SL 3.0	360	gA/L	SL	
337.500	mL	AMSOL			SL	
337.500	mL	ROUNDUP POWERMAX 4.5 SL	540	gAE/L	SL	
131.836	mL	VOLT-EDGE			L	
84.375	mL	INTACT			SL	
168.750	mL	CLASS ACT RIDION			SL	
116.016	mL	XTENDIMAX 2.9 SL	350.2	gAE/L	SL	
126.563	mL	BOUNDARY 6.5 EC	777.5	gA/L	EC	
101.250	mL	PREMIUM MSO			SL	
17.798	mL	ZIDUA PRO 4.09 SC	490.09	gA/L	SC	

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
42.188	mL	PREFIX [F]	631.68	gA/L	EC	
74.487	mL	TAVIUM PLUS VAPORGRIP TECH	406.8	gAE/L	CS	

* 'Per area' calculations based on application amount= 20 GAL/AC, mix size= 2.7 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 20 GAL/AC, mix size= 2.7 L.

General Trial Information

Study Director: Sara Carter **Title:** Research Specialist
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

Discipline: H herbicide
Trial Status: F one-year/final
Trial Status Date: 10-11-2021 11:13 AM
ARM Trial Created On: 3-23-2021
Initiation Date: 5-13-2021
Completion Date: 10-1-2021
Trial Usage/Type: 0 Research and Development
Planned Completion Date: 10-30-2021
Protocol Revision Number: 1.0
Protocol Revision Date: 3-23-2021
Last Changed By: Sara Carter

Trial Location

Address (Location): 3250 Ironworks Pike
City: LEXINGTON **Country:** USA United States
State/Prov.: KENTUCKY
Postal Code: 40511

Latitude of LL Corner °: 38.1025 N
Longitude of LL Corner °: -84.758333 W USA 71.39038 -18.91069
 -66.949607 --180

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Role: STYDIR study director
Study Director: Sara Carter **Title:** Research Specialist
Organization: University of Kentucky
Address 1: 2951 Agronomy Road, Unit 12
City: Lexington, KY
Mobile No.: 859-559-6710
E-mail: skcart0@uky.edu
Postal Code: 40511
Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
E-mail: sara.carter@uky.edu
City: LEXINGTON, KY **Postal Code:** 40546-0312

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Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Variety: AG35XF1 **Stage Scale:** BBCH
Attributes: XTENDFLEX **Maturity Group:** III
Planting Rate: 150000 S/A
Planting Date: 5-14-2021
Depth: 1.5 IN **Planting Method:** PLANTD planted
Rows per Plot: 6 **Planting Equipment:** FE field equipment
Row Spacing: 30 IN **Seed Bed:** SMOOTH smooth
Soil Moisture: SLIDRY slightly dry
Soil Temperature: 59 F
Emergence Date: 5-21-2021

Pest Description

Pest 1 Type: W **Code:** VIOAR *Viola arvensis*
Common Name: Field pansy **Stage Scale:** BBCH
Pest 2 Type: W **Code:** GERCA *Geranium carolinianum*
Common Name: Carolina geranium **Stage Scale:** BBCH
Pest 3 Type: W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed **Stage Scale:** BBCH
Crop: 1 GLXMA
Pest 4 Type: W **Code:** IPOSS *Ipomoea sp.*
Common Name: Morning glory **Stage Scale:** BBCH
Crop: 1 GLXMA
Pest 5 Type: W **Code:** SIDSP *Sida spinosa*
Common Name: Prickly sida **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Total Plot Width:** 15 ft **Site Type:** FIELD field
Treated Plot Length: 44 FT
Treated Plot Area: 440.0 FT² **Treatments:** 12 **Tillage Type:** NOTILL no-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

Soil Description

Description Name: LANTON
% Sand: 7 **% OM:** 4 **Texture:** SIL silt loam
% Silt: 63 **pH:** 6.5 **Soil Name:** LANTON SILT LOAM
% Clay: 30 **CEC:** 22 **Fert. Level:** E excellent
Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Closest Weather Station: SPINDLETOP **Distance:** 2.25 MI

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Application Description	
	A
Application Date	5-14-2021
Appl. Start Time	5:30 PM
Appl. Stop Time	6:00 PM
Application Method	NONINC
Application Timing	PREPLA
Application Placement	BROFOL
Applied By	SARA
Air Temperature Start, Stop	67, - F
% Relative Humidity Start, Stop	30, -
Wind Velocity+Dir. Start	4 MPH, NNE
Wet Leaves (Y/N)	N, no
Soil Temperature	59 F
Soil Moisture	SLIDRY
% Cloud Cover	40

Crop Stage At Each Application	
	A
Crop 1 Code, BBCH Scale	GLXMA, BSOY
Stage Scale Used	BBCH

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Pest Stage At Each Application	
	A
Pest 1 Code, Type, Scale	VIOAR, W, BBCH
Stage Majority, Percent	13, -
Stage Minimum, Percent	00, -
Stage Maximum, Percent	12, -
Height Average	3 in
Height Minimum, Maximum	2, 4
Pest 2 Code, Type, Scale	GERCA, W, BBCH
Stage Majority, Percent	13, -
Stage Minimum, Percent	00, -
Stage Maximum, Percent	13, -
Height Average	4 in
Height Minimum, Maximum	3, 4
Pest 3 Code, Type, Scale	AMBTR, W, BBCH
Stage Majority, Percent	12, -
Stage Minimum, Percent	00, -
Stage Maximum, Percent	12, -
Height Average	2 in
Height Minimum, Maximum	0, 2
Crop Part Attacked, Code	-, GLXMA
Pest 4 Code, Type, Scale	IPOSS, W, BBCH
Stage Majority, Percent	10, -
Stage Minimum, Percent	00, -
Stage Maximum, Percent	10, -
Height Average	1 in
Height Minimum, Maximum	0, 1
Crop Part Attacked, Code	-, GLXMA
Pest 5 Code, Type, Scale	SIDSP, W, BBCH
Stage Majority, Percent	11, -
Stage Minimum, Percent	00, -
Stage Maximum, Percent	11, -
Height Average	2 in
Height Minimum, Maximum	0, 2

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Pest ID Code			3, W, Weed AMBTR	1, W, Weed VIOAR	2, W, Weed GERCA		3, W, Weed AMBTR	4, W, Weed IPOSS	5, W, Weed SIDSP		
Pest Code			Ambrosia trifida	Viola arvensis	Geranium caroli>		Ambrosia trifida	Ipomoea sp.	Sida spinosa		
Pest Scientific Name			Giant ragweed	Field pansy	Carolina gerani>		Giant ragweed	Morning glory	Prickly sida		
Pest Name											
Crop ID Code	1, GLXMA		1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA		
BBCH Scale	BSOY		BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Crop Variety	AG35XF1		AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1		
Rating Date	5-27-2021		5-27-2021	5-27-2021	5-27-2021	6-15-2021	6-15-2021	6-15-2021	6-15-2021		
SE Group No.	2		3	4	5	6	7	8	9		
SE Description	14 day		14 day	14 day	14 day	28 day	28 day	28 day	28 day		
Part Rated	PLAEME, C		PLAEME, P	PLAEME, P	PLAEME, P	PLAEME, C	PLAEME, P	PLAEME, P	PLAEME, P		
Rating Type	PHYGEN		CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Calculation	NC		NC	NC	NC	NC	NC	NC	NC		
Reporting Basis	1 PLOT		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1		1	1	1	1	1	1	1		
Data Entry Date	10-11-2021		10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021		
Days After First/Last Applic.	13, 13		13, 13	13, 13	13, 13	32, 32	32, 32	32, 32	32, 32		
Trt-Eval Interval	13 DA-A		13 DA-A	13 DA-A	13 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A		
Plant-Eval Interval	13 DP-1		13 DP-1	13 DP-1	13 DP-1	32 DP-1	32 DP-1	32 DP-1	32 DP-1		
Days After Emergence	6 DE-1		6 DE-1	6 DE-1	6 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1		
Trt Treatment		Rate	Appl								
No. Name		Rate Unit	Code Plot	1	2	3	4	5	6	7	8
			211	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			302	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 NIS	0.25 % V/V	A	102	0.0	100.0	100.0	100.0	0.0	98.0	85.0	98.0
A23372 [A]	2430 g AI/ha	A	208	0.0	100.0	100.0	100.0	0.0	98.0	98.0	98.0
GRAMOXONE SL 3.0	842 g AI/ha	A	305	0.0	100.0	100.0	100.0	0.0	95.0	90.0	95.0
			Mean =	0.0	100.0	100.0	100.0	0.0	97.0	91.0	97.0
3 AMSOL	2.5 % V/V	A	103	0.0	80.0	100.0	100.0	0.0	98.0	90.0	95.0
A23372 [A]	2430 g AI/ha	A	210	0.0	90.0	100.0	70.0	0.0	95.0	95.0	98.0
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A	311	0.0	90.0	100.0	100.0	0.0	98.0	98.0	98.0
			Mean =	0.0	86.7	100.0	90.0	0.0	97.0	94.3	97.0
4 VOLT-EDGE	1.46 L/ha	A	104	0.0	85.0	100.0	100.0	0.0	95.0	95.0	98.0
INTACT	0.5 % V/V	A	209	0.0	85.0	95.0	65.0	0.0	95.0	95.0	95.0
CLASS ACT RIDION	1 % V/V	A	301	0.0	75.0	95.0	95.0	0.0	85.0	85.0	95.0
A23372 [A]	2430 g AI/ha	A									
XTENDIMAX 2.9 SL	563 g AE/ha	A									
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A									
			Mean =	0.0	81.7	96.7	86.7	0.0	91.7	91.7	96.0
5 NIS	0.25 % V/V	A	105	0.0	100.0	100.0	100.0	0.0	60.0	80.0	80.0
BOUNDARY 6.5 EC	1820 g AI/ha	A	203	0.0	100.0	100.0	100.0	0.0	70.0	75.0	90.0
GRAMOXONE SL 3.0	842 g AI/ha	A	310	0.0	100.0	100.0	100.0	0.0	85.0	90.0	95.0
			Mean =	0.0	100.0	100.0	100.0	0.0	71.7	81.7	88.3

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Pest ID Code		3, W, Weed	1, W, Weed	2, W, Weed		3, W, Weed	4, W, Weed	5, W, Weed		
Pest Code		AMBTR	VIOAR	GERCA		AMBTR	IPOSS	SIDSP		
Pest Scientific Name		Ambrosia trifida	Viola arvensis	Geranium caroli>		Ambrosia trifida	Ipomoea sp.	Sida spinosa		
Pest Name		Giant ragweed	Field pansy	Carolina gerani>		Giant ragweed	Morning glory	Prickly sida		
Crop ID Code	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Crop Variety	AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1		
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-15-2021	6-15-2021	6-15-2021	6-15-2021		
SE Group No.	2	3	4	5	6	7	8	9		
SE Description	14 day	14 day	14 day	14 day	28 day	28 day	28 day	28 day		
Part Rated	PLAEME, C	PLAEME, P	PLAEME, P	PLAEME, P	PLAEME, C	PLAEME, P	PLAEME, P	PLAEME, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Calculation	NC	NC	NC	NC	NC	NC	NC	NC		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1		
Data Entry Date	10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021		
Days After First/Last Applic.	13, 13	13, 13	13, 13	13, 13	32, 32	32, 32	32, 32	32, 32		
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A		
Plant-Eval Interval	13 DP-1	13 DP-1	13 DP-1	13 DP-1	32 DP-1	32 DP-1	32 DP-1	32 DP-1		
Days After Emergence	6 DE-1	6 DE-1	6 DE-1	6 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1		
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8
6 AMSOL	2.5 % V/V	A 106	0.0	95.0	100.0	100.0	0.0	60.0	75.0	95.0
BOUNDARY 6.5 EC	1820 g AI/ha	A 202	0.0	90.0	100.0	100.0	0.0	50.0	65.0	95.0
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A 303	0.0	75.0	100.0	100.0	0.0	50.0	75.0	95.0
		Mean =	0.0	86.7	100.0	100.0	0.0	53.3	71.7	95.0
7 VOLT-EDGE	1.46 L/ha	A 107	0.0	95.0	90.0	95.0	0.0	65.0	70.0	95.0
INTACT	0.5 % V/V	A 204	0.0	80.0	90.0	90.0	0.0	60.0	75.0	90.0
CLASS ACT RIDION	1 % V/V	A 306	0.0	100.0	100.0	100.0	0.0	95.0	95.0	95.0
BOUNDARY 6.5 EC	1820 g AI/ha	A								
XTENDIMAX 2.9 SL	563 g AE/ha	A								
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A								
		Mean =	0.0	91.7	93.3	95.0	0.0	73.3	80.0	93.3
8 AMSOL	2.5 % V/V	A 108	0.0	100.0	100.0	100.0	0.0	70.0	90.0	95.0
PREMIUM MSO	1 % V/V	A 206	0.0	100.0	100.0	100.0	0.0	95.0	98.0	95.0
ZIDUA PRO 4.09 SC	161 g AI/ha	A 312	0.0	100.0	100.0	100.0	0.0	95.0	98.0	95.0
GRAMOXONE SL 3.0	842 g AI/ha	A								
		Mean =	0.0	100.0	100.0	100.0	0.0	86.7	95.3	95.0
9 AMSOL	2.5 % V/V	A 109	0.0	90.0	95.0	95.0	0.0	65.0	90.0	95.0
ZIDUA PRO 4.09 SC	161 g AI/ha	A 201	0.0	95.0	100.0	100.0	0.0	70.0	65.0	95.0
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A 309	0.0	100.0	100.0	100.0	0.0	90.0	95.0	95.0
PREMIUM MSO	1 % V/V	A								
		Mean =	0.0	95.0	98.3	98.3	0.0	75.0	83.3	95.0

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Pest ID Code			3, W, Weed	1, W, Weed	2, W, Weed			3, W, Weed	4, W, Weed	5, W, Weed		
Pest Code			AMBTR	VIOAR	GERCA			AMBTR	IPOSS	SIDSP		
Pest Scientific Name			Ambrosia trifida	Viola arvensis	Geranium caroli>			Ambrosia trifida	Ipomoea sp.	Sida spinosa		
Pest Name			Giant ragweed	Field pansy	Carolina gerani>			Giant ragweed	Morning glory	Prickly sida		
Crop ID Code	1, GLXMA			1, GLXMA	1, GLXMA			1, GLXMA	1, GLXMA	1, GLXMA		
BBCH Scale	BSOY			BSOY	BSOY			BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max			Glycine max	Glycine max			Glycine max	Glycine max	Glycine max		
Crop Name	Soybean			Soybean	Soybean			Soybean	Soybean	Soybean		
Crop Variety	AG35XF1			AG35XF1	AG35XF1			AG35XF1	AG35XF1	AG35XF1		
Rating Date	5-27-2021			5-27-2021	5-27-2021			6-15-2021	6-15-2021	6-15-2021		
SE Group No.	2			3	4			5	6	7		
SE Description	14 day			14 day	14 day			28 day	28 day	28 day		
Part Rated	PLAEME, C			PLAEME, P	PLAEME, P			PLAEME, P	PLAEME, P	PLAEME, P		
Rating Type	PHYGEN			CONTRO	CONTRO			PHYGEN	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100			%, 0, 100	%, 0, 100			%, 0, 100	%, 0, 100	%, 0, 100		
Calculation	NC			NC	NC			NC	NC	NC		
Reporting Basis	1 PLOT			1 PLOT	1 PLOT			1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1			1	1			1	1	1		
Data Entry Date	10-11-2021			10-11-2021	10-11-2021			10-11-2021	10-11-2021	10-11-2021		
Days After First/Last Applic.	13, 13			13, 13	13, 13			32, 32	32, 32	32, 32		
Trt-Eval Interval	13 DA-A			13 DA-A	13 DA-A			32 DA-A	32 DA-A	32 DA-A		
Plant-Eval Interval	13 DP-1			13 DP-1	13 DP-1			32 DP-1	32 DP-1	32 DP-1		
Days After Emergence	6 DE-1			6 DE-1	6 DE-1			25 DE-1	25 DE-1	25 DE-1		
Trt Treatment			Rate	Appl								
No. Name	Rate	Unit	Code	Plot	1	2	3	4	5	6	7	8
10 VOLT-EDGE	1.46	L/ha	A	110	0.0	95.0	95.0	95.0	0.0	95.0	95.0	98.0
INTACT	0.5	% V/V	A	207	0.0	100.0	100.0	100.0	0.0	90.0	95.0	95.0
CLASS ACT RIDION	1	% V/V	A	304	0.0	100.0	100.0	100.0	0.0	85.0	90.0	95.0
ZIDUA PRO 4.09 SC	161	g AI/ha	A									
XTENDIMAX 2.9 SL	563	g AE/ha	A									
ROUNDUP POWERMAX 4.5 SL	1260	g AE/ha	A									
PREMIUM MSO	1	% V/V	A									
				Mean =	0.0	98.3	98.3	98.3	0.0	90.0	93.3	96.0
11 VOLT-EDGE	1.46	L/ha	A	111	0.0	95.0	85.0	95.0	0.0	90.0	90.0	90.0
INTACT	0.5	% V/V	A	212	0.0	95.0	100.0	100.0	0.0	90.0	85.0	95.0
CLASS ACT RIDION	1	% V/V	A	308	0.0	100.0	100.0	100.0	0.0	98.0	98.0	98.0
PREFIX [F]	1480	g AI/ha	A									
XTENDIMAX 2.9 SL	563	g AE/ha	A									
ROUNDUP POWERMAX 4.5 SL	1260	g AE/ha	A									
				Mean =	0.0	96.7	95.0	98.3	0.0	92.7	91.0	94.3
12 VOLT-EDGE	1.46	L/ha	A	112	0.0	85.0	65.0	60.0	10.0	80.0	80.0	85.0
INTACT	0.5	% V/V	A	205	0.0	95.0	100.0	100.0	0.0	85.0	90.0	60.0
CLASS ACT RIDION	1	% V/V	A	307	0.0	95.0	100.0	100.0	0.0	90.0	90.0	95.0
TAVIUM PLUS VAPORGRIP TECH	1680	g AI/ha	A									
ROUNDUP POWERMAX 4.5 SL	1260	g AE/ha	A									
				Mean =	0.0	91.7	88.3	86.7	3.3	85.0	86.7	80.0

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Pest ID Code		3, W, Weed	4, W, Weed	5, W, Weed
Pest Code		AMBTR	IPOSS	SIDSP
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Sida spinosa
Pest Name		Giant ragweed	Morning glory	Prickly sida
Crop ID Code	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean
Crop Variety	AG35XF1	AG35XF1	AG35XF1	AG35XF1
Rating Date	6-25-2021	6-25-2021	6-25-2021	6-25-2021
SE Group No.	10	11	12	13
SE Description	42 day	42 day	42 day	42 day
Part Rated	PLAEME, C	PLAEME, P	PLAEME, P	PLAEME, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Calculation	NC	NC	NC	NC
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1
Data Entry Date	10-11-2021	10-12-2021	10-12-2021	10-12-2021
Days After First/Last Applic.	42, 42	42, 42	42, 42	42, 42
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A	42 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	42 DP-1
Days After Emergence	35 DE-1	35 DE-1	35 DE-1	35 DE-1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot		
1 CHECK			9	10
			101	0.0
			0.0	0.0
			0.0	0.0

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Pest ID Code			3, W, Weed	4, W, Weed	5, W, Weed	
Pest Code			AMBTR	IPOSS	SIDSP	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Sida spinosa	
Pest Name			Giant ragweed	Morning glory	Prickly sida	
Crop ID Code	1, GLXMA		1, GLXMA	1, GLXMA	1, GLXMA	
BBCH Scale	BSOY		BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max		Glycine max	Glycine max	Glycine max	
Crop Name	Soybean		Soybean	Soybean	Soybean	
Crop Variety	AG35XF1		AG35XF1	AG35XF1	AG35XF1	
Rating Date	6-25-2021		6-25-2021	6-25-2021	6-25-2021	
SE Group No.	10		11	12	13	
SE Description	42 day		42 day	42 day	42 day	
Part Rated	PLAEME, C		PLAEME, P	PLAEME, P	PLAEME, P	
Rating Type	PHYGEN		CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100		%, 0, 100	%, 0, 100	%, 0, 100	
Calculation	NC		NC	NC	NC	
Reporting Basis	1 PLOT		1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1		1	1	1	
Data Entry Date	10-11-2021		10-12-2021	10-12-2021	10-12-2021	
Days After First/Last Applic.	42, 42		42, 42	42, 42	42, 42	
Trt-Eval Interval	42 DA-A		42 DA-A	42 DA-A	42 DA-A	
Plant-Eval Interval	42 DP-1		42 DP-1	42 DP-1	42 DP-1	
Days After Emergence	35 DE-1		35 DE-1	35 DE-1	35 DE-1	
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot	9	10	11	12
		211	0.0	0.0	0.0	0.0
		302	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0
2 NIS	0.25 % V/V	A 102	0.0	90.0	80.0	95.0
A23372 [A]	2430 g AI/ha	A 208	0.0	90.0	85.0	85.0
GRAMOXONE SL 3.0	842 g AI/ha	A 305	0.0	90.0	85.0	85.0
		Mean =	0.0	90.0	83.3	88.3
3 AMSOL	2.5 % V/V	A 103	0.0	90.0	85.0	95.0
A23372 [A]	2430 g AI/ha	A 210	0.0	90.0	85.0	85.0
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A 311	0.0	90.0	85.0	85.0
		Mean =	0.0	90.0	85.0	88.3
4 VOLT-EDGE	1.46 L/ha	A 104	0.0	90.0	85.0	95.0
INTACT	0.5 % V/V	A 209	0.0	90.0	85.0	85.0
CLASS ACT RIDION	1 % V/V	A 301	0.0	80.0	80.0	85.0
A23372 [A]	2430 g AI/ha	A				
XTENDIMAX 2.9 SL	563 g AE/ha	A				
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A				
		Mean =	0.0	86.7	83.3	88.3
5 NIS	0.25 % V/V	A 105	0.0	50.0	75.0	80.0
BOUNDARY 6.5 EC	1820 g AI/ha	A 203	0.0	60.0	70.0	85.0
GRAMOXONE SL 3.0	842 g AI/ha	A 310	0.0	80.0	85.0	85.0
		Mean =	0.0	63.3	76.7	83.3

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Pest ID Code		3, W, Weed	4, W, Weed	5, W, Weed		
Pest Code		AMBTR	IPOSS	SIDSP		
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Sida spinosa		
Pest Name		Giant ragweed	Morning glory	Prickly sida		
Crop ID Code	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean		
Crop Variety	AG35XF1	AG35XF1	AG35XF1	AG35XF1		
Rating Date	6-25-2021	6-25-2021	6-25-2021	6-25-2021		
SE Group No.	10	11	12	13		
SE Description	42 day	42 day	42 day	42 day		
Part Rated	PLAEME, C	PLAEME, P	PLAEME, P	PLAEME, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Calculation	NC	NC	NC	NC		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1		
Data Entry Date	10-11-2021	10-12-2021	10-12-2021	10-12-2021		
Days After First/Last Applic.	42, 42	42, 42	42, 42	42, 42		
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A	42 DA-A		
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	42 DP-1		
Days After Emergence	35 DE-1	35 DE-1	35 DE-1	35 DE-1		
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot	9	10	11	12
6 AMSOL	2.5 % V/V	A 106	0.0	50.0	70.0	90.0
BOUNDARY 6.5 EC	1820 g AI/ha	A 202	0.0	40.0	60.0	85.0
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A 303	0.0	50.0	70.0	85.0
		Mean =	0.0	46.7	66.7	86.7
7 VOLT-EDGE	1.46 L/ha	A 107	0.0	55.0	65.0	90.0
INTACT	0.5 % V/V	A 204	0.0	50.0	70.0	85.0
CLASS ACT RIDION	1 % V/V	A 306	0.0	90.0	85.0	85.0
BOUNDARY 6.5 EC	1820 g AI/ha	A				
XTENDIMAX 2.9 SL	563 g AE/ha	A				
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A				
		Mean =	0.0	65.0	73.3	86.7
8 AMSOL	2.5 % V/V	A 108	0.0	65.0	85.0	90.0
PREMIUM MSO	1 % V/V	A 206	0.0	90.0	85.0	85.0
ZIDUA PRO 4.09 SC	161 g AI/ha	A 312	0.0	90.0	85.0	85.0
GRAMOXONE SL 3.0	842 g AI/ha	A				
		Mean =	0.0	81.7	85.0	86.7
9 AMSOL	2.5 % V/V	A 109	0.0	55.0	85.0	90.0
ZIDUA PRO 4.09 SC	161 g AI/ha	A 201	0.0	60.0	60.0	80.0
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A 309	0.0	90.0	85.0	85.0
PREMIUM MSO	1 % V/V	A				
		Mean =	0.0	68.3	76.7	85.0

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Pest ID Code		3, W, Weed		4, W, Weed		5, W, Weed	
Pest Code		AMBTR		IPOSS		SIDSP	
Pest Scientific Name		Ambrosia trifida		Ipomoea sp.		Sida spinosa	
Pest Name		Giant ragweed		Morning glory		Prickly sida	
Crop ID Code		1, GLXMA		1, GLXMA		1, GLXMA	
BBCH Scale		BSOY		BSOY		BSOY	
Crop Scientific Name		Glycine max		Glycine max		Glycine max	
Crop Name		Soybean		Soybean		Soybean	
Crop Variety		AG35XF1		AG35XF1		AG35XF1	
Rating Date		6-25-2021		6-25-2021		6-25-2021	
SE Group No.		10		11		12	
SE Description		42 day		42 day		42 day	
Part Rated		PLAEME, C		PLAEME, P		PLAEME, P	
Rating Type		PHYGEN		CONTRO		CONTRO	
Rating Unit/Min/Max		%, 0, 100		%, 0, 100		%, 0, 100	
Calculation		NC		NC		NC	
Reporting Basis		1 PLOT		1 PLOT		1 PLOT	
Number of Subsamples		1		1		1	
Data Entry Date		10-11-2021		10-12-2021		10-12-2021	
Days After First/Last Applic.		42, 42		42, 42		42, 42	
Trt-Eval Interval		42 DA-A		42 DA-A		42 DA-A	
Plant-Eval Interval		42 DP-1		42 DP-1		42 DP-1	
Days After Emergence		35 DE-1		35 DE-1		35 DE-1	
Trt Treatment		Rate	Appl				
No. Name	Rate Unit	Code Plot	9	10	11	12	
10 VOLT-EDGE	1.46 L/ha	A 110	0.0	90.0	85.0	90.0	
INTACT	0.5 % V/V	A 207	0.0	90.0	85.0	85.0	
CLASS ACT RIDION	1 % V/V	A 304	0.0	80.0	85.0	85.0	
ZIDUA PRO 4.09 SC	161 g AI/ha	A					
XTENDIMAX 2.9 SL	563 g AE/ha	A					
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A					
PREMIUM MSO	1 % V/V	A					
		Mean =	0.0	86.7	85.0	86.7	
11 VOLT-EDGE	1.46 L/ha	A 111	0.0	90.0	85.0	95.0	
INTACT	0.5 % V/V	A 212	0.0	85.0	85.0	80.0	
CLASS ACT RIDION	1 % V/V	A 308	0.0	90.0	85.0	85.0	
PREFIX [F]	1480 g AI/ha	A					
XTENDIMAX 2.9 SL	563 g AE/ha	A					
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A					
		Mean =	0.0	88.3	85.0	86.7	
12 VOLT-EDGE	1.46 L/ha	A 112	0.0	75.0	75.0	90.0	
INTACT	0.5 % V/V	A 205	0.0	75.0	85.0	55.0	
CLASS ACT RIDION	1 % V/V	A 307	0.0	85.0	85.0	85.0	
TAVIUM PLUS VAPORGRIP TECH	1680 g AI/ha	A					
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A					
		Mean =	0.0	78.3	81.7	76.7	

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Pest ID Code		3, W, Weed	1, W, Weed	2, W, Weed		3, W, Weed	4, W, Weed	5, W, Weed		
Pest Code		AMBTR	VIOAR	GERCA		AMBTR	IPOSS	SIDSP		
Pest Scientific Name		Ambrosia trifida	Viola arvensis	Geranium caroli>		Ambrosia trifida	Ipomoea sp.	Sida spinosa		
Pest Name		Giant ragweed	Field pansy	Carolina gerani>		Giant ragweed	Morning glory	Prickly sida		
Crop ID Code	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Crop Variety	AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1	AG35XF1		
Rating Date	5-27-2021	5-27-2021	5-27-2021	5-27-2021	6-15-2021	6-15-2021	6-15-2021	6-15-2021		
SE Group No.	2	3	4	5	6	7	8	9		
SE Description	14 day	14 day	14 day	14 day	28 day	28 day	28 day	28 day		
Part Rated	PLAEME, C	PLAEME, P	PLAEME, P	PLAEME, P	PLAEME, C	PLAEME, P	PLAEME, P	PLAEME, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Calculation	NC	NC	NC	NC	NC	NC	NC	NC		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1		
Data Entry Date	10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021	10-11-2021		
Days After First/Last Applic.	13, 13	13, 13	13, 13	13, 13	32, 32	32, 32	32, 32	32, 32		
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A		
Plant-Eval Interval	13 DP-1	13 DP-1	13 DP-1	13 DP-1	32 DP-1	32 DP-1	32 DP-1	32 DP-1		
Days After Emergence	6 DE-1	6 DE-1	6 DE-1	6 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1		
Trt Treatment No. Name	Rate	Appl	1	2	3	4	5	6	7	8
Rate Unit	Code									
10 VOLT-EDGE	1.46 L/ha	A	0.0 a	98.3 a	98.3 a	98.3 a	0.0 a	90.0 ab	93.3 a	96.0 a
INTACT	0.5 % V/V	A								
CLASS ACT RIDION	1 % V/V	A								
ZIDUA PRO 4.09 SC	161 g Al/ha	A								
XTENDIMAX 2.9 SL	563 g AE/ha	A								
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A								
PREMIUM MSO	1 % V/V	A								
11 VOLT-EDGE	1.46 L/ha	A	0.0 a	96.7 a	95.0 a	98.3 a	0.0 a	92.7 ab	91.0 ab	94.3 a
INTACT	0.5 % V/V	A								
CLASS ACT RIDION	1 % V/V	A								
PREFIX [F]	1480 g Al/ha	A								
XTENDIMAX 2.9 SL	563 g AE/ha	A								
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A								
12 VOLT-EDGE	1.46 L/ha	A	0.0 a	91.7 ab	88.3 a	86.7 a	3.3 a	85.0 ab	86.7 ab	80.0 a
INTACT	0.5 % V/V	A								
CLASS ACT RIDION	1 % V/V	A								
TAVIUM PLUS VAPORGRIP TECH	1680 g Al/ha	A								
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A								
LSD P=.05			.	9.60	10.70	17.15	2.82	14.98	12.53	9.92
Standard Deviation			0.00	5.67	6.32	10.13	1.67	8.84	7.40	5.86
CV			0.0	6.61	7.09	11.54	600.0	11.62	9.25	6.84
Levene's F^			.	0.853	0.625	0.961	0.758	0.564	0.29	1.142
Levene's Prob(F)			.	0.593	0.79	0.505	0.676	0.839	0.982	0.374
Skewness^			.	-0.9177*	-1.4017*	-1.1553*	2.2258*	0.141	-0.4369	-1.2807*
Kurtosis^			.	1.649*	6.7477*	3.2124*	14.1948*	-0.1163	0.425	7.3934*
Replicate F			0.000	0.151	2.555	1.103	1.000	2.345	2.216	1.247
Replicate Prob(F)			1.0000	0.8605	0.1006	0.3494	0.3840	0.1194	0.1328	0.3070
Treatment F			0.000	71.409	60.152	23.119	1.000	28.281	37.475	65.555
Treatment Prob(F)			1.0000	0.0001	0.0001	0.0001	0.4767	0.0001	0.0001	0.0001

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Pest ID Code		3, W, Weed	4, W, Weed	5, W, Weed		
Pest Code		AMBTR	IPOSS	SIDSP		
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Sida spinosa		
Pest Name		Giant ragweed	Morning glory	Prickly sida		
Crop ID Code	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean		
Crop Variety	AG35XF1	AG35XF1	AG35XF1	AG35XF1		
Rating Date	6-25-2021	6-25-2021	6-25-2021	6-25-2021		
SE Group No.	10	11	12	13		
SE Description	42 day	42 day	42 day	42 day		
Part Rated	PLAEME, C	PLAEME, P	PLAEME, P	PLAEME, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Calculation	NC	NC	NC	NC		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1		
Data Entry Date	10-11-2021	10-12-2021	10-12-2021	10-12-2021		
Days After First/Last Applic.	42, 42	42, 42	42, 42	42, 42		
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A	42 DA-A		
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	42 DP-1		
Days After Emergence	35 DE-1	35 DE-1	35 DE-1	35 DE-1		
Trt Treatment No. Name	Rate Unit	Appl Code	9	10	11	12
1 CHECK			0.0 a	0.0 c	0.0 c	0.0 b
2 NIS	0.25 % V/V	A	0.0 a	90.0 a	83.3 a	88.3 a
A23372 [A]	2430 g AI/ha	A				
GRAMOXONE SL 3.0	842 g AI/ha	A				
3 AMSOL	2.5 % V/V	A	0.0 a	90.0 a	85.0 a	88.3 a
A23372 [A]	2430 g AI/ha	A				
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A				

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Pest ID Code		3, W, Weed	4, W, Weed	5, W, Weed			
Pest Code		AMBTR	IPOSS	SIDSP			
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Sida spinosa			
Pest Name		Giant ragweed	Morning glory	Prickly sida			
Crop ID Code	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA			
BBCH Scale	BSOY	BSOY	BSOY	BSOY			
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max			
Crop Name	Soybean	Soybean	Soybean	Soybean			
Crop Variety	AG35XF1	AG35XF1	AG35XF1	AG35XF1			
Rating Date	6-25-2021	6-25-2021	6-25-2021	6-25-2021			
SE Group No.	10	11	12	13			
SE Description	42 day	42 day	42 day	42 day			
Part Rated	PLAEME, C	PLAEME, P	PLAEME, P	PLAEME, P			
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Calculation	NC	NC	NC	NC			
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1			
Data Entry Date	10-11-2021	10-12-2021	10-12-2021	10-12-2021			
Days After First/Last Applic.	42, 42	42, 42	42, 42	42, 42			
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A	42 DA-A			
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	42 DP-1			
Days After Emergence	35 DE-1	35 DE-1	35 DE-1	35 DE-1			
Trt No.	Treatment Name	Rate	Appl Code				
		Rate Unit		9	10	11	12
4	VOLT-EDGE	1.46 L/ha	A	0.0 a	86.7 a	83.3 a	88.3 a
	INTACT	0.5 % V/V	A				
	CLASS ACT RIDION	1 % V/V	A				
	A23372 [A]	2430 g AI/ha	A				
	XTENDIMAX 2.9 SL	563 g AE/ha	A				
	ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A				
5	NIS	0.25 % V/V	A	0.0 a	63.3 ab	76.7 ab	83.3 a
	BOUNDARY 6.5 EC	1820 g AI/ha	A				
	GRAMOXONE SL 3.0	842 g AI/ha	A				
6	AMSOL	2.5 % V/V	A	0.0 a	46.7 b	66.7 b	86.7 a
	BOUNDARY 6.5 EC	1820 g AI/ha	A				
	ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A				
7	VOLT-EDGE	1.46 L/ha	A	0.0 a	65.0 ab	73.3 ab	86.7 a
	INTACT	0.5 % V/V	A				
	CLASS ACT RIDION	1 % V/V	A				
	BOUNDARY 6.5 EC	1820 g AI/ha	A				
	XTENDIMAX 2.9 SL	563 g AE/ha	A				
	ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A				
8	AMSOL	2.5 % V/V	A	0.0 a	81.7 a	85.0 a	86.7 a
	PREMIUM MSO	1 % V/V	A				
	ZIDUA PRO 4.09 SC	161 g AI/ha	A				
	GRAMOXONE SL 3.0	842 g AI/ha	A				
9	AMSOL	2.5 % V/V	A	0.0 a	68.3 ab	76.7 ab	85.0 a
	ZIDUA PRO 4.09 SC	161 g AI/ha	A				
	ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A				
	PREMIUM MSO	1 % V/V	A				

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Pest ID Code		3, W, Weed	4, W, Weed	5, W, Weed		
Pest Code		AMBTR	IPOSS	SIDSP		
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Sida spinosa		
Pest Name		Giant ragweed	Morning glory	Prickly sida		
Crop ID Code	1, GLXMA	1, GLXMA	1, GLXMA	1, GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean		
Crop Variety	AG35XF1	AG35XF1	AG35XF1	AG35XF1		
Rating Date	6-25-2021	6-25-2021	6-25-2021	6-25-2021		
SE Group No.	10	11	12	13		
SE Description	42 day	42 day	42 day	42 day		
Part Rated	PLAEME, C	PLAEME, P	PLAEME, P	PLAEME, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Calculation	NC	NC	NC	NC		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1		
Data Entry Date	10-11-2021	10-12-2021	10-12-2021	10-12-2021		
Days After First/Last Applic.	42, 42	42, 42	42, 42	42, 42		
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A	42 DA-A		
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	42 DP-1		
Days After Emergence	35 DE-1	35 DE-1	35 DE-1	35 DE-1		
Trt Treatment No. Name	Rate Rate Unit	Appl Code	9	10	11	12
10 VOLT-EDGE	1.46 L/ha	A	0.0 a	86.7 a	85.0 a	86.7 a
INTACT	0.5 % V/V	A				
CLASS ACT RIDION	1 % V/V	A				
ZIDUA PRO 4.09 SC	161 g AI/ha	A				
XTENDIMAX 2.9 SL	563 g AE/ha	A				
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A				
PREMIUM MSO	1 % V/V	A				
11 VOLT-EDGE	1.46 L/ha	A	0.0 a	88.3 a	85.0 a	86.7 a
INTACT	0.5 % V/V	A				
CLASS ACT RIDION	1 % V/V	A				
PREFIX [F]	1480 g AI/ha	A				
XTENDIMAX 2.9 SL	563 g AE/ha	A				
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A				
12 VOLT-EDGE	1.46 L/ha	A	0.0 a	78.3 a	81.7 a	76.7 a
INTACT	0.5 % V/V	A				
CLASS ACT RIDION	1 % V/V	A				
TAVIUM PLUS VAPORGRIP TECH	1680 g AI/ha	A				
ROUNDUP POWERMAX 4.5 SL	1260 g AE/ha	A				
LSD P=.05			.	16.95	9.96	9.54
Standard Deviation			0.00	10.01	5.88	5.64
CV			0.0	14.21	8.01	7.17
Levene's F^			.	0.429	0.62	0.658
Levene's Prob(F)			.	0.928	0.794	0.762
Skewness^			.	0.2365	-0.6224	-1.5079*
Kurtosis^			.	-0.1721	1.5518*	6.5619*
Replicate F			0.000	3.140	2.248	7.370
Replicate Prob(F)			1.0000	0.0632	0.1293	0.0035
Treatment F			0.000	20.176	49.334	58.871
Treatment Prob(F)			1.0000	0.0001	0.0001	0.0001

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A23372A: Crop Tolerance and Efficacy in No-Till Soybean (University)

Trial ID: USNG0H5012021 Location: Cully Scott FS Trial Year: 2021
Protocol ID: HSM051A4-2021US Investigator (Creator): Scott Cully
Master Protocol ID: Study Director: Sara Carter
Official Trial ID: Sponsor Contact:
Conducted Under GEP: No Trial Origin: P public institution trial

Crop ID Code

1, GLXMA, BSOY, Glycine max, Soybean, AG35XF1 = XTENDFLEX

Part Rated

PLAEME = plant - emerged

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Calculation

NC = no calculation

PLOT = total plot

Plant-Eval Interval

13 DP-1 = 1 GLXMA 5-14-2021

32 DP-1 = 1 GLXMA 5-14-2021

42 DP-1 = 1 GLXMA 5-14-2021

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Enlist E3 Soybean Programs

Trial ID: 21-34 SOY-LEX Location:
 Protocol ID: Enlist Soybean Programs Investigator (Creator): Sara Carter Trial Year: 2021
 Project ID: Study Director: TRAVIS LEGLEITER
 Sponsor Contact:

Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2.5 L (total for 4 plots; minimum=1.564 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Rate Type	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Amt Product to Measure	Rep			
										1	2	3	4
1	Untreated									101	206	302	401
2	Broadaxe XC	7 LBA/GAL	L	FL OZ/A	1.2 lba/a		PRE	A	28.57 mL/mx	102	205	304	405
	Dimetric Liquid	3 LBA/GAL	L	FL OZ/A	0.246 lba/a		PRE	A	13.67 mL/mx				
	Prefix	5.29 LB/GAL	L	PT/A	1.54 lba/a		POST	B	48.51 mL/mx				
	Enlist One	3.8 lbae/gal	SL	FL OZ/A	0.95 lba/a		POST	B	41.66 mL/mx				
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	FL OZ/A	1.13 lba/a		POST	B	39.23 mL/mx				
	AMS - Liquid	3.4 lba/gal	SL	% V/V	8.5 lba/100gal		POST	B	62.49 mL/mx				
3	Boundary	6.5 LBA/GAL	EC	PT/A	1.22 lba/a		PRE	A	31.28 mL/mx	103	208	305	402
	Prefix	5.29 LB/GAL	L	PT/A	1.54 lba/a		POST	B	48.51 mL/mx				
	Enlist One	3.8 lbae/gal	SL	FL OZ/A	0.95 lba/a		POST	B	41.66 mL/mx				
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	FL OZ/A	1.13 lba/a		POST	B	39.23 mL/mx				
	AMS - Liquid	3.4 lba/gal	SL	% V/V	8.5 lba/100gal		POST	B	62.49 mL/mx				
4	Prefix	5.29 LB/GAL	L	PT/A	1.54 lba/a		PRE	A	48.51 mL/mx	104	201	306	407
	Dimetric Liquid	3 LBA/GAL	L	FL OZ/A	0.246 lba/a		PRE	A	13.67 mL/mx				
	Enlist One	3.8 lbae/gal	SL	FL OZ/A	0.95 lba/a		POST	B	41.66 mL/mx				
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	FL OZ/A	1.13 lba/a		POST	B	39.23 mL/mx				
	AMS - Liquid	3.4 lba/gal	SL	% V/V	8.5 lba/100gal		POST	B	62.49 mL/mx				
5	Kyber	2.6 lba/gal	SC	PT/A	0.325 lba/a		PRE	A	20.83 mL/mx	105	202	308	403
	Enlist Duo	3.3 lbae/gal	SL	PT/A	1.96 lba/a		POST	B	98.98 mL/mx				
	AMS - Liquid	3.4 lba/gal	SL	% V/V	8.5 lba/100gal		POST	B	62.49 mL/mx				
6	Trivence	61.3 %	WG	OZ/A	0.307 lba/a		PRE	A	10.0 g/mx	106	204	301	408
	EverpreX	7.62 LBA/GAL	EC	PT/A	0.95 lba/a		POST	B	20.78 mL/mx				
	Enlist Duo	3.3 lbae/gal	SL	PT/A	1.96 lba/a		POST	B	98.98 mL/mx				
	AMS - Liquid	3.4 lba/gal	SL	% V/V	8.5 lba/100gal		POST	B	62.49 mL/mx				
7	Zidua Pro	4.09 LBA/GAL	SC	FL OZ/A	0.192 lba/a		PRE	A	7.823 mL/mx	107	203	307	406
	Enlist Duo	3.3 lbae/gal	SL	PT/A	1.96 lba/a		POST	B	98.98 mL/mx				
	AMS - Liquid	3.4 lba/gal	SL	% V/V	8.5 lba/100gal		POST	B	62.49 mL/mx				
8	Authority XL	70 %	DF	OZ/A	0.284 lba/a		PRE	A	8.103 g/mx	108	207	303	404
	Enlist Duo	3.3 lbae/gal	SL	PT/A	1.96 lba/a		POST	B	98.98 mL/mx				
	AMS - Liquid	3.4 lba/gal	SL	% V/V	8.5 lba/100gal		POST	B	62.49 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
35.710	mL	Broadaxe XC	7	LBA/GAL	L	
34.163	mL	Dimetric Liquid	3	LBA/GAL	L	
181.927	mL	Prefix	5.29	LB/GAL	L	
156.233	mL	Enlist One	3.8	lbae/gal	SL	
147.119	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
546.816	mL	AMS - Liquid	3.4	lba/gal	SL	
39.098	mL	Boundary	6.5	LBA/GAL	EC	
26.039	mL	Kyber	2.6	lba/gal	SC	
494.896	mL	Enlist Duo	3.3	lbae/gal	SL	
12.502	g	Trivence	61.3	%	WG	
25.970	mL	EverpreX	7.62	LBA/GAL	EC	
9.779	mL	Zidua Pro	4.09	LBA/GAL	SC	
10.128	g	Authority XL	70	%	DF	

* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.5 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2.5 L.

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

Discipline: H herbicide
Trial Status: F one-year/final

ARM Trial Created On: 6-16-2021

Initiation Date: 5-24-2021 **Planned Completion Date:** 10-29-2021

Completion Date: 10-1-2021

Trial Location

City: LEXINGTON **Country:** USA United States
State/Prov.: KENTUCKY
Postal Code: 40511

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST

Organization: UNIVERSITY OF KENTUCKY

Address 1: 348 UNIVERSITY DRIVE **Phone No.:** 8595621323

Address 2: PO BOX 469

Country: USA United States

City: PRINCETON **State/Prov:** KY **Postal Code:** 42445

Role: INVEST investigator

Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

Organization: UNIVERSITY OF KENTUCKY

Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710

E-mail: sara.carter@uky.edu

City: LEXINGTON, KY

Postal Code: 40546-0312

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Crop Description

Crop 1: C GLXMA Glycine max Soybean
Variety: P41T07E
Planting Date: 6-7-2021
Depth: 1.25 IN
Rows per Plot: 6
Row Spacing: 30 IN
Soil Temperature: 70 F
Emergence Date: 6-12-2021

Stage Scale: BBCH
Planting Rate: 120000 S/A
Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: SMOOTH smooth
Soil Moisture: WET wet

Pest Description

Pest 1 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail
Crop: 1 GLXMA
Stage Scale: BBCH

Pest 2 Type: W **Code:** CHEAL *Chenopodium album*
Common Name: common lambsquarters
Crop: 1 GLXMA
Stage Scale: BBCH

Pest 3 Type: W **Code:** AMACH *Amaranthus hybridus*
Common Name: smooth pigweed
Crop: 1 GLXMA
Stage Scale: BBCH

Site and Design

Treated Plot Width: 10 FT
Treated Plot Length: 30 FT
Treated Plot Area: 300.0 FT² **Treatments:** 8
Replications: 4

Site Type: FIELD field
Tillage Type: NOTILL no-till
Study Design: RACOB� Randomized Complete Block (RCB)

Trial Initiation Comments:

BURNDOWN WITH 1.5# GLYPHOSATE + 1 FL OZ SHARPEN 14DAY PREPLANT

APPLIED GRAMOXONE @ 1.7 PT/A AT PLANTING

Soil Description

Description Name: MAURY
% Sand: 6 **% OM:** 2.6 **Texture:** SIL silt loam
% Silt: 62 **pH:** 6.4 **Soil Name:** MAURY SILT LOAM
% Clay: 32 **CEC:** 18 **Fert. Level:** E excellent
Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Closest Weather Station: SPINDLETOP **Distance:** 1 MI

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Application Description		
	A	B
Application Date	6-10-2021	7-6-2021
Appl. Start Time	8:30 AM	12:30 PM
Appl. Stop Time	9:00 AM	1:00 PM
Application Method	SPRAY	SPRAY
Application Timing	PRE	4"W
Application Placement	BROFOL	BROFOL
Applied By	SARA	SARA
Air Temperature Start, Stop	72, - F	83, - F
% Relative Humidity Start, Stop	82, -	85, -
Wind Velocity+Dir. Start	4 MPH, SW	6 MPH, SSE
Soil Temperature	71 F	76 F
Soil Moisture	WET	GOOD
Soil Surface Condition	SMOOTH	SMOOTH
% Cloud Cover	55	10
Next Moisture Occurred On	6-11-2021	7-7-2021

Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-2	24
Height Average		4 IN

Pest Stage At Each Application		
	A	B
Pest 1 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Height Average	2 IN	4 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 2 Code, Type, Scale	CHEAL, W, BBCH	CHEAL, W, BBCH
Height Average	2 IN	3 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 3 Code, Type, Scale	AMACH, W, BBCH	AMACH, W, BBCH
Height Average	2 IN	4 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA

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Pest Type		W, Weed SETFA	W, Weed CHEAL	W, Weed AMACH	W, Weed SETFA	W, Weed CHEAL	W, Weed AMACH
Pest Code		Giant foxtail	common lambsqua>	smooth pigweed	Giant foxtail	common lambsqua>	smooth pigweed
Pest Name							
Crop Type, Code	C, GLXMA						
Crop Scientific Name	Glycine max						
Crop Name	Soybean						
Rating Date	7-6-2021	7-6-2021	7-6-2021	7-6-2021	7-20-2021	7-20-2021	7-20-2021
Part Rated							
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1	1
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021
Rating Timing	@B	@B	@B	@B	14DAB	14DAB	14DAB
Days After First/Last Applic.	26, 26	26, 26	26, 26	26, 26	40, 14	40, 14	40, 14
Trt-Eval Interval							
Days After Emergence	24 DE-1	24 DE-1	24 DE-1	24 DE-1	38 DE-1	38 DE-1	38 DE-1
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	1	2	3	4	5
2 Broadaxe XC	22 FL OZ/A	A 102	0.0	95.0	0.0	95.0	0.0
Dimetric Liquid	10.5 FL OZ/A	A 205	0.0	95.0	95.0	95.0	0.0
Prefix	2.33 PT/A	B 304	0.0	95.0	95.0	95.0	0.0
Enlist One	32 FL OZ/A	B 405	0.0	95.0	95.0	95.0	0.0
Roundup PowerMAX 3	30 FL OZ/A	B					
AMS - Liquid	2.5 % V/V	B					
	Mean =		0.0	95.0	71.3	95.0	0.0
3 Boundary	1.5 PT/A	A 103	0.0	95.0	95.0	95.0	0.0
Prefix	2.33 PT/A	B 208	0.0	95.0	95.0	95.0	0.0
Enlist One	32 FL OZ/A	B 305	0.0	95.0	95.0	95.0	0.0
Roundup PowerMAX 3	30 FL OZ/A	B 402	0.0	95.0	95.0	95.0	0.0
AMS - Liquid	2.5 % V/V	B					
	Mean =		0.0	95.0	95.0	95.0	0.0
4 Prefix	2.33 PT/A	A 104	0.0	95.0	95.0	95.0	0.0
Dimetric Liquid	10.5 FL OZ/A	A 201	0.0	95.0	95.0	95.0	0.0
Enlist One	32 FL OZ/A	B 306	0.0	95.0	95.0	95.0	0.0
Roundup PowerMAX 3	30 FL OZ/A	B 407	0.0	95.0	95.0	95.0	0.0
AMS - Liquid	2.5 % V/V	B					
	Mean =		0.0	95.0	95.0	95.0	0.0
5 Kyber	1 PT/A	A 105	0.0	95.0	95.0	95.0	0.0
Enlist Duo	4.75 PT/A	B 202	0.0	95.0	95.0	95.0	0.0
AMS - Liquid	2.5 % V/V	B 308	0.0	95.0	95.0	95.0	0.0
		403	0.0	95.0	95.0	95.0	0.0
	Mean =		0.0	95.0	95.0	95.0	0.0
6 Trivence	8 OZ/A	A 106	0.0	95.0	95.0	95.0	0.0
EverpreX	1 PT/A	B 204	0.0	95.0	95.0	95.0	0.0
Enlist Duo	4.75 PT/A	B 301	0.0	95.0	95.0	95.0	0.0
AMS - Liquid	2.5 % V/V	B 408	0.0	95.0	95.0	95.0	0.0
	Mean =		0.0	95.0	95.0	95.0	0.0

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Pest Type				W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code				SETFA	CHEAL	AMACH	SETFA	CHEAL	AMACH	AMACH	
Pest Name				Giant foxtail	common lambsqua>	smooth pigweed	Giant foxtail	common lambsqua>	smooth pigweed	smooth pigweed	
Crop Type, Code				C, GLXMA			C, GLXMA				
Crop Scientific Name				Glycine max			Glycine max				
Crop Name				Soybean			Soybean				
Rating Date				7-6-2021	7-6-2021	7-6-2021	7-6-2021	7-20-2021	7-20-2021	7-20-2021	
Part Rated											
Rating Type				PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Number of Subsamples				1	1	1	1	1	1	1	
Data Entry Date				12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	
Rating Timing				@B	@B	@B	@B	14DAB	14DAB	14DAB	
Days After First/Last Applic.				26, 26	26, 26	26, 26	26, 26	40, 14	40, 14	40, 14	
Trt-Eval Interval											
Days After Emergence				24 DE-1	24 DE-1	24 DE-1	24 DE-1	38 DE-1	38 DE-1	38 DE-1	
ARM Action Codes											
Number of Decimals											
Trt	Treatment	Rate	Appl								
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8
7	Zidua Pro	6 FL OZ/A	A 107	0.0	95.0	95.0	95.0	0.0	100.0	100.0	100.0
	Enlist Duo	4.75 PT/A	B 203	0.0	95.0	95.0	95.0	0.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 307	0.0	95.0	95.0	95.0	0.0	100.0	100.0	100.0
			406	0.0	95.0	95.0	95.0	0.0	100.0	100.0	100.0
			Mean =	0.0	95.0	95.0	95.0	0.0	100.0	100.0	100.0
8	Authority XL	6.5 OZ/A	A 108	0.0	95.0	95.0	95.0	0.0	100.0	100.0	100.0
	Enlist Duo	4.75 PT/A	B 207	0.0	95.0	95.0	95.0	0.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 303	0.0	95.0	95.0	95.0	0.0	100.0	100.0	100.0
			404	0.0	95.0	95.0	95.0	0.0	100.0	100.0	100.0
			Mean =	0.0	95.0	95.0	95.0	0.0	100.0	100.0	100.0

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Pest Type		W, Weed	W, Weed	W, Weed	
Pest Code		SETFA	CHEAL	AMACH	
Pest Name		Giant foxtail	common lambsqua>	smooth pigweed	
Crop Type, Code	C, GLXMA				
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Rating Date	8-3-2021	8-3-2021	8-3-2021	8-3-2021	
Part Rated					
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Number of Subsamples	1	1	1	1	1
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	
Rating Timing	28DAB	28DAB	28DAB	28DAB	
Days After First/Last Applic.	54, 28	54, 28	54, 28	54, 28	
Trt-Eval Interval					
Days After Emergence	52 DE-1	52 DE-1	52 DE-1	52 DE-1	
ARM Action Codes					
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	9	10	11
					12
					13
	1 Untreated	101	0.0	0.0	0.0
		206	0.0	0.0	0.0
		302	0.0	0.0	0.0
		401	0.0	0.0	0.0
	Mean =		0.0	0.0	0.0

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Pest Type		W, Weed	W, Weed	W, Weed	
Pest Code		SETFA	CHEAL	AMACH	
Pest Name		Giant foxtail	common lambsqua>	smooth pigweed	
Crop Type, Code	C, GLXMA				
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Rating Date	8-3-2021	8-3-2021	8-3-2021	8-3-2021	
Part Rated					
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Number of Subsamples	1	1	1	1	1
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	
Rating Timing	28DAB	28DAB	28DAB	28DAB	
Days After First/Last Applic.	54, 28	54, 28	54, 28	54, 28	
Trt-Eval Interval					
Days After Emergence	52 DE-1	52 DE-1	52 DE-1	52 DE-1	
ARM Action Codes					
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	9	10	11
			12	13	
2 Broadaxe XC	22 FL OZ/A	A 102	0.0	95.0	95.0
Dimetric Liquid	10.5 FL OZ/A	A 205	0.0	95.0	95.0
Prefix	2.33 PT/A	B 304	0.0	95.0	95.0
Enlist One	32 FL OZ/A	B 405	0.0	95.0	95.0
Roundup PowerMAX 3	30 FL OZ/A	B			
AMS - Liquid	2.5 % V/V	B			
	Mean =		0.0	95.0	95.0
3 Boundary	1.5 PT/A	A 103	0.0	95.0	95.0
Prefix	2.33 PT/A	B 208	0.0	95.0	95.0
Enlist One	32 FL OZ/A	B 305	0.0	95.0	95.0
Roundup PowerMAX 3	30 FL OZ/A	B 402	0.0	95.0	95.0
AMS - Liquid	2.5 % V/V	B			
	Mean =		0.0	95.0	95.0
4 Prefix	2.33 PT/A	A 104	0.0	95.0	95.0
Dimetric Liquid	10.5 FL OZ/A	A 201	0.0	95.0	95.0
Enlist One	32 FL OZ/A	B 306	0.0	95.0	95.0
Roundup PowerMAX 3	30 FL OZ/A	B 407	0.0	95.0	95.0
AMS - Liquid	2.5 % V/V	B			
	Mean =		0.0	95.0	95.0
5 Kyber	1 PT/A	A 105	0.0	95.0	95.0
Enlist Duo	4.75 PT/A	B 202	0.0	95.0	95.0
AMS - Liquid	2.5 % V/V	B 308	0.0	95.0	95.0
		403	0.0	95.0	95.0
	Mean =		0.0	95.0	95.0
6 Trivence	8 OZ/A	A 106	0.0	95.0	95.0
EverpreX	1 PT/A	B 204	0.0	95.0	95.0
Enlist Duo	4.75 PT/A	B 301	0.0	95.0	95.0
AMS - Liquid	2.5 % V/V	B 408	0.0	95.0	95.0
	Mean =		0.0	95.0	95.0

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Pest Type		W, Weed	W, Weed	W, Weed	
Pest Code		SETFA	CHEAL	AMACH	
Pest Name		Giant foxtail	common lambsqua>	smooth pigweed	
Crop Type, Code	C, GLXMA				
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Rating Date	8-3-2021	8-3-2021	8-3-2021	8-3-2021	
Part Rated					
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Number of Subsamples	1	1	1	1	1
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	
Rating Timing	28DAB	28DAB	28DAB	28DAB	
Days After First/Last Applic.	54, 28	54, 28	54, 28	54, 28	
Trt-Eval Interval					
Days After Emergence	52 DE-1	52 DE-1	52 DE-1	52 DE-1	
ARM Action Codes					
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	9	10	11
			12	13	
7 Zidua Pro	6 FL OZ/A	A 107	0.0	95.0	95.0
Enlist Duo	4.75 PT/A	B 203	0.0	95.0	95.0
AMS - Liquid	2.5 % V/V	B 307	0.0	95.0	95.0
		406	0.0	95.0	95.0
		Mean =	0.0	95.0	95.0
8 Authority XL	6.5 OZ/A	A 108	0.0	95.0	95.0
Enlist Duo	4.75 PT/A	B 207	0.0	95.0	95.0
AMS - Liquid	2.5 % V/V	B 303	0.0	95.0	95.0
		404	0.0	95.0	95.0
		Mean =	0.0	95.0	95.0

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Trt No.	Treatment Name	Rate	Unit	Appl Code	10	11	12	13
	1 Untreated				0.0 b	0.0 b	0.0 b	
2	Broadaxe XC	22	FL OZ/A	A	95.0 a	95.0 a	95.0 a	
	Dimetric Liquid	10.5	FL OZ/A	A				
	Prefix	2.33	PT/A	B				
	Enlist One	32	FL OZ/A	B				
	Roundup PowerMAX 3	30	FL OZ/A	B				
	AMS - Liquid	2.5	% V/V	B				
3	Boundary	1.5	PT/A	A	95.0 a	95.0 a	95.0 a	
	Prefix	2.33	PT/A	B				
	Enlist One	32	FL OZ/A	B				
	Roundup PowerMAX 3	30	FL OZ/A	B				
	AMS - Liquid	2.5	% V/V	B				
4	Prefix	2.33	PT/A	A	95.0 a	95.0 a	95.0 a	
	Dimetric Liquid	10.5	FL OZ/A	A				
	Enlist One	32	FL OZ/A	B				
	Roundup PowerMAX 3	30	FL OZ/A	B				
	AMS - Liquid	2.5	% V/V	B				

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Pest Type	W, Weed	W, Weed	W, Weed	
Pest Code	SETFA	CHEAL	AMACH	
Pest Name	Giant foxtail	common lambsqua>	smooth pigweed	
Crop Type, Code				
Crop Scientific Name				
Crop Name				
Rating Date	8-3-2021	8-3-2021	8-3-2021	
Part Rated				
Rating Type	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	
Number of Subsamples	1	1	1	1
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	
Rating Timing	28DAB	28DAB	28DAB	
Days After First/Last Applic.	54, 28	54, 28	54, 28	
Trt-Eval Interval				
Days After Emergence	52 DE-1	52 DE-1	52 DE-1	
ARM Action Codes				
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	10	11
5 Kyber	1 PT/A	A	95.0 a	95.0 a
Enlist Duo	4.75 PT/A	B		
AMS - Liquid	2.5 % V/V	B		
6 Trivence	8 OZ/A	A	95.0 a	95.0 a
EverpreX	1 PT/A	B		
Enlist Duo	4.75 PT/A	B		
AMS - Liquid	2.5 % V/V	B		
7 Zidua Pro	6 FL OZ/A	A	95.0 a	95.0 a
Enlist Duo	4.75 PT/A	B		
AMS - Liquid	2.5 % V/V	B		
8 Authority XL	6.5 OZ/A	A	95.0 a	95.0 a
Enlist Duo	4.75 PT/A	B		
AMS - Liquid	2.5 % V/V	B		
LSD P=.05			.	.
Standard Deviation	0.00	0.00	0.00	0.00
CV	0.0	0.0	0.0	0.0
Levene's F^	.	.	.	.
Levene's Prob(F)	.	.	.	.
Skewness^	.	.	.	.
Kurtosis^	.	.	.	.
Replicate F	0.000	0.000	0.000	0.000
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000
Treatment F	0.000	0.000	0.000	0.000
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000

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Enlist E3 Soybean Programs

Trial Year: 2021

Trial ID: 21-34 SOY-LEX Location:
Protocol ID: Enlist Soybean Programs Investigator (Creator): Sara Carter
Project ID: Study Director: TRAVIS LEGLEITER
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, Giant foxtail = US

CHEAL, Chenopodium album, common lambsquarters = US

AMACH, Amaranthus hybridus, smooth pigweed = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

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Enlist E3 Soybean Programs

Trial ID: 21-34_SOY-REC Location: UKREC 201-D Trial Year: 2021
 Protocol ID: Enlist Soybean Programs Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Reps: 4		Plots: 10 by 30 feet														
Appl. Amount: 15 GAL/AC		Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)														
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep				
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Timing	Code	to Measure	1	2	3	4
1	Untreated												101	202	301	402
2	Broadaxe XC	7 LBA/GAL	L		22 FL OZ/A		1.2 lba/a	PRE	A	22.85 mL/mx			102	206	308	406
	Dimetric Liquid	3 LBA/GAL	L		10.5 FL OZ/A		0.246 lba/a	PRE	A	10.93 mL/mx						
	Prefix	5.29 LB/GAL	L		2.33 PT/A		1.54 lba/a	POST	B	38.81 mL/mx						
	Enlist One	3.8 lbae/gal	SL		32 FL OZ/A		0.95 lba/a	POST	B	33.33 mL/mx						
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL		30 FL OZ/A		1.13 lba/a	POST	B	31.39 mL/mx						
	AMS - Liquid	3.4 lba/gal	SL		2.5 % V/V		8.5 lba/100gal	POST	B	49.99 mL/mx						
3	Boundary	6.5 LBA/GAL	EC		1.5 PT/A		1.22 lba/a	PRE	A	25.02 mL/mx			103	204	303	401
	Prefix	5.29 LB/GAL	L		2.33 PT/A		1.54 lba/a	POST	B	38.81 mL/mx						
	Enlist One	3.8 lbae/gal	SL		32 FL OZ/A		0.95 lba/a	POST	B	33.33 mL/mx						
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL		30 FL OZ/A		1.13 lba/a	POST	B	31.39 mL/mx						
	AMS - Liquid	3.4 lba/gal	SL		2.5 % V/V		8.5 lba/100gal	POST	B	49.99 mL/mx						
4	Prefix	5.29 LB/GAL	L		2.33 PT/A		1.54 lba/a	PRE	A	38.81 mL/mx			104	205	307	408
	Dimetric Liquid	3 LBA/GAL	L		10.5 FL OZ/A		0.246 lba/a	PRE	A	10.93 mL/mx						
	Enlist One	3.8 lbae/gal	SL		32 FL OZ/A		0.95 lba/a	POST	B	33.33 mL/mx						
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL		30 FL OZ/A		1.13 lba/a	POST	B	31.39 mL/mx						
	AMS - Liquid	3.4 lba/gal	SL		2.5 % V/V		8.5 lba/100gal	POST	B	49.99 mL/mx						
5	Kyber	2.6 lba/gal	SC		1 PT/A		0.325 lba/a	PRE	A	16.66 mL/mx			105	207	304	407
	Enlist Duo	3.3 lbae/gal	SL		4.75 PT/A		1.96 lba/a	POST	B	79.18 mL/mx						
	AMS - Liquid	3.4 lba/gal	SL		2.5 % V/V		8.5 lba/100gal	POST	B	49.99 mL/mx						
6	Trivence	61.3 %	WG		8 OZ/A		0.307 lba/a	PRE	A	8.001 g/mx			106	208	302	404
	EverpreX	7.62 LBA/GAL	EC		1 PT/A		0.95 lba/a	POST	B	16.62 mL/mx						
	Enlist Duo	3.3 lbae/gal	SL		4.75 PT/A		1.96 lba/a	POST	B	79.18 mL/mx						
	AMS - Liquid	3.4 lba/gal	SL		2.5 % V/V		8.5 lba/100gal	POST	B	49.99 mL/mx						
7	Zidua Pro	4.09 LBA/GAL	SC		6 FL OZ/A		0.192 lba/a	PRE	A	6.258 mL/mx			107	201	305	403
	Enlist Duo	3.3 lbae/gal	SL		4.75 PT/A		1.96 lba/a	POST	B	79.18 mL/mx						
	AMS - Liquid	3.4 lba/gal	SL		2.5 % V/V		8.5 lba/100gal	POST	B	49.99 mL/mx						
8	Authority XL	70 %	DF		6.5 OZ/A		0.284 lba/a	PRE	A	6.482 g/mx			108	203	306	405
	Enlist Duo	3.3 lbae/gal	SL		4.75 PT/A		1.96 lba/a	POST	B	79.18 mL/mx						
	AMS - Liquid	3.4 lba/gal	SL		2.5 % V/V		8.5 lba/100gal	POST	B	49.99 mL/mx						

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

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Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
28.568	mL	Broadaxe XC	7	LBA/GAL	L	
27.330	mL	Dimetric Liquid	3	LBA/GAL	L	
145.542	mL	Prefix	5.29	LB/GAL	L	
124.986	mL	Enlist One	3.8	lbae/gal	SL	
117.696	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
437.452	mL	AMS - Liquid	3.4	lba/gal	SL	
31.279	mL	Boundary	6.5	LBA/GAL	EC	
20.831	mL	Kyber	2.6	lba/gal	SC	
395.917	mL	Enlist Duo	3.3	lbae/gal	SL	
10.002	g	Trivence	61.3	%	WG	
20.776	mL	EverpreX	7.62	LBA/GAL	EC	
7.823	mL	Zidua Pro	4.09	LBA/GAL	SC	
8.103	g	Authority XL	70	%	DF	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

General Trial Information

Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established

ARM Trial Created On: 4-5-2021

Trial Location

City: Princeton **Country:** USA United States

State/Prov.: Kentucky

Postal Code: 42445

Latitude of LL Corner °: 37.09679 N

Longitude of LL Corner °: -87.85652 W

Conducted Under GLP: No

Conducted Under GEP: No

Role: INVEST investigator

Investigator: Travis Legleiter

Title: Assistant Extension Professor

Organization: University of Kentucky

Address 1: 348 University Drive

Phone No.: 859-562-1323

Country: USA United States

E-mail: Travis.Legleiter@uky.edu

City: Princeton, KY

Postal Code: 42445

Crop Description

Crop 1: C GLXMA Glycine max Soybean

BBCH Scale: BSOY

Entry Date: 10-15-2021

Stage Scale: BBCH

Variety: P41T07E

Planting Date: 5-20-2021

Planting Rate: 140000 S/A

Depth: 1 IN

Planting Method: PLANTD planted

Row Spacing: 15 IN

Planting Equipment: KINZE

Soil Temperature: 72 F

Soil Moisture: DAMP damp

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Pest Description

- Pest 1 Type:** W **Code:** AMBTR *Ambrosia trifida* **Entry Date:** 10-15-2021
Common Name: Giant ragweed **Stage Scale:** BBCH
- Pest 2 Type:** W **Code:** DIGSA *Digitaria sanguinalis* **Entry Date:** 10-15-2021
Common Name: crabgrass **Stage Scale:** BBCH
- Pest 3 Type:** W **Code:** ELEIN *Eleusine indica* **Entry Date:** 10-15-2021
Common Name: Goosegrass **Stage Scale:** BBCH
- Pest 4 Type:** W **Code:** IPOHE *Ipomoea hederacea* **Entry Date:** 10-15-2021
Common Name: ivy-leaf morning glory **Stage Scale:** BBCH
- Pest 5 Type:** W **Code:** SIDSP *Sida spinosa* **Entry Date:** 10-15-2021
Common Name: Prickly sida **Stage Scale:** BBCH
- Pest 6 Type:** W **Code:** AMACH *Amaranthus hybridus* **Entry Date:** 10-15-2021
Common Name: smooth pigweed **Stage Scale:** BBCH
- Pest 7 Type:** W **Code:** CONAR *Convolvulus arvensis* **Entry Date:** 10-15-2021
Common Name: Field bindweed **Stage Scale:** BBCH
- Pest 8 Type:** W **Code:** ACCOS *Acalypha ostryifolia* **Entry Date:** 10-15-2021
Common Name: copperleaf, hophornbeam **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Site Type:** FEILD
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300.0 FT² **Treatments:** 8 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Form Product Name	Conc	Form Unit	Form Type	Rate	Unit	Tank Mix Code	Tank Mix
1.	5-11-2021	HERB	Gly Star Plus	3	LBAE/GAL	L	64	fl oz/a	Y	yes
2.	5-11-2021	HERB	Liberty	2.34	lba/gal	L	32	fl oz/a	Y	yes

Soil Description

Description Name: 201-D
% Sand: 3.4 **% OM:** 2.4 **Texture:** SIL silt loam
% Silt: 79.9 **pH:** 5.66 **Soil Name:** Crider Silt Loam
% Clay: 16.7 **CEC:** 10.62

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Application Description

	A	B
Application Date	5-21-2021	6-23-2021
Appl. Start Time	10:25 AM	11:34 AM
Appl. Stop Time	10:48 AM	11:50 AM
Interval to Prev. Appl.		33 DAYS
Application Method	SPRAY	SPRAY
Application Timing	PRE	POST
Application Placement	SOIL	FOLIAR
Applied By	JLG	JLG
Appl. Entry Date	10-15-2021	10-15-2021
Air Temperature Start, Stop	85.2, 79.1 F	78.9, 77.5 F
% Relative Humidity Start, Stop	36.8, 39.1	44.6, 47.2
Wind Velocity+Dir. Start	2.9 MPH, ESE	1 MPH, WSW
Wind Velocity+Dir. Stop	6 MPH, ESE	3.3 MPH, ENE
Wind Velocity+Dir. Max	13.3 MPH, -	7.5 MPH, -
Wet Leaves (Y/N)	N, no	Y, yes
Soil Moisture	SL DAMP	DAMP
% Cloud Cover	60	0

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Stage Majority, Percent		V3, -
Stage Minimum, Percent		V4, -
Stage Maximum, Percent		V3, -
Height Average		9.625 IN
Height Minimum, Maximum		6.5, 12.75

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Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		7.25 IN
Height Minimum, Maximum		2, 12.5
Density Average		5 FT2
Density Minimum, Maximum		1, 32
Pest 2 Code, Type, Scale	DIGSA, W, BBCH	DIGSA, W, BBCH
Height Average		3.125 IN
Height Minimum, Maximum		1.5, 4.75
Density Average		1 FT2
Density Minimum, Maximum		1, 3
Pest 3 Code, Type, Scale	ELEIN, W, BBCH	ELEIN, W, BBCH
Height Average		2 IN
Height Minimum, Maximum		0, 4
Density Average		0.13 FT2
Density Minimum, Maximum		0, 1
Pest 4 Code, Type, Scale	IPOHE, W, BBCH	IPOHE, W, BBCH
Height Average		2.25 IN
Height Minimum, Maximum		1.5, 3
Density Average		1.25 FT2
Density Minimum, Maximum		1, 5
Pest 5 Code, Type, Scale	SIDSP, W, BBCH	SIDSP, W, BBCH
Height Average		0.375 IN
Height Minimum, Maximum		0, 0.75
Density Average		0.13 FT2
Density Minimum, Maximum		0, 1
Pest 6 Code, Type, Scale	AMACH, W, BBCH	AMACH, W, BBCH
Height Average		1 IN
Height Minimum, Maximum		0.75, 1.25
Density Average		0.63 FT2
Density Minimum, Maximum		1, 2
Pest 7 Code, Type, Scale	CONAR, W, BBCH	CONAR, W, BBCH
Height Average		10.75 IN
Height Minimum, Maximum		0, 21.5
Density Average		0.13 FT2
Density Minimum, Maximum		0, 1
Pest 8 Code, Type, Scale	ACCOS, W, BBCH	ACCOS, W, BBCH
Height Average		1 IN
Height Minimum, Maximum		0, 2
Density Average		0.13 FT2
Density Minimum, Maximum		0, 1

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	AMACH	DIGSA	IPOSP	AMBTR	AMACH	DIGSA
Pest Scientific Name		Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>		Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>
Pest Name		Giant ragweed	smooth pigweed	crabgrass	Morningglory Sp>	Giant ragweed	smooth pigweed	crabgrass
Crop Type, Code	C, GLXMA							
BBCH Scale	BSOY							
Crop Scientific Name	Glycine max							
Crop Name	Soybean							
Rating Date	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-22-2021	7-7-2021	7-7-2021	7-7-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1	1	1
Rating Timing								
Days After First/Last Applic.	32, 32	32, 32	32, 32	32, 32	32, 32	47, 14	47, 14	47, 14
Trt-Eval Interval								
Plant-Eval Interval	33 DP-1	33 DP-1	33 DP-1	33 DP-1	33 DP-1	48 DP-1	48 DP-1	48 DP-1
Days After Emergence								
ARM Action Codes		ER2				ET1		
Number of Decimals								

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5	6	7	8
2	Broadaxe XC	22 FL OZ/A	A	102	0.0	0.0	100.0	100.0	50.0	97.0	100.0	100.0
	Dimetric Liquid	10.5 FL OZ/A	A	206	0.0		100.0	95.0	0.0	97.0	100.0	100.0
	Prefix	2.33 PT/A	B	308	0.0	25.0	100.0	100.0	50.0	97.0	100.0	100.0
	Enlist One	32 FL OZ/A	B	406	0.0	25.0	100.0	90.0	0.0	100.0	100.0	100.0
	Roundup PowerMAX 3	30 FL OZ/A	B									
	AMS - Liquid	2.5 % V/V	B									
				Mean =	0.0	16.7	100.0	96.3	25.0	97.8	100.0	100.0
3	Boundary	1.5 PT/A	A	103	0.0	0.0	100.0	100.0	50.0	97.0	100.0	100.0
	Prefix	2.33 PT/A	B	204	0.0		100.0	95.0	100.0	95.0	100.0	100.0
	Enlist One	32 FL OZ/A	B	303	0.0	0.0	100.0	100.0	95.0	97.0	100.0	100.0
	Roundup PowerMAX 3	30 FL OZ/A	B	401	0.0	0.0	100.0	90.0	80.0	97.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B									
				Mean =	0.0	0.0	100.0	96.3	81.3	96.5	100.0	100.0
4	Prefix	2.33 PT/A	A	104	0.0	70.0	90.0	70.0	70.0	97.0	100.0	100.0
	Dimetric Liquid	10.5 FL OZ/A	A	205	0.0		95.0	95.0	90.0	95.0	100.0	100.0
	Enlist One	32 FL OZ/A	B	307	0.0	25.0	100.0	100.0	0.0	98.0	100.0	100.0
	Roundup PowerMAX 3	30 FL OZ/A	B	408	0.0	80.0	100.0	100.0	0.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B									
				Mean =	0.0	58.3	96.3	91.3	40.0	97.5	100.0	100.0
5	Kyber	1 PT/A	A	105	0.0	70.0	100.0	90.0	90.0	95.0	100.0	100.0
	Enlist Duo	4.75 PT/A	B	207	0.0		100.0	60.0	50.0	98.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B	304	0.0	50.0	100.0	100.0	0.0	97.0	100.0	100.0
				407	0.0	50.0	100.0	80.0	0.0	100.0	100.0	100.0
				Mean =	0.0	56.7	100.0	82.5	35.0	97.5	100.0	100.0
6	Trivence	8 OZ/A	A	106	0.0	90.0	100.0	90.0	100.0	100.0	100.0	100.0
	EverpreX	1 PT/A	B	208	0.0		90.0	75.0	90.0	97.0	100.0	100.0
	Enlist Duo	4.75 PT/A	B	302	0.0	70.0	100.0	95.0	90.0	97.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B	404	0.0	90.0	100.0	80.0	90.0	98.0	100.0	100.0
				Mean =	0.0	83.3	97.5	85.0	92.5	98.0	100.0	100.0

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	AMACH	DIGSA	IPOSP	AMBTR	AMACH	DIGSA
Pest Scientific Name		Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>		Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>
Pest Name		Giant ragweed	smooth pigweed	crabgrass	Morningglory Sp>	Giant ragweed	smooth pigweed	crabgrass
Crop Type, Code	C, GLXMA							
BBCH Scale	BSOY							
Crop Scientific Name	Glycine max							
Crop Name	Soybean							
Rating Date	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-22-2021	7-7-2021	7-7-2021	7-7-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1	1	1
Rating Timing								
Days After First/Last Applic.	32, 32	32, 32	32, 32	32, 32	32, 32	47, 14	47, 14	47, 14
Trt-Eval Interval								
Plant-Eval Interval	33 DP-1	33 DP-1	33 DP-1	33 DP-1	33 DP-1	48 DP-1	48 DP-1	48 DP-1
Days After Emergence								
ARM Action Codes		ER2				ET1		
Number of Decimals								

Trt	Treatment	Rate	Appl								
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8
7	Zidua Pro	6 FL OZ/A	A 107	0.0	80.0	95.0	80.0	80.0	97.0	100.0	100.0
	Enlist Duo	4.75 PT/A	B 201	0.0		100.0	80.0	70.0	98.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 305	0.0	90.0	100.0	100.0	100.0	95.0	100.0	100.0
			403	0.0	90.0	100.0	90.0	80.0	97.0	100.0	100.0
			Mean =	0.0	86.7	98.8	87.5	82.5	96.8	100.0	100.0
8	Authority XL	6.5 OZ/A	A 108	0.0	60.0	100.0	70.0	80.0	97.0	100.0	100.0
	Enlist Duo	4.75 PT/A	B 203	0.0		100.0	80.0	90.0	95.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 306	0.0	80.0	100.0	90.0	80.0	97.0	100.0	100.0
			405	0.0	50.0	100.0	60.0	90.0	95.0	100.0	100.0
			Mean =	0.0	63.3	100.0	75.0	85.0	96.0	100.0	100.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	IPOSP	AMBTR	AMACH	DIGSA	IPOSP		
Pest Scientific Name	Ambrosia trifida Amaranthus hybr> Digitaria sangu>						
Pest Name	Morningglory Sp>	Giant ragweed	smooth pigweed	crabgrass	Morningglory Sp>		
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1		
Rating Timing							
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29		
Trt-Eval Interval							
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1		
Days After Emergence							
ARM Action Codes	ET1	ET1			ET1		
Number of Decimals							
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	9	10	11	12	13
1 Untreated		101	0.0	0.0	0.0	0.0	0.0
		202	0.0	0.0	0.0	0.0	0.0
		301	0.0	0.0	0.0	0.0	0.0
		402	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSP	AMBTR	AMACH	DIGSA	IPOSP
Pest Scientific Name	Ambrosia trifida Amaranthus hybr> Digitaria sangu>				
Pest Name	Morningglory Sp>	Giant ragweed	smooth pigweed	crabgrass	Morningglory Sp>
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Rating Timing					
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29
Trt-Eval Interval					
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence					
ARM Action Codes	ET1	ET1			ET1
Number of Decimals					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	9	10	11	12	13
2	Broadaxe XC	22 FL OZ/A	A 102	97.0	97.0	100.0	100.0	97.0
	Dimetric Liquid	10.5 FL OZ/A	A 206	97.0	98.0	100.0	100.0	97.0
	Prefix	2.33 PT/A	B 308	95.0	97.0	100.0	100.0	95.0
	Enlist One	32 FL OZ/A	B 406	97.0	100.0	100.0	100.0	97.0
	Roundup PowerMAX 3	30 FL OZ/A	B					
	AMS - Liquid	2.5 % V/V	B					
			Mean =	96.5	98.0	100.0	100.0	96.5
3	Boundary	1.5 PT/A	A 103	100.0	97.0	100.0	100.0	100.0
	Prefix	2.33 PT/A	B 204	100.0	95.0	100.0	100.0	95.0
	Enlist One	32 FL OZ/A	B 303	97.0	97.0	100.0	100.0	97.0
	Roundup PowerMAX 3	30 FL OZ/A	B 401	100.0	97.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B					
			Mean =	99.3	96.5	100.0	100.0	98.0
4	Prefix	2.33 PT/A	A 104	97.0	97.0	100.0	100.0	100.0
	Dimetric Liquid	10.5 FL OZ/A	A 205	95.0	100.0	100.0	100.0	100.0
	Enlist One	32 FL OZ/A	B 307	97.0	98.0	100.0	100.0	97.0
	Roundup PowerMAX 3	30 FL OZ/A	B 408	97.0	100.0	100.0	100.0	97.0
	AMS - Liquid	2.5 % V/V	B					
			Mean =	96.5	98.8	100.0	100.0	98.5
5	Kyber	1 PT/A	A 105	100.0	97.0	100.0	100.0	97.0
	Enlist Duo	4.75 PT/A	B 207	97.0	97.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 304	100.0	97.0	100.0	100.0	100.0
			407	97.0	100.0	100.0	100.0	97.0
			Mean =	98.5	97.8	100.0	100.0	98.5
6	Trivence	8 OZ/A	A 106	100.0	95.0	100.0	100.0	100.0
	EverpreX	1 PT/A	B 208	100.0	97.0	100.0	100.0	97.0
	Enlist Duo	4.75 PT/A	B 302	97.0	97.0	100.0	100.0	97.0
	AMS - Liquid	2.5 % V/V	B 404	97.0	98.0	100.0	100.0	97.0
			Mean =	98.5	96.8	100.0	100.0	97.8

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSP	AMBTR	AMACH	DIGSA	IPOSP
Pest Scientific Name	Ambrosia trifida Amaranthus hybr> Digitaria sangu>				
Pest Name	Morningglory Sp>	Giant ragweed	smooth pigweed	crabgrass	Morningglory Sp>
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Rating Timing					
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29
Trt-Eval Interval					
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence					
ARM Action Codes	ET1	ET1			ET1
Number of Decimals					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	9	10	11	12	13
7	Zidua Pro	6 FL OZ/A	A 107	100.0	100.0	100.0	100.0	100.0
	Enlist Duo	4.75 PT/A	B 201	100.0	98.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 305	100.0	95.0	100.0	100.0	100.0
			403	97.0	97.0	100.0	100.0	97.0
			Mean =	99.3	97.5	100.0	100.0	99.3
8	Authority XL	6.5 OZ/A	A 108	97.0	100.0	100.0	100.0	100.0
	Enlist Duo	4.75 PT/A	B 203	95.0	95.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 306	95.0	97.0	100.0	100.0	100.0
			405	95.0	95.0	100.0	100.0	95.0
			Mean =	95.5	96.8	100.0	100.0	98.8

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	AMBTR	AMACH	DIGSA	IPOSP	AMBTR	AMACH	DIGSA			
Pest Scientific Name	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>		Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>			
Pest Name	Giant ragweed	smooth pigweed	crabgrass	Morningglory Sp>	Giant ragweed	smooth pigweed	crabgrass			
Crop Type, Code	C, GLXMA									
BBCH Scale	BSOY									
Crop Scientific Name	Glycine max									
Crop Name	Soybean									
Rating Date	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-22-2021	7-7-2021	7-7-2021	7-7-2021		
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1		
Rating Timing										
Days After First/Last Applic.	32, 32	32, 32	32, 32	32, 32	32, 32	47, 14	47, 14	47, 14		
Trt-Eval Interval										
Plant-Eval Interval	33 DP-1	33 DP-1	33 DP-1	33 DP-1	33 DP-1	48 DP-1	48 DP-1	48 DP-1		
Days After Emergence										
ARM Action Codes		ER2				ET1				
Number of Decimals										
Trt Treatment No. Name	Rate Rate Unit	Appl Code	1	2	3	4	5	6	7	8
8 Authority XL	6.5 OZ/A	A	0.0 a	63.3 a	100.0 a	75.0 b	85.0 a	96.0 a	100.0 a	100.0 a
Enlist Duo	4.75 PT/A	B								
AMS - Liquid	2.5 % V/V	B								
LSD P=.05			.	25.93	3.72	13.56	38.68	2.20	.	.
Standard Deviation			0.00	14.81	2.53	9.22	26.30	1.48	0.00	0.00
CV			0.0	32.45	2.92	12.02	47.69	1.52	0.0	0.0
Levene's F^			.	9.467	0.838	0.893	2.228	0.491	.	.
Levene's Prob(F)			.	0.00*	0.567	0.527	0.068	0.808	.	.
Skewness^			.	-0.2659	-1.3404*	-0.8878*	0.0374	-0.119	.	.
Kurtosis^			.	1.3715	2.998*	0.6795	-0.31	-0.6976	.	.
Replicate F			0.000	0.299	1.465	3.416	1.176	1.699	0.000	0.000
Replicate Prob(F)			1.0000	0.7459	0.2527	0.0362	0.3428	0.2030	1.0000	1.0000
Treatment F			0.000	17.020	765.977	47.600	6.856	0.985	0.000	0.000
Treatment Prob(F)			1.0000	0.0001	0.0001	0.0001	0.0003	0.4637	1.0000	1.0000

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Trt No.	Treatment Name	Rate Unit	Appl Code	9	10	11	12	13
1	Untreated			0.0	0.0	0.0 b	0.0 b	0.0

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSP	AMBTR	AMACH	DIGSA	IPOSP
Pest Scientific Name	Ambrosia trifida		Amaranthus hybr>	Digitaria sangu>	
Pest Name	Morningglory Sp>	Giant ragweed	smooth pigweed	crabgrass	Morningglory Sp>
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1
Rating Timing					
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29
Trt-Eval Interval					
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence					
ARM Action Codes	ET1	ET1			ET1
Number of Decimals					

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSP	AMBTR	AMACH	DIGSA	IPOSP
Pest Scientific Name	Ambrosia trifida Amaranthus hybr> Digitaria sangu>				
Pest Name	Morningglory Sp>	Giant ragweed	smooth pigweed	crabgrass	Morningglory Sp>
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Rating Timing					
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29
Trt-Eval Interval					
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence					
ARM Action Codes	ET1	ET1			ET1
Number of Decimals					

Trt No.	Treatment Name	Rate Unit	Appl Code	9	10	11	12	13
2	Broadaxe XC	22 FL OZ/A	A	96.5 ab	98.0 a	100.0 a	100.0 a	96.5 a
	Dimetric Liquid	10.5 FL OZ/A	A					
	Prefix	2.33 PT/A	B					
	Enlist One	32 FL OZ/A	B					
	Roundup PowerMAX 3	30 FL OZ/A	B					
	AMS - Liquid	2.5 % V/V	B					
3	Boundary	1.5 PT/A	A	99.3 a	96.5 a	100.0 a	100.0 a	98.0 a
	Prefix	2.33 PT/A	B					
	Enlist One	32 FL OZ/A	B					
	Roundup PowerMAX 3	30 FL OZ/A	B					
	AMS - Liquid	2.5 % V/V	B					
4	Prefix	2.33 PT/A	A	96.5 ab	98.8 a	100.0 a	100.0 a	98.5 a
	Dimetric Liquid	10.5 FL OZ/A	A					
	Enlist One	32 FL OZ/A	B					
	Roundup PowerMAX 3	30 FL OZ/A	B					
	AMS - Liquid	2.5 % V/V	B					
5	Kyber	1 PT/A	A	98.5 a	97.8 a	100.0 a	100.0 a	98.5 a
	Enlist Duo	4.75 PT/A	B					
	AMS - Liquid	2.5 % V/V	B					
6	Trivence	8 OZ/A	A	98.5 a	96.8 a	100.0 a	100.0 a	97.8 a
	EverpreX	1 PT/A	B					
	Enlist Duo	4.75 PT/A	B					
	AMS - Liquid	2.5 % V/V	B					
7	Zidua Pro	6 FL OZ/A	A	99.3 a	97.5 a	100.0 a	100.0 a	99.3 a
	Enlist Duo	4.75 PT/A	B					
	AMS - Liquid	2.5 % V/V	B					

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSP	AMBTR	AMACH	DIGSA	IPOSP
Pest Scientific Name	Ambrosia trifida Amaranthus hybr> Digitaria sangua>				
Pest Name	Morningglory Sp>	Giant ragweed	smooth pigweed	crabgrass	Morningglory Sp>
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Rating Timing					
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29
Trt-Eval Interval					
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence					
ARM Action Codes	ET1	ET1			ET1
Number of Decimals					

Trt Treatment No. Name	Rate Unit	Appl Code	9	10	11	12	13
8 Authority XL	6.5 OZ/A	A	95.5 b	96.8 a	100.0 a	100.0 a	98.8 a
Enlist Duo	4.75 PT/A	B					
AMS - Liquid	2.5 % V/V	B					
LSD P=.05			1.92	2.49	.	.	2.63
Standard Deviation			1.29	1.67	0.00	0.00	1.77
CV			1.32	1.72	0.0	0.0	1.81
Levene's F^			1.186	1.465	.	.	1.095
Levene's Prob(F)			0.351	0.238	.	.	0.398
Skewness^			-0.0989	0.1717	.	.	-0.3843
Kurtosis^			-1.0478	-0.333	.	.	0.0708
Replicate F			2.119	0.782	0.000	0.000	1.557
Replicate Prob(F)			0.1334	0.5194	1.0000	1.0000	0.2344
Treatment F			5.535	0.943	0.000	0.000	1.000
Treatment Prob(F)			0.0021	0.4890	1.0000	1.0000	0.4552

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Enlist E3 Soybean Programs

Trial ID: 21-34_SOY-REC Location: UKREC 201-D Trial Year: 2021
Protocol ID: Enlist Soybean Programs Investigator (Creator): Travis Legleiter
Project ID: Study Director:
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

AMACH, Amaranthus hybridus, smooth pigweed = US

DIGSA, Digitaria sanguinalis, crabgrass = US

Crop Type Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

33 DP-1 = 1 GLXMA 5-20-2021

48 DP-1 = 1 GLXMA 5-20-2021

63 DP-1 = 1 GLXMA 5-20-2021

ARM Action Codes

ER2 = Excluded replicate 2

ET1 = Excluded treatment 1

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RR2Xtend Soybean Programs

Trial ID: 21-35_SOY-LEX Location: UKREC 201-D Trial Year: 2021
 Protocol ID: RR2Xtend Soybean Programs Investigator (Creator): Sara Carter
 Project ID: Study Director: TRAVIS LEGLEITER
 Sponsor Contact:

Reps: 4 Plots: 10 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2.5 L (total for 4 plots; minimum=1.564 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate Unit	Other Rate Unit	Other Rate Unit	Appl Timing	Appl Code	Amt to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated										101	203	305	401
2	Broadaxe XC	7 LBA/GAL	L	FL OZ/A	1.2 lba/a			PRE	A	28.57 mL/mx	102	206	303	404
	Dimetric Liquid	3 LBA/GAL	L	FL OZ/A	0.246 lba/a			PRE	A	13.67 mL/mx				
	Prefix	5.29 LB/GAL	L	PT/A	1.54 lba/a			POST	B	48.51 mL/mx				
	XTENDIMAX WITH VAPORGRIP	2.9 lbae/gal	SL	FL OZ/A	0.5 lba/a			POST	B	28.73 mL/mx				
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	FL OZ/A	1.13 lba/a			POST	B	39.23 mL/mx				
	INTACT	100 %	SL	% V/V				POST	B	12.5 mL/mx				
	VaporGrip Xtra Agent	100 %	SL	FL OZ/A				POST	B	26.04 mL/mx				
3	Boundary	6.5 LBA/GAL	EC	PT/A	1.22 lba/a			PRE	A	31.28 mL/mx	103	204	302	406
	Prefix	5.29 LB/GAL	L	PT/A	1.54 lba/a			POST	B	48.51 mL/mx				
	XTENDIMAX WITH VAPORGRIP	2.9 lbae/gal	SL	FL OZ/A	0.5 lba/a			POST	B	28.73 mL/mx				
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	FL OZ/A	1.13 lba/a			POST	B	39.23 mL/mx				
	INTACT	100 %	SL	% V/V				POST	B	12.5 mL/mx				
	VaporGrip Xtra Agent	100 %	SL	FL OZ/A				POST	B	26.04 mL/mx				
4	Prefix	5.29 LB/GAL	L	PT/A	1.54 lba/a			PRE	A	48.51 mL/mx	104	202	306	402
	Dimetric Liquid	3 LBA/GAL	L	FL OZ/A	0.246 lba/a			PRE	A	13.67 mL/mx				
	Tavium	3.38 LBA/GAL	CS	FL OZ/A	1.49 lba/a			POST	B	73.46 mL/mx				
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	FL OZ/A	1.13 lba/a			POST	B	39.23 mL/mx				
	INTACT	100 %	SL	% V/V				POST	B	12.5 mL/mx				
	VaporGrip Xtra Agent	100 %	SL	FL OZ/A				POST	B	26.04 mL/mx				
5	Fierce EZ	3.04 LBA/GAL	SC	FL OZ/A	0.143 lba/a			PRE	A	7.839 mL/mx	105	201	304	405
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	FL OZ/A	1.13 lba/a			POST	B	39.23 mL/mx				
	XTENDIMAX WITH VAPORGRIP	2.9 lbae/gal	SL	FL OZ/A	0.5 lba/a			POST	B	28.73 mL/mx				
	Perpetuo	2.3 lba/gal	SC	FL OZ/A	0.108 lba/a			POST	B	7.825 mL/mx				
	INTACT	100 %	SL	% V/V				POST	B	12.5 mL/mx				
	VaporGrip Xtra Agent	100 %	SL	FL OZ/A				POST	B	26.04 mL/mx				
6	Fierce MTZ	2.64 LBA/GAL	SC	PT/A	0.33 lba/a			PRE	A	20.83 mL/mx	106	205	301	403
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	FL OZ/A	1.13 lba/a			POST	B	39.23 mL/mx				
	XTENDIMAX WITH VAPORGRIP	2.9 lbae/gal	SL	FL OZ/A	0.5 lba/a			POST	B	28.73 mL/mx				
	Perpetuo	2.3 lba/gal	SC	FL OZ/A	0.108 lba/a			POST	B	7.825 mL/mx				
	INTACT	100 %	SL	% V/V				POST	B	12.5 mL/mx				
	VaporGrip Xtra Agent	100 %	SL	FL OZ/A				POST	B	26.04 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
35.710	mL	Broadaxe XC	7	LBA/GAL	L	
34.163	mL	Dimetric Liquid	3	LBA/GAL	L	
181.927	mL	Prefix	5.29	LB/GAL	L	
143.663	mL	XTENDIMAX WITH VAPORGRIP	2.9	lbae/gal	SL	
245.199	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
78.117	mL	INTACT	100	%	SL	
162.760	mL	VaporGrip Xtra Agent	100	%	SL	
39.098	mL	Boundary	6.5	LBA/GAL	EC	
91.829	mL	Tavium	3.38	LBA/GAL	CS	
9.799	mL	Fierce EZ	3.04	LBA/GAL	SC	
19.563	mL	Perpetuo	2.3	lba/gal	SC	
26.039	mL	Fierce MTZ	2.64	LBA/GAL	SC	

* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.5 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2.5 L.

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

Discipline: H herbicide
Trial Status: F one-year/final

ARM Trial Created On: 6-16-2021

Initiation Date: 5-24-2021 **Planned Completion Date:** 10-29-2021

Completion Date: 10-1-2021

Trial Location

City: LEXINGTON **Country:** USA United States
State/Prov.: KENTUCKY
Postal Code: 40511

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Role: STYDIR study director
Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Organization: UNIVERSITY OF KENTUCKY
Address 1: 348 UNIVERSITY DRIVE **Phone No.:** 8595621323
Address 2: PO BOX 469
Country: USA United States
City: PRINCETON **State/Prov:** KY **Postal Code:** 42445
Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
E-mail: sara.carter@uky.edu
City: LEXINGTON, KY **Postal Code:** 40546-0312

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Crop Description

Crop 1: C GLXMA Glycine max Soybean
Variety: AG35X1
Attributes: RR2X
Planting Date: 6-7-2021
Depth: 1.25 IN
Rows per Plot: 6
Row Spacing: 30 IN
Soil Temperature: 70 F
Emergence Date: 6-12-2021

Stage Scale: BBCH

Planting Rate: 120000 S/A

Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: SMOOTH smooth
Soil Moisture: WET wet

Pest Description

Pest 1 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail
Crop: 1 GLXMA
Stage Scale: BBCH

Pest 2 Type: W **Code:** CHEAL *Chenopodium album*
Common Name: common lambsquarters
Crop: 1 GLXMA
Stage Scale: BBCH

Pest 3 Type: W **Code:** AMACH *Amaranthus hybridus*
Common Name: smooth pigweed
Stage Scale: BBCH

Site and Design

Treated Plot Width: 10 FT
Treated Plot Length: 30 FT
Treated Plot Area: 300.0 FT² **Treatments:** 6
Replications: 4

Site Type: FIELD field
Tillage Type: NOTILL no-till
Study Design: RACOB� Randomized Complete Block (RCB)

Trial Initiation Comments:

BURNDOWN WITH 1.5# GLYPHOSATE + 1 FL OZ SHARPEN 14 DAY PREPLANT

APPLIED 1.7 PT/A GRAMOXONE AT PLANTING

Soil Description

Description Name: MAURY
% Sand: 6 **% OM:** 2.6 **Texture:** SIL silt loam
% Silt: 62 **pH:** 6.4 **Soil Name:** MAURY SILT LOAM
% Clay: 32 **CEC:** 18 **Fert. Level:** E excellent
Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Closest Weather Station: SPINDLETOP **Distance:** 1 MI

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Application Description		
	A	B
Application Date	6-10-2021	7-6-2021
Appl. Start Time	9:00 AM	1:00 PM
Appl. Stop Time	9:30 AM	1:30 PM
Application Method	SPRAY	SPRAY
Application Timing	PRE	4"W
Application Placement	BROFOL	BROFOL
Applied By	SARA	SARA
Air Temperature Start, Stop	72, - F	83, - F
% Relative Humidity Start, Stop	82, -	85, -
Wind Velocity+Dir. Start	4 MPH, SW	6 MPH, SSE
Soil Temperature	71 F	76 F
Soil Moisture	WET	GOOD
Soil Surface Condition	SMOOTH	SMOOTH
% Cloud Cover	60	15
Next Moisture Occurred On	6-11-2021	7-7-2021

Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-2	24
Height Average		4 IN

Pest Stage At Each Application		
	A	B
Pest 1 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Height Average	2 IN	4 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 2 Code, Type, Scale	CHEAL, W, BBCH	CHEAL, W, BBCH
Height Average	2 IN	3 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 3 Code, Type, Scale	AMACH, W, BBCH	AMACH, W, BBCH
Height Average	2 IN	4 IN

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Application Equipment		
	A	B
Appl. Equipment	BACKPACK	BACKPACK
Equipment Type	BELSPR	BELSPR
Operation Pressure	30 PSI	30 PSI
Nozzle Model	11002	11002
Nozzle Type	AIR INDUC	AIR INDUC
Nozzle Spacing	20 IN	20 IN
Boom Length	10 FT	10 FT
Boom Height	30 IN	30 IN
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	15 GPA
Mix Size	2.5 liters	2.5 liters
Propellant	CO2	CO2

Notes			
Context	Date	By	Notes
STATUS	4-20-2021	Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.

Pest Type		W, Weed SETFA	W, Weed CHEAL	W, Weed AMACH	W, Weed SETFA	W, Weed CHEAL
Pest Code		Giant foxtail	common lambsqua>	smooth pigweed	Giant foxtail	common lambsqua>
Pest Name						
Crop Type, Code	C, GLXMA				C, GLXMA	
Crop Scientific Name	Glycine max				Glycine max	
Crop Name	Soybean				Soybean	
Rating Date	7-6-2021	7-6-2021	7-6-2021	7-6-2021	7-20-2021	7-20-2021
Part Rated						
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021
Rating Timing	@B	@B	@B	@B	14DAB	14DAB
Days After First/Last Applic.	26, 26	26, 26	26, 26	26, 26	40, 14	40, 14
Trt-Eval Interval						
Days After Emergence	24 DE-1	24 DE-1	24 DE-1	24 DE-1	38 DE-1	38 DE-1
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot	1	2	3	4
1 Untreated			0.0	0.0	0.0	0.0
			0.0	0.0	0.0	0.0
			0.0	0.0	0.0	0.0
			0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0

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Pest Type		W, Weed SETFA	W, Weed CHEAL	W, Weed AMACH	W, Weed SETFA	W, Weed CHEAL			
Pest Code		Giant foxtail	common lambsqua>	smooth pigweed	Giant foxtail	common lambsqua>			
Pest Name									
Crop Type, Code	C, GLXMA				C, GLXMA				
Crop Scientific Name	Glycine max				Glycine max				
Crop Name	Soybean				Soybean				
Rating Date	7-6-2021	7-6-2021	7-6-2021	7-6-2021	7-20-2021	7-20-2021			
Part Rated									
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1	1	1			
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021			
Rating Timing	@B	@B	@B	@B	14DAB	14DAB			
Days After First/Last Applic.	26, 26	26, 26	26, 26	26, 26	40, 14	40, 14			
Trt-Eval Interval									
Days After Emergence	24 DE-1	24 DE-1	24 DE-1	24 DE-1	38 DE-1	38 DE-1			
ARM Action Codes									
Number of Decimals									
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7
2 Broadaxe XC	22 FL OZ/A	A 102	0.0	95.0	95.0	95.0	0.0	100.0	100.0
Dimetric Liquid	10.5 FL OZ/A	A 206	0.0	95.0	95.0	98.0	0.0	100.0	100.0
Prefix	2.33 PT/A	B 303	0.0	90.0	98.0	98.0	0.0	100.0	100.0
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B 404	0.0	95.0	98.0	95.0	0.0	100.0	100.0
Roundup PowerMAX 3	30 FL OZ/A	B							
INTACT	0.5 % V/V	B							
VaporGrip Xtra Agent	20 FL OZ/A	B							
		Mean =	0.0	93.8	96.5	96.5	0.0	100.0	100.0
3 Boundary	1.5 PT/A	A 103	0.0	95.0	98.0	95.0	0.0	100.0	100.0
Prefix	2.33 PT/A	B 204	0.0	98.0	95.0	98.0	0.0	100.0	100.0
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B 302	0.0	98.0	98.0	98.0	0.0	100.0	100.0
Roundup PowerMAX 3	30 FL OZ/A	B 406	0.0	98.0	98.0	98.0	0.0	100.0	100.0
INTACT	0.5 % V/V	B							
VaporGrip Xtra Agent	20 FL OZ/A	B							
		Mean =	0.0	97.3	97.3	97.3	0.0	100.0	100.0
4 Prefix	2.33 PT/A	A 104	0.0	95.0	98.0	98.0	0.0	100.0	100.0
Dimetric Liquid	10.5 FL OZ/A	A 202	0.0	95.0	98.0	95.0	0.0	100.0	100.0
Tavium	56.5 FL OZ/A	B 306	0.0	95.0	98.0	95.0	0.0	100.0	100.0
Roundup PowerMAX 3	30 FL OZ/A	B 402	0.0	95.0	98.0	98.0	0.0	100.0	100.0
INTACT	0.5 % V/V	B							
VaporGrip Xtra Agent	20 FL OZ/A	B							
		Mean =	0.0	95.0	98.0	96.5	0.0	100.0	100.0
5 Fierce EZ	6 FL OZ/A	A 105	0.0	98.0	95.0	95.0	0.0	100.0	100.0
Roundup PowerMAX 3	30 FL OZ/A	B 201	0.0	98.0	95.0	98.0	0.0	100.0	100.0
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B 304	0.0	98.0	98.0	95.0	0.0	100.0	100.0
Perpetuo	6 FL OZ/A	B 405	0.0	95.0	98.0	98.0	0.0	100.0	100.0
INTACT	0.5 % V/V	B							
VaporGrip Xtra Agent	20 FL OZ/A	B							
		Mean =	0.0	97.3	96.5	96.5	0.0	100.0	100.0

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Pest Type			W, Weed		W, Weed		W, Weed		W, Weed
Pest Code			AMACH		SETFA		CHEAL		AMACH
Pest Name			smooth pigweed		Giant foxtail		common lambsqua>		smooth pigweed
Crop Type, Code				C, GLXMA					
Crop Scientific Name				Glycine max					
Crop Name				Soybean					
Rating Date			7-20-2021	8-3-2021	8-3-2021		8-3-2021		8-3-2021
Part Rated									
Rating Type			CONTRO	PHYGEN	CONTRO		CONTRO		CONTRO
Rating Unit/Min/Max			%, 0, 100	%, 0, 100	%, 0, 100		%, 0, 100		%, 0, 100
Number of Subsamples			1	1	1		1		1
Data Entry Date			12-9-2021	12-9-2021	12-9-2021		12-9-2021		12-9-2021
Rating Timing			14DAB	28DAB	28DAB		28DAB		28DAB
Days After First/Last Applic.			40, 14	54, 28	54, 28		54, 28		54, 28
Trt-Eval Interval									
Days After Emergence			38 DE-1	52 DE-1	52 DE-1		52 DE-1		52 DE-1
ARM Action Codes									
Number of Decimals									
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot	8	9	10		11		12
1 Untreated		101	0.0	0.0	0.0		0.0		0.0
		203	0.0	0.0	0.0		0.0		0.0
		305	0.0	0.0	0.0		0.0		0.0
		401	0.0	0.0	0.0		0.0		0.0
		Mean =	0.0	0.0	0.0		0.0		0.0

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Pest Type	W, Weed		W, Weed	W, Weed	W, Weed		
Pest Code	AMACH		SETFA	CHEAL	AMACH		
Pest Name	smooth pigweed		Giant foxtail	common lambsqua>	smooth pigweed		
Crop Type, Code		C, GLXMA					
Crop Scientific Name		Glycine max					
Crop Name		Soybean					
Rating Date	7-20-2021	8-3-2021	8-3-2021	8-3-2021	8-3-2021		
Part Rated							
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1		
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021		
Rating Timing	14DAB	28DAB	28DAB	28DAB	28DAB		
Days After First/Last Applic.	40, 14	54, 28	54, 28	54, 28	54, 28		
Trt-Eval Interval							
Days After Emergence	38 DE-1	52 DE-1	52 DE-1	52 DE-1	52 DE-1		
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	8	9	10	11	12
2 Broadaxe XC	22 FL OZ/A	A 102	100.0	0.0	95.0	95.0	95.0
Dimetric Liquid	10.5 FL OZ/A	A 206	100.0	0.0	98.0	98.0	95.0
Prefix	2.33 PT/A	B 303	100.0	0.0	95.0	98.0	95.0
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B 404	100.0	0.0	95.0	95.0	95.0
Roundup PowerMAX 3	30 FL OZ/A	B					
INTACT	0.5 % V/V	B					
VaporGrip Xtra Agent	20 FL OZ/A	B					
		Mean =	100.0	0.0	95.8	96.5	95.0
3 Boundary	1.5 PT/A	A 103	100.0	0.0	95.0	95.0	95.0
Prefix	2.33 PT/A	B 204	100.0	0.0	95.0	90.0	95.0
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B 302	100.0	0.0	95.0	90.0	95.0
Roundup PowerMAX 3	30 FL OZ/A	B 406	100.0	0.0	95.0	95.0	95.0
INTACT	0.5 % V/V	B					
VaporGrip Xtra Agent	20 FL OZ/A	B					
		Mean =	100.0	0.0	95.0	92.5	95.0
4 Prefix	2.33 PT/A	A 104	100.0	0.0	90.0	95.0	95.0
Dimetric Liquid	10.5 FL OZ/A	A 202	100.0	0.0	95.0	95.0	95.0
Tavium	56.5 FL OZ/A	B 306	100.0	0.0	90.0	95.0	95.0
Roundup PowerMAX 3	30 FL OZ/A	B 402	100.0	0.0	90.0	95.0	95.0
INTACT	0.5 % V/V	B					
VaporGrip Xtra Agent	20 FL OZ/A	B					
		Mean =	100.0	0.0	91.3	95.0	95.0
5 Fierce EZ	6 FL OZ/A	A 105	100.0	0.0	95.0	95.0	95.0
Roundup PowerMAX 3	30 FL OZ/A	B 201	100.0	0.0	95.0	95.0	95.0
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B 304	100.0	0.0	95.0	95.0	95.0
Perpetuo	6 FL OZ/A	B 405	100.0	0.0	90.0	90.0	95.0
INTACT	0.5 % V/V	B					
VaporGrip Xtra Agent	20 FL OZ/A	B					
		Mean =	100.0	0.0	93.8	93.8	95.0

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Pest Type	W, Weed		W, Weed	W, Weed	W, Weed
Pest Code	AMACH		SETFA	CHEAL	AMACH
Pest Name	smooth pigweed		Giant foxtail	common lambsqua>	smooth pigweed
Crop Type, Code		C, GLXMA			
Crop Scientific Name		Glycine max			
Crop Name		Soybean			
Rating Date	7-20-2021	8-3-2021	8-3-2021	8-3-2021	8-3-2021
Part Rated					
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021
Rating Timing	14DAB	28DAB	28DAB	28DAB	28DAB
Days After First/Last Applic.	40, 14	54, 28	54, 28	54, 28	54, 28
Trt-Eval Interval					
Days After Emergence	38 DE-1	52 DE-1	52 DE-1	52 DE-1	52 DE-1
ARM Action Codes					
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	8	9	10
6 Fierce MTZ	1 PT/A	A 106	100.0	0.0	90.0
Roundup PowerMAX 3	30 FL OZ/A	B 205	100.0	0.0	95.0
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B 301	100.0	0.0	90.0
Perpetuo	6 FL OZ/A	B 403	100.0	0.0	90.0
INTACT	0.5 % V/V	B			
VaporGrip Xtra Agent	20 FL OZ/A	B			
	Mean =		100.0	0.0	91.3
					95.0
					95.0
					95.0
					95.0
					95.0

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Pest Type		W, Weed SETFA	W, Weed CHEAL	W, Weed AMACH	W, Weed SETFA	W, Weed CHEAL	W, Weed AMACH			
Pest Code		Giant foxtail	common lambsqua>	smooth pigweed	Giant foxtail	common lambsqua>	smooth pigweed			
Pest Name										
Crop Type, Code	C, GLXMA				C, GLXMA					
Crop Scientific Name	Glycine max				Glycine max					
Crop Name	Soybean				Soybean					
Rating Date	7-6-2021	7-6-2021	7-6-2021	7-6-2021	7-20-2021	7-20-2021	7-20-2021			
Part Rated										
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1	1	1	1			
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021	12-9-2021			
Rating Timing	@B	@B	@B	@B	14DAB	14DAB	14DAB			
Days After First/Last Applic.	26, 26	26, 26	26, 26	26, 26	40, 14	40, 14	40, 14			
Trt-Eval Interval										
Days After Emergence	24 DE-1	24 DE-1	24 DE-1	24 DE-1	38 DE-1	38 DE-1	38 DE-1			
ARM Action Codes										
Number of Decimals										
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7	8
No. Name	Rate Unit	Code								
4 Prefix	2.33 PT/A	A	0.0 a	95.0 ab	98.0 a	96.5 a	0.0 a	100.0 a	100.0 a	100.0 a
Dimetric Liquid	10.5 FL OZ/A	A								
Tavium	56.5 FL OZ/A	B								
Roundup PowerMAX 3	30 FL OZ/A	B								
INTACT	0.5 % V/V	B								
VaporGrip Xtra Agent	20 FL OZ/A	B								
5 Fierce EZ	6 FL OZ/A	A	0.0 a	97.3 a	96.5 ab	96.5 a	0.0 a	100.0 a	100.0 a	100.0 a
Roundup PowerMAX 3	30 FL OZ/A	B								
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B								
Perpetuo	6 FL OZ/A	B								
INTACT	0.5 % V/V	B								
VaporGrip Xtra Agent	20 FL OZ/A	B								
6 Fierce MTZ	1 PT/A	A	0.0 a	95.0 ab	95.0 b	95.8 a	0.0 a	100.0 a	100.0 a	100.0 a
Roundup PowerMAX 3	30 FL OZ/A	B								
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B								
Perpetuo	6 FL OZ/A	B								
INTACT	0.5 % V/V	B								
VaporGrip Xtra Agent	20 FL OZ/A	B								
LSD P=.05				2.14	1.49	2.24				
Standard Deviation			0.00	1.42	0.99	1.48	0.00	0.00	0.00	0.00
CV			0.0	1.78	1.23	1.84	0.0	0.0	0.0	0.0
Levene's F^				0.766	0.457	1.938				
Levene's Prob(F)				0.586	0.803	0.138				
Skewness^				-1.6269*	-0.1052	0.0				
Kurtosis^				2.7353*	-1.5129	-0.8585				
Replicate F			0.000	0.353	3.462	1.136	0.000	0.000	0.000	0.000
Replicate Prob(F)			1.0000	0.7878	0.0433	0.3662	1.0000	1.0000	1.0000	1.0000
Treatment F			0.000	3040.801	6391.223	2822.303	0.000	0.000	0.000	0.000
Treatment Prob(F)			1.0000	0.0001	0.0001	0.0001	1.0000	1.0000	1.0000	1.0000

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Pest Type		W, Weed	W, Weed	W, Weed		
Pest Code		SETFA	CHEAL	AMACH		
Pest Name		Giant foxtail	common lambsqua>	smooth pigweed		
Crop Type, Code	C, GLXMA					
Crop Scientific Name	Glycine max					
Crop Name	Soybean					
Rating Date	8-3-2021	8-3-2021	8-3-2021	8-3-2021		
Part Rated						
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1		
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021		
Rating Timing	28DAB	28DAB	28DAB	28DAB		
Days After First/Last Applic.	54, 28	54, 28	54, 28	54, 28		
Trt-Eval Interval						
Days After Emergence	52 DE-1	52 DE-1	52 DE-1	52 DE-1		
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl	9	10	11	12
No. Name	Rate Unit	Code				
1 Untreated			0.0 a	0.0 c	0.0 b	0.0 b
2 Broadaxe XC	22 FL OZ/A A		0.0 a	95.8 a	96.5 a	95.0 a
Dimetric Liquid	10.5 FL OZ/A A					
Prefix	2.33 PT/A B					
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A B					
Roundup PowerMAX 3	30 FL OZ/A B					
INTACT	0.5 % V/V B					
VaporGrip Xtra Agent	20 FL OZ/A B					
3 Boundary	1.5 PT/A A		0.0 a	95.0 a	92.5 a	95.0 a
Prefix	2.33 PT/A B					
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A B					
Roundup PowerMAX 3	30 FL OZ/A B					
INTACT	0.5 % V/V B					
VaporGrip Xtra Agent	20 FL OZ/A B					

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Pest Type		W, Weed SETFA	W, Weed CHEAL	W, Weed AMACH		
Pest Code		Giant foxtail	common lambsqua	smooth pigweed		
Pest Name						
Crop Type, Code	C, GLXMA					
Crop Scientific Name	Glycine max					
Crop Name	Soybean					
Rating Date	8-3-2021	8-3-2021	8-3-2021	8-3-2021		
Part Rated						
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1		
Data Entry Date	12-9-2021	12-9-2021	12-9-2021	12-9-2021		
Rating Timing	28DAB	28DAB	28DAB	28DAB		
Days After First/Last Applic.	54, 28	54, 28	54, 28	54, 28		
Trt-Eval Interval						
Days After Emergence	52 DE-1	52 DE-1	52 DE-1	52 DE-1		
ARM Action Codes						
Number of Decimals						
Trt Treatment No. Name	Rate Rate Unit	Appl Code	9	10	11	12
4 Prefix	2.33 PT/A	A	0.0 a	91.3 b	95.0 a	95.0 a
Dimetric Liquid	10.5 FL OZ/A	A				
Tavium	56.5 FL OZ/A	B				
Roundup PowerMAX 3	30 FL OZ/A	B				
INTACT	0.5 % V/V	B				
VaporGrip Xtra Agent	20 FL OZ/A	B				
5 Fierce EZ	6 FL OZ/A	A	0.0 a	93.8 ab	93.8 a	95.0 a
Roundup PowerMAX 3	30 FL OZ/A	B				
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B				
Perpetuo	6 FL OZ/A	B				
INTACT	0.5 % V/V	B				
VaporGrip Xtra Agent	20 FL OZ/A	B				
6 Fierce MTZ	1 PT/A	A	0.0 a	91.3 b	95.0 a	95.0 a
Roundup PowerMAX 3	30 FL OZ/A	B				
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B				
Perpetuo	6 FL OZ/A	B				
INTACT	0.5 % V/V	B				
VaporGrip Xtra Agent	20 FL OZ/A	B				
LSD P=.05	.		2.25	2.77	.	.
Standard Deviation	0.00		1.49	1.84	0.00	0.00
CV	0.0		1.92	2.33	0.0	0.0
Levene's F^	.		0.703	4.436	.	.
Levene's Prob(F)	.		0.629	0.008*	.	.
Skewness^	.		-0.2039	-0.4388	.	.
Kurtosis^	.		-0.3836	0.3583	.	.
Replicate F	0.000		4.450	0.210	0.000	0.000
Replicate Prob(F)	1.0000		0.0200	0.8880	1.0000	1.0000
Treatment F	0.000		2623.350	1768.013	0.000	0.000
Treatment Prob(F)	1.0000		0.0001	0.0001	1.0000	1.0000

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RR2Xtend Soybean Programs

Trial ID: 21-35_SOY-LEX Location: UKREC 201-D Trial Year: 2021
Protocol ID: RR2Xtend Soybean Programs Investigator (Creator): Sara Carter
Project ID: Study Director: TRAVIS LEGLEITER
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, Giant foxtail = US

CHEAL, Chenopodium album, common lambsquarters = US

AMACH, Amaranthus hybridus, smooth pigweed = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

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RR2Xtend Soybean Programs

Trial ID: 21-35_SOY-REC Location: UKREC 201-D Trial Year: 2021
 Protocol ID: RR2Xtend Soybean Programs Investigator (Creator): Travis Legleiter
 Project ID: Study Director:
 Sponsor Contact:

Reps: 4		Plots: 10 by 30 feet													
Appl. Amount: 15 GAL/AC		Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)													
No.	Trt Name	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep	1	2	3	4
		Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Timing	Code	to Measure			
1	Untreated											101	206	301	405
2	Broadaxe XC	7 LBA/GAL	L	22 FL OZ/A	1.2 lba/a		PRE	A	22.85 mL/mx			102	205	306	404
	Dimetric Liquid	3 LBA/GAL	L	10.5 FL OZ/A	0.246 lba/a		PRE	A	10.93 mL/mx						
	Prefix	5.29 LB/GAL	L	2.33 PT/A	1.54 lba/a		POST	B	38.81 mL/mx						
	XTENDIMAX WITH VAPORGRIP	2.9 lbae/gal	SL	22 FL OZ/A	0.5 lba/a		POST	B	22.99 mL/mx						
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	30 FL OZ/A	1.13 lba/a		POST	B	31.39 mL/mx						
	INTACT	100 %	SL	0.5 % V/V			POST	B	9.999 mL/mx						
	VaporGrip Xtra Agent	100 %	SL	20 FL OZ/A			POST	B	20.83 mL/mx						
3	Boundary	6.5 LBA/GAL	EC	1.5 PT/A	1.22 lba/a		PRE	A	25.02 mL/mx			103	202	305	403
	Prefix	5.29 LB/GAL	L	2.33 PT/A	1.54 lba/a		POST	B	38.81 mL/mx						
	XTENDIMAX WITH VAPORGRIP	2.9 lbae/gal	SL	22 FL OZ/A	0.5 lba/a		POST	B	22.99 mL/mx						
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	30 FL OZ/A	1.13 lba/a		POST	B	31.39 mL/mx						
	INTACT	100 %	SL	0.5 % V/V			POST	B	9.999 mL/mx						
	VaporGrip Xtra Agent	100 %	SL	20 FL OZ/A			POST	B	20.83 mL/mx						
4	Prefix	5.29 LB/GAL	L	2.33 PT/A	1.54 lba/a		PRE	A	38.81 mL/mx			104	203	304	401
	Dimetric Liquid	3 LBA/GAL	L	10.5 FL OZ/A	0.246 lba/a		PRE	A	10.93 mL/mx						
	Tavium	3.38 LBA/GAL	CS	56.5 FL OZ/A	1.49 lba/a		POST	B	58.77 mL/mx						
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	30 FL OZ/A	1.13 lba/a		POST	B	31.39 mL/mx						
	INTACT	100 %	SL	0.5 % V/V			POST	B	9.999 mL/mx						
	VaporGrip Xtra Agent	100 %	SL	20 FL OZ/A			POST	B	20.83 mL/mx						
5	Fierce EZ	3.04 LBA/GAL	SC	6 FL OZ/A	0.143 lba/a		PRE	A	6.271 mL/mx			105	204	302	406
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	30 FL OZ/A	1.13 lba/a		POST	B	31.39 mL/mx						
	XTENDIMAX WITH VAPORGRIP	2.9 lbae/gal	SL	22 FL OZ/A	0.5 lba/a		POST	B	22.99 mL/mx						
	Perpetuo	2.3 lba/gal	SC	6 FL OZ/A	0.108 lba/a		POST	B	6.26 mL/mx						
	INTACT	100 %	SL	0.5 % V/V			POST	B	9.999 mL/mx						
	VaporGrip Xtra Agent	100 %	SL	20 FL OZ/A			POST	B	20.83 mL/mx						
6	Fierce MTZ	2.64 LBA/GAL	SC	1 PT/A	0.33 lba/a		PRE	A	16.66 mL/mx			106	201	303	402
	Roundup PowerMAX 3	4.8 LBAE/GAL	SL	30 FL OZ/A	1.13 lba/a		POST	B	31.39 mL/mx						
	XTENDIMAX WITH VAPORGRIP	2.9 lbae/gal	SL	22 FL OZ/A	0.5 lba/a		POST	B	22.99 mL/mx						
	Perpetuo	2.3 lba/gal	SC	6 FL OZ/A	0.108 lba/a		POST	B	6.26 mL/mx						
	INTACT	100 %	SL	0.5 % V/V			POST	B	9.999 mL/mx						
	VaporGrip Xtra Agent	100 %	SL	20 FL OZ/A			POST	B	20.83 mL/mx						

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

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Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
28.568	mL	Broadaxe XC	7	LBA/GAL	L	
27.330	mL	Dimetric Liquid	3	LBA/GAL	L	
145.542	mL	Prefix	5.29	LB/GAL	L	
114.930	mL	XTENDIMAX WITH VAPORGRIP	2.9	lbae/gal	SL	
196.159	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
62.493	mL	INTACT	100	%	SL	
130.208	mL	VaporGrip Xtra Agent	100	%	SL	
31.279	mL	Boundary	6.5	LBA/GAL	EC	
73.463	mL	Tavium	3.38	LBA/GAL	CS	
7.839	mL	Fierce EZ	3.04	LBA/GAL	SC	
15.650	mL	Perpetuo	2.3	lba/gal	SC	
20.831	mL	Fierce MTZ	2.64	LBA/GAL	SC	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.
 * 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

General Trial Information

Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Trial Status: E established

ARM Trial Created On: 4-5-2021

Trial Location

City: Princeton **Country:** USA United States

State/Prov.: Kentucky

Postal Code: 42445

Latitude of LL Corner °: 37.0967 N

Longitude of LL Corner °: -87.85642 W

Conducted Under GLP: No

Conducted Under GEP: No

Role: INVEST investigator

Investigator: Travis Legleiter

Title: Assistant Extension Professor

Organization: University of Kentucky

Address 1: 348 University Drive

Phone No.: 859-562-1323

Country: USA United States

E-mail: Travis.Legleiter@uky.edu

City: Princeton, KY

Postal Code: 42445

Crop Description

Crop 1: C GLXMA Glycine max

Soybean

BBCH Scale: BSOY

Entry Date: 10-15-2021

Stage Scale: BBCH

Variety: AG38XF1

Attributes: RR, LL, XTEND

Planting Date: 5-20-2021

Planting Rate: 140000 S/A

Depth: 1 IN

Planting Method: PLANTD planted

Row Spacing: 15 IN

Planting Equipment: KINZE

Soil Temperature: 72 F

Soil Moisture: WET wet

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Pest Description

Pest 1 Type: W **Code:** SORHA Sorghum halepense **Entry Date:** 10-15-2021
Common Name: johnsongrass **Stage Scale:** BBCH

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** 10-15-2021
Common Name: Giant ragweed **Stage Scale:** BBCH

Pest 3 Type: W **Code:** AMACH Amaranthus hybridus **Entry Date:** 10-15-2021
Common Name: smooth pigweed **Stage Scale:** BBCH

Pest 4 Type: W **Code:** CHEAL Chenopodium album **Entry Date:** 10-15-2021
Common Name: lambsquarters, common **Stage Scale:** BBCH

Pest 5 Type: W **Code:** ELEIN Eleusine indica **Entry Date:** 10-15-2021
Common Name: Goosegrass **Stage Scale:** BBCH

Pest 6 Type: W **Code:** DIGSA Digitaria sanguinalis **Entry Date:** 10-15-2021
Common Name: crabgrass **Stage Scale:** BBCH

Pest 7 Type: W **Code:** IPOHE Ipomoea hederacea **Entry Date:** 10-15-2021
Common Name: ivy-leaf morning glory **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300.0 FT2 **Treatments:** 6 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	5-11-2021	HERB	Gly Star Plus	3	LBAE/GAL	L	64	fl oz/a
2.	5-11-2021	HERB	Liberty	2.34	lba/gal	L	32	fl oz/a

Soil Description

Description Name: 201-D
% Sand: 3.4 **% OM:** 2.4 **Texture:** SIL silt loam
% Silt: 79.9 **pH:** 5.66 **Soil Name:** Crider Silt Loam
% Clay: 16.7 **CEC:** 10.62

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Application Description

	A	B
Application Date	5-21-2021	6-23-2021
Appl. Start Time	9:45 AM	11:09 AM
Appl. Stop Time	10:22 AM	11:20 AM
Interval to Prev. Appl.		33 DAYS
Application Method	spray	spray
Application Placement	soil	foliar
Applied By	JLG	J;G
Appl. Entry Date	10-15-2021	10-15-2021
Air Temperature Start, Stop	77.7, 88.5 F	74.7, 76.9 F
% Relative Humidity Start, Stop	45.4, 34.3	48.1, 47.4
Wind Velocity+Dir. Start	1.7 MPH, ESE	3.3 MPH, ESE
Wind Velocity+Dir. Stop	0 MPH, SE	2.7 MPH, E
Wind Velocity+Dir. Max	13.3 MPH, -	10.2 MPH, -
Wet Leaves (Y/N)	N, no	Y, yes
Soil Temperature	64 F	68 F
Soil Moisture	SL DAMP	DAMP
% Cloud Cover	60	0

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Stage Majority, Percent		V3, -
Stage Minimum, Percent		V4, -
Stage Maximum, Percent		V3, -
Height Average		11 IN
Height Minimum, Maximum		7.5, 14.5

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Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	SORHA, W, BBCH	SORHA, W, BBCH
Height Average		11.875 IN
Height Minimum, Maximum		6.5, 17.25
Density Average		0.75 FT2
Density Minimum, Maximum		1, 3
Pest 2 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		5.625 IN
Height Minimum, Maximum		2, 9.25
Density Average		1.5 FT2
Density Minimum, Maximum		1, 3
Pest 3 Code, Type, Scale	AMACH, W, BBCH	AMACH, W, BBCH
Height Average		0.75 IN
Height Minimum, Maximum		0, 1.5
Density Average		0.13 FT2
Density Minimum, Maximum		0, 1
Pest 4 Code, Type, Scale	CHEAL, W, BBCH	CHEAL, W, BBCH
Height Average		1.75 IN
Height Minimum, Maximum		0, 3.5
Density Average		0.13 FT2
Density Minimum, Maximum		0, 1
Pest 5 Code, Type, Scale	ELEIN, W, BBCH	ELEIN, W, BBCH
Height Average		1.625 IN
Height Minimum, Maximum		1.25, 2
Density Average		0.25 FT2
Density Minimum, Maximum		0, 2
Pest 6 Code, Type, Scale	DIGSA, W, BBCH	DIGSA, W, BBCH
Height Average		0.5 IN
Height Minimum, Maximum		0, 1
Density Average		0.5 FT2
Density Minimum, Maximum		1, 3
Pest 7 Code, Type, Scale	IPOHE, W, BBCH	IPOHE, W, BBCH
Height Average		4.25 IN
Height Minimum, Maximum		2.5, 6
Density Average		0.75 FT2
Density Minimum, Maximum		1, 3

Application Equipment

	A	B
Equipment Type	SPRBAC	SPRBAC
Operation Pressure	35 PSI	50 PSI
Nozzle Model	AIXR 11002	TTI 110015
Nozzle Type	FLAFAI	TEEJAI
Nozzle TradeName	TEEJET	TEEJET
Nozzle Tip Size, Color	02, Yellow	015, Green
Nozzle Spacing	20.0 IN	20.0 IN
Boom ID		WHITE TAPE
Boom Length	10.0 FT	10.0 FT
Boom Height	18.0 IN	18.0 IN
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC
Mix Overage	436.0 mL	436.0 mL
Mix Size	2.0 L	2.0 L
Propellant	COMCO2	COMCO2

University of Kentucky

Notes

Context Date By Notes
 STATUS 4-5-2021 Travis Legleiter Automatically added by ARM: Trial Status updated to 'S' during trial creation.
 STATUS 10-15-2021 Travis Legleiter Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	AMACH	DIGSA	IPOSS	AMBTR	AMACH	DIGSA
Pest Scientific Name		Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>
Pest Name		Giant ragweed	smooth pigweed	crabgrass	Morning glory	Giant ragweed	smooth pigweed	crabgrass
Crop Type, Code	C, GLXMA							
BBCH Scale	BSOY							
Crop Scientific Name	Glycine max							
Crop Name	Soybean							
Rating Date	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-22-2021	7-7-2021	7-7-2021	7-7-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1	1	1
Rating Timing								
Days After First/Last Applic.	32, 32	32, 32	32, 32	32, 32	32, 32	47, 14	47, 14	47, 14
Trt-Eval Interval								
Plant-Eval Interval	33 DP-1	33 DP-1	33 DP-1	33 DP-1	33 DP-1	48 DP-1	48 DP-1	48 DP-1
Days After Emergence								
ARM Action Codes		EC			ET6			
Number of Decimals								

Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8
1 Untreated		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		206	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		301	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		405	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 Broadaxe XC	22 FL OZ/A A	102	0.0	80.0	100.0	100.0	50.0	100.0	100.0	100.0
Dimetric Liquid	10.5 FL OZ/A A	205	0.0	90.0	100.0	100.0	80.0	100.0	100.0	100.0
Prefix	2.33 PT/A B	306	0.0	70.0	100.0	100.0	70.0	100.0	100.0	100.0
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A B	404	0.0	90.0	100.0	100.0	90.0	100.0	100.0	100.0
Roundup PowerMAX 3	30 FL OZ/A B									
INTACT	0.5 % V/V B									
VaporGrip Xtra Agent	20 FL OZ/A B									
		Mean =	0.0	82.5	100.0	100.0	72.5	100.0	100.0	100.0
3 Boundary	1.5 PT/A A	103	0.0	70.0	100.0	100.0	80.0	100.0	100.0	100.0
Prefix	2.33 PT/A B	202	0.0	50.0	100.0	97.0	50.0	97.0	100.0	100.0
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A B	305	0.0	70.0	100.0	100.0	50.0	100.0	100.0	100.0
Roundup PowerMAX 3	30 FL OZ/A B	403	0.0	35.0	100.0	100.0	50.0	95.0	100.0	100.0
INTACT	0.5 % V/V B									
VaporGrip Xtra Agent	20 FL OZ/A B									
		Mean =	0.0	56.3	100.0	99.3	57.5	98.0	100.0	100.0

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	AMACH	DIGSA	IPOSS	AMBTR	AMACH	DIGSA
Pest Scientific Name		Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>
Pest Name		Giant ragweed	smooth pigweed	crabgrass	Morning glory	Giant ragweed	smooth pigweed	crabgrass
Crop Type, Code	C, GLXMA							
BBCH Scale	BSOY							
Crop Scientific Name	Glycine max							
Crop Name	Soybean							
Rating Date	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-22-2021	7-7-2021	7-7-2021	7-7-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1	1	1
Rating Timing								
Days After First/Last Applic.	32, 32	32, 32	32, 32	32, 32	32, 32	47, 14	47, 14	47, 14
Trt-Eval Interval								
Plant-Eval Interval	33 DP-1	33 DP-1	33 DP-1	33 DP-1	33 DP-1	48 DP-1	48 DP-1	48 DP-1
Days After Emergence								
ARM Action Codes		EC		ET6				
Number of Decimals								

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5	6	7	8
4	Prefix	2.33 PT/A	A	104	0.0	90.0	100.0	100.0	50.0	100.0	100.0	100.0
	Dimetric Liquid	10.5 FL OZ/A	A	203	0.0	95.0	100.0	100.0	60.0	100.0	100.0	100.0
	Tavium	56.5 FL OZ/A	B	304	0.0	100.0	100.0	100.0	70.0	100.0	100.0	100.0
	Roundup PowerMAX 3	30 FL OZ/A	B	401	0.0	60.0	100.0	100.0	25.0	100.0	100.0	100.0
	INTACT	0.5 % V/V	B									
	VaporGrip Xtra Agent	20 FL OZ/A	B									
				Mean =	0.0	86.3	100.0	100.0	51.3	100.0	100.0	100.0
5	Fierce EZ	6 FL OZ/A	A	105	0.0	50.0	100.0	100.0	70.0	95.0	100.0	100.0
	Roundup PowerMAX 3	30 FL OZ/A	B	204	0.0	70.0	100.0	100.0	50.0	97.0	100.0	100.0
	XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B	302	0.0	80.0	100.0	100.0	80.0	100.0	100.0	100.0
	Perpetuo	6 FL OZ/A	B	406	0.0	90.0	100.0	95.0	90.0	100.0	100.0	100.0
	INTACT	0.5 % V/V	B									
	VaporGrip Xtra Agent	20 FL OZ/A	B									
				Mean =	0.0	72.5	100.0	98.8	72.5	98.0	100.0	100.0
6	Fierce MTZ	1 PT/A	A	106	0.0	70.0	100.0	100.0	95.0	95.0	100.0	100.0
	Roundup PowerMAX 3	30 FL OZ/A	B	201	0.0	60.0	100.0	70.0	70.0	95.0	100.0	100.0
	XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B	303	0.0	50.0	100.0	100.0	70.0	100.0	100.0	100.0
	Perpetuo	6 FL OZ/A	B	402	0.0	80.0	100.0	90.0	50.0	100.0	100.0	100.0
	INTACT	0.5 % V/V	B									
	VaporGrip Xtra Agent	20 FL OZ/A	B									
				Mean =	0.0	65.0	100.0	90.0	71.3	97.5	100.0	100.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSS	AMBTR	AMACH	DIGSA	IPOSS
Pest Scientific Name	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	Ipomoea sp.
Pest Name	Morning glory	Giant ragweed	smooth pigweed	crabgrass	Morning glory
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Rating Timing					
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29
Trt-Eval Interval					
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence					
ARM Action Codes	EC				EC
Number of Decimals					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	9	10	11	12	13
1	Untreated		101	0.0	0.0	0.0	0.0	0.0
			206	0.0	0.0	0.0	0.0	0.0
			301	0.0	0.0	0.0	0.0	0.0
			405	0.0	0.0	0.0	0.0	0.0
			Mean =		0.0	0.0	0.0	0.0	0.0
2	Broadaxe XC	22 FL OZ/A A	102	97.0	100.0	100.0	100.0	97.0
		Dimetric Liquid	10.5 FL OZ/A A	205	100.0	100.0	100.0	100.0
		Prefix	2.33 PT/A B	306	98.0	100.0	100.0	98.0
		XTENDIMAX WITH VAPORGRIP	22 FL OZ/A B	404	100.0	100.0	100.0	100.0
		Roundup PowerMAX 3	30 FL OZ/A B					
		INTACT	0.5 % V/V B					
		VaporGrip Xtra Agent	20 FL OZ/A B					
	Mean =		98.8	100.0	100.0	100.0	98.8	
3	Boundary	1.5 PT/A A	103	100.0	100.0	100.0	100.0	100.0
		Prefix	2.33 PT/A B	202	100.0	97.0	100.0	100.0
		XTENDIMAX WITH VAPORGRIP	22 FL OZ/A B	305	100.0	100.0	100.0	100.0
		Roundup PowerMAX 3	30 FL OZ/A B	403	97.0	95.0	100.0	97.0
		INTACT	0.5 % V/V B					
		VaporGrip Xtra Agent	20 FL OZ/A B					
	Mean =		99.3	98.0	100.0	100.0	99.3	

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSS	AMBTR	AMACH	DIGSA	IPOSS
Pest Scientific Name	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	Ipomoea sp.
Pest Name	Morning glory	Giant ragweed	smooth pigweed	crabgrass	Morning glory
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Rating Timing					
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29
Trt-Eval Interval					
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence					
ARM Action Codes	EC				EC
Number of Decimals					

Trt No.	Treatment Name	Rate	Appl Code	9	10	11	12	13
		Rate Unit	Code Plot					
4	Prefix	2.33 PT/A	A 104	95.0	100.0	100.0	100.0	97.0
	Dimetric Liquid	10.5 FL OZ/A	A 203	97.0	100.0	100.0	100.0	97.0
	Tavium	56.5 FL OZ/A	B 304	95.0	100.0	100.0	100.0	97.0
	Roundup PowerMAX 3	30 FL OZ/A	B 401	95.0	100.0	100.0	100.0	97.0
	INTACT	0.5 % V/V	B					
	VaporGrip Xtra Agent	20 FL OZ/A	B					
			Mean =	95.5	100.0	100.0	100.0	97.0
5	Fierce EZ	6 FL OZ/A	A 105	97.0	97.0	100.0	100.0	97.0
	Roundup PowerMAX 3	30 FL OZ/A	B 204	97.0	97.0	100.0	100.0	97.0
	XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B 302	95.0	100.0	100.0	100.0	98.0
	Perpetuo	6 FL OZ/A	B 406	100.0	100.0	100.0	100.0	100.0
	INTACT	0.5 % V/V	B					
	VaporGrip Xtra Agent	20 FL OZ/A	B					
			Mean =	97.3	98.5	100.0	100.0	98.0
6	Fierce MTZ	1 PT/A	A 106	97.0	97.0	100.0	100.0	97.0
	Roundup PowerMAX 3	30 FL OZ/A	B 201	100.0	95.0	100.0	100.0	100.0
	XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B 303	95.0	100.0	100.0	100.0	97.0
	Perpetuo	6 FL OZ/A	B 402	95.0	100.0	100.0	100.0	95.0
	INTACT	0.5 % V/V	B					
	VaporGrip Xtra Agent	20 FL OZ/A	B					
			Mean =	96.8	98.0	100.0	100.0	97.3

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	AMACH	DIGSA	IPOSS	AMBTR	AMACH	DIGSA
Pest Scientific Name		Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>
Pest Name		Giant ragweed	smooth pigweed	crabgrass	Morning glory	Giant ragweed	smooth pigweed	crabgrass
Crop Type, Code	C, GLXMA							
BBCH Scale	BSOY							
Crop Scientific Name	Glycine max							
Crop Name	Soybean							
Rating Date	6-22-2021	6-22-2021	6-22-2021	6-22-2021	6-22-2021	7-7-2021	7-7-2021	7-7-2021
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1	1	1
Rating Timing								
Days After First/Last Applic.	32, 32	32, 32	32, 32	32, 32	32, 32	47, 14	47, 14	47, 14
Trt-Eval Interval								
Plant-Eval Interval	33 DP-1	33 DP-1	33 DP-1	33 DP-1	33 DP-1	48 DP-1	48 DP-1	48 DP-1
Days After Emergence								
ARM Action Codes		EC		ET6				
Number of Decimals								

Trt Treatment No. Name	Rate Unit	Appl Code	1	2	3	4	5	6	7	8
6 Fierce MTZ	1 PT/A	A	0.0 a	65.0 a	100.0 a	90.0	71.3 a	97.5 a	100.0 a	100.0 a
Roundup PowerMAX 3	30 FL OZ/A	B								
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B								
Perpetuo	6 FL OZ/A	B								
INTACT	0.5 % V/V	B								
VaporGrip Xtra Agent	20 FL OZ/A	B								
LSD P=.05			.	26.17	.	2.08	25.68	2.70	.	.
Standard Deviation			0.00	16.99	0.00	1.35	17.04	1.79	0.00	0.00
CV			0.0	23.43	0.0	1.7	31.45	2.18	0.0	0.0
Levene's F^			.	0.212	.	0.468	1.093	1.979	.	.
Levene's Prob(F)			.	0.928	.	0.759	0.398	0.131	.	.
Skewness^			.	-0.505	.	-1.5481*	-0.0768	-0.3834	.	.
Kurtosis^			.	-0.9635	.	3.2837*	-0.631	-0.1007	.	.
Replicate F			0.000	0.029	0.000	0.658	0.239	1.332	0.000	0.000
Replicate Prob(F)			1.0000	0.9930	1.0000	0.5937	0.8676	0.3011	1.0000	1.0000
Treatment F			0.000	2.112	0.000	4340.452	10.797	2023.941	0.000	0.000
Treatment Prob(F)			1.0000	0.1421	1.0000	0.0001	0.0002	0.0001	1.0000	1.0000

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	IPOSS	AMBTR	AMACH	DIGSA	IPOSS		
Pest Scientific Name	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	Ipomoea sp.		
Pest Name	Morning glory	Giant ragweed	smooth pigweed	crabgrass	Morning glory		
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1		
Rating Timing							
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29		
Trt-Eval Interval							
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1		
Days After Emergence							
ARM Action Codes	EC				EC		
Number of Decimals							
Trt Treatment	Rate	Appl	9	10	11	12	13
No. Name	Rate Unit	Code					
1 Untreated	0.0		0.0 b	0.0 b	0.0 b	0.0 b	0.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSS	AMBTR	AMACH	DIGSA	IPOSS
Pest Scientific Name	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	Ipomoea sp.
Pest Name	Morning glory	Giant ragweed	smooth pigweed	crabgrass	Morning glory
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Rating Timing					
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29
Trt-Eval Interval					
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence					
ARM Action Codes	EC				EC
Number of Decimals					

Trt No.	Treatment Name	Rate Unit	Appl Code	9	10	11	12	13
2	Broadaxe XC	22 FL OZ/A	A	98.8 ab	100.0 a	100.0 a	100.0 a	98.8 a
	Dimetric Liquid	10.5 FL OZ/A	A					
	Prefix	2.33 PT/A	B					
	XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B					
	Roundup PowerMAX 3	30 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	VaporGrip Xtra Agent	20 FL OZ/A	B					
3	Boundary	1.5 PT/A	A	99.3 a	98.0 a	100.0 a	100.0 a	99.3 a
	Prefix	2.33 PT/A	B					
	XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B					
	Roundup PowerMAX 3	30 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	VaporGrip Xtra Agent	20 FL OZ/A	B					
4	Prefix	2.33 PT/A	A	95.5 b	100.0 a	100.0 a	100.0 a	97.0 a
	Dimetric Liquid	10.5 FL OZ/A	A					
	Tavium	56.5 FL OZ/A	B					
	Roundup PowerMAX 3	30 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	VaporGrip Xtra Agent	20 FL OZ/A	B					
5	Fierce EZ	6 FL OZ/A	A	97.3 ab	98.5 a	100.0 a	100.0 a	98.0 a
	Roundup PowerMAX 3	30 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B					
	Perpetuo	6 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	VaporGrip Xtra Agent	20 FL OZ/A	B					

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	IPOSS	AMBTR	AMACH	DIGSA	IPOSS		
Pest Scientific Name	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Digitaria sangu>	Ipomoea sp.		
Pest Name	Morning glory	Giant ragweed	smooth pigweed	crabgrass	Morning glory		
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date	7-7-2021	7-22-2021	7-22-2021	7-22-2021	7-22-2021		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1		
Rating Timing							
Days After First/Last Applic.	47, 14	62, 29	62, 29	62, 29	62, 29		
Trt-Eval Interval							
Plant-Eval Interval	48 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1		
Days After Emergence							
ARM Action Codes	EC				EC		
Number of Decimals							
Trt Treatment	Rate	Appl	9	10	11	12	13
No. Name	Rate Unit	Code					
6 Fierce MTZ	1 PT/A	A	96.8 ab	98.0 a	100.0 a	100.0 a	97.3 a
Roundup PowerMAX 3	30 FL OZ/A	B					
XTENDIMAX WITH VAPORGRIP	22 FL OZ/A	B					
Perpetuo	6 FL OZ/A	B					
INTACT	0.5 % V/V	B					
VaporGrip Xtra Agent	20 FL OZ/A	B					
LSD P=.05			2.55	2.30	.	.	2.36
Standard Deviation			1.66	1.52	0.00	0.00	1.53
CV			1.7	1.85	0.0	0.0	1.56
Levene's F^			1.343	1.92	.	.	0.604
Levene's Prob(F)			0.30	0.141	.	.	0.666
Skewness^			0.3679	-0.5217	.	.	0.0244
Kurtosis^			-0.2959	0.4432	.	.	-0.4291
Replicate F			1.576	1.459	0.000	0.000	0.591
Replicate Prob(F)			0.2466	0.2655	1.0000	1.0000	0.6328
Treatment F			3.364	2809.450	0.000	0.000	1.569
Treatment Prob(F)			0.0458	0.0001	1.0000	1.0000	0.2451

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RR2Xtend Soybean Programs

Trial ID: 21-35_SOY-REC Location: UKREC 201-D Trial Year: 2021
Protocol ID: RR2Xtend Soybean Programs Investigator (Creator): Travis Legleiter
Project ID: Study Director:
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

AMACH, Amaranthus hybridus, smooth pigweed = US

DIGSA, Digitaria sanguinalis, crabgrass = US

IPOSS, Ipomoea sp., Morning glory = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

33 DP-1 = 1 GLXMA 5-20-2021

48 DP-1 = 1 GLXMA 5-20-2021

63 DP-1 = 1 GLXMA 5-20-2021

ARM Action Codes

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

ET6 = Excluded treatment 6

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VALENT AND SYNGENTA CORN

Trial ID: 21-36 Location: Trial Year: 2021
 Protocol ID: 21-36 Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

Reps: 4 Plots: 10 by 33 feet
 Mix Size: 2.2 L

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Appl Timing	Appl Code	Appl. Amount	Amt Product to Measure	Rep 1	2	3	4
1	V-10494	2.04	LBA/GAL	SC	1 QT/A	PRE	A	15 GPA	36.67 mL/mx	101	206	303	405
	ROUNDUP POWERMAX	4.5		SL	1 QT/A	42DAP	C	15 GAL/AC	36.67 mL/mx				
	INDUCE			SL	0.25 % V/V	42DAP	C	15 GAL/AC	5.499 mL/mx				
	AMS	100		SG	3 LB/A	42DAP	C	15 GAL/AC	52.72 g/mx				
2	V-10494	2.04	LB/GAL	SC	1 QT/A	PRE	A	15 GPA	36.67 mL/mx	102	204	302	404
	ATRAZINE	4		L	0.75 LB A/A	PRE	A	15 GPA	27.5 mL/mx				
	ROUNDUP POWERMAX	4.5		SL	1 QT/A	42DAP	C	15 GAL/AC	36.67 mL/mx				
	INDUCE			SL	0.25 % V/V	42DAP	C	15 GAL/AC	5.499 mL/mx				
	AMS	100		SG	3 LB/A	42DAP	C	15 GAL/AC	52.72 g/mx				
3	LEXAR EZ	3.7		ZC	1.8 QT/A	PRE	A	15 GPA	66.0 mL/mx	103	202	306	401
	ACURON GT	514.35	gA/L	ZC	3.75 PT/A	V2	B	15 GAL/AC	68.75 mL/mx				
	AATREX	4		F	1 PT/A	V2	B	15 GAL/AC	18.33 mL/mx				
	NIS			L	0.25 % V/V	V2	B	15 GAL/AC	5.499 mL/mx				
	AMS			L	2.5 % V/V	V2	B	15 GAL/AC	54.99 mL/mx				
4	BICEP II MAGNUM	5.5		L	1.6 QT/A	PRE	A	15 GPA	58.67 mL/mx	104	205	304	403
	ACURON GT	514.35	gA/L	ZC	3.75 PT/A	V2	B	15 GAL/AC	68.75 mL/mx				
	AATREX	4		F	1 PT/A	V2	B	15 GAL/AC	18.33 mL/mx				
	NIS			L	0.25 % V/V	V2	B	15 GAL/AC	5.499 mL/mx				
	AMS			L	2.5 % V/V	V2	B	15 GAL/AC	54.99 mL/mx				
5	VERDICT	2		EC	10 OZ/A	PRE	A	15 GPA	11.46 mL/mx	105	201	305	406
	ARMEZON PRO	6.25		L	18 OZ/A	V2	B	15 GAL/AC	20.62 mL/mx				
	ROUNDUP POWERMAX	4.5		SL	22 OZ/A	V2	B	15 GAL/AC	25.21 mL/mx				
6	SURESTART	4.18		SE	1.75 PT/A	PRE	A	15 GPA	32.08 mL/mx	106	203	301	402
	RESICORE	3.3		SC	1.25 QT/A	V2	B	15 GAL/AC	45.83 mL/mx				
	ROUNDUP POWERMAX	4.5		SL	22 OZ/A	V2	B	15 GAL/AC	25.21 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
45.833	mL	V-10494	2.04	LBA/GAL	SC	
154.687	mL	ROUNDUP POWERMAX	4.5		SL	
13.749	mL	INDUCE			SL	
131.808	g	AMS	100		SG	

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
45.833	mL	V-10494	2.04	LB/GAL	SC	
34.371	mL	ATRAZINE	4		L	
82.500	mL	LEXAR EZ	3.7		ZC	
171.875	mL	ACURON GT	514.35	gA/L	ZC	
45.833	mL	AATREX	4		F	
13.749	mL	NIS			L	
137.485	mL	AMS			L	
73.333	mL	BICEP II MAGNUM	5.5		L	
14.323	mL	VERDICT	2		EC	
25.781	mL	ARMEZON PRO	6.25		L	
40.104	mL	SURESTART	4.18		SE	
57.291	mL	RESICORE	3.3		SC	

* 'Per area' calculations based on application amount= 15 GPA, 15 GAL/AC, mix size= 2.2 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GPA, 15 GAL/AC, mix size= 2.2 L.

General Trial Information

Study Director: Sara Carter **Title:** Research Specialist

Discipline: H herbicide
Trial Status: F one-year/final

ARM Trial Created On: 4-21-2021

Initiation Date: 5-13-2021

Completion Date: 10-20-2021

Trial Location

City: LEXINGTON **Country:** USA United States

State/Prov.: KENTUCKY

Postal Code: 40511

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director

Study Director: Sara Carter **Title:** Research Specialist

Organization: University of Kentucky

Address 1: 2951 Agronomy Road, Unit 12

Mobile No.: 859-559-6710

E-mail: skcart0@uky.edu

City: Lexington, KY

Postal Code: 40511

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Crop Description

Crop 1: C ZEAMX Zea mays Corn
Stage Scale: BBCH
Variety: DKC 65-95
Attributes: VT2
Planting Date: 5-13-2021 **Planting Rate:** 32000 S/A
Depth: 1.5 in
Rows per Plot: 6 **Planting Method:** PLANTD planted
Row Spacing: 30 in **Planting Equipment:** FE field equipment
Seed Bed: SMOOTH smooth
Soil Temperature: 59 f **Soil Moisture:** WET wet
Emergence Date: 5-20-2021
Harvest Date: 10-20-2021 **Harvest Equipment:** MASSEY FERGUSON 8XP
Harvested Width: 5 FT
Harvested Length: 30 FT
% Standard Moisture: 15.5

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed **Stage Scale:** BBCH
Crop: 1 ZEAMX
Pest 2 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory **Stage Scale:** BBCH
Crop: 1 ZEAMX
Pest 3 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail **Stage Scale:** BBCH
Crop: 1 ZEAMX

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 33 FT
Treated Plot Area: 330.0 FT² **Treatments:** 6 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

Description Name: MAURY
% Sand: 6 **% OM:** 2.6 **Texture:** SIL silt loam
% Silt: 62 **pH:** 6.4 **Soil Name:** MAURY SILT LOAM
% Clay: 32 **CEC:** 18 **Fert. Level:** E excellent
Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Closest Weather Station: Spindletop **Distance:** 1.5 mi

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Application Description			
	A	B	C
Application Date	5-15-2021	6-10-2021	6-28-2021
Appl. Start Time	12:15 PM	2:00 PM	3:00 PM
Appl. Stop Time	12:45 PM	2:45 PM	3:15 PM
Application Method	SPRAY	SPRAY	SPRAY
Application Timing	PRE	V2	42DAP
Application Placement	BROSOI	BROFOL	BROFOL
Applied By	SARA	SARA	SARA
Air Temperature Start, Stop	70, - F	78, - F	82, - F
% Relative Humidity Start, Stop	28, -	80, -	65, -
Wind Velocity+Dir. Start	5 MPH, SE	6 MPH, SSW	4 MPH, NE
Soil Temperature	59 F	71 F	75 F
Soil Moisture	SLIWE	WET	GOOD
Soil Surface Condition	SMOOTH	SMOOTH	SMOOTH
% Cloud Cover	10	60	20
Next Moisture Occurred On	5-16-2021	6-11-2021	6-30-2021

Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR
Days after Emergence	-5	21	39
Height Average		6 IN	8 IN

Pest Stage At Each Application			
	A	B	C
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		3 IN	5 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX	-, ZEAMX
Pest 2 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH	IPOSS, W, BBCH
Height Average		1 IN	2 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX	-, ZEAMX
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH
Height Average		2 IN	3 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX	-, ZEAMX

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Application Equipment			
	A	B	C
Appl. Equipment	BACKPACK	BACKPACK	BACKPACK
Equipment Type	BELSPR	BELSPR	BELSPR
Operation Pressure	30 PSI	30 PSI	30 PSI
Nozzle Model	8002 DG	8002 DG	8002 DG
Nozzle Type	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Spacing	20 IN	20 IN	20 IN
Boom Length	10 FT	10 FT	10 FT
Boom Height	30 IN	30 IN	30 IN
Ground Speed	4 MPH	4 MPH	4 MPH
Carrier	WATER	WATER	WATER
Application Amount	15 GPA	15 GAL/AC	15 GAL/AC
Mix Overage		0 mL	0 mL
Mix Size	2.2 liters	2.2 L	2.2 L
Propellant	CO2	CO2	CO2

Notes			
Context	Date	By	Notes
STATUS	4-21-2021	Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.

		W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA		W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA			
Pest Type		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail			
Pest Code											
Pest Name											
Crop Type, Code	C, ZEAMX				C, ZEAMX				C, ZEAMX		
Crop Scientific Name	Zea mays				Zea mays				Zea mays		
Crop Name	Corn				Corn				Corn		
Rating Date	5-29-2021	5-29-2021	5-29-2021	5-29-2021	6-10-2021	6-10-2021	6-10-2021	6-10-2021	6-25-2021		
Part Rated	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021		
Rating Timing	14 DAT	14 DAT	14 DAT	14 DAT	28 DAT @B	28 DAT @B	28 DAT @B	28 DAT @B	42 DAA/14DAB		
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	26, 26	26, 26	26, 26	26, 26	41, 15		
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1	21 DE-1	21 DE-1	21 DE-1	21 DE-1	36 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9
1 V-10494	1 QT/A	A 101	0.0	80.0	95.0	95.0	0.0	85.0	90.0	90.0	0.0
ROUNDUP POWERMAX	1 QT/A	C 206	0.0	85.0	95.0	95.0	0.0	85.0	85.0	95.0	0.0
INDUCE	0.25 % V/V	C 303	0.0	80.0	95.0	95.0	0.0	90.0	90.0	90.0	0.0
AMS	3 LB/A	C 405	0.0	85.0	95.0	95.0	0.0	85.0	92.0	95.0	0.0
		Mean =	0.0	82.5	95.0	95.0	0.0	86.3	89.3	92.5	0.0

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Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	W, Weed	W, Weed		W, Weed		
Pest Code	AMBTR	IPOSS	SETFA		AMBTR	IPOSS	SETFA		AMBTR		
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed		
Crop Type, Code				C, ZEAMX							
Crop Scientific Name				Zea mays							
Crop Name				Corn							
Rating Date	6-25-2021	6-25-2021	6-25-2021	7-12-2021	7-12-2021	7-12-2021	7-12-2021	7-26-2021	7-26-2021		
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P		
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021		
Rating Timing	42DAA/14DAB	42DAA/14DAB	42DAA/14DAB	14DAC	14DAC	14DAC	14DAC	28DAC	28DAC		
Days After First/Last Applic.	41, 15	41, 15	41, 15	58, 14	58, 14	58, 14	58, 14	72, 28	72, 28		
Days After Emergence	36 DE-1	36 DE-1	36 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1	67 DE-1	67 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	10	11	12	13	14	15	16	17	18
1 V-10494	1 QT/A	A 101	85.0	85.0	90.0	0.0	95.0	95.0	100.0	0.0	95.0
ROUNDUP POWERMAX	1 QT/A	C 206	85.0	85.0	90.0	0.0	95.0	98.0	100.0	0.0	95.0
INDUCE	0.25 % V/V	C 303	85.0	85.0	90.0	0.0	98.0	98.0	100.0	0.0	98.0
AMS	3 LB/A	C 405	85.0	85.0	85.0	0.0	95.0	95.0	100.0	0.0	95.0
		Mean =	85.0	85.0	88.8	0.0	95.8	96.5	100.0	0.0	95.8

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Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	AMBTR	IPOSS	SETFA		AMBTR	IPOSS	SETFA		AMBTR		
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed		
Crop Type, Code				C, ZEAMX							
Crop Scientific Name				Zea mays							
Crop Name				Corn							
Rating Date	6-25-2021	6-25-2021	6-25-2021	7-12-2021	7-12-2021	7-12-2021	7-12-2021	7-26-2021	7-26-2021		
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P		
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021		
Rating Timing	42DAA/14DAB	42DAA/14DAB	42DAA/14DAB	14DAC	14DAC	14DAC	14DAC	28DAC	28DAC		
Days After First/Last Applic.	41, 15	41, 15	41, 15	58, 14	58, 14	58, 14	58, 14	72, 28	72, 28		
Days After Emergence	36 DE-1	36 DE-1	36 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1	67 DE-1	67 DE-1		
ARM Action Codes											
Number of Decimals											
Trt Treatment	Rate	Appl									
No. Name	Rate Unit	Code Plot	10	11	12	13	14	15	16	17	18
2 V-10494	1 QT/A	A 102	85.0	85.0	90.0	0.0	95.0	98.0	100.0	0.0	95.0
ATRAZINE	0.75 LB AI/A	A 204	85.0	85.0	85.0	0.0	98.0	98.0	100.0	0.0	98.0
ROUNDUP POWERMAX	1 QT/A	C 302	85.0	85.0	90.0	0.0	95.0	95.0	100.0	0.0	95.0
INDUCE	0.25 % V/V	C 404	85.0	85.0	90.0	0.0	98.0	98.0	100.0	0.0	98.0
AMS	3 LB/A	C									
	Mean =		85.0	85.0	88.8	0.0	96.5	97.3	100.0	0.0	96.5
3 LEXAR EZ	1.8 QT/A	A 103	98.0	98.0	100.0	0.0	95.0	98.0	100.0	0.0	95.0
ACURON GT	3.75 PT/A	B 202	95.0	98.0	100.0	0.0	98.0	98.0	100.0	0.0	98.0
AATREX	1 PT/A	B 306	98.0	98.0	100.0	0.0	95.0	95.0	100.0	0.0	95.0
NIS	0.25 % V/V	B 401	98.0	98.0	100.0	0.0	98.0	98.0	100.0	0.0	98.0
AMS	2.5 % V/V	B									
	Mean =		97.3	98.0	100.0	0.0	96.5	97.3	100.0	0.0	96.5
4 BICEP II MAGNUM	1.6 QT/A	A 104	95.0	98.0	100.0	0.0	95.0	98.0	100.0	0.0	95.0
ACURON GT	3.75 PT/A	B 205	98.0	98.0	100.0	0.0	98.0	95.0	100.0	0.0	98.0
AATREX	1 PT/A	B 304	98.0	98.0	100.0	0.0	98.0	95.0	100.0	0.0	98.0
NIS	0.25 % V/V	B 403	95.0	98.0	100.0	0.0	98.0	95.0	100.0	0.0	98.0
AMS	2.5 % V/V	B									
	Mean =		96.5	98.0	100.0	0.0	97.3	95.8	100.0	0.0	97.3
5 VERDICT	10 OZ/A	A 105	95.0	98.0	100.0	0.0	95.0	98.0	100.0	0.0	95.0
ARMEZON PRO	18 OZ/A	B 201	98.0	98.0	100.0	0.0	95.0	98.0	100.0	0.0	95.0
ROUNDUP POWERMAX	22 OZ/A	B 305	95.0	98.0	100.0	0.0	98.0	95.0	100.0	0.0	98.0
		406	95.0	98.0	100.0	0.0	98.0	98.0	100.0	0.0	98.0
	Mean =		95.8	98.0	100.0	0.0	96.5	97.3	100.0	0.0	96.5
6 SURESTART	1.75 PT/A	A 106	98.0	98.0	100.0	0.0	95.0	98.0	100.0	0.0	95.0
RESICORE	1.25 QT/A	B 203	98.0	98.0	100.0	0.0	98.0	95.0	100.0	0.0	98.0
ROUNDUP POWERMAX	22 OZ/A	B 301	98.0	98.0	100.0	0.0	95.0	95.0	100.0	0.0	95.0
		402	95.0	98.0	100.0	0.0	98.0	95.0	100.0	0.0	98.0
	Mean =		97.3	98.0	100.0	0.0	96.5	95.8	100.0	0.0	96.5

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Pest Type			W, Weed	W, Weed			
Pest Code			IPOSS	SETFA			
Pest Name			Morning glory	Giant foxtail			
Crop Type, Code					C, ZEAMX	C, ZEAMX	C, ZEAMX
Crop Scientific Name					Zea mays	Zea mays	Zea mays
Crop Name					Corn	Corn	Corn
Rating Date			7-26-2021	7-26-2021	10-20-2021	10-20-2021	10-20-2021
Part Rated			PLOT, P	PLOT, P			
Rating Type			CONTRO	CONTRO	yield	moicon	YIELD
Rating Unit/Min/Max			%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
Number of Subsamples			1	1	1	1	1
Data Entry Date			11-2-2021	11-2-2021	11-1-2021	11-1-2021	
Rating Timing			28DAC	28DAC			
Days After First/Last Applic.			72, 28	72, 28	158, 114	158, 114	158, 114
Days After Emergence			67 DE-1	67 DE-1	153 DE-1	153 DE-1	153 DE-1
ARM Action Codes							TY1
Number of Decimals							1
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	19	20	22	23	24
1 V-10494	1 QT/A	A 101	95.0	95.0	37.500	21.10	181.6
ROUNDUP POWERMAX	1 QT/A	C 206	98.0	95.0	35.960	17.80	181.4
INDUCE	0.25 % V/V	C 303	98.0	98.0	38.900	20.50	189.8
AMS	3 LB/A	C 405	95.0	95.0	33.030	16.30	169.7
		Mean =	96.5	95.8	36.348	18.93	180.6

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Pest Type				W, Weed	W, Weed			
Pest Code				IPOSS	SETFA			
Pest Name				Morning glory	Giant foxtail			
Crop Type, Code						C, ZEAMX	C, ZEAMX	C, ZEAMX
Crop Scientific Name						Zea mays	Zea mays	Zea mays
Crop Name						Corn	Corn	Corn
Rating Date				7-26-2021	7-26-2021	10-20-2021	10-20-2021	10-20-2021
Part Rated				PLOT, P	PLOT, P			
Rating Type				CONTRO	CONTRO	yield	moicon	YIELD
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
Number of Subsamples				1	1	1	1	1
Data Entry Date				11-2-2021	11-2-2021	11-1-2021	11-1-2021	
Rating Timing				28DAC	28DAC			
Days After First/Last Applic.				72, 28	72, 28	158, 114	158, 114	158, 114
Days After Emergence				67 DE-1	67 DE-1	153 DE-1	153 DE-1	153 DE-1
ARM Action Codes								TY1
Number of Decimals								1
Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	19	20	22	23	24
2	V-10494	1 QT/A	A 102	98.0	95.0	39.360	17.80	198.6
	ATRAZINE	0.75 LB AI/A	A 204	98.0	95.0	35.160	19.10	174.6
	ROUNDUP POWERMAX	1 QT/A	C 302	95.0	95.0	38.000	17.10	193.3
	INDUCE	0.25 % V/V	C 404	98.0	95.0	35.420	19.50	175.0
	AMS	3 LB/A	C					
			Mean =	97.3	95.0	36.985	18.38	185.4
3	LEXAR EZ	1.8 QT/A	A 103	98.0	98.0	42.410	20.30	207.4
	ACURON GT	3.75 PT/A	B 202	98.0	95.0	36.380	16.10	187.3
	AATREX	1 PT/A	B 306	95.0	98.0	37.770	20.70	183.8
	NIS	0.25 % V/V	B 401	98.0	98.0	38.220	17.50	193.5
	AMS	2.5 % V/V	B					
			Mean =	97.3	97.3	38.695	18.65	193.0
4	BICEP II MAGNUM	1.6 QT/A	A 104	98.0	98.0	33.650	29.90	144.8
	ACURON GT	3.75 PT/A	B 205	95.0	95.0	38.790	18.60	193.8
	AATREX	1 PT/A	B 304	95.0	98.0	37.640	17.30	191.0
	NIS	0.25 % V/V	B 403	95.0	98.0	38.880	15.90	200.7
	AMS	2.5 % V/V	B					
			Mean =	95.8	97.3	37.240	20.43	182.6
5	VERDICT	10 OZ/A	A 105	98.0	95.0	28.200	16.00	145.4
	ARMEZON PRO	18 OZ/A	B 201	98.0	98.0	27.940	19.50	138.0
	ROUNDUP POWERMAX	22 OZ/A	B 305	95.0	98.0	32.450	15.10	169.1
			406	98.0	98.0	25.060	15.00	130.7
			Mean =	97.3	97.3	28.413	16.40	145.8
6	SURESTART	1.75 PT/A	A 106	98.0	95.0	33.480	18.80	166.8
	RESICORE	1.25 QT/A	B 203	95.0	95.0	35.580	19.00	176.9
	ROUNDUP POWERMAX	22 OZ/A	B 301	95.0	98.0	37.570	20.30	183.8
			402	95.0	95.0	40.610	20.00	199.4
			Mean =	95.8	95.8	36.810	19.53	181.7

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Pest Type		W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA		W, Weed AMBTR	W, Weed IPOSS	W, Weed SETFA		W, Weed AMBTR		
Pest Code		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed		
Pest Name												
Crop Type, Code	C, ZEAMX				C, ZEAMX				C, ZEAMX			
Crop Scientific Name	Zea mays				Zea mays				Zea mays			
Crop Name	Corn				Corn				Corn			
Rating Date	5-29-2021	5-29-2021	5-29-2021	5-29-2021	6-10-2021	6-10-2021	6-10-2021	6-10-2021	6-25-2021	6-25-2021		
Part Rated	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021		
Rating Timing	14 DAT	14 DAT	14 DAT	14 DAT	28 DAT @B	28 DAT @B	28 DAT @B	28 DAT @B	42 DAA/14DAB	42DAA/14DAB		
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	26, 26	26, 26	26, 26	26, 26	41, 15	41, 15		
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1	21 DE-1	21 DE-1	21 DE-1	21 DE-1	36 DE-1	36 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7	8	9	10
No. Name	Rate Unit	Code										
3 LEXAR EZ	1.8 QT/A	A	0.0 a	94.3 a	95.0 a	95.0 a	0.0 a	90.0 a	86.8 a	91.5 a	0.0 a	97.3 a
ACURON GT	3.75 PT/A	B										
AATREX	1 PT/A	B										
NIS	0.25 % V/V	B										
AMS	2.5 % V/V	B										
4 BICEP II MAGNUM	1.6 QT/A	A	0.0 a	83.8 b	95.0 a	95.0 a	0.0 a	91.8 a	88.0 a	92.3 a	0.0 a	96.5 a
ACURON GT	3.75 PT/A	B										
AATREX	1 PT/A	B										
NIS	0.25 % V/V	B										
AMS	2.5 % V/V	B										
5 VERDICT	10 OZ/A	A	0.0 a	91.3 a	95.0 a	95.0 a	0.0 a	93.0 a	88.0 a	93.0 a	0.0 a	95.8 a
ARMEZON PRO	18 OZ/A	B										
ROUNDUP POWERMAX	22 OZ/A	B										
6 SURESTART	1.75 PT/A	A	0.0 a	93.0 a	95.0 a	95.0 a	0.0 a	91.8 a	90.5 a	93.5 a	0.0 a	97.3 a
RESICORE	1.25 QT/A	B										
ROUNDUP POWERMAX	22 OZ/A	B										
LSD P=.05			.00	3.75	.00	.00	.00	5.00	4.01	3.40	.00	1.95
Standard Deviation			0.00	2.49	0.00	0.00	0.00	3.32	2.66	2.26	0.00	1.29
CV			0.0	2.78	0.0	0.0	0.0	3.66	3.02	2.43	0.0	1.39
Levene's F^			.	0.116	.	.	.	1.071	1.536	0.55	.	0.705
Levene's Prob(F)			.	0.987	.	.	.	0.409	0.228	0.736	.	0.627
Skewness^			.	-0.0498	.	.	.	-0.2705	-0.3497	-0.4119	.	-0.5608
Kurtosis^			.	-0.9025	.	.	.	-0.1453	-0.177	-1.3125	.	0.4035
Replicate F			0.000	0.671	0.000	0.000	0.000	0.661	2.597	0.666	0.000	0.821
Replicate Prob(F)			1.0000	0.5828	1.0000	1.0000	1.0000	0.5887	0.0908	0.5859	1.0000	0.5024
Treatment F			0.000	17.083	0.000	0.000	0.000	2.098	1.396	0.550	0.000	87.726
Treatment Prob(F)			1.0000	0.0001	1.0000	1.0000	1.0000	0.1223	0.2813	0.7360	1.0000	0.0001

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code	IPOSS	SETFA		AMBTR	IPOSS	SETFA		AMBTR	IPOSS	SETFA		
Pest Name	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail		
Crop Type, Code			C, ZEAMX				C, ZEAMX					
Crop Scientific Name			Zea mays				Zea mays					
Crop Name			Corn				Corn					
Rating Date	6-25-2021	6-25-2021	7-12-2021	7-12-2021	7-12-2021	7-12-2021	7-26-2021	7-26-2021	7-26-2021	7-26-2021	7-26-2021	
Part Rated	PLOT, P	PLOT, P	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, P	
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Number of Subsamples	1	1	1	1	1	1	1	1	1	1	1	
Data Entry Date	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	11-2-2021	
Rating Timing	42DAA/14DAB	42DAA/14DAB	14DAC	14DAC	14DAC	14DAC	28DAC	28DAC	28DAC	28DAC	28DAC	
Days After First/Last Applic.	41, 15	41, 15	58, 14	58, 14	58, 14	58, 14	72, 28	72, 28	72, 28	72, 28	72, 28	
Days After Emergence	36 DE-1	36 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1	67 DE-1	67 DE-1	67 DE-1	67 DE-1	67 DE-1	
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl	11	12	13	14	15	16	17	18	19	20
No. Name	Rate Unit	Code										
3 LEXAR EZ	1.8 QT/A	A	98.0 a	100.0 a	0.0 a	96.5 a	97.3 a	100.0 a	0.0 a	96.5 a	97.3 a	97.3 a
ACURON GT	3.75 PT/A	B										
AATREX	1 PT/A	B										
NIS	0.25 % V/V	B										
AMS	2.5 % V/V	B										
4 BICEP II MAGNUM	1.6 QT/A	A	98.0 a	100.0 a	0.0 a	97.3 a	95.8 a	100.0 a	0.0 a	97.3 a	95.8 a	97.3 a
ACURON GT	3.75 PT/A	B										
AATREX	1 PT/A	B										
NIS	0.25 % V/V	B										
AMS	2.5 % V/V	B										
5 VERDICT	10 OZ/A	A	98.0 a	100.0 a	0.0 a	96.5 a	97.3 a	100.0 a	0.0 a	96.5 a	97.3 a	97.3 a
ARMEZON PRO	18 OZ/A	B										
ROUNDUP POWERMAX	22 OZ/A	B										
6 SURESTART	1.75 PT/A	A	98.0 a	100.0 a	0.0 a	96.5 a	95.8 a	100.0 a	0.0 a	96.5 a	95.8 a	95.8 a
RESICORE	1.25 QT/A	B										
ROUNDUP POWERMAX	22 OZ/A	B										
LSD P=.05				2.25	.	2.08	2.12	.	.	2.08	2.12	1.77
Standard Deviation	0.00			1.49	0.00	1.38	1.41	0.00	0.00	1.38	1.41	1.17
CV	0.0			1.55	0.0	1.43	1.45	0.0	0.0	1.43	1.45	1.22
Levene's F^				0.565	.	0.95	3.307	.	.	0.95	3.307	0.585
Levene's Prob(F)				0.726	.	0.473	0.027*	.	.	0.473	0.027*	0.711
Skewness^				-1.6991*	.	-0.2321	0.1095	.	.	-0.2321	0.1095	-0.1885
Kurtosis^				3.6824*	.	-0.5701	0.0295	.	.	-0.5701	0.0295	-0.8492
Replicate F	0.000			0.625	0.000	3.684	2.215	0.000	0.000	3.684	2.215	3.182
Replicate Prob(F)	1.0000			0.6098	1.0000	0.0361	0.1286	1.0000	1.0000	0.0361	0.1286	0.0546
Treatment F	0.000			60.750	0.000	0.474	1.101	0.000	0.000	0.474	1.101	2.891
Treatment Prob(F)	1.0000			0.0001	1.0000	0.7902	0.4002	1.0000	1.0000	0.7902	0.4002	0.0506

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Pest Type					
Pest Code					
Pest Name					
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX		
Crop Scientific Name	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn		
Rating Date	10-20-2021	10-20-2021	10-20-2021		
Part Rated					
Rating Type	yield	moicon	YIELD		
Rating Unit/Min/Max	lb/plot, -, -	%, 0, 100	BU, -, -		
Number of Subsamples	1	1	1		
Data Entry Date	11-1-2021	11-1-2021			
Rating Timing					
Days After First/Last Applic.	158, 114	158, 114	158, 114		
Days After Emergence	153 DE-1	153 DE-1	153 DE-1		
ARM Action Codes			TY1		
Number of Decimals			1		
Trt Treatment	Rate	Appl	22	23	24
No. Name	Rate Unit	Code			
1 V-10494	1 QT/A	A	36.348 a	18.93 a	180.6 a
ROUNDUP POWERMAX	1 QT/A	C			
INDUCE	0.25 % V/V	C			
AMS	3 LB/A	C			
2 V-10494	1 QT/A	A	36.985 a	18.38 a	185.4 a
ATRAZINE	0.75 LB AI/A	A			
ROUNDUP POWERMAX	1 QT/A	C			
INDUCE	0.25 % V/V	C			
AMS	3 LB/A	C			

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Pest Type					
Pest Code					
Pest Name					
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX		
Crop Scientific Name	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn		
Rating Date	10-20-2021	10-20-2021	10-20-2021		
Part Rated					
Rating Type	yield	moicon	YIELD		
Rating Unit/Min/Max	lb/plot, -, -	%, 0, 100	BU, -, -		
Number of Subsamples	1	1	1		
Data Entry Date	11-1-2021	11-1-2021			
Rating Timing					
Days After First/Last Applic.	158, 114	158, 114	158, 114		
Days After Emergence	153 DE-1	153 DE-1	153 DE-1		
ARM Action Codes			TY1		
Number of Decimals			1		
Trt Treatment	Rate	Appl	22	23	24
No. Name	Rate Unit	Code			
3 LEXAR EZ	1.8 QT/A	A	38.695 a	18.65 a	193.0 a
ACURON GT	3.75 PT/A	B			
AATREX	1 PT/A	B			
NIS	0.25 % V/V	B			
AMS	2.5 % V/V	B			
4 BICEP II MAGNUM	1.6 QT/A	A	37.240 a	20.43 a	182.6 a
ACURON GT	3.75 PT/A	B			
AATREX	1 PT/A	B			
NIS	0.25 % V/V	B			
AMS	2.5 % V/V	B			
5 VERDICT	10 OZ/A	A	28.413 b	16.40 a	145.8 b
ARMEZON PRO	18 OZ/A	B			
ROUNDUP POWERMAX	22 OZ/A	B			
6 SURESTART	1.75 PT/A	A	36.810 a	19.53 a	181.7 a
RESICORE	1.25 QT/A	B			
ROUNDUP POWERMAX	22 OZ/A	B			
LSD P=.05			4.0736	4.568	24.30
Standard Deviation			2.7029	3.031	16.12
CV			7.56	16.19	9.05
Levene's F^			0.326	0.466	0.577
Levene's Prob(F)			0.891	0.796	0.717
Skewness^			0.2127	1.2585*	-0.4305
Kurtosis^			-0.6096	2.5295*	0.4552
Replicate F			0.715	1.250	0.563
Replicate Prob(F)			0.5580	0.3269	0.6474
Treatment F			7.418	0.793	4.180
Treatment Prob(F)			0.0011	0.5713	0.0141

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VALENT AND SYNGENTA CORN

Trial ID: 21-36 Location: Trial Year: 2021
 Protocol ID: 21-36 Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

IPOSS, Ipomoea sp., Morning glory = US

SETFA, Setaria faberi, Giant foxtail = US

Crop Type, Code

C = EPPO species (Bayer) codes

ZEAMX, BCOR, Zea mays, Corn = US

Part Rated

PLOT = plot

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

moicon = moisture content

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

lb/plot, , = pounds per plot

BU, , = bushel

ARM Action Codes

TY1 = 5.18571429*[22]*(100-[23])/84.5

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VALENT SOY RR2X NT YIELD

Trial ID: 21-37 Location: Trial Year: 2021
 Protocol ID: 21-37 Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

Reps: 4 Plots: 10 by 33 feet
 Mix Size: 2.2 L

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Timing	Appl Code	Appl. Amount	Amt Product to Measure	Rep			
											1	2	3	4
1	CHECK UNTREATED										101	203	301	403
2	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A	PRE	A		15 GPA	36.67 mL/mx	102	204	305	404
	XTENDIMAX	2.9		SL	22 FL OZ/A	PRE	A		15 GPA	25.21 mL/mx				
	FIERCE EZ	3.04 LBA/GAL		SC	6 FL OZ/A	PRE	A		15 GPA	6.875 mL/mx				
	INDUCE			SL	0.25 % V/V	PRE	A		15 GPA	5.499 mL/mx				
	DRIFT X	100 %W/W		AJ	0.5 % V/V	PRE	A		15 GPA	11.0 mL/mx				
	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A	4"W	B		18 GPA	30.56 mL/mx				
	XTENDIMAX	2.9		SL	22 FL OZ/A	4"W	B		18 GPA	21.01 mL/mx				
	PERPETUO	2.3 LB/GAL		SC	6 FL OZ/A	4"W	B		18 GPA	5.729 mL/mx				
	SELECT MAX	0.97		EC	9 FL OZ/A	4"W	B		18 GPA	8.594 mL/mx				
	DRIFT X	100 %W/W		AJ	0.5 % V/V	4"W	B		18 GPA	11.0 mL/mx				
	INDUCE			SL	0.25 % V/V	4"W	B		18 GPA	5.499 mL/mx				
3	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A	PRE	A		15 GPA	36.67 mL/mx	103	205	302	401
	XTENDIMAX	2.9		SL	22 FL OZ/A	PRE	A		15 GPA	25.21 mL/mx				
	FIERCE MTZ	2.64 LB/GAL		SC	1 PT/A	PRE	A		15 GPA	18.33 mL/mx				
	INDUCE			SL	0.25 % V/V	PRE	A		15 GPA	5.499 mL/mx				
	DRIFT X	100 %W/W		AJ	0.5 % V/V	PRE	A		15 GPA	11.0 mL/mx				
	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A	4"W	B		18 GPA	30.56 mL/mx				
	XTENDIMAX	2.9		SL	22 FL OZ/A	4"W	B		18 GPA	21.01 mL/mx				
	PERPETUO	2.3 LB/GAL		SC	6 FL OZ/A	4"W	B		18 GPA	5.729 mL/mx				
	SELECT MAX	0.97		EC	9 FL OZ/A	4"W	B		18 GPA	8.594 mL/mx				
	DRIFT X	100 %W/W		AJ	0.5 % V/V	4"W	B		18 GPA	11.0 mL/mx				
	INDUCE			SL	0.25 % V/V	4"W	B		18 GPA	5.499 mL/mx				
4	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A	PRE	A		15 GPA	36.67 mL/mx	104	201	306	402
	XTENDIMAX	2.9		SL	22 FL OZ/A	PRE	A		15 GPA	25.21 mL/mx				
	VALOR XLT	40.3		WG	4 OZ/A	PRE	A		15 GPA	4.394 g/mx				
	INDUCE			SL	0.25 % V/V	PRE	A		15 GPA	5.499 mL/mx				
	DRIFT X	100 %W/W		AJ	0.5 % V/V	PRE	A		15 GPA	11.0 mL/mx				
	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A	4"W	B		18 GPA	30.56 mL/mx				
	XTENDIMAX	2.9		SL	22 FL OZ/A	4"W	B		18 GPA	21.01 mL/mx				
	PERPETUO	2.3 LB/GAL		SC	6 FL OZ/A	4"W	B		18 GPA	5.729 mL/mx				
	SELECT MAX	0.97		EC	9 FL OZ/A	4"W	B		18 GPA	8.594 mL/mx				
	DRIFT X	100 %W/W		AJ	0.5 % V/V	4"W	B		18 GPA	11.0 mL/mx				
	INDUCE			SL	0.25 % V/V	4"W	B		18 GPA	5.499 mL/mx				
5	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A	PRE	A		15 GPA	36.67 mL/mx	105	206	303	405
	XTENDIMAX	2.9		SL	22 FL OZ/A	PRE	A		15 GPA	25.21 mL/mx				
	CANOPY	75		DF	4 OZ/A	PRE	A		15 GPA	4.394 g/mx				

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Reps: 4 Plots: 10 by 33 feet
 Mix Size: 2.2 L

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Timing	Appl Code	Appl. Amount	Amt Product to Measure	Rep			
											1	2	3	4
	INDUCE			SL	0.25 %	V/V	PRE	A	15 GPA	5.499 mL/mx				
	DRIFT X	100 %	W/W	AJ	0.5 %	V/V	PRE	A	15 GPA	11.0 mL/mx				
	ROUNDUP POWERMAX	4.5		SL	32 FL	OZ/A	4"W	B	18 GPA	30.56 mL/mx				
	XTENDIMAX	2.9		SL	22 FL	OZ/A	4"W	B	18 GPA	21.01 mL/mx				
	PERPETUO	2.3	LB/GAL	SC	6 FL	OZ/A	4"W	B	18 GPA	5.729 mL/mx				
	SELECT MAX	0.97		EC	9 FL	OZ/A	4"W	B	18 GPA	8.594 mL/mx				
	DRIFT X	100 %	W/W	AJ	0.5 %	V/V	4"W	B	18 GPA	11.0 mL/mx				
	INDUCE			SL	0.25 %	V/V	4"W	B	18 GPA	5.499 mL/mx				
6	ROUNDUP POWERMAX	4.5		SL	32 FL	OZ/A	PRE	A	15 GPA	36.67 mL/mx	106	202	304	406
	XTENDIMAX	2.9		SL	22 FL	OZ/A	PRE	A	15 GPA	25.21 mL/mx				
	AUTHORITY FIRST	70		DF	6.45	OZ/A	PRE	A	15 GPA	7.085 g/mx				
	INDUCE			SL	0.25 %	V/V	PRE	A	15 GPA	5.499 mL/mx				
	DRIFT X	100 %	W/W	AJ	0.5 %	V/V	PRE	A	15 GPA	11.0 mL/mx				
	ROUNDUP POWERMAX	4.5		SL	32 FL	OZ/A	4"W	B	18 GPA	30.56 mL/mx				
	XTENDIMAX	2.9		SL	22 FL	OZ/A	4"W	B	18 GPA	21.01 mL/mx				
	PERPETUO	2.3	LB/GAL	SC	6 FL	OZ/A	4"W	B	18 GPA	5.729 mL/mx				
	SELECT MAX	0.97		EC	9 FL	OZ/A	4"W	B	18 GPA	8.594 mL/mx				
	DRIFT X	100 %	W/W	AJ	0.5 %	V/V	4"W	B	18 GPA	11.0 mL/mx				
	INDUCE			SL	0.25 %	V/V	4"W	B	18 GPA	5.499 mL/mx				

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
420.139	mL	ROUNDUP POWERMAX	4.5		SL	
288.845	mL	XTENDIMAX	2.9		SL	
8.594	mL	FIERCE EZ	3.04	LB/GAL	SC	
68.743	mL	INDUCE			SL	
137.485	mL	DRIFT X	100	%W/W	AJ	
35.807	mL	PERPETUO	2.3	LB/GAL	SC	
53.711	mL	SELECT MAX	.97		EC	
22.917	mL	FIERCE MTZ	2.64	LB/GAL	SC	
5.492	g	VALOR XLT	40.3		WG	
5.492	g	CANOPY	75		DF	
8.856	g	AUTHORITY FIRST	70		DF	

* 'Per area' calculations based on application amount= 15,18 GPA, mix size= 2.2 L (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.
 * 'Per volume' calculations use spray volume= 15,18 GPA, mix size= 2.2 L.

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VALENT SOY RR2X NT YIELD

Trial ID: 21-37 Location: Trial Year: 2021
 Protocol ID: 21-37 Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

General Trial Information

Study Director: Sara Carter **Title:** Research Specialist

Discipline: H herbicide
Trial Status: F one-year/final
ARM Trial Created On: 4-21-2021
Initiation Date: 5-13-2021
Completion Date: 10-27-2021

Trial Location

City: LEXINGTON **Country:** USA United States
State/Prov.: KENTUCKY
Postal Code: 40511

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Role: STYDIR study director
Study Director: Sara Carter **Title:** Research Specialist
Organization: University of Kentucky
Address 1: 2951 Agronomy Road, Unit 12 **Mobile No.:** 859-559-6710
E-mail: skcart0@uky.edu
City: Lexington, KY **Postal Code:** 40511

Crop Description

Crop 1: C GLXMA Glycine max Soybean **Stage Scale:** BBCH
Variety: AGH35XF1
Attributes: XTENDFLEX
Planting Date: 5-13-2021 **Planting Rate:** 150000 S/A
Depth: 1.5 IN
Rows per Plot: 6 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** FE field equipment
Soil Temperature: 59 F **Seed Bed:** MEDIUM medium
Emergence Date: 5-19-2021 **Soil Moisture:** SLIDRY slightly dry
Harvest Date: 10-27-2021 **Harvest Equipment:** HEGE
Harvested Width: 5 FT
% Standard Moisture: 13.0 **Harvested Length:** 30 FT

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Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed **Stage Scale:** BBCH
Crop: 1 GLXMA

Pest 2 Type: W **Code:** ERICA Erigeron canadensis
Common Name: mare's-tail **Stage Scale:** BBCH
Crop: 1 GLXMA

Pest 3 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 33 FT
Treated Plot Area: 330.0 FT2 **Treatments:** 6 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Trial Initiation Comments:
Soil Description

Description Name: MAURY
% Sand: 6 **% OM:** 2.6 **Texture:** SIL silt loam
% Silt: 62 **pH:** 6.4 **Soil Name:** MAURY SILT LOAM
% Clay: 32 **CEC:** 18 **Fert. Level:** E excellent
Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Closest Weather Station: Spindletop **Distance:** 2.25 mi

Application Description

	A	B
Application Date	5-14-2021	6-22-2021
Appl. Start Time	4:45 PM	11:00 AM
Appl. Stop Time	5:00 PM	11:30 AM
Application Method	SPRAY	SPRAY
Application Timing	PRE	4"W
Application Placement	BROFOL	BROFOL
Applied By	SARA	SARA
Air Temperature Start, Stop	67, - F	66, - F
% Relative Humidity Start, Stop	30, -	55, -
Wind Velocity+Dir. Start	4 MPH, NNE	10 MPH, N
Soil Temperature	59 F	72 F
Soil Moisture	SLIDRY	WET
Soil Surface Condition	MEDIUM	MEDIUM
% Cloud Cover	40	40
Next Moisture Occurred On	5-16-2021	6-30-2021

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Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-5	34
Stage Majority, Percent		13, -
Height Average		6 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average	2 in	4 in
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 2 Code, Type, Scale	ERICA, W, BBCH	ERICA, W, BBCH
Height Average	1 in	3 in
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Height Average	2 in	4 in

Application Equipment

	A	B
Appl. Equipment	BACKPACK	BACKPACK
Equipment Type	BELSPR	BELSPR
Operation Pressure	30 PSI	35 PSI
Nozzle Model	8002 DG	TTI 003
Nozzle Type	FLAT FAN	FLAFAI
Nozzle Spacing	20 IN	20 IN
Boom Length	10 FT	10 FT
Boom Height	30 IN	20 IN
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	18 GPA
Mix Size	2.2 liters	2.2 liters
Propellant	CO2	CO2

Notes

Context	Date	By	Notes
STATUS	4-21-2021	Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.

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VALENT SOY RR2X NT YIELD

Trial ID: 21-37 Location: Trial Year: 2021
 Protocol ID: 21-37 Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

Pest Type		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR		
Pest Code		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed		
Pest Name												
Crop Type, Code	C, GLXMA				C, GLXMA				C, GLXMA			
Crop Scientific Name	Glycine max				Glycine max				Glycine max			
Crop Name	Soybean				Soybean				Soybean			
Rating Date	6-4-2021	6-4-2021	6-4-2021	6-4-2021	6-25-2021	6-25-2021	6-25-2021	6-25-2021	7-9-2021	7-9-2021		
Part Rated	PLOT, C	PLOT, C	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, P	PLOT, P	PLOT, C	PLOT, C		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021		
Rating Timing	21 DAA	21 DAA	21 DAA	21 DAA	42 DAA	42 DAA	42 DAA	42 DAA	56 DAA	56 DAA		
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	42, 3	42, 3	42, 3	42, 3	56, 17	56, 17		
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl										
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9	10
1 CHECK UNTREATED		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		203	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		301	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		403	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 ROUNDUP POWERMAX	32 FL OZ/A A	102	0.0	95.0	85.0	95.0	0.0	90.0	85.0	95.0	0.0	95.0
XTENDIMAX	22 FL OZ/A A	204	0.0	98.0	80.0	99.0	0.0	95.0	80.0	98.0	0.0	98.0
FIERCE EZ	6 FL OZ/A A	305	0.0	98.0	85.0	95.0	0.0	90.0	85.0	95.0	0.0	98.0
INDUCE	0.25 % V/V A	404	0.0	95.0	90.0	95.0	0.0	92.0	85.0	95.0	0.0	95.0
DRIFT X	0.5 % V/V A											
ROUNDUP POWERMAX	32 FL OZ/A B											
XTENDIMAX	22 FL OZ/A B											
PERPETUO	6 FL OZ/A B											
SELECT MAX	9 FL OZ/A B											
DRIFT X	0.5 % V/V B											
INDUCE	0.25 % V/V B											
		Mean =	0.0	96.5	85.0	96.0	0.0	91.8	83.8	95.8	0.0	96.5

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Pest Type		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR		
Pest Code		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed		
Pest Name												
Crop Type, Code	C, GLXMA				C, GLXMA				C, GLXMA			
Crop Scientific Name	Glycine max				Glycine max				Glycine max			
Crop Name	Soybean				Soybean				Soybean			
Rating Date	6-4-2021	6-4-2021	6-4-2021	6-4-2021	6-25-2021	6-25-2021	6-25-2021	6-25-2021	7-9-2021	7-9-2021		
Part Rated	PLOT, C	PLOT, C	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, P	PLOT, P	PLOT, C	PLOT, C		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021		
Rating Timing	21 DAA	21 DAA	21 DAA	21 DAA	42 DAA	42 DAA	42 DAA	42 DAA	56 DAA	56 DAA		
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	42, 3	42, 3	42, 3	42, 3	56, 17	56, 17		
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl										
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9	10
3 ROUNDUP POWERMAX	32 FL OZ/A	A 103	0.0	98.0	95.0	98.0	0.0	90.0	85.0	95.0	0.0	95.0
XTENDIMAX	22 FL OZ/A	A 205	0.0	98.0	90.0	98.0	0.0	95.0	75.0	98.0	0.0	95.0
FIERCE MTZ	1 PT/A	A 302	0.0	95.0	95.0	98.0	0.0	95.0	80.0	98.0	0.0	95.0
INDUCE	0.25 % V/V	A 401	0.0	98.0	98.0	95.0	0.0	92.0	85.0	95.0	0.0	98.0
DRIFT X	0.5 % V/V	A										
ROUNDUP POWERMAX	32 FL OZ/A	B										
XTENDIMAX	22 FL OZ/A	B										
PERPETUO	6 FL OZ/A	B										
SELECT MAX	9 FL OZ/A	B										
DRIFT X	0.5 % V/V	B										
INDUCE	0.25 % V/V	B										
		Mean =	0.0	97.3	94.5	97.3	0.0	93.0	81.3	96.5	0.0	95.8
4 ROUNDUP POWERMAX	32 FL OZ/A	A 104	0.0	98.0	90.0	95.0	0.0	90.0	82.0	98.0	0.0	95.0
XTENDIMAX	22 FL OZ/A	A 201	0.0	95.0	95.0	95.0	0.0	95.0	85.0	95.0	0.0	95.0
VALOR XLT	4 OZ/A	A 306	0.0	95.0	98.0	98.0	0.0	95.0	80.0	98.0	0.0	90.0
INDUCE	0.25 % V/V	A 402	0.0	95.0	98.0	95.0	0.0	95.0	75.0	98.0	0.0	90.0
DRIFT X	0.5 % V/V	A										
ROUNDUP POWERMAX	32 FL OZ/A	B										
XTENDIMAX	22 FL OZ/A	B										
PERPETUO	6 FL OZ/A	B										
SELECT MAX	9 FL OZ/A	B										
DRIFT X	0.5 % V/V	B										
INDUCE	0.25 % V/V	B										
		Mean =	0.0	95.8	95.3	95.8	0.0	93.8	80.5	97.3	0.0	92.5

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Pest Type		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR		
Pest Code		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed		
Pest Name												
Crop Type, Code	C, GLXMA				C, GLXMA				C, GLXMA			
Crop Scientific Name	Glycine max				Glycine max				Glycine max			
Crop Name	Soybean				Soybean				Soybean			
Rating Date	6-4-2021	6-4-2021	6-4-2021	6-4-2021	6-25-2021	6-25-2021	6-25-2021	6-25-2021	7-9-2021	7-9-2021		
Part Rated	PLOT, C	PLOT, C	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, P	PLOT, P	PLOT, C	PLOT, C		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021		
Rating Timing	21 DAA	21 DAA	21 DAA	21 DAA	42 DAA	42 DAA	42 DAA	42 DAA	56 DAA	56 DAA		
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	42, 3	42, 3	42, 3	42, 3	56, 17	56, 17		
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl										
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9	10
5 ROUNDUP POWERMAX	32 FL OZ/A	A 105	0.0	98.0	95.0	95.0	0.0	98.0	75.0	98.0	0.0	95.0
XTENDIMAX	22 FL OZ/A	A 206	0.0	98.0	90.0	98.0	0.0	98.0	85.0	98.0	0.0	95.0
CANOPY	4 OZ/A	A 303	0.0	95.0	95.0	95.0	0.0	98.0	80.0	98.0	0.0	95.0
INDUCE	0.25 % V/V	A 405	0.0	98.0	95.0	98.0	0.0	98.0	75.0	95.0	0.0	85.0
DRIFT X	0.5 % V/V	A										
ROUNDUP POWERMAX	32 FL OZ/A	B										
XTENDIMAX	22 FL OZ/A	B										
PERPETUO	6 FL OZ/A	B										
SELECT MAX	9 FL OZ/A	B										
DRIFT X	0.5 % V/V	B										
INDUCE	0.25 % V/V	B										
		Mean =	0.0	97.3	93.8	96.5	0.0	98.0	78.8	97.3	0.0	92.5
6 ROUNDUP POWERMAX	32 FL OZ/A	A 106	0.0	95.0	95.0	98.0	0.0	98.0	75.0	95.0	0.0	95.0
XTENDIMAX	22 FL OZ/A	A 202	0.0	95.0	90.0	98.0	0.0	98.0	85.0	98.0	0.0	98.0
AUTHORITY FIRST	6.45 OZ/A	A 304	0.0	98.0	98.0	95.0	0.0	98.0	80.0	98.0	0.0	98.0
INDUCE	0.25 % V/V	A 406	0.0	98.0	98.0	98.0	0.0	98.0	75.0	98.0	0.0	98.0
DRIFT X	0.5 % V/V	A										
ROUNDUP POWERMAX	32 FL OZ/A	B										
XTENDIMAX	22 FL OZ/A	B										
PERPETUO	6 FL OZ/A	B										
SELECT MAX	9 FL OZ/A	B										
DRIFT X	0.5 % V/V	B										
INDUCE	0.25 % V/V	B										
		Mean =	0.0	96.5	95.3	97.3	0.0	98.0	78.8	97.3	0.0	97.3

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Pest Type			W, Weed	W, Weed				
Pest Code			ERICA	SETFA				
Pest Name			mare's-tail	Giant foxtail				
Crop Type, Code					C, GLXMA	C, GLXMA	C, GLXMA	
Crop Scientific Name					Glycine max	Glycine max	Glycine max	
Crop Name					Soybean	Soybean	Soybean	
Rating Date			7-9-2021	7-9-2021	10-27-2021	10-27-2021	10-27-2021	
Part Rated			PLOT, P	PLOT, P	plot, C	-, C	plot, C	
Rating Type			CONTRO	CONTRO	yield	moicon	YIELD	
Rating Unit/Min/Max			% , 0, 100	% , 0, 100	lb/plot, -, -	% , 0, 100	BU, -, -	
Number of Subsamples			1	1	1	1	1	
Data Entry Date			11-1-2021	11-1-2021	11-2-2021	11-2-2021		
Rating Timing			56 DAA	56 DAA				
Days After First/Last Applic.			56, 17	56, 17	166, 127	166, 127	166, 127	
Days After Emergence			51 DE-1	51 DE-1	161 DE-1	161 DE-1	161 DE-1	
ARM Action Codes							TY1	
Number of Decimals							1	
Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	11	12	14	15	16
1	CHECK UNTREATED		101	0.0	0.0	0.500	0.00	2.8
			203	0.0	0.0	0.300	0.00	1.7
			301	0.0	0.0	0.170	0.00	0.9
			403	0.0	0.0	0.320	0.00	1.8
			Mean =	0.0	0.0	0.323	0.00	1.8
2	ROUNDUP POWERMAX	32 FL OZ/A A	102	90.0	95.0	11.690	19.80	52.2
	XTENDIMAX	22 FL OZ/A A	204	95.0	95.0	11.640	19.70	52.0
	FIERCE EZ	6 FL OZ/A A	305	90.0	98.0	11.760	18.00	53.6
	INDUCE	0.25 % V/V A	404	92.0	95.0	14.700	18.60	66.6
	DRIFT X	0.5 % V/V A						
	ROUNDUP POWERMAX	32 FL OZ/A B						
	XTENDIMAX	22 FL OZ/A B						
	PERPETUO	6 FL OZ/A B						
	SELECT MAX	9 FL OZ/A B						
	DRIFT X	0.5 % V/V B						
	INDUCE	0.25 % V/V B						
			Mean =	91.8	95.8	12.448	19.03	56.1

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Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	11	12	14	15	16
3	ROUNDUP POWERMAX	32 FL OZ/A	A 103	92.0	92.0	8.860	20.60	39.1
	XTENDIMAX	22 FL OZ/A	A 205	95.0	95.0	12.030	18.00	54.9
	FIERCE MTZ	1 PT/A	A 302	95.0	95.0	13.060	18.40	59.3
	INDUCE	0.25 % V/V	A 401	95.0	98.0	12.890	20.70	56.9
	DRIFT X	0.5 % V/V	A					
	ROUNDUP POWERMAX	32 FL OZ/A	B					
	XTENDIMAX	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	SELECT MAX	9 FL OZ/A	B					
	DRIFT X	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					
			Mean =	94.3	95.0	11.710	19.43	52.5
4	ROUNDUP POWERMAX	32 FL OZ/A	A 104	90.0	98.0	9.520	19.50	42.6
	XTENDIMAX	22 FL OZ/A	A 201	98.0	98.0	9.760	22.20	42.2
	VALOR XLT	4 OZ/A	A 306	98.0	98.0	11.410	18.60	51.7
	INDUCE	0.25 % V/V	A 402	95.0	98.0	12.180	22.20	52.7
	DRIFT X	0.5 % V/V	A					
	ROUNDUP POWERMAX	32 FL OZ/A	B					
	XTENDIMAX	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	SELECT MAX	9 FL OZ/A	B					
	DRIFT X	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					
			Mean =	95.3	98.0	10.718	20.63	47.3

Pest Type	W, Weed	W, Weed			
Pest Code	ERICA	SETFA			
Pest Name	mare's-tail	Giant foxtail			
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA
Crop Scientific Name			Glycine max	Glycine max	Glycine max
Crop Name			Soybean	Soybean	Soybean
Rating Date	7-9-2021	7-9-2021	10-27-2021	10-27-2021	10-27-2021
Part Rated	PLOT, P	PLOT, P	plot, C	-, C	plot, C
Rating Type	CONTRO	CONTRO	yield	moicon	YIELD
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
Number of Subsamples	1	1	1	1	1
Data Entry Date	11-1-2021	11-1-2021	11-2-2021	11-2-2021	
Rating Timing	56 DAA	56 DAA			
Days After First/Last Applic.	56, 17	56, 17	166, 127	166, 127	166, 127
Days After Emergence	51 DE-1	51 DE-1	161 DE-1	161 DE-1	161 DE-1
ARM Action Codes					TY1
Number of Decimals					1

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Pest Type			W, Weed	W, Weed					
Pest Code			ERICA	SETFA					
Pest Name			mare's-tail	Giant foxtail					
Crop Type, Code					C, GLXMA	C, GLXMA	C, GLXMA		
Crop Scientific Name					Glycine max	Glycine max	Glycine max		
Crop Name					Soybean	Soybean	Soybean		
Rating Date			7-9-2021	7-9-2021	10-27-2021	10-27-2021	10-27-2021		
Part Rated			PLOT, P	PLOT, P	plot, C	-, C	plot, C		
Rating Type			CONTRO	CONTRO	yield	moicon	YIELD		
Rating Unit/Min/Max			%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -		
Number of Subsamples			1	1	1	1	1		
Data Entry Date			11-1-2021	11-1-2021	11-2-2021	11-2-2021			
Rating Timing			56 DAA	56 DAA					
Days After First/Last Applic.			56, 17	56, 17	166, 127	166, 127	166, 127		
Days After Emergence			51 DE-1	51 DE-1	161 DE-1	161 DE-1	161 DE-1		
ARM Action Codes							TY1		
Number of Decimals							1		
Trt No.	Treatment Name	Rate	Appl Code	Plot	11	12	14	15	16
5	ROUNDUP POWERMAX	32 FL OZ/A	A	105	95.0	98.0	8.970	22.90	38.5
	XTENDIMAX	22 FL OZ/A	A	206	95.0	95.0	10.080	19.50	45.1
	CANOPY	4 OZ/A	A	303	95.0	95.0	10.450	18.70	47.3
	INDUCE	0.25 % V/V	A	405	95.0	98.0	12.640	18.10	57.6
	DRIFT X	0.5 % V/V	A						
	ROUNDUP POWERMAX	32 FL OZ/A	B						
	XTENDIMAX	22 FL OZ/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	DRIFT X	0.5 % V/V	B						
	INDUCE	0.25 % V/V	B						
				Mean =	95.0	96.5	10.535	19.80	47.1
6	ROUNDUP POWERMAX	32 FL OZ/A	A	106	95.0	95.0	9.100	19.00	41.0
	XTENDIMAX	22 FL OZ/A	A	202	90.0	95.0	12.830	18.60	58.1
	AUTHORITY FIRST	6.45 OZ/A	A	304	95.0	98.0	12.670	18.10	57.7
	INDUCE	0.25 % V/V	A	406	92.0	98.0	10.720	17.80	49.0
	DRIFT X	0.5 % V/V	A						
	ROUNDUP POWERMAX	32 FL OZ/A	B						
	XTENDIMAX	22 FL OZ/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	DRIFT X	0.5 % V/V	B						
	INDUCE	0.25 % V/V	B						
				Mean =	93.0	96.5	11.330	18.38	51.5

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VALENT SOY RR2X NT YIELD

Trial ID: 21-37 Location: Trial Year: 2021
 Protocol ID: 21-37 Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

Pest Type
 W, Weed = Weed or volunteer crop
Pest Code
 AMBTR, Ambrosia trifida, Giant ragweed = US
 ERICA, Erigeron canadensis, mare's-tail = US
 SETFA, Setaria faberi, Giant foxtail = US
Crop Type, Code
 C = EPPO species (Bayer) codes
 GLXMA, BSOY, Glycine max, Soybean = US
Part Rated
 PLOT = plot
 C = Crop is Part Rated
 P = Pest is Part Rated
Rating Type
 PHYGEN = phytotoxicity - general / injury
 CONTRO = control / burndown or knockdown
 moicon = moisture content
 YIELD = yield
Rating Unit/Min/Max
 %, 0, 100 = percent
 lb/plot, , = pounds per plot
 BU, , = bushel
ARM Action Codes
 TY1 = 4.84*[14]*(100-[15])/87

Pest Type		W, Weed AMBTR Giant ragweed	W, Weed ERICA mare's-tail	W, Weed SETFA Giant foxtail		W, Weed AMBTR Giant ragweed	W, Weed ERICA mare's-tail	W, Weed SETFA Giant foxtail		W, Weed AMBTR Giant ragweed		
Pest Code												
Pest Name												
Crop Type, Code	C, GLXMA				C, GLXMA				C, GLXMA			
Crop Scientific Name	Glycine max				Glycine max				Glycine max			
Crop Name	Soybean				Soybean				Soybean			
Rating Date	6-4-2021	6-4-2021	6-4-2021	6-4-2021	6-25-2021	6-25-2021	6-25-2021	6-25-2021	7-9-2021	7-9-2021		
Part Rated	PLOT, C	PLOT, C	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, P	PLOT, P	PLOT, C	PLOT, C		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021		
Rating Timing	21 DAA	21 DAA	21 DAA	21 DAA	42 DAA	42 DAA	42 DAA	42 DAA	56 DAA	56 DAA		
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	42, 3	42, 3	42, 3	42, 3	56, 17	56, 17		
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate											
No. Name	Rate Unit	Appl Code	1	2	3	4	5	6	7	8	9	10
1 CHECK UNTREATED			0.0 a	0.0 b	0.0 c	0.0 b	0.0 a	0.0 c	0.0 b	0.0 b	0.0 a	0.0 b

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Pest Type		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR		
Pest Code		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed		
Pest Name												
Crop Type, Code	C, GLXMA				C, GLXMA				C, GLXMA			
Crop Scientific Name	Glycine max				Glycine max				Glycine max			
Crop Name	Soybean				Soybean				Soybean			
Rating Date	6-4-2021	6-4-2021	6-4-2021	6-4-2021	6-25-2021	6-25-2021	6-25-2021	6-25-2021	7-9-2021	7-9-2021		
Part Rated	PLOT, C	PLOT, C	PLOT, P	PLOT, P	PLOT, C	PLOT, C	PLOT, P	PLOT, P	PLOT, C	PLOT, C		
Rating Type	PHYGEN	CONTR0	CONTR0	CONTR0	PHYGEN	CONTR0	CONTR0	CONTR0	PHYGEN	CONTR0		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021		
Rating Timing	21 DAA	21 DAA	21 DAA	21 DAA	42 DAA	42 DAA	42 DAA	42 DAA	56 DAA	56 DAA		
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	42, 3	42, 3	42, 3	42, 3	56, 17	56, 17		
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7	8	9	10
No. Name	Rate Unit	Code										
5 ROUNDUP POWERMAX	32 FL OZ/A	A	0.0 a	97.3 a	93.8 a	96.5 a	0.0 a	98.0 a	78.8 a	97.3 a	0.0 a	92.5 a
XTENDIMAX	22 FL OZ/A	A										
CANOPY	4 OZ/A	A										
INDUCE	0.25 % V/V	A										
DRIFT X	0.5 % V/V	A										
ROUNDUP POWERMAX	32 FL OZ/A	B										
XTENDIMAX	22 FL OZ/A	B										
PERPETUO	6 FL OZ/A	B										
SELECT MAX	9 FL OZ/A	B										
DRIFT X	0.5 % V/V	B										
INDUCE	0.25 % V/V	B										
6 ROUNDUP POWERMAX	32 FL OZ/A	A	0.0 a	96.5 a	95.3 a	97.3 a	0.0 a	98.0 a	78.8 a	97.3 a	0.0 a	97.3 a
XTENDIMAX	22 FL OZ/A	A										
AUTHORITY FIRST	6.45 OZ/A	A										
INDUCE	0.25 % V/V	A										
DRIFT X	0.5 % V/V	A										
ROUNDUP POWERMAX	32 FL OZ/A	B										
XTENDIMAX	22 FL OZ/A	B										
PERPETUO	6 FL OZ/A	B										
SELECT MAX	9 FL OZ/A	B										
DRIFT X	0.5 % V/V	B										
INDUCE	0.25 % V/V	B										
LSD P=.05			.	2.37	3.45	2.31	.	2.27	6.25	2.13	.	3.95
Standard Deviation			0.00	1.57	2.29	1.53	0.00	1.51	4.15	1.41	0.00	2.62
CV			0.0	1.95	2.97	1.9	0.0	1.9	6.18	1.75	0.0	3.31
Levene's F^			.	1.774	0.713	0.423	.	0.492	1.421	0.32	.	0.45
Levene's Prob(F)			.	0.169	0.622	0.827	.	0.778	0.264	0.894	.	0.808
Skewness^			.	-0.052	-0.4077	0.2974	.	-0.0638	-0.2583	-0.6448	.	-0.8166
Kurtosis^			.	-1.1162	0.2684	-0.5445	.	-0.7343	-0.4176	-0.056	.	1.6032
Replicate F			0.000	0.152	6.883	0.872	0.000	2.868	0.381	1.000	0.000	0.947
Replicate Prob(F)			1.0000	0.9271	0.0039	0.4774	1.0000	0.0715	0.7684	0.4199	1.0000	0.4430
Treatment F			0.000	2516.664	1103.481	2654.580	0.000	2660.853	252.271	3124.134	0.000	876.738
Treatment Prob(F)			1.0000	0.0001	0.0001	0.0001	1.0000	0.0001	0.0001	0.0001	1.0000	0.0001

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Pest Type	W, Weed	W, Weed			
Pest Code	ERICA	SETFA			
Pest Name	mare's-tail	Giant foxtail			
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA
Crop Scientific Name			Glycine max	Glycine max	Glycine max
Crop Name			Soybean	Soybean	Soybean
Rating Date	7-9-2021	7-9-2021	10-27-2021	10-27-2021	10-27-2021
Part Rated	PLOT, P	PLOT, P	plot, C	-, C	plot, C
Rating Type	CONTRO	CONTRO	yield	moicon	YIELD
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
Number of Subsamples	1	1	1	1	1
Data Entry Date	11-1-2021	11-1-2021	11-2-2021	11-2-2021	
Rating Timing	56 DAA	56 DAA			
Days After First/Last Applic.	56, 17	56, 17	166, 127	166, 127	166, 127
Days After Emergence	51 DE-1	51 DE-1	161 DE-1	161 DE-1	161 DE-1
ARM Action Codes					TY1
Number of Decimals					1
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	11	12	14
			15	16	
1 CHECK UNTREATED	0.0 b	0.0 b	0.323 b	0.00 b	1.8 b

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Pest Type	W, Weed	W, Weed					
Pest Code	ERICA	SETFA					
Pest Name	mare's-tail	Giant foxtail					
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA		
Crop Scientific Name			Glycine max	Glycine max	Glycine max		
Crop Name			Soybean	Soybean	Soybean		
Rating Date	7-9-2021	7-9-2021	10-27-2021	10-27-2021	10-27-2021		
Part Rated	PLOT, P	PLOT, P	plot, C	-, C	plot, C		
Rating Type	CONTRO	CONTRO	yield	moicon	YIELD		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -		
Number of Subsamples	1	1	1	1	1		
Data Entry Date	11-1-2021	11-1-2021	11-2-2021	11-2-2021			
Rating Timing	56 DAA	56 DAA					
Days After First/Last Applic.	56, 17	56, 17	166, 127	166, 127	166, 127		
Days After Emergence	51 DE-1	51 DE-1	161 DE-1	161 DE-1	161 DE-1		
ARM Action Codes					TY1		
Number of Decimals					1		
Trt Treatment	Rate	Appl	11	12	14	15	16
No. Name	Rate Unit	Code					
2 ROUNDUP POWERMAX	32 FL OZ/A	A	91.8 a	95.8 a	12.448 a	19.03 a	56.1 a
XTENDIMAX	22 FL OZ/A	A					
FIERCE EZ	6 FL OZ/A	A					
INDUCE	0.25 % V/V	A					
DRIFT X	0.5 % V/V	A					
ROUNDUP POWERMAX	32 FL OZ/A	B					
XTENDIMAX	22 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
SELECT MAX	9 FL OZ/A	B					
DRIFT X	0.5 % V/V	B					
INDUCE	0.25 % V/V	B					
3 ROUNDUP POWERMAX	32 FL OZ/A	A	94.3 a	95.0 a	11.710 a	19.43 a	52.5 a
XTENDIMAX	22 FL OZ/A	A					
FIERCE MTZ	1 PT/A	A					
INDUCE	0.25 % V/V	A					
DRIFT X	0.5 % V/V	A					
ROUNDUP POWERMAX	32 FL OZ/A	B					
XTENDIMAX	22 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
SELECT MAX	9 FL OZ/A	B					
DRIFT X	0.5 % V/V	B					
INDUCE	0.25 % V/V	B					
4 ROUNDUP POWERMAX	32 FL OZ/A	A	95.3 a	98.0 a	10.718 a	20.63 a	47.3 a
XTENDIMAX	22 FL OZ/A	A					
VALOR XLT	4 OZ/A	A					
INDUCE	0.25 % V/V	A					
DRIFT X	0.5 % V/V	A					
ROUNDUP POWERMAX	32 FL OZ/A	B					
XTENDIMAX	22 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
SELECT MAX	9 FL OZ/A	B					
DRIFT X	0.5 % V/V	B					
INDUCE	0.25 % V/V	B					

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Pest Type	W, Weed	W, Weed					
Pest Code	ERICA	SETFA					
Pest Name	mare's-tail	Giant foxtail					
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA		
Crop Scientific Name			Glycine max	Glycine max	Glycine max		
Crop Name			Soybean	Soybean	Soybean		
Rating Date	7-9-2021	7-9-2021	10-27-2021	10-27-2021	10-27-2021		
Part Rated	PLOT, P	PLOT, P	plot, C	-, C	plot, C		
Rating Type	CONTRO	CONTRO	yield	moicon	YIELD		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -		
Number of Subsamples	1	1	1	1	1		
Data Entry Date	11-1-2021	11-1-2021	11-2-2021	11-2-2021			
Rating Timing	56 DAA	56 DAA					
Days After First/Last Applic.	56, 17	56, 17	166, 127	166, 127	166, 127		
Days After Emergence	51 DE-1	51 DE-1	161 DE-1	161 DE-1	161 DE-1		
ARM Action Codes					TY1		
Number of Decimals					1		
Trt Treatment	Rate	Appl	11	12	14	15	16
No. Name	Rate Unit	Code					
5 ROUNDUP POWERMAX	32 FL OZ/A	A	95.0 a	96.5 a	10.535 a	19.80 a	47.1 a
XTENDIMAX	22 FL OZ/A	A					
CANOPY	4 OZ/A	A					
INDUCE	0.25 % V/V	A					
DRIFT X	0.5 % V/V	A					
ROUNDUP POWERMAX	32 FL OZ/A	B					
XTENDIMAX	22 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
SELECT MAX	9 FL OZ/A	B					
DRIFT X	0.5 % V/V	B					
INDUCE	0.25 % V/V	B					
6 ROUNDUP POWERMAX	32 FL OZ/A	A	93.0 a	96.5 a	11.330 a	18.38 a	51.5 a
XTENDIMAX	22 FL OZ/A	A					
AUTHORITY FIRST	6.45 OZ/A	A					
INDUCE	0.25 % V/V	A					
DRIFT X	0.5 % V/V	A					
ROUNDUP POWERMAX	32 FL OZ/A	B					
XTENDIMAX	22 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
SELECT MAX	9 FL OZ/A	B					
DRIFT X	0.5 % V/V	B					
INDUCE	0.25 % V/V	B					
LSD P=.05			3.27	2.22	1.7430	1.940	8.22
Standard Deviation			2.17	1.47	1.1565	1.287	5.45
CV			2.78	1.84	12.16	7.94	12.76
Levene's F^			1.989	0.974	1.359	2.20	0.896
Levene's Prob(F)			0.129	0.46	0.286	0.099	0.504
Skewness^			-0.4677	0.0316	0.0241	0.2131	0.1304
Kurtosis^			0.5971	-0.3495	-0.9262	0.0938	-1.0982
Replicate F			0.951	1.552	4.900	1.710	4.885
Replicate Prob(F)			0.4412	0.2424	0.0144	0.2077	0.0145
Treatment F			1245.643	2847.284	62.027	153.596	55.620
Treatment Prob(F)			0.0001	0.0001	0.0001	0.0001	0.0001

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VALENT SOY RR2X NT YIELD

Trial ID: 21-37 Location: Trial Year: 2021
 Protocol ID: 21-37 Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

ERICA, Erigeron canadensis, mare's-tail = US

SETFA, Setaria faberi, Giant foxtail = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

moicon = moisture content

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

lb/plot, , = pounds per plot

BU, , = bushel

ARM Action Codes

TY1 = $4.84 * [14] * (100 - [15]) / 87$

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
70.312	mL	MOCCASIN MTZ	4.5	LB/GAL	EC	
7.077	g	SCEPTER	70		DG	
112.500	mL	INTERLINE	2.34		SC	
168.732	mL	AMS			L	
73.828	mL	TRIPZIN ZC	4	LB/GAL	ZC	

* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.7 L (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2.7 L.

General Trial Information

Study Director: Sara Carter **Title:** Research Specialist

Discipline: H herbicide
Trial Status: F one-year/final

ARM Trial Created On: 4-21-2021

Initiation Date: 5-13-2021

Completion Date: 10-27-2021

Trial Location

City: LEXINGTON

Country: USA United States

State/Prov.: KENTUCKY

Postal Code: 40511

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director

Study Director: Sara Carter

Title: Research Specialist

Organization: University of Kentucky

Address 1: 2951 Agronomy Road, Unit 12

Mobile No.: 859-559-6710

E-mail: skcart0@uky.edu

City: Lexington, KY

Postal Code: 40511

Crop Description

Crop 1: C GLXMA Glycine max Soybean

Stage Scale: BBCH

Variety: CZ4701GTLL

Attributes: GT27 LL

Planting Date: 5-13-2021

Planting Rate: 150000 S/A

Depth: 1.5 IN

Rows per Plot: 6

Planting Method: PLANTD planted

Row Spacing: 30 IN

Planting Equipment: FE field equipment

Seed Bed: MEDIUM medium

Soil Temperature: 59 F

Soil Moisture: SLIDRY slightly dry

Emergence Date: 5-19-2021

Harvest Date: 10-27-2021

Harvest Equipment: HEGE

Harvested Width: 5 FT

% Standard Moisture: 13.0

Harvested Length: 30 FT

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Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed **Stage Scale:** BBCH
Crop: 1 GLXMA

Pest 2 Type: W **Code:** ERICA Erigeron canadensis
Common Name: mare's-tail **Stage Scale:** BBCH
Crop: 1 GLXMA

Pest 3 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 33 FT
Treated Plot Area: 330.0 FT2 **Treatments:** 6 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

Description Name: MAURY
% Sand: 6 **% OM:** 2.6 **Texture:** SIL silt loam
% Silt: 62 **pH:** 6.4 **Soil Name:** MAURY SILT LOAM
% Clay: 32 **CEC:** 18 **Fert. Level:** E excellent
Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Closest Weather Station: Spindletop **Distance:** 2.25 mi

Application Description

	A	B
Application Date	5-14-2021	6-17-2021
Appl. Start Time	5:00 PM	2:00 PM
Appl. Stop Time	5:25 PM	2:30 PM
Application Method	SPRAY	SPRAY
Application Timing	PRE	2"W
Application Placement	BROFOL	BROFOL
Applied By	SARA	SARA
Air Temperature Start, Stop	67, - F	72, - F
% Relative Humidity Start, Stop	30, -	60, -
Wind Velocity+Dir. Start	4 MPH, NNE	3 MPH, SW
Soil Temperature	59 F	71 F
Soil Moisture	SLIDRY	WET
Soil Surface Condition	MEDIUM	MEDIUM
% Cloud Cover	40	40
Next Moisture Occurred On	5-16-2021	6-19-2021

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Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-5	29
Stage Majority, Percent		12, -
Height Average		4 IN

Pest Stage At Each Application		
	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average	2 IN	4 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 2 Code, Type, Scale	ERICA, W, BBCH	ERICA, W, BBCH
Height Average	1 IN	3 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Height Average	1 IN	3 IN

Application Equipment		
	A	B
Appl. Equipment	BACKPACK	BACKPACK
Equipment Type	BELSPR	BELSPR
Operation Pressure	30 PSI	30 PSI
Nozzle Model	8002 DG	8002 DG
Nozzle Type	FLAT FAN	FLAT FAN
Nozzle Spacing	20 IN	20 IN
Boom Length	10 FT	10 FT
Boom Height	30 IN	30 IN
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	15 GPA
Mix Size	2.7 liters	2.7 liters
Propellant	CO2	CO2

Notes			
Context	Date	By	Notes
STATUS	4-21-2021	Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.

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VALENT SOYBEAN LL YIELD

Trial ID: 21-38 Location: Trial Year: 2021
 Protocol ID: 21-38 Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

Pest Type		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR		
Pest Code		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed		
Pest Name												
Crop Type, Code	C, GLXMA				C, GLXMA				C, GLXMA			
Crop Scientific Name	Glycine max				Glycine max				Glycine max			
Crop Name	Soybean				Soybean				Soybean			
Rating Date	6-4-2021	6-4-2021	6-4-2021	6-4-2021	6-25-2021	6-25-2021	6-25-2021	6-25-2021	7-9-2021	7-9-2021		
Part Rated	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021		
Rating Timing	21 DAA	21 DAA	21 DAA	21 DAA	42 DAA	42 DAA	42 DAA	42 DAA	56 DAA	56 DAA		
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	42, 8	42, 8	42, 8	42, 8	56, 22	56, 22		
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl										
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9	10
1 CHECK UNTREATED		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		206	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		302	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		403	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 FIERCE EZ	6 FL OZ/A	A 102	0.0	80.0	85.0	90.0	0.0	99.0	95.0	95.0	0.0	95.0
SCOUT	32 FL OZ/A	B 204	0.0	85.0	80.0	95.0	0.0	95.0	95.0	98.0	0.0	95.0
PERPETUO	6 FL OZ/A	B 303	0.0	80.0	85.0	90.0	0.0	95.0	95.0	98.0	0.0	95.0
AMS	3 LB/A	B 406	0.0	85.0	85.0	95.0	0.0	98.0	95.0	95.0	0.0	95.0
		Mean =	0.0	82.5	83.8	92.5	0.0	96.8	95.0	96.5	0.0	95.0
3 FIERCE MTZ	16 FL OZ/A	A 103	0.0	85.0	95.0	95.0	0.0	95.0	95.0	95.0	0.0	95.0
SCOUT	32 FL OZ/A	B 205	0.0	95.0	98.0	95.0	0.0	95.0	95.0	99.0	0.0	95.0
PERPETUO	6 FL OZ/A	B 304	0.0	90.0	98.0	98.0	0.0	95.0	95.0	99.0	0.0	95.0
AMS	3 LB/A	B 402	0.0	85.0	98.0	98.0	0.0	95.0	95.0	98.0	0.0	95.0
		Mean =	0.0	88.8	97.3	96.5	0.0	95.0	95.0	97.8	0.0	95.0
4 AUTHORITY MTZ	11 OZ WT/A	A 104	0.0	85.0	90.0	95.0	0.0	95.0	95.0	98.0	0.0	95.0
SCOUT	32 FL OZ/A	B 203	0.0	80.0	85.0	95.0	0.0	95.0	95.0	95.0	0.0	95.0
ANTHEM MAXX	2.5 FL OZ/A	B 306	0.0	95.0	95.0	90.0	0.0	95.0	95.0	95.0	0.0	95.0
AMS	3 LB/A	B 405	0.0	90.0	95.0	95.0	0.0	95.0	95.0	95.0	0.0	95.0
		Mean =	0.0	87.5	91.3	93.8	0.0	95.0	95.0	95.8	0.0	95.0
5 MOCCASIN MTZ	40 FL OZ/A	A 105	0.0	90.0	85.0	90.0	0.0	95.0	95.0	95.0	0.0	95.0
SCEPTER	2.1 OZ WT/A	A 202	0.0	85.0	85.0	95.0	0.0	98.0	95.0	95.0	0.0	95.0
INTERLINE	32 FL OZ/A	B 301	0.0	90.0	85.0	95.0	0.0	98.0	95.0	98.0	0.0	95.0
AMS	2.5 % V/V	B 404	0.0	95.0	90.0	95.0	0.0	95.0	95.0	98.0	0.0	95.0
		Mean =	0.0	90.0	86.3	93.8	0.0	96.5	95.0	96.5	0.0	95.0

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Pest Type		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR		
Pest Code		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed		
Pest Name												
Crop Type, Code	C, GLXMA				C, GLXMA				C, GLXMA			
Crop Scientific Name	Glycine max				Glycine max				Glycine max			
Crop Name	Soybean				Soybean				Soybean			
Rating Date	6-4-2021	6-4-2021	6-4-2021	6-4-2021	6-25-2021	6-25-2021	6-25-2021	6-25-2021	7-9-2021	7-9-2021		
Part Rated	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021		
Rating Timing	21 DAA	21 DAA	21 DAA	21 DAA	42 DAA	42 DAA	42 DAA	42 DAA	56 DAA	56 DAA		
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	42, 8	42, 8	42, 8	42, 8	56, 22	56, 22		
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl										
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7	8	9	10
6 TRIPZIN ZC	42 FL OZ/A	A 106	0.0	90.0	90.0	95.0	0.0	98.0	95.0	95.0	0.0	95.0
SCEPTER	2.1 OZ WT/A	A 201	0.0	85.0	95.0	95.0	0.0	98.0	95.0	99.0	0.0	95.0
INTERLINE	32 FL OZ/A	B 305	0.0	90.0	95.0	95.0	0.0	98.0	95.0	95.0	0.0	95.0
AMS	2.5 % V/V	B 401	0.0	85.0	90.0	95.0	0.0	98.0	95.0	95.0	0.0	90.0
		Mean =	0.0	87.5	92.5	95.0	0.0	98.0	95.0	96.0	0.0	93.8

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Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	11	12	14	15	16
	1 CHECK UNTREATED		101	0.0	0.0	3.660	25.10	15.3
			206	0.0	0.0	4.730	23.80	20.1
			302	0.0	0.0	4.750	25.60	19.7
			403	0.0	0.0	5.980	23.80	25.4
			Mean =	0.0	0.0	4.780	24.58	20.1
	2 FIERCE EZ	6 FL OZ/A	A 102	85.0	95.0	10.800	21.60	47.1
	SCOUT	32 FL OZ/A	B 204	88.0	95.0	13.450	19.80	60.0
	PERPETUO	6 FL OZ/A	B 303	89.0	95.0	12.060	19.20	54.2
	AMS	3 LB/A	B 406	89.0	98.0	13.560	20.10	60.3
			Mean =	87.8	95.8	12.468	20.18	55.4
	3 FIERCE MTZ	16 FL OZ/A	A 103	85.0	95.0	9.870	19.60	44.1
	SCOUT	32 FL OZ/A	B 205	85.0	98.0	12.260	20.00	54.6
	PERPETUO	6 FL OZ/A	B 304	85.0	95.0	13.630	19.50	61.0
	AMS	3 LB/A	B 402	85.0	95.0	14.980	20.00	66.7
			Mean =	85.0	95.8	12.685	19.78	56.6
	4 AUTHORITY MTZ	11 OZ WT/A	A 104	89.0	95.0	11.030	20.20	49.0
	SCOUT	32 FL OZ/A	B 203	90.0	95.0	12.780	21.70	55.7
	ANTHEM MAXX	2.5 FL OZ/A	B 306	85.0	90.0	14.060	18.90	63.4
	AMS	3 LB/A	B 405	85.0	95.0	15.530	19.40	69.6
			Mean =	87.3	93.8	13.350	20.05	59.4
	5 MOCCASIN MTZ	40 FL OZ/A	A 105	85.0	90.0	11.110	19.30	49.9
	SCEPTER	2.1 OZ WT/A	A 202	95.0	95.0	12.480	20.30	55.3
	INTERLINE	32 FL OZ/A	B 301	95.0	95.0	12.440	19.20	55.9
	AMS	2.5 % V/V	B 404	85.0	95.0	15.610	18.80	70.5
			Mean =	90.0	93.8	12.910	19.40	57.9

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Pest Type	W, Weed	W, Weed			
Pest Code	ERICA	SETFA			
Pest Name	mare's-tail	Giant foxtail			
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA
Crop Scientific Name			Glycine max	Glycine max	Glycine max
Crop Name			Soybean	Soybean	Soybean
Rating Date	7-9-2021	7-9-2021	10-27-2021	10-27-2021	10-27-2021
Part Rated	PLOT, P	PLOT, P	plot, -		plot, -
Rating Type	CONTRO	CONTRO			YIELD
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	lb/plot, -, -	moicon, -, -	BU, -, -
Number of Subsamples	1	1	1	1	1
Data Entry Date	11-1-2021	11-1-2021	11-2-2021	11-2-2021	
Rating Timing	56 DAA	56 DAA			
Days After First/Last Applic.	56, 22	56, 22	166, 132	166, 132	166, 132
Days After Emergence	51 DE-1	51 DE-1	161 DE-1	161 DE-1	161 DE-1
ARM Action Codes					TY1
Number of Decimals					1
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	11	12	14
6 TRIPZIN ZC	42 FL OZ/A	A 106	85.0	95.0	10.240
SCEPTER	2.1 OZ WT/A	A 201	95.0	85.0	13.360
INTERLINE	32 FL OZ/A	B 305	85.0	85.0	12.140
AMS	2.5 % V/V	B 401	95.0	90.0	12.820
		Mean =	90.0	88.8	12.140
					19.50
					19.80
					19.40
					20.90
					19.90
					54.9
					59.6
					54.4
					56.4
					54.1

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Pest Type		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR	W, Weed ERICA	W, Weed SETFA		W, Weed AMBTR		
Pest Code		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed	mare's-tail	Giant foxtail		Giant ragweed		
Pest Name												
Crop Type, Code	C, GLXMA				C, GLXMA				C, GLXMA			
Crop Scientific Name	Glycine max				Glycine max				Glycine max			
Crop Name	Soybean				Soybean				Soybean			
Rating Date	6-4-2021	6-4-2021	6-4-2021	6-4-2021	6-25-2021	6-25-2021	6-25-2021	6-25-2021	7-9-2021	7-9-2021		
Part Rated	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P	PLOT, P	PLOT, P	PLOT, C	PLOT, P		
Rating Type	PHYGEN	CONTR0	CONTR0	CONTR0	PHYGEN	CONTR0	CONTR0	CONTR0	PHYGEN	CONTR0		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1	1	1	1		
Data Entry Date	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021	11-1-2021		
Rating Timing	21 DAA	21 DAA	21 DAA	21 DAA	42 DAA	42 DAA	42 DAA	42 DAA	56 DAA	56 DAA		
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	42, 8	42, 8	42, 8	42, 8	56, 22	56, 22		
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1		
ARM Action Codes												
Number of Decimals												
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7	8	9	10
No. Name	Rate Unit	Code										
4 AUTHORITY MTZ	11 OZ WT/A A		0.0 a	87.5 a	91.3 b	93.8 a	0.0 a	95.0 b	95.0 a	95.8 a	0.0 a	95.0 a
SCOUT	32 FL OZ/A B											
ANTHEM MAXX	2.5 FL OZ/A B											
AMS	3 LB/A B											
5 MOCCASIN MTZ	40 FL OZ/A A		0.0 a	90.0 a	86.3 c	93.8 a	0.0 a	96.5 ab	95.0 a	96.5 a	0.0 a	95.0 a
SCEPTER	2.1 OZ WT/A A											
INTERLINE	32 FL OZ/A B											
AMS	2.5 % V/V B											
6 TRIPZIN ZC	42 FL OZ/A A		0.0 a	87.5 a	92.5 b	95.0 a	0.0 a	98.0 a	95.0 a	96.0 a	0.0 a	93.8 a
SCEPTER	2.1 OZ WT/A A											
INTERLINE	32 FL OZ/A B											
AMS	2.5 % V/V B											
LSD P=.05			.	6.34	3.99	2.84	.	1.81	.	2.48	.	1.54
Standard Deviation			0.00	4.21	2.65	1.89	0.00	1.20	0.00	1.65	0.00	1.02
CV			0.0	5.79	3.52	2.4	0.0	1.5	0.0	2.05	0.0	1.29
Levene's F^			.	0.96	1.152	0.503	.	77.333	.	0.405	.	0.533
Levene's Prob(F)			.	0.468	0.37	0.77	.	0.00*	.	0.839	.	0.748
Skewness^			.	0.3084	-0.3444	-0.4198	.	0.0889	.	0.4791	.	-2.2059*
Kurtosis^			.	-0.2012	-0.0594	-0.587	.	0.5892	.	-0.2473	.	8.7619*
Replicate F			0.000	0.529	1.571	1.703	0.000	0.029	0.000	0.840	0.000	1.000
Replicate Prob(F)			1.0000	0.6689	0.2377	0.2091	1.0000	0.9931	1.0000	0.4928	1.0000	0.4199
Treatment F			0.000	288.059	787.810	1669.406	0.000	4287.567	0.000	2290.599	0.000	5746.601
Treatment Prob(F)			1.0000	0.0001	0.0001	0.0001	1.0000	0.0001	1.0000	0.0001	1.0000	0.0001

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Pest Type		W, Weed	W, Weed				
Pest Code		ERICA	SETFA				
Pest Name		mare's-tail	Giant foxtail				
Crop Type, Code				C, GLXMA	C, GLXMA	C, GLXMA	
Crop Scientific Name				Glycine max	Glycine max	Glycine max	
Crop Name				Soybean	Soybean	Soybean	
Rating Date		7-9-2021	7-9-2021	10-27-2021	10-27-2021	10-27-2021	
Part Rated		PLOT, P	PLOT, P	plot, -		plot, -	
Rating Type		CONTRO	CONTRO			YIELD	
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	lb/plot, -, -	moicon, -, -	BU, -, -	
Number of Subsamples		1	1	1	1	1	
Data Entry Date		11-1-2021	11-1-2021	11-2-2021	11-2-2021		
Rating Timing		56 DAA	56 DAA				
Days After First/Last Applic.		56, 22	56, 22	166, 132	166, 132	166, 132	
Days After Emergence		51 DE-1	51 DE-1	161 DE-1	161 DE-1	161 DE-1	
ARM Action Codes						TY1	
Number of Decimals						1	
Trt Treatment	Rate	Appl	11	12	14	15	16
No. Name	Rate Unit	Code					
1 CHECK UNTREATED			0.0 b	0.0 c	4.780 b	24.58 a	20.1 b
2 FIERCE EZ	6 FL OZ/A	A	87.8 a	95.8 a	12.468 a	20.18 b	55.4 a
SCOUT	32 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
AMS	3 LB/A	B					
3 FIERCE MTZ	16 FL OZ/A	A	85.0 a	95.8 a	12.685 a	19.78 b	56.6 a
SCOUT	32 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
AMS	3 LB/A	B					

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Pest Type		W, Weed	W, Weed				
Pest Code		ERICA	SETFA				
Pest Name		mare's-tail	Giant foxtail				
Crop Type, Code				C, GLXMA	C, GLXMA	C, GLXMA	
Crop Scientific Name				Glycine max	Glycine max	Glycine max	
Crop Name				Soybean	Soybean	Soybean	
Rating Date		7-9-2021	7-9-2021	10-27-2021	10-27-2021	10-27-2021	
Part Rated		PLOT, P	PLOT, P	plot, -		plot, -	
Rating Type		CONTRO	CONTRO			YIELD	
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	lb/plot, -, -	moicon, -, -	BU, -, -	
Number of Subsamples		1	1	1	1	1	
Data Entry Date		11-1-2021	11-1-2021	11-2-2021	11-2-2021		
Rating Timing		56 DAA	56 DAA				
Days After First/Last Applic.		56, 22	56, 22	166, 132	166, 132	166, 132	
Days After Emergence		51 DE-1	51 DE-1	161 DE-1	161 DE-1	161 DE-1	
ARM Action Codes						TY1	
Number of Decimals						1	
Trt Treatment	Rate	Appl	11	12	14	15	16
No. Name	Rate Unit	Code					
4 AUTHORITY MTZ	11 OZ WT/A	A	87.3 a	93.8 a	13.350 a	20.05 b	59.4 a
SCOUT	32 FL OZ/A	B					
ANTHEM MAXX	2.5 FL OZ/A	B					
AMS	3 LB/A	B					
5 MOCCASIN MTZ	40 FL OZ/A	A	90.0 a	93.8 a	12.910 a	19.40 b	57.9 a
SCEPTER	2.1 OZ WT/A	A					
INTERLINE	32 FL OZ/A	B					
AMS	2.5 % V/V	B					
6 TRIPZIN ZC	42 FL OZ/A	A	90.0 a	88.8 b	12.140 a	19.90 b	54.1 a
SCEPTER	2.1 OZ WT/A	A					
INTERLINE	32 FL OZ/A	B					
AMS	2.5 % V/V	B					
LSD P=.05			5.26	3.97	1.2102	1.315	5.83
Standard Deviation			3.49	2.64	0.8030	0.873	3.87
CV			4.76	3.38	7.05	4.23	7.65
Levene's F^			5.888	1.361	0.428	0.71	0.253
Levene's Prob(F)			0.002*	0.285	0.823	0.624	0.933
Skewness^			0.1058	0.3764	0.2638	0.7898	0.2398
Kurtosis^			-0.6308	1.642	-1.2893	-0.3253	-1.1814
Replicate F			1.331	0.741	20.605	0.688	17.884
Replicate Prob(F)			0.3015	0.5439	0.0001	0.5733	0.0001
Treatment F			424.712	842.921	66.064	19.839	60.571
Treatment Prob(F)			0.0001	0.0001	0.0001	0.0001	0.0001

University of Kentucky

VALENT SOYBEAN LL YIELD

Trial ID: 21-38 Location: Trial Year: 2021
 Protocol ID: 21-38 Investigator (Creator): Sara Carter
 Project ID: Study Director: Sara Carter
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

ERICA, Erigeron canadensis, mare's-tail = US

SETFA, Setaria faberi, Giant foxtail = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

lb/plot, , = pounds per plot

BU, , = bushel

ARM Action Codes

TY1 = 4.84*[C14]*(100-[C15])/87