



2022 Herbicide Evaluation Trials

Dr. Travis Legleiter and Sara Carter

Acknowledgements

Chemicals Used

Definitions

Climatology

Trials

UKREC

22-3 22-8 22-27 22-28

Spindletop

22-6 22-9 22-10 22-11 22-12 22-13 22-15

22-20 22-21 22-22 22-23 22-30 22-32 22-35

22-VAR

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PESTICIDES USED

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY</u>
A23980		SYNGENTA
AATREX	ATRAZINE	SYNGENTA
ACURON	S-METOLACHLOR + ATRAZINE + MESOTRIONE + BICYCLOPYRONE	SYNGENTA
ACURON GT	S-METOLACHLOR + ATRAZINE + MESOTRIONE + BICYCLOPYRONE + GLYPHOSATE	SYNGENTA
ALLY	METSULFURON-METHYL	FMC
AMICIDE ADVANCE	2,4-D	NUFARM
AMS	AMMONIUM SULFATE	CLEAN CROP
AMSOL	AMMONIUM SULFATE	WINFIELD
ANTHEM FLEX	CARFENTRAZONE-ETHYL + PYROXASULFONE	FMC
ANTHEM MAXX	PYROXASULFONE + FLUTHIACET-METHYL	FMC
ARMEZON PRO	DIMETHENAMID-P + TOPRAMEZONE	BASF
ASSURE II	QUIZALOFOP P-ETHYL	AMVAC
ATRAZINE		VARIOUS
AUTHORITY EDGE	PYROXASULFONE + SULFENTRAZONE	FMC
AUTHORITY MTZ	METRIBUZIN + SULFENTRAZONE	FMC
AUTHORITY SUPREME	PYROXASULFONE + SULFENTRAZONE	FMC
AXIAL XL	PINOXADEN	SYNGENTA
BICEP II MAGNUM	ATRAZINE + S-METOLACHLOR	SYNGENTA
BOUNDARY	S-METOLACHLOR + METRIBUZIN	SYNGENTA
BROADAXE XC	SULFENTRAZONE + S-METOLACHLOR	SYNGENTA
CALLISTO	MESOTRIONE	SYNGENTA
CAPRENO	THIFENCARBOXONE + TEMBOTRIONE	BAYER
CLASS ACT RIDION	WATER CONDITIONER + SURFACTANT	WINFIELD
CLASSIC	CHLORIMUORN	DUPONT
CORVUS	ISOXAFLUTOLE + THIENCARBAZONE-METHYL	BAYER
CREDIT XTREME	GLYPHOSATE (DUAL SALT)	NUFARM
CROP OIL CONCENTRATE (COC)		LOVELAND
DELARO	PROTHIOCONAZOLE + TRIFLOXYSTROBIN	BAYER
DELTA FORCE	DRA	LOVELAND
DELTA LOCK	PH BUFFER	LOVELAND
DFF+FFA+MRB	BLEND	BAYER
DIFLEXX DUO	DICAMBA + TEMBOTRIONE	BAYER
DIMETRIC LIQUID	METRIBUZIN	WINFIELD
DUAL II MAGNUM	S-METOLACHLOR	SYNGENTA
DURANGO DMA	GLYPHOSATE	

PESTICIDES USED (CONTINUED)

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY</u>
ENDIGO	LAMBDA-CYHALOTHRIN + THIAMETHOXAM	SYNGENTA
ENGENIA PRIME	DICAMBA + PYROXASULFONE + IMAZETHAPYR	BASF
ENLIST ONE	2,4-D(CHOLINE)	CORTEVA
FFA+IFT+TCM+CSA	BLEND	BAYER
FIERCE EZ	FLUMIOXAZIN + PYROXASULFONE	VALENT
FIERCE MTZ	FLUMIOXAZIN + PYROXASULFONE + METRIBUZIN	VALENT
FIERCE XLT	CHLORIMURON ETHYL + FLUMIOXAZIN + PYROXASULFONE	VALENT
FINESSE	CHLOROSULFURON + METSULFURON METHYL	FMC
FIRSTRATE	CLORNISULAM-METHYL	CORTEVA
GF-5040		CORTEVA
GLEAN	CHLOROSULFURON	FMC
GRAMOXONE	PARAQUAT	SYNGENTA
HALEX GT	S-METOLACHLOR + GLYPHOSATE + MESOTRIONE	SYNGENTA
HARMONY EXTRA	THIFENSULFURON + TRIBENURON METHYL	FMC
HARNESS MAX	ACETOCHLOR + MESOTRIONE	BAYER
HEADLINE	PYRACLOSTROBIN	BASF
HELMET	CLOPYRALID + FLUMETSULAM	AMVAC
HORNET	MESOTRIONE	HELM
IMPACT	TOPRAMEZONE	AMVAC
IMPACT CORE	ACETOCHLOR + TOPRAMEZONE	AMVAC
INDUCE	NONIONIC SURFACTANT	HELENA
INSTIGATE	MESOTRIONE + RIMSULFURON	CORTEVA
INTACT	DRIFT CONTROL + DEPOSITION AID	PRECISION LABS
KEYSTONE NXT	ACETOCHLOR + ATRAZIINE	CORTEVA
KYBER	FLUMIOXAZIN + PYROXASULFONE + METRIBUZIN	CORTEVA
LAUDIS	TEMBOTRIONE	BAYER
LEADOFF	RIMSULFURON + THIFENSULFURON METHYL	CORTEVA
LEOPARD	RIMSULFURON + THIFENSULFURON METHYL	NUFARM
LEXAR EZ	ATRAZINE + S-METOLACHLOR + MESOTRIONE	SYNGENTA
LIBERTY 280	GLUFOSINATE AMMONIUM	BASF
LEOPARD	RIMSULFURON + THIFENSULFURON- METHYL	NUFARM
MAULER	METRIBUZIN	VALENT
MSO	METHYLATED SEED OIL	LOVELAND
NIS	NON-IONIC SURFACTANT	VARIOUS
NPAK AMS LIQUID	AMMONIUM SULFATE	WINFIELD
OUTLOOK	DIMETHENAMID-P	BASF

PESTICIDES USED (CONTINUED)

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY</u>
PANTHER SC	FLUMIOXAZIN	NUFARM
PANTHER MTZ	METRIBUZIN + FLUMIOXAZIN	NUFARM
PERPETUO	FLUMICLORAC + PYROXASULFURON	VALENT
PREFIX	S-METOLACHLOR + BENOXACOR	SYNGENTA
PRINCEP	SIMAZINE	SYNGENTA
REALM Q	MESOTRIONE + RIMSULFURON	CORTEVA
RESICORE	ACETOCHLOR + CLOPYRALID + MESOTRIONE	CORTEVA
RESICORE XL	ACETOCHLOR + CLOPYRALID + MESOTRIONE	CORTEVA
RESTRAINT	ACETOCHLOR + TOLPYRALATE	SUMMIT
REVITON	TIAFENACIL	HELM
ROUNDUP POWERMAX 3	GLYPHOSATE (POTASSIUM SALT)	BAYER
SCEPTER	IMAZIQUIN	AMVAC
SCOUT	GLUFOSINATE	VALENT
SENTIS	BUFFERING AGENT	BASF
SELECT MAX	CLETHODIM	VALENT
SENTRIS	BUFFERING AGENT	BASF
SEQUENCE	GLYPHOSATE + S-METOLACHLOR	SYNGENTA
SHARPEN	SAFLUFENACIL	BASF
SHIELD EX	TOPYRALATE	SUMMIT
SINATE	TOPRAMEZONE + GLUFOSINATE-AMMONIUM	AMVAC
STINGER	CLOPYRALID	CORTEVA
SURESTART II	ACETOCHLOR + CLOPYRALID + FLUMETSULAM	CORTEVA
TAVIUM PLUS VAPORGRIP	S-METOLACHLOR + DICAMBA	SYNGENTA
TENDOVO	CLORANSULAM-METHYL+ METRIBUZIN + S-METOLACHLOR	SYNGENTA
TRIPZIN	PENDIMETHALIN + METRIBUZIN	UPI
TRIVENCE	CHLORIMURON + FLUMIOXAZIN + METRIBUZIN	DUPONT
VALOR EZ	FLUMIOXAZIN	VALENT
VERDICT	DIMETHENAMID-P + SAFLUFENACIL	BASF
VOLT EDGE	PH BUFFER	WINFIELD
WARRANT	ACETOCHLOR	BAYER
WARRANT ULTRA	ACETOCHLOR + FOMESAFEN	BAYER
WEEDAR 64	2,4-D	NUFARM
WEEDONE LV4	2,4-D	NUFARM
XTENDIMAX WITH VAPORGRIP	DICAMBA + VAPROGRIP TECHNOLOGY	BAYER
ZIDUA	PYROXASULFONE	BASF
ZIDUA PRO	PYROXASULFONE + SAFLUFENACIL + IMAZETHAPYR	BASF
ZONE DEFENSE	SULFENTRAZONE + FLUMIOXAZIN	HELM

APPLICATION TIMING

PREEMERGENCE

BURNDOWN	BURNDOWN EXISTING VEGETATION
PRE, PREEM	PREEMERGENCE
DPRE	DELAYED PREEMERGENCE

POSTEMERGENCE

POEMSE	SPRING GREENUP
POSPOS	2-3" WEEDS, 8-12" CORN, 42 DAA
V2	SECOND TRIFOLIATE (SOYBEAN), 2 COLLAR CORN
V3	THIRD TRIFOLIATE (SOYBEAN), 3 COLLAR CORN
EAPOCR	V1-V3 CORN, <3" CORN
EPOST	21 DAA
V4	FOURTH TRIFOLIATE (SOYBEAN), 4 COLLAR CORN
25 DAA	25 DAYS AFTER APPLICATION "A"
MP	MID-POSTEMERGENCE OF CROP/WEEDS
4W-6C	4" WEEDS +/- 6" CORN
4W-12C	4" WEEDS +/- 12" CORN
LAPLAP	2" WEEDS AFTER POST APPLICATION
LAPOCR	>12" CORN
R3	BEGINNING POD, POD ON UPPER 4 NODES 3/16" LONG

ABUTH	Velvetleaf	<i>Abutilon theophrasti</i>
ALLVI	Wild garlic	<i>Allium vineale</i>
AMACH	Smooth(Green) pigweed	<i>Amaranthus hybridus</i>
AMARE	Redroot pigweed	<i>Amaranthus retroflexus</i>
AMBTR	Giant ragweed	<i>Ambrosia trifida</i>
ANVCR	Spurred anoda	<i>Anoda cristata</i>
BROSE	Cheat grass	<i>Bromus secalinus</i>
BROSS	Bromegrass	<i>Bromus sp</i>
BROTE	Cheatgrass	<i>Bromus tectorum</i>
CAPBP	Shepherd's purse	<i>Capsella bursa-pastori</i>
CARHI	Hairy (bristly) bittercress	<i>Cardamine hirsuta</i>
CERVU	Mouse ear chickweed	<i>Cerastium fontanum vulgare</i>
ELEIN	Goosegrass	<i>Eleusine indica</i>
EPHNU	Nodding spurge (eye bane)	<i>Chamaesyce nutans/Euphoriba nutas</i>
ERICA	Canada horseweed (Marestail)	<i>Erigeron canadensis (Conyza canadensis)</i>
ERPVE	Spring whitlowgrass	<i>Draba verna</i>
GERCA	Carolina geranium	<i>Geraniumcarolinanum</i>
GLXMA	Soybean	<i>Glycine max</i>
HORPU	Little Barley	<i>Hordeum pusillum</i>
IPOSS	Morningglory	<i>Ipomoea sp</i>
LAMAM	Henbit	<i>Lamium amplexicaule</i>
LOLMG	Annual ryegrass	<i>Lolium multiflorum</i>
LOLMU	Italian ryegrass	<i>Lolium perenne</i>
OXAST	European wood sorrel	<i>Oxalis stricta</i>
PLAMA	Broad leaf plantin/Englishman's Foot	<i>Plantago major</i>
RUMCR	Curly dock	<i>Rumex crispus</i>
SETFA	Giant foxtail	<i>Setaria faberi</i>
STEME	Common chickweed	<i>Stellaria media</i>
TAROF	Blowball/dandelion	<i>Taraxacum officinale</i>
THLAR	Fanweed/Field pennycress	<i>Thlaspi arvense</i>
TRZAW	Winter wheat	<i>Triticum aestivum</i>
ZEAMX	Corn	<i>Zea mays</i>

Princeton Climate Data, March

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP			
		MX	MN	AV		MX	MN	MX	MN	MX	MNEVAP
Princeton	03-01-2022	71	43	57		58	20	48	40		
Princeton	03-02-2022	78	47	62		67	24	55	44		
Princeton	03-03-2022	65	43	54		66	36	56	50		
Princeton	03-04-2022	71	36	53		80	36	56	47		
Princeton	03-05-2022	75	57	66		64	35	58	51		
Princeton	03-06-2022	72	61	66	0.99	100	58	57	56		
Princeton	03-07-2022	71	36	53	0.52	100	70	58	57		
Princeton	03-08-2022	41	34	37		85	64	58	54		
Princeton	03-09-2022	52	35	43	0.04	98	39	57	48		
Princeton	03-10-2022	57	32	44		90	41	55	47		
Princeton	03-11-2022	49	26	37	0.06	97	58	55	48		
Princeton	03-12-2022	31	16	23		94	38	55	45		
Princeton	03-13-2022	59	24	41		70	29	45	41		
Princeton	03-14-2022	68	40	54		56	21	53	42		
Princeton	03-15-2022	68	48	58		65	35	55	50		
Princeton	03-16-2022	71	44	57		90	44	56	51		
Princeton	03-17-2022	74	50	62		100	45	60	51		
Princeton	03-18-2022	69	52	60	0.35	96	60	56	50		
Princeton	03-19-2022	52	41	46	0.02	98	63	53	50		
Princeton	03-20-2022	70	39	54		87	23	56	49		
Princeton	03-21-2022	74	46	60		56	25	59	52		
Princeton	03-22-2022	62	51	56	1.14	100	38	57	50		
Princeton	03-23-2022	61	45	53	0.21	99	68	62	55		
Princeton	03-24-2022	52	39	45		87	51	63	55		
Princeton	03-25-2022	51	39	45		91	61	56	51		
Princeton	03-26-2022	56	34	45		66	21	52	46		
Princeton	03-27-2022	48	30	39		78	35	54	46		
Princeton	03-28-2022	51	34	42		71	32	54	46		
Princeton	03-29-2022	68	43	55		75	33	54	48		
Princeton	03-30-2022	81	57	69	1.50	100	37	56	45		
Princeton	03-31-2022	59	38	48	0.02	96	67	58	53		

Summary for Princeton for the period 3-1-2022 through 3-31-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
Princeton	62	41	51	4.85	83	42	56	49			
(Deviation from normal)	+2	+5	+3	-0.09							

Princeton Climate Data, April

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP			
		MX	MN	AV		MX	MN	MX	MN	MX	MN	EVAP
Princeton	04-01-2022	50	34	42		93	45	53	48		
Princeton	04-02-2022	62	33	47		93	44	53	47		
Princeton	04-03-2022	63	38	50		90	28	56	47		
Princeton	04-04-2022	59	48	53	0.05	95	51	59	54		
Princeton	04-05-2022	61	50	55	0.18	100	84	54	52		
Princeton	04-06-2022	55	48	51	0.85	100	79	54	52		
Princeton	04-07-2022	59	43	51		99	36	54	51		
Princeton	04-08-2022	44	36	40	0.15	99	66	55	52		
Princeton	04-09-2022	56	37	46		83	36	52	48		
Princeton	04-10-2022	80	36	58		79	20	56	45		
Princeton	04-11-2022	69	58	63	0.97	100	44	56	46		
Princeton	04-12-2022	77	57	67	0.45	100	60	58	54		
Princeton	04-13-2022	80	48	64	1.78	99	52	62	57		
Princeton	04-14-2022	59	37	48		98	30	66	56		
Princeton	04-15-2022	69	46	57	0.13	94	23	66	56		
Princeton	04-16-2022	66	47	56	0.09	74	49	63	57		
Princeton	04-17-2022	61	41	51	0.26	96	43	63	55		
Princeton	04-18-2022	52	41	46	0.13	99	48	58	53		
Princeton	04-19-2022	58	32	45		78	32	58	49		
Princeton	04-20-2022	69	43	56	0.24	92	26	62	53		
Princeton	04-21-2022	69	56	62	0.30	97	70	63	59		
Princeton	04-22-2022	84	57	70		100	40	70	57		
Princeton	04-23-2022	85	65	75		74	36	71	64		
Princeton	04-24-2022	84	66	75		70	43	72	65		
Princeton	04-25-2022	70	52	61	0.60	100	68	73	69		
Princeton	04-26-2022	60	40	50		86	28	67	60		
Princeton	04-27-2022	68	35	51		93	25	70	54		
Princeton	04-28-2022	74	42	58		91	29	69	57		
Princeton	04-29-2022	79	58	68		72	32	70	60		
Princeton	04-30-2022	80	64	72	0.23	84	42	72	62		

Summary for Princeton for the period 4-1-2022 through 4-30-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP			
	MX	MN	AV		MX	MN	MX	MN	MX	MN	TOTAL EVAP
Princeton	67	46	56	6.41	91	44	62	55		
(Deviation from normal)	-5	-0	-2	+1.61						

Princeton Climate Data, May

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 Agricultural Weather Center (Phone (859)257-3000 Ext245)
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STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				
		MX	MN	AV		MX	MN	MX	MN	MX	MN	EVAP
Princeton	05-01-2022	74	53	63	0.32	95	31	71	63			
Princeton	05-02-2022	77	46	61	0.03	93	34	70	58			
Princeton	05-03-2022	76	57	66	0.09	95	58	70	64			
Princeton	05-04-2022	62	54	58		88	63	67	63			
Princeton	05-05-2022	73	51	62	0.04	93	73	66	59			
Princeton	05-06-2022	70	55	62		96	72	66	61			
Princeton	05-07-2022	65	53	59		96	60	65	59			
Princeton	05-08-2022	72	44	58		97	48	71	57			
Princeton	05-09-2022	82	57	69		84	55	73	61			
Princeton	05-10-2022	85	66	75		89	55	78	65			
Princeton	05-11-2022	87	68	77		95	55	80	69			
Princeton	05-12-2022	88	66	77		98	23	82	71			
Princeton	05-13-2022	86	57	71		93	40	82	69			
Princeton	05-14-2022	82	60	71	0.01	97	51	83	70			
Princeton	05-15-2022	85	62	73		94	44	84	70			
Princeton	05-16-2022	80	55	67		94	27	82	69			
Princeton	05-17-2022	81	50	65		96	30	81	67			
Princeton	05-18-2022	83	58	70		89	59	76	69			
Princeton	05-19-2022	86	64	75		98	58	80	70			
Princeton	05-20-2022	87	73	80		75	45	83	72			
Princeton	05-21-2022	84	66	75	0.66	97	63	81	73			
Princeton	05-22-2022	67	58	62	0.05	97	60	76	69			
Princeton	05-23-2022	65	54	59		89	52	70	62			
Princeton	05-24-2022	74	55	64	0.18	94	68	72	62			
Princeton	05-25-2022	80	65	72	0.85	95	59	75	67			
Princeton	05-26-2022	75	60	67	0.31	96	55	74	66			
Princeton	05-27-2022	69	58	63		94	67	72	65			
Princeton	05-28-2022	73	56	64		96	53	74	64			
Princeton	05-29-2022	82	56	69		95	45	77	64			
Princeton	05-30-2022	85	65	75		80	49	79	68			
Princeton	05-31-2022	88	67	77		87	47	82	70			

Summary for Princeton for the period 5-1-2022 through 5-31-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
Princeton	78	58	68	2.54	93	52	76	66			
(Deviation from normal)	-2	+2	-0	-2.42							

Princeton Climate Data, June

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 Agricultural Weather Center (Phone (859)257-3000 Ext245)
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STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP			
		MX	MN	AV		MX	MN	MX	MN	MX	MN
Princeton	06-01-2022	88	64	76		97	48	83	71		
Princeton	06-02-2022	78	64	71		97	57	80	72		
Princeton	06-03-2022	80	56	68		87	25	81	69		
Princeton	06-04-2022	83	50	66		93	25	82	67		
Princeton	06-05-2022	84	53	68		95	27	83	69		
Princeton	06-06-2022	78	65	71	1.51	97	68	80	71		
Princeton	06-07-2022	85	67	76		98	47	81	70		
Princeton	06-08-2022	85	67	76		98	59	82	73		
Princeton	06-09-2022	80	60	70		97	34	81	71		
Princeton	06-10-2022	81	58	69		96	37	79	69		
Princeton	06-11-2022	84	62	73		92	45	82	70		
Princeton	06-12-2022	90	70	80		91	56	83	73		
Princeton	06-13-2022	96	79	87		91	45	88	77		
Princeton	06-14-2022	94	78	86		89	49	87	76		
Princeton	06-15-2022	94	72	83		93	48	89	78		
Princeton	06-16-2022	95	74	84		92	45	90	80		
Princeton	06-17-2022	86	69	77	0.77	96	53	88	77		
Princeton	06-18-2022	84	62	73		98	29	85	76		
Princeton	06-19-2022	82	54	68		93	30	82	71		
Princeton	06-20-2022	89	54	71		92	18	84	71		
Princeton	06-21-2022	93	61	77		96	38	86	73		
Princeton	06-22-2022	97	68	82		98	44	89	76		
Princeton	06-23-2022	88	66	77		81	35	89	77		
Princeton	06-24-2022	90	60	75		91	34	89	76		
Princeton	06-25-2022	94	65	79		91	28	90	77		
Princeton	06-26-2022	80	70	75	0.18	95	69	88	78		
Princeton	06-27-2022	81	59	70		85	35	85	73		
Princeton	06-28-2022	78	55	66		89	31	81	71		
Princeton	06-29-2022	88	50	69		94	18	86	68		
Princeton	06-30-2022	93	61	77		85	42	89	73		

Summary for Princeton for the period 6-1-2022 through 6-30-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP			
	MX	MN	AV		MX	MN	MX	MN	MX	MN	TOTAL EVAP
Princeton	87	63	75	2.46	93	41	85	73		
(Deviation from normal)	-0	-0	-0	-1.39						

Princeton Climate Data, July

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				
		MX	MN	AV		MX	MN	MX	MN	MX	MN	EVAP
Princeton	07-01-2022	93	71	82		87	43	90	77			
Princeton	07-02-2022	93	69	81	0.50	97	46	90	78			
Princeton	07-03-2022	89	72	80	0.05	97	57	87	78			
Princeton	07-04-2022	94	71	82		97	47	87	78			
Princeton	07-05-2022	98	73	85		96	41	92	80			
Princeton	07-06-2022	98	76	87		93	41	92	82			
Princeton	07-07-2022	98	74	86		94	42	94	82			
Princeton	07-08-2022	99	74	86	0.85	98	39	94	82			
Princeton	07-09-2022	85	70	77	0.91	98	69	92	73			
Princeton	07-10-2022	85	67	76		96	34	87	77			
Princeton	07-11-2022	91	64	77		97	38	87	76			
Princeton	07-12-2022	88	67	77		94	45	86	78			
Princeton	07-13-2022	86	60	73		97	37	87	71			
Princeton	07-14-2022	90	62	76		97	36	87	76			
Princeton	07-15-2022	92	65	78		97	31	89	77			
Princeton	07-16-2022	93	72	82	0.03	92	43	89	79			
Princeton	07-17-2022	82	71	76	0.29	94	71	87	78			
Princeton	07-18-2022	86	69	77	0.08	98	52	86	76			
Princeton	07-19-2022	92	67	79		98	49	90	76			
Princeton	07-20-2022	96	78	87		92	51	92	79			
Princeton	07-21-2022	92	69	80		94	29	93	80			
Princeton	07-22-2022	96	62	79		97	36	95	78			
Princeton	07-23-2022	97	69	83		97	40	96	80			
Princeton	07-24-2022	96	75	85	0.13	91	42	96	82			
Princeton	07-25-2022	88	74	81	0.05	95	61	94	82			
Princeton	07-26-2022	91	73	82		94	54	90	80			
Princeton	07-27-2022	93	74	83	0.21	94	50	90	80			
Princeton	07-28-2022	88	72	80	1.31	97	63	89	79			
Princeton	07-29-2022	82	67	74		98	58	82	78			
Princeton	07-30-2022	77	65	71	0.11	94	62	79	78			
Princeton	07-31-2022	78	68	73	0.23	97	84	85	79			

Summary for Princeton for the period 7-1-2022 through 7-31-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
Princeton	91	70	80	4.75	95	48	89	78			
(Deviation from normal)	+1	+3	+2	+0.46							

Princeton Climate Data, August

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP			
		MX	MN	AV		MX	MN	MX	MN	MX	MN	EVAP
Princeton	08-01-2022	89	74	81		95	62	82	78		
Princeton	08-02-2022	88	67	77	1.24	97	50	83	76		
Princeton	08-03-2022	91	72	81		97	52	84	78		
Princeton	08-04-2022	87	72	79	0.96	96	67	84	80		
Princeton	08-05-2022	86	72	79	1.54	97	65	85	80		
Princeton	08-06-2022	90	71	80		98	53	84	80		
Princeton	08-07-2022	90	72	81		93	56	85	80		
Princeton	08-08-2022	91	71	81	0.93	97	58	84	79		
Princeton	08-09-2022	87	69	78		97	62	85	80		
Princeton	08-10-2022	84	72	78	1.07	98	66	85	78		
Princeton	08-11-2022	84	69	76		98	61	84	77		
Princeton	08-12-2022	80	64	72		96	47	83	77		
Princeton	08-13-2022	82	58	70		96	39	83	76		
Princeton	08-14-2022	86	61	73		98	50	84	78		
Princeton	08-15-2022	82	66	74		98	62	83	77		
Princeton	08-16-2022	75	64	69	0.04	97	75	83	79		
Princeton	08-17-2022	81	61	71		98	52	85	78		
Princeton	08-18-2022	83	63	73		95	48	81	74		
Princeton	08-19-2022	86	62	74		97	44	85	77		
Princeton	08-20-2022	86	65	75		97	43	86	77		
Princeton	08-21-2022	84	66	75		97	61	82	77		
Princeton	08-22-2022	83	62	72		98	53	80	76		
Princeton	08-23-2022	83	59	71		98	46	80	73		
Princeton	08-24-2022	86	63	74		96	47	85	75		
Princeton	08-25-2022	87	65	76		95	50	84	76		
Princeton	08-26-2022	89	65	77		98	46	84	76		
Princeton	08-27-2022	90	65	77		98	40	84	76		
Princeton	08-28-2022	91	70	80		92	48	84	78		
Princeton	08-29-2022	89	72	80		96	60	82	78		
Princeton	08-30-2022	86	66	76	0.07	97	43	83	77		
Princeton	08-31-2022	84	56	70		98	39	82	73		

Summary for Princeton for the period 8-1-2022 through 8-31-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				
	MX	MN	AV		MX	MN	MX	MN	MX	MN	TOTAL EVAP
Princeton	86	66	76	5.85	97	53	83	77			
(Deviation from normal)	-2	+2	+0	+1.84							

Princeton Climate Data, September

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				
		MX	MN	AV		MX	MN	MX	MN	MX	MN	EVAP
Princeton	09-01-2022	84	56	70		97	47	82	74			
Princeton	09-02-2022	89	63	76		95	35	83	75			
Princeton	09-03-2022	85	70	77		92	64	82	76			
Princeton	09-04-2022	80	69	74	0.27	96	72	80	76			
Princeton	09-05-2022	82	68	75		98	62	80	76			
Princeton	09-06-2022	82	66	74		99	61	81	76			
Princeton	09-07-2022	82	63	72		99	50	80	75			
Princeton	09-08-2022	81	59	70		97	43	81	74			
Princeton	09-09-2022	85	57	71		96	49	82	73			
Princeton	09-10-2022	81	64	72	0.01	98	56	80	76			
Princeton	09-11-2022	82	55	68		98	61	79	74			
Princeton	09-12-2022	78	47	62		98	32	78	73			
Princeton	09-13-2022	81	50	65		97	34	78	71			
Princeton	09-14-2022	82	52	67		98	44	78	67			
Princeton	09-15-2022	84	55	69		98	35	81	70			
Princeton	09-16-2022	87	56	71		97	40	81	70			
Princeton	09-17-2022	86	61	73		90	36	82	73			
Princeton	09-18-2022	88	57	72		95	48	82	71			
Princeton	09-19-2022	92	64	78		94	44	82	72			
Princeton	09-20-2022	97	67	82		98	36	84	73			
Princeton	09-21-2022	98	64	81		97	25	82	73			
Princeton	09-22-2022	80	54	67		82	31	80	74			
Princeton	09-23-2022	74	45	59		93	32	76	68			
Princeton	09-24-2022	86	60	73	0.04	90	32	77	71			
Princeton	09-25-2022	82	53	67		96	24	77	69			
Princeton	09-26-2022	76	46	61		95	15	76	67			
Princeton	09-27-2022	75	38	56		92	19	73	64			
Princeton	09-28-2022	67	39	53		88	30	72	62			
Princeton	09-29-2022	71	41	56		95	35	71	62			
Princeton	09-30-2022	74	42	58		96	32	71	62			

Summary for Princeton for the period 9-1-2022 through 9-30-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				
	MX	MN	AV		MX	MN	MX	MN	MX	MN	TOTAL EVAP
Princeton	82	56	69	0.32	95	41	79	71			
(Deviation from normal)	+1	-2	-0	-3.01							

Princeton Climate Data, October

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP		EVAP
		MX	MN	AV		MX	MN	GRASS	BARE	
Princeton	10-01-2022	77	44	60		94	19	72	62	
Princeton	10-02-2022	78	49	63		80	23	74	64	
Princeton	10-03-2022	74	48	61		92	40	70	64	
Princeton	10-04-2022	74	42	58		94	22	72	62	
Princeton	10-05-2022	79	38	58		93	17	71	61	
Princeton	10-06-2022	82	46	64		82	24	72	62	
Princeton	10-07-2022	71	45	58		95	34	67	60	
Princeton	10-08-2022	62	36	49		90	31	67	50	
Princeton	10-09-2022	70	31	50		97	25	68	58	
Princeton	10-10-2022	77	35	56		92	24	69	58	
Princeton	10-11-2022	80	48	64		66	23	70	61	
Princeton	10-12-2022	78	54	66	0.03	98	36	69	60	
Princeton	10-13-2022	70	38	54		98	18	68	58	
Princeton	10-14-2022	76	32	54		95	13	64	57	
Princeton	10-15-2022	72	47	59		80	26	66	58	
Princeton	10-16-2022	70	47	58		86	46	65	60	
Princeton	10-17-2022	54	32	43		91	23	61	58	
Princeton	10-18-2022	52	24	38		80	30	59	53	
Princeton	10-19-2022	56	26	41		73	14	58	51	
Princeton	10-20-2022	64	24	44		86	15	60	50	
Princeton	10-21-2022	76	43	59		65	21	60	55	
Princeton	10-22-2022	77	57	67		81	38	64	55	
Princeton	10-23-2022	79	60	69		73	27	63	61	
Princeton	10-24-2022	80	54	67		63	23	65	60	
Princeton	10-25-2022	73	48	60	0.76	96	40	62	58	
Princeton	10-26-2022	62	40	51		92	38	62	58	
Princeton	10-27-2022	63	35	49		96	35	61	52	
Princeton	10-28-2022	71	38	54		89	42	61	52	
Princeton	10-29-2022	74	42	58		93	36	61	55	
Princeton	10-30-2022	65	57	61	0.39	95	54	61	56	
Princeton	10-31-2022	65	57	61	0.01	94	71	62	59	

Summary for Princeton for the period 10-1-2022 through 10-31-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP		TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	
Princeton	71	42	57	1.19	87	30	65	58	
(Deviation from normal)	-0	-6	-3	-1.86					

Princeton Monthly Climate Data

This data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 ext.245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

Princeton Monthly Climate Data(01-2022 to 10-2022)

----- 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	
2022	Jan	42	22	32	65	3	-2	0	27	41	39	
2022	Feb	49	28	39	68	11	+1	0	21	44	40	
2022	Mar	62	41	51	81	16	+4	0	5	56	49	
2022	Apr	67	46	56	85	32	-2	0	1	62	55	
2022	May	78	58	68	88	44	+1	0	0	76	66	
2022	Jun	87	63	75	97	50	-0	10	0	85	73	
2022	Jul	91	70	80	99	60	+2	19	0	89	78	
2022	Aug	86	66	76	91	56	-1	6	0	83	77	
2022	Sep	82	56	69	98	38	-2	3	0	79	71	
2022	Oct	71	42	57	82	24	-2	0	6	65	58	

----- PRECIPITATION -----										
YEAR	MONTH	DEPARTURE		CUMULATIVE		GREATEST	% RAIN DAYS	NO. DAYS >=.01		
		TOTAL	NORMAL	TOTAL	DEPARTURE	24 HOUR TOTAL				
2022	Jan	5.04	+1.24	5.04	+1.24	2.61	26	8		
2022	Feb	7.44	+3.01	12.48	+4.25	3.26	36	10		
2022	Mar	4.85	-0.09	17.33	+4.16	1.50	32	10		
2022	Apr	6.41	+1.61	23.74	+5.77	1.78	50	15		
2022	May	2.54	-2.42	26.28	+3.35	0.85	32	10		
2022	Jun	2.46	-1.39	28.74	+1.96	1.51	10	3		
2022	Jul	4.75	+0.46	33.49	+2.42	1.31	42	13		
2022	Aug	5.85	+1.84	39.34	+4.26	1.54	23	7		
2022	Sep	0.32	-3.01	39.66	+1.25	0.27	10	3		
2022	Oct	1.19	-1.86	40.85	-0.61	0.76	13	4		

Lexington Climate Data, April

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
		MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	04-01-2022	48	34	41	0.04	89	47	51	47			
Lexington	04-02-2022	54	33	43		72	42	50	44			
Lexington	04-03-2022	59	35	47	T	85	33	54	46			
Lexington	04-04-2022	58	39	48	T	67	40	53	47			
Lexington	04-05-2022	57	50	53	0.84	96	77	52	50			
Lexington	04-06-2022	63	50	56	0.65	96	87	53	51			
Lexington	04-07-2022	56	44	50	0.05	96	40	53	50			
Lexington	04-08-2022	47	37	42	0.14	86	63	53	49			
Lexington	04-09-2022	46	34	40	0.06	89	33	51	47			
Lexington	04-10-2022	65	28	46		85	31	52	43			
Lexington	04-11-2022	68	56	62	0.36	90	42	53	49			
Lexington	04-12-2022	69	54	61	0.26	93	75	56	52			
Lexington	04-13-2022	77	63	70	0.01	92	49	59	55			
Lexington	04-14-2022	63	45	54	0.56	92	24	59	56			
Lexington	04-15-2022	70	43	56		79	20	59	54			
Lexington	04-16-2022	69	51	60	0.09	86	45	59	54			
Lexington	04-17-2022	52	36	44		69	42	55	52			
Lexington	04-18-2022	49	40	44	0.37	93	46	55	51			
Lexington	04-19-2022	54	33	43	0.01	79	38	54	47			
Lexington	04-20-2022	45	39	42		76	26	57	49			
Lexington	04-21-2022	65	57	61	0.11	77	57	57	54			
Lexington	04-22-2022	80	55	67		68	43	63	55			
Lexington	04-23-2022	84	63	73		80	33	64	58			
Lexington	04-24-2022	82	63	72		67	40	65	60			
Lexington	04-25-2022	79	64	71	T	83	54	64	61			
Lexington	04-26-2022	60	45	52	0.16	93	37	64	60			
Lexington	04-27-2022	67	42	54		65	32	63	55			
Lexington	04-28-2022	71	44	57		68	37	62	56			
Lexington	04-29-2022	75	55	65	T	56	36	62	57			
Lexington	04-30-2022	81	55	68	T	69	43	64	59			

Summary for Lexington for the period 4-1-2022 through 4-30-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	64	46	55	3.71	81	44	57	52			
(Deviation from normal)	-2	+1	-0	-0.17							

Lexington Climate Data, May

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
		MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	05-01-2022	76	62	69	0.20	90	32	65	62			
Lexington	05-02-2022	77	47	62		86	33	65	60			
Lexington	05-03-2022	81	62	71	0.52	87	50	65	62			
Lexington	05-04-2022	64	53	58	T	90	65	65	63			
Lexington	05-05-2022	74	53	63		74	74	65	60			
Lexington	05-06-2022	73	61	67	0.45	93	73	65	64			
Lexington	05-07-2022	58	53	55	0.37	100	80	65	62			
Lexington	05-08-2022	71	48	59		93	48	65	60			
Lexington	05-09-2022	78	53	65		77	50	67	61			
Lexington	05-10-2022	83	57	70		83	52	67	63			
Lexington	05-11-2022	87	65	76		87	38	69	66			
Lexington	05-12-2022	84	54	69		84	32	69	64			
Lexington	05-13-2022	85	64	74		72	40	69	65			
Lexington	05-14-2022	84	62	73	0.01	84	50	70	66			
Lexington	05-15-2022	86	57	71		97	29	70	66			
Lexington	05-16-2022	77	60	68	0.40	92	35	70	67			
Lexington	05-17-2022	83	54	68		74	32	69	65			
Lexington	05-18-2022	81	58	69	0.33	93	43	68	66			
Lexington	05-19-2022	83	61	72	0.13	97	58	70	66			
Lexington	05-20-2022	88	71	79	0.06	84	46	71	68			
Lexington	05-21-2022	88	68	78	0.09	87	54	72	69			
Lexington	05-22-2022	71	64	67	0.04	90	69	72	69			
Lexington	05-23-2022	60	52	56	0.06	87	66	69	64			
Lexington	05-24-2022	73	53	63	T	93	66	67	64			
Lexington	05-25-2022	86	64	75	0.04	90	51	70	66			
Lexington	05-26-2022	77	65	71	0.92	90	59	70	68			
Lexington	05-27-2022	71	60	65	0.20	93	67	69	67			
Lexington	05-28-2022	75	58	66	0.02	100	55	70	66			
Lexington	05-29-2022	83	56	69		90	47	71	65			
Lexington	05-30-2022	89	66	77		78	41	72	67			
Lexington	05-31-2022	89	70	79		76	48	74	69			

Summary for Lexington for the period 5-1-2022 through 5-31-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington (Deviation from normal)	79 +3	59 +4	69 +3	3.84 -0.63	87	51	69	65			

Lexington Climate Data, June

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
		MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	06-01-2022	89	67	78		87	46	75	70			
Lexington	06-02-2022	83	66	74	0.01	90	62	75	71			
Lexington	06-03-2022	82	60	71		90	27	73	69			
Lexington	06-04-2022	86	53	69		83	24	72	67			
Lexington	06-05-2022	85	55	70		80	38	71	66			
Lexington	06-06-2022	87	68	77	0.05	100	47	71	69			
Lexington	06-07-2022	85	67	76	1.26	100	58	72	69			
Lexington	06-08-2022	86	66	76	T	93	58	74	71			
Lexington	06-09-2022	78	60	69	0.30	83	44	74	70			
Lexington	06-10-2022	76	60	68	0.14	100	53	73	69			
Lexington	06-11-2022	81	62	71	0.02	93	46	72	69			
Lexington	06-12-2022	86	70	78		76	58	73	70			
Lexington	06-13-2022	94	76	85		85	55	76	72			
Lexington	06-14-2022	95	79	87		81	48	79	75			
Lexington	06-15-2022	94	76	85		87	46	80	76			
Lexington	06-16-2022	95	77	86		84	38	80	77			
Lexington	06-17-2022	87	71	79	0.17	90	47	80	76			
Lexington	06-18-2022	79	63	71		78	33	77	73			
Lexington	06-19-2022	80	59	69		70	27	75	70			
Lexington	06-20-2022	89	54	71		77	21	74	69			
Lexington	06-21-2022	95	58	76		75	28	76	69			
Lexington	06-22-2022	98	68	83	0.01	81	34	78	72			
Lexington	06-23-2022	90	66	78		87	38	77	73			
Lexington	06-24-2022	92	63	77		81	31	77	73			
Lexington	06-25-2022	95	68	81		73	39	78	73			
Lexington	06-26-2022	90	75	82		85	47	78	75			
Lexington	06-27-2022	83	65	74	0.14	93	35	78	74			
Lexington	06-28-2022	82	57	69		77	30	77	71			
Lexington	06-29-2022	90	53	71		90	28	75	69			
Lexington	06-30-2022	96	62	79		69	24	77	71			

Summary for Lexington for the period 6-1-2022 through 6-30-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	88	65	76	2.10	85	40	76	71			
(Deviation from normal)	+5	+3	+4	-1.56							

Lexington Climate Data, July

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
		MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	07-01-2022	96	76	86		76	39	78	74			
Lexington	07-02-2022	93	74	83	T	82	42	79	75			
Lexington	07-03-2022	88	67	77	0.47	93	41	79	75			
Lexington	07-04-2022	95	67	81		84	38	80	74			
Lexington	07-05-2022	97	76	86		82	44	80	76			
Lexington	07-06-2022	98	74	86	0.06	87	42	80	76			
Lexington	07-07-2022	93	72	82	T	91	55	80	76			
Lexington	07-08-2022	85	73	79	0.63	100	67	80	77			
Lexington	07-09-2022	75	69	72	0.69	100	76	77	75			
Lexington	07-10-2022	89	64	76		93	46	77	73			
Lexington	07-11-2022	90	66	78		90	37	79	74			
Lexington	07-12-2022	92	71	81		81	36	80	76			
Lexington	07-13-2022	89	62	75		90	38	80	74			
Lexington	07-14-2022	89	64	76		84	37	79	74			
Lexington	07-15-2022	90	62	76		87	31	79	74			
Lexington	07-16-2022	93	70	81	T	75	39	79	75			
Lexington	07-17-2022	84	75	79	0.31	87	64	79	76			
Lexington	07-18-2022	82	70	76	1.04	100	67	77	75			
Lexington	07-19-2022	88	70	79		93	49	79	75			
Lexington	07-20-2022	92	75	83		87	59	80	76			
Lexington	07-21-2022	91	73	82	0.03	90	40	82	78			
Lexington	07-22-2022	93	68	80		87	39	82	76			
Lexington	07-23-2022	94	72	83		81	46	82	77			
Lexington	07-24-2022	93	73	83		78	51	82	78			
Lexington	07-25-2022	85	76	80	0.10	91	60	81	79			
Lexington	07-26-2022	83	71	77	2.03	100	71	80	76			
Lexington	07-27-2022	89	73	81	0.61	91	62	80	76			
Lexington	07-28-2022	87	74	80	0.03	91	60	80	77			
Lexington	07-29-2022	84	70	77	0.24	100	56	80	77			
Lexington	07-30-2022	83	61	72		87	43	79	75			
Lexington	07-31-2022	79	67	73	0.22	97	63	78	75			

Summary for Lexington for the period 7-1-2022 through 7-31-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	89	70	80	6.46	89	50	80	76			
(Deviation from normal)	+3	+5	+4	+1.46							

Lexington Climate Data, August

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
		MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	08-01-2022	86	73	79	T	91	62	79	76			
Lexington	08-02-2022	88	73	80		93	49	80	76			
Lexington	08-03-2022	92	70	81		90	53	80	76			
Lexington	08-04-2022	87	71	79	0.41	85	64	80	77			
Lexington	08-05-2022	80	72	76	0.40	91	81	78	77			
Lexington	08-06-2022	85	72	78	0.58	93	69	78	76			
Lexington	08-07-2022	90	70	80	T	90	58	79	76			
Lexington	08-08-2022	91	70	80		93	55	80	76			
Lexington	08-09-2022	90	74	82		97	55	81	77			
Lexington	08-10-2022	86	72	79	1.42	100	65	81	78			
Lexington	08-11-2022	85	71	78	0.03	90	50	81	77			
Lexington	08-12-2022	80	64	72		84	38	81	76			
Lexington	08-13-2022	84	57	70		90	34	79	74			
Lexington	08-14-2022	83	67	75	T	84	48	79	75			
Lexington	08-15-2022	79	69	74		93	66	77	75			
Lexington	08-16-2022	83	61	72		90	50	77	73			
Lexington	08-17-2022	82	61	71		90	47	77	73			
Lexington	08-18-2022	86	60	73		93	38	78	73			
Lexington	08-19-2022	89	59	74		90	37	79	73			
Lexington	08-20-2022	86	70	78	T	84	58	79	75			
Lexington	08-21-2022	81	69	75	0.26	93	63	77	75			
Lexington	08-22-2022	85	67	76		93	50	79	74			
Lexington	08-23-2022	86	60	73		93	44	79	73			
Lexington	08-24-2022	88	61	74		90	38	79	73			
Lexington	08-25-2022	89	61	75		90	38	80	73			
Lexington	08-26-2022	90	65	77	T	90	44	80	74			
Lexington	08-27-2022	89	66	77		93	47	80	75			
Lexington	08-28-2022	93	70	81		84	43	80	75			
Lexington	08-29-2022	87	74	80	0.06	85	62	80	76			
Lexington	08-30-2022	85	70	77	1.11	97	45	79	76			
Lexington	08-31-2022	83	58	70		90	43	80	72			

Summary for Lexington for the period 8-1-2022 through 8-31-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington (Deviation from normal)	86 +2	67 +5	77 +3	4.27 +0.34	91	51	79	75			

Lexington Climate Data, September

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
		MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	09-01-2022	86	59	72		90	42	79	71			
Lexington	09-02-2022	89	60	74		86	47	79	72			
Lexington	09-03-2022	83	71	77	0.14	87	69	79	74			
Lexington	09-04-2022	84	69	76	0.12	100	58	78	74			
Lexington	09-05-2022	84	71	77	0.89	87	64	79	75			
Lexington	09-06-2022	84	69	76	T	93	60	80	74			
Lexington	09-07-2022	82	64	73		93	49	79	73			
Lexington	09-08-2022	82	56	69		93	48	78	70			
Lexington	09-09-2022	89	61	75		86	50	80	71			
Lexington	09-10-2022	80	69	74	T	81	63	78	73			
Lexington	09-11-2022	79	69	74	0.03	93	69	77	73			
Lexington	09-12-2022	74	62	68	0.19	93	44	76	71			
Lexington	09-13-2022	74	54	64		86	56	75	67			
Lexington	09-14-2022	81	54	67		93	48	74	67			
Lexington	09-15-2022	84	55	69		90	42	76	67			
Lexington	09-16-2022	85	56	70		93	38	77	68			
Lexington	09-17-2022	84	62	73		90	41	76	70			
Lexington	09-18-2022	85	60	72		83	40	76	69			
Lexington	09-19-2022	86	67	76		84	47	78	71			
Lexington	09-20-2022	91	62	76		93	37	80	71			
Lexington	09-21-2022	94	66	80		84	39	80	73			
Lexington	09-22-2022	75	65	70	T	81	38	80	73			
Lexington	09-23-2022	71	44	57		82	33	75	67			
Lexington	09-24-2022	77	55	66	0.08	84	43	73	68			
Lexington	09-25-2022	78	62	70	0.05	81	38	72	68			
Lexington	09-26-2022	72	52	62		86	29	72	66			
Lexington	09-27-2022	70	44	57		79	26	71	64			
Lexington	09-28-2022	62	39	50		89	51	69	61			
Lexington	09-29-2022	69	43	56		89	42	68	60			
Lexington	09-30-2022	74	44	59		89	27	69	61			

Summary for Lexington for the period 9-1-2022 through 9-30-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	80	59	70	1.50	88	46	76	69			
(Deviation from normal)	+3	+3	+3	-1.70							

Lexington Climate Data, October

This weather data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 Ext245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

STATION	DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
		MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	10-01-2022	76	50	63		74	25	69	63			
Lexington	10-02-2022	74	50	62		80	41	68	63			
Lexington	10-03-2022	72	48	60		89	34	70	63			
Lexington	10-04-2022	74	38	56		89	19	69	61			
Lexington	10-05-2022	78	38	58		86	20	69	60			
Lexington	10-06-2022	79	45	62		80	22	69	61			
Lexington	10-07-2022	69	51	60		80	32	68	63			
Lexington	10-08-2022	61	34	47		89	30	67	59			
Lexington	10-09-2022	66	31	48		85	28	65	57			
Lexington	10-10-2022	74	37	55		85	27	66	57			
Lexington	10-11-2022	77	43	60		79	25	66	58			
Lexington	10-12-2022	80	60	70	0.14	87	46	66	61			
Lexington	10-13-2022	66	50	58	0.03	87	22	62	58			
Lexington	10-14-2022	69	39	54		76	16	61	55			
Lexington	10-15-2022	72	56	64		47	18	64	56			
Lexington	10-16-2022	69	42	55	0.01	93	26	63	57			
Lexington	10-17-2022	57	41	49		86	29	60	55			
Lexington	10-18-2022	48	35	41	T	85	49	58	52			
Lexington	10-19-2022	56	34	45		67	25	57	50			
Lexington	10-20-2022	58	32	45		56	19	56	49			
Lexington	10-21-2022	71	41	56		53	21	58	49			
Lexington	10-22-2022	79	52	65		55	35	61	52			
Lexington	10-23-2022	78	56	67		66	27	64	56			
Lexington	10-24-2022	79	50	64		60	22	64	55			
Lexington	10-25-2022	79	60	69	T	87	35	63	58			
Lexington	10-26-2022	61	48	54	0.32	87	71	63	57			
Lexington	10-27-2022	61	37	49		85	42	59	52			
Lexington	10-28-2022	72	45	58		70	35	61	53			
Lexington	10-29-2022	74	43	58		76	35	62	53			
Lexington	10-30-2022	66	54	60	0.17	90	51	61	56			
Lexington	10-31-2022	67	61	64	0.29	90	69	61	59			

Summary for Lexington for the period 10-1-2022 through 10-31-2022:

STATION	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
Lexington	70	45	57	0.96	78	32	64	57			
(Deviation from normal)	+2	-0	+1	-1.61							

Lexington Monthly Climate Data, January-October

This data provided by the University of Kentucky
 Agricultural Weather Center (Phone (859)257-3000 ext.245)
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

Lexington Monthly Climate Data(01-2022 to 10-2022)

----- AIR TEMPERATURE -----											-- SOD --	
		AVERAGE			EXTREME		AVG DEPART	NO. OF DAYS		4" TEMP		
YEAR	MONTH	MAX	MIN	AVG	MAX	MIN	FROM NORM	>=90	<=32	MAX	MIN	
2022	Jan	36	22	29	60	3	-2	0	26	41	38	
2022	Feb	48	29	38	67	13	+3	0	22	43	38	
2022	Mar	60	39	49	81	14	+5	0	7	53	46	
2022	Apr	64	46	55	84	28	+0	0	1	57	52	
2022	May	79	59	69	89	47	+5	0	0	69	65	
2022	Jun	88	65	76	98	53	+4	12	0	76	71	
2022	Jul	89	70	80	98	61	+4	15	0	80	76	
2022	Aug	86	67	77	93	57	+2	6	0	79	75	
2022	Sep	80	59	70	94	39	+2	2	0	76	69	
2022	Oct	70	45	57	80	31	+0	0	2	64	57	

----- PRECIPITATION -----										
		DEPARTURE		CUMULATIVE		GREATEST	% RAIN	NO. DAYS		
YEAR	MONTH	TOTAL	FROM NORMAL	TOTAL	DEPARTURE	24 HOUR TOTAL	DAYS	>=.01		
2022	Jan	4.93	+2.07	4.93	+2.07	2.30	35	11		
2022	Feb	7.69	+4.48	12.62	+6.55	2.44	32	9		
2022	Mar	4.27	-0.13	16.89	+6.42	1.51	26	8		
2022	Apr	3.71	-0.17	20.60	+6.25	0.84	50	15		
2022	May	3.84	-0.63	24.44	+5.62	0.92	52	16		
2022	Jun	2.10	-1.56	26.54	+4.06	1.26	30	9		
2022	Jul	6.46	+1.46	33.00	+5.52	2.03	42	13		
2022	Aug	4.27	+0.34	37.27	+5.86	1.42	26	8		
2022	Sep	1.50	-1.70	38.77	+4.16	0.89	23	7		
2022	Oct	0.96	-1.61	39.73	+2.55	0.32	19	6		

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

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 Unit	Appl Timing	Appl Code	Appl Description	Amt Product to Measure	Rep 1	2	3	4
1	Roundup PowerMAX 3 Amsol AMS	4.8 3.4	LBAE/GAL lba/gal	SL	30 fl oz/a 5 % v/v	1.13 lb ai/a 17 lba/100gal		PREEM PREEM	B B	DPRE DPRE	31.25 mL/mx 99.99 mL/mx	101	202	303	406
2	Roundup PowerMAX 3 ANTHEM FLEX Amsol AMS	4.8 4 3.4	LBAE/GAL LB/GAL lba/gal	SL SE SL	30 fl oz/a 3.0 fl oz/a 5 % v/v	1.13 lb ai/a 0.094 lb ai/a 17 lba/100gal		PREEM PREEM PREEM	A A A	PRE PRE PRE	31.25 mL/mx 3.125 mL/mx 99.99 mL/mx	102	203	305	408
3	Roundup PowerMAX 3 ANTHEM FLEX FINESSE (0.5 oz/a) GLEAN XP (75WG) ALLY XP Amsol AMS	4.8 4 75 60 3.4	LBAE/GAL LB/GAL %W/W %W/W lba/gal	SL SE WG DF SL	30 fl oz/a 3.0 fl oz/a 0.4166667 oz/a 0.104167 oz/a 5 % v/v	1.13 lb ai/a 0.094 lb ai/a 0.0195 lb ai/a 0.0039 lb ai/a 17 lba/100gal		PREEM PREEM PREEM PREEM PREEM	A A A A A	PRE PRE PRE PRE PRE	31.25 mL/mx 3.125 mL/mx 0.4161 g/mx 0.104 g/mx 99.99 mL/mx	103	209	302	409
4	FINESSE (0.5 oz/a) GLEAN XP (75WG) ALLY XP	75 60	%W/W %W/W	WG DF	0.4166667 oz/a 0.104167 oz/a	0.0195 lb ai/a 0.0039 lb ai/a		PREEM PREEM	A A	PRE PRE	0.4161 g/mx 0.104 g/mx	104	205	308	404
5	Roundup PowerMAX 3 ANTHEM FLEX INDUCE Amsol AMS	4.8 4 90 3.4	LBAE/GAL LB/GAL % lba/gal	SL SE SL SL	30 fl oz/a 3.0 fl oz/a 0.25 % v/v 5 % v/v	1.13 lb ai/a 0.094 lb ai/a 4.8 fl oz/a 17 lba/100gal		PREEM PREEM PREEM PREEM	B B B B	DPRE DPRE DPRE DPRE	31.25 mL/mx 3.125 mL/mx 4.999 mL/mx 99.99 mL/mx	105	206	304	402
6	Roundup PowerMAX 3 ANTHEM FLEX FINESSE (0.3 oz/a) GLEAN XP (75WG) ALLY XP INDUCE Amsol AMS	4.8 4 75 60 90 3.4	LBAE/GAL LB/GAL %W/W %W/W % lba/gal	SL SE WG DF SL SL	30 fl oz/a 3.2 fl oz/a 0.25 oz/a 0.062 oz/a 0.25 % v/v 5 % v/v	1.13 lb ai/a 0.1 lb ai/a 0.0117 lb ai/a 0.00233 lb ai/a 4.8 fl oz/a 17 lba/100gal		PREMLA PREMLA PREMLA PREMLA PREMLA PREEM	B B B B B B	DPRE DPRE DPRE DPRE DPRE DPRE	31.25 mL/mx 3.333 mL/mx 0.2496 g/mx 0.06191 g/mx 4.999 mL/mx 99.99 mL/mx	106	208	307	401
7	ANTHEM FLEX INDUCE	4 90	LB/GAL %	SE SL	3.0 fl oz/a 0.25 % v/v	0.094 lb ai/a 4.8 fl oz/a		EAPOCR EAPOCR	C C	EPOST EPOST	3.125 mL/mx 4.999 mL/mx	107	201	306	405
8	ANTHEM FLEX METRIBUZIN INDUCE	4 75 90	LB/GAL %W/W %	SE WG SL	3.0 fl oz/a 3 oz/a 0.25 % v/v	0.094 lb ai/a 0.14 lb ai/a 4.8 fl oz/a		EAPOCR EAPOCR EAPOCR	C C C	EPOST EPOST EPOST	3.125 mL/mx 2.996 g/mx 4.999 mL/mx	108	207	301	407
9	AXIAL XL INDUCE HARMONY EXTRA (0.6 oz/a) HARMONY SG EXPRESS SG INDUCE	0.42 90 50 50 90	LB/GAL % %W/W %W/W %	EC SL SG SG SL	16.4 fl oz/a 0.25 % v/v 0.4 oz/a 0.2 oz/a 0.25 % v/v	0.054 lb ai/a 4.8 fl oz/a 0.0125 lb ai/a 0.00625 lb ai/a 4.8 fl oz/a		NOVEMB NOVEMB POEMSE POEMSE POEMSE	D D E E E	LPOST LPOST SPRING GREENUP SPRING GREENUP SPRING GREENUP	17.08 mL/mx 4.999 mL/mx 0.3994 g/mx 0.1997 g/mx 4.999 mL/mx	109	204	309	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
195.312	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
624.932	mL	Amsol AMS	3.4	lba/gal	SL	
23.698	mL	ANTHEM FLEX	4	LB/GAL	SE	
1.352	g	GLEAN XP (75WG)	75	%W/W	WG	
0.337	g	ALLY XP	60	%W/W	DF	
37.496	mL	INDUCE	90	%	SL	
3.745	g	METRIBUZIN	75	%W/W	WG	
21.354	mL	AXIAL XL	0.42	LB/GAL	EC	
0.499	g	HARMONY SG	50	%W/W	SG	
0.250	g	EXPRESS SG	50	%W/W	SG	

* '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

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

General Trial Information

Study Director: WIGGINS, M
Investigator: Leon, C.

Status: E established

Data Location: ARM ARM Assessment Data

Last Changed By: Travis Legleiter

ARM Trial Created On: Oct-11-2021

Protocol Revision Date: Sep-23-2021

Trial Location

Country: USA United States

Region: NA

Climate Zone: USWARM US Warm Continental

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director
Study Director: WIGGINS, M
Region: NA
Role: INVEST investigator
Investigator: Leon, C.

Crop Description

Crop 1: C TRZAW Triticum aestivum Winter wheat **BBCH Scale:** BCER
Entry Date: Oct-12-2022 **Stage Scale:** BBCH
Variety: 26R10
Planting Date: Oct-20-2021
Row Spacing: 7.5 IN
Harvested Width: 5 FT
% Standard Moisture: 13.5

Pest Description

Pest 1 Type: W **Code:** LAMAM Lamium amplexicaule **Entry Date:** Oct-12-2022
Common Name: Henbit deadnettle **Stage Scale:** BBCH

Pest 2 Type: W **Code:** CARHI Cardamine hirsuta **Entry Date:** Oct-12-2022
Common Name: bristly bittercress **Stage Scale:** BBCH

Pest 3 Type: W **Code:** CERVU Cerastium fontanum vulgare **Entry Date:** Oct-12-2022
Common Name: common mouse-ear chickweed **Stage Scale:** BBCH

Pest 4 Type: W **Code:** LOLMG Lolium multiflorum gaudini **Entry Date:** Oct-12-2022
Common Name: Annual ryegrass **Stage Scale:** BBCH

Pest 5 Type: W **Code:** ERPVE Draba verna **Entry Date:** Oct-12-2022
Common Name: common whitlowgrass **Stage Scale:** BBCH

Pest 6 Type: W **Code:** VERAR Veronica arvensis **Entry Date:** Oct-12-2022
Common Name: Wall speedwell **Stage Scale:** BBCH

Pest 7 Type: W **Code:** ERICA Erigeron canadensis **Entry Date:** Oct-12-2022
Common Name: mare's-tail **Stage Scale:** BBCH

Pest 8 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** Oct-12-2022
Common Name: Giant ragweed **Stage Scale:** BBCH

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

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 Tillage Type: CONTIL conventional-till
 Replications: 4 Treatments: 9 Plots: 36 Study Design: RACOB L Randomized Complete Block (RCB)

Soil Description

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

Application Description

	A	B	C	D	E
Application Date	Oct-20-2021	Oct-22-2021			Mar-25-2022
Appl. Start Time					10:00 AM
Appl. Stop Time					10:04 AM
Interval to Prev. Appl.		2 DAYS			154 DAYS
Applied By					JLG
Appl. Entry Date	Oct-13-2022	Oct-13-2022			Oct-12-2022
Air Temperature Start, Stop					45.3, 48.8 F
% Relative Humidity Start, Stop					74.5, 73.7
Wind Velocity+Dir. Start					5.7 MPH, EAST
Wind Velocity+Dir. Stop					3.8 MPH, EAST
Wet Leaves (Y/N)					N, no
Soil Temperature					42 F
Soil Moisture					WET
% Cloud Cover					90

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale	TRZAW, BCER	TRZAW, BCER	TRZAW, BCER	TRZAW, BCER	TRZAW, BCER
Stage Scale Used	BBCH	BBCH	BBCH	BBCH	BBCH

University of Kentucky

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 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

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				
Height Minimum, Maximum				
Density Average				
Density Minimum, Maximum				
Pest 2 Code, Type, Scale	CARHI, W, BBCH	CARHI, W, BBCH	CARHI, W, BBCH	CARHI, W, BBCH
Height Average				
Height Minimum, Maximum				
Density Average				
Density Minimum, Maximum				
Pest 3 Code, Type, Scale	CERVU, W, BBCH	CERVU, W, BBCH	CERVU, W, BBCH	CERVU, W, BBCH
Height Average				
Height Minimum, Maximum				
Density Average				
Density Minimum, Maximum				
Pest 4 Code, Type, Scale	LOLMG, W, BBCH	LOLMG, W, BBCH	LOLMG, W, BBCH	LOLMG, W, BBCH
Height Average				
Height Minimum, Maximum				
Density Average				
Density Minimum, Maximum				
Pest 5 Code, Type, Scale	ERPVE, W, BBCH	ERPVE, W, BBCH	ERPVE, W, BBCH	ERPVE, W, BBCH
Height Average				
Height Minimum, Maximum				
Density Average				
Density Minimum, Maximum				
Pest 6 Code, Type, Scale	VERAR, W, BBCH	VERAR, W, BBCH	VERAR, W, BBCH	VERAR, W, BBCH
Height Average				
Height Minimum, Maximum				
Density Average				
Density Minimum, Maximum				
Pest 7 Code, Type, Scale	ERICA, W, BBCH	ERICA, W, BBCH	ERICA, W, BBCH	ERICA, W, BBCH
Height Average				
Height Minimum, Maximum				
Density Average				
Density Minimum, Maximum				
Pest 8 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average				
Height Minimum, Maximum				
Density Average				
Density Minimum, Maximum				

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
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 Investigator (Creator): Leon, C. Conducted Under GEP: No

	E
Pest 1 Code, Type, Scale	LAMAM, W, BBCH
Height Average	1.875 IN
Height Minimum, Maximum	0.75, 3
Density Average	3 -
Density Minimum, Maximum	2, 4
Pest 2 Code, Type, Scale	CARHI, W, BBCH
Height Average	4.625 IN
Height Minimum, Maximum	2, 7.25
Density Average	6.5 -
Density Minimum, Maximum	6, 7
Pest 3 Code, Type, Scale	CERVU, W, BBCH
Height Average	0.25 IN
Height Minimum, Maximum	-, 0.5
Density Average	0.5 -
Density Minimum, Maximum	-, 1
Pest 4 Code, Type, Scale	LOLMG, W, BBCH
Height Average	2.375 IN
Height Minimum, Maximum	0.75, 4
Density Average	1 -
Density Minimum, Maximum	1, 1
Pest 5 Code, Type, Scale	ERPVE, W, BBCH
Height Average	1.75 IN
Height Minimum, Maximum	0.5, 3
Density Average	1 -
Density Minimum, Maximum	1, 7
Pest 6 Code, Type, Scale	VERAR, W, BBCH
Height Average	0.75 IN
Height Minimum, Maximum	0.5, 1
Density Average	1.5 -
Density Minimum, Maximum	1, 2
Pest 7 Code, Type, Scale	ERICA, W, BBCH
Height Average	0.25 IN
Height Minimum, Maximum	-, 0.5
Density Average	0.5 -
Density Minimum, Maximum	-, 1
Pest 8 Code, Type, Scale	AMBTR, W, BBCH
Height Average	0.0375 IN
Height Minimum, Maximum	-, 0.75
Density Average	0.5 -
Density Minimum, Maximum	2, 4

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Application Equipment

	A	B	C	D	E
Equipment Type					BACCAI
Operation Pressure					32 PSI
Nozzle Model					XR11002
Nozzle Type					FLAFXR
Nozzle TradeName					XR TeeJet
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
Minimum Mix/Treatment	1.564 L	1.564 L	1.564 L	1.564 L	1.564 L

Notes

Context	Date	By	Notes
STATUS	Sep-23-2021	Leon, C.	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Oct-12-2022	Travis Legleiter	Automatically added by ARM: Status changed to: E: changed by (EKYLET).
STATUS	Oct-12-2022	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control
 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

				W, Weed LOLMG Lolium multifo> Annual ryegrass	W, Weed LOLMG Lolium multifo> Annual ryegrass
Pest Type					
Pest Code					
Pest Scientific Name					
Pest Name					
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date				Nov-15-2021	Apr-8-2022
Part Rated				PLANT, P	PLANT, P
Rating Type				CONTROL	CONTROL
Rating Unit/Min/Max				%, 0, 100	%, 0, 100
Sample Size					
Number of Subsamples				1	1
Data Entry Date				Oct-12-2022	Oct-12-2022
EDC App				Rating Shell	Rating Shell
Days After First/Last Applic.				-, 24	-, 14
Plant-Eval Interval				26 DP-1	170 DP-1
ARM Action Codes				ET7	AS
Number of Decimals					
Trt Treatment		Rate	Rate Appl		
No. Name		Rate	Unit Code Plot	1	2
1	Roundup PowerMAX 3	30 fl oz/a	B 101	0.0	0.0
	Amsol AMS	5 % v/v	B 202	0.0	0.0
			303	0.0	0.0
			406	0.0	0.0
			Mean =	0.0	0.0d
2	Roundup PowerMAX 3	30 fl oz/a	A 102	0.0	90.0
	ANTHEM FLEX	3.0 fl oz/a	A 203	0.0	80.0
	Amsol AMS	5 % v/v	A 305	0.0	50.0
			408	0.0	80.0
			Mean =	0.0	75.0
					43.6d
3	Roundup PowerMAX 3	30 fl oz/a	A 103	0.0	97.0
	ANTHEM FLEX	3.0 fl oz/a	A 209	0.0	90.0
	FINESSE (0.5 oz/a)		302	0.0	90.0
	GLEAN XP (75WG)	0.4166667 oz/a	A 409	0.0	90.0
	ALLY XP	0.104167 oz/a	A		
	Amsol AMS	5 % v/v	A		
			Mean =	0.0	91.8
					72.1d
4	FINESSE (0.5 oz/a)		104	0.0	90.0
	GLEAN XP (75WG)	0.4166667 oz/a	A 205	0.0	60.0
	ALLY XP	0.104167 oz/a	A 308	0.0	50.0
			404	0.0	80.0
			Mean =	0.0	70.0
					64.1d
5	Roundup PowerMAX 3	30 fl oz/a	B 105	0.0	90.0
	ANTHEM FLEX	3.0 fl oz/a	B 206	0.0	70.0
	INDUCE	0.25 % v/v	B 304	0.0	90.0
	Amsol AMS	5 % v/v	B 402	0.0	85.0
			Mean =	0.0	83.8
					70.2d

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University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

				W, Weed LOLMG Lolium multifo> Annual ryegrass	W, Weed LOLMG Lolium multifo> Annual ryegrass			
Pest Type								
Pest Code								
Pest Scientific Name								
Pest Name								
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Rating Date				Nov-15-2021	Apr-8-2022			
Part Rated				PLANT, P	PLANT, P			
Rating Type				CONTROL	CONTROL			
Rating Unit/Min/Max				%, 0, 100	%, 0, 100			
Sample Size								
Number of Subsamples				1	1			
Data Entry Date				Oct-12-2022	Oct-12-2022			
EDC App				Rating Shell	Rating Shell			
Days After First/Last Applic.				-, 24	-, 14			
Plant-Eval Interval				26 DP-1	170 DP-1			
ARM Action Codes				ET7	AS			
Number of Decimals								
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	1	2	3
6	Roundup PowerMAX 3	30 fl oz/a	B		106	0.0	97.0	95.0
	ANTHEM FLEX	3.2 fl oz/a	B		208	0.0	90.0	97.0
	FINESSE (0.3 oz/a)				307	0.0	85.0	90.0
	GLEAN XP (75WG)	0.25 oz/a	B		401	0.0	97.0	90.0
	ALLY XP	0.062 oz/a	B					
	INDUCE	0.25 % v/v	B					
	Amsol AMS	5 % v/v	B					
					Mean =	0.0	92.3	93.0d
7	ANTHEM FLEX	3.0 fl oz/a	C		107	0.0	80.0	95.0
	INDUCE	0.25 % v/v	C		201	0.0	50.0	90.0
					306	0.0	40.0	70.0
					405	0.0	85.0	70.0
					Mean =	0.0	63.8	80.9d
8	ANTHEM FLEX	3.0 fl oz/a	C		108	0.0	90.0	97.0
	METRIBUZIN	3 oz/a	C		207	0.0	50.0	90.0
	INDUCE	0.25 % v/v	C		301	0.0	80.0	80.0
					407	0.0	90.0	50.0
					Mean =	0.0	77.5	78.1d
9	AXIAL XL	16.4 fl oz/a	D		109	0.0	0.0	95.0
	INDUCE	0.25 % v/v	D		204	0.0	0.0	95.0
	HARMONY EXTRA (0.6 oz/a)				309	0.0	0.0	95.0
	HARMONY SG	0.4 oz/a	E		403	0.0	0.0	90.0
	EXPRESS SG	0.2 oz/a	E					
	INDUCE	0.25 % v/v	E					
					Mean =	0.0	0.0	93.7d

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Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type		W, Weed	
Pest Code		LOLMG	
Pest Scientific Name		Lolium multiflo>	
Pest Name		Annual 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
Rating Date	Apr-8-2022	Apr-20-2022	Apr-20-2022
Part Rated	PLANT, C	PLANT, P	PLANT, C
Rating Type	STUNT	CONTROL	STUNT
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size			
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App	Rating Shell	Rating Shell	Rating Shell
Days After First/Last Applic.	-, 14	-, 26	-, 26
Plant-Eval Interval	170 DP-1	182 DP-1	182 DP-1
ARM Action Codes	AL	AL	AL
Number of Decimals			
Trt Treatment	Rate	Rate	Appl
No. Name	Unit	Code	Plot
		4	5
		6	
1 Roundup PowerMAX 3	30 fl oz/a B	101	0.0
Amsol AMS	5 % v/v B	202	0.0
		303	0.0
		406	0.0
		Mean =	0.0d
2 Roundup PowerMAX 3	30 fl oz/a A	102	0.0
ANTHEM FLEX	3.0 fl oz/a A	203	0.0
Amsol AMS	5 % v/v A	305	0.0
		408	0.0
		Mean =	0.0d
3 Roundup PowerMAX 3	30 fl oz/a A	103	0.0
ANTHEM FLEX	3.0 fl oz/a A	209	0.0
FINESSE (0.5 oz/a)		302	0.0
GLEAN XP (75WG)	0.4166667 oz/a A	409	0.0
ALLY XP	0.104167 oz/a A		
Amsol AMS	5 % v/v A		
		Mean =	0.0d
4 FINESSE (0.5 oz/a)		104	0.0
GLEAN XP (75WG)	0.4166667 oz/a A	205	0.0
ALLY XP	0.104167 oz/a A	308	0.0
		404	0.0
		Mean =	0.0d
5 Roundup PowerMAX 3	30 fl oz/a B	105	0.0
ANTHEM FLEX	3.0 fl oz/a B	206	0.0
INDUCE	0.25 % v/v B	304	0.0
Amsol AMS	5 % v/v B	402	0.0
		Mean =	0.0d

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University of Kentucky

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Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type Pest Code Pest Scientific Name Pest Name Crop Type, Code BBCH Scale Crop Scientific Name Crop Name Rating Date Part Rated Rating Type Rating Unit/Min/Max Sample Size Number of Subsamples Data Entry Date EDC App Days After First/Last Applic. Plant-Eval Interval ARM Action Codes Number of Decimals	C, TRZAW BCER Triticum aestiv> Winter wheat Apr-8-2022 PLANT, C STUNT %, 0, 100 1 Oct-12-2022 Rating Shell -, 14 170 DP-1 AL	W, Weed LOLMG Lolium multiflo> Annual ryegrass Apr-20-2022 PLANT, P CONTROL %, 0, 100 1 Oct-12-2022 Rating Shell -, 26 182 DP-1 AL	C, TRZAW BCER Triticum aestiv> Winter wheat Apr-20-2022 PLANT, C STUNT %, 0, 100 1 Oct-12-2022 Rating Shell -, 26 182 DP-1
Trt Treatment No. Name Rate Rate Unit Appl Code Plot	4	5	6
6 Roundup PowerMAX 3 30 fl oz/a B 106 ANTHEM FLEX 3.2 fl oz/a B 208 FINESSE (0.3 oz/a) 307 GLEAN XP (75WG) 0.25 oz/a B 401 ALLY XP 0.062 oz/a B INDUCE 0.25 % v/v B Amsol AMS 5 % v/v B Mean =	5.0 0.0 0.0 0.0 0.0d	90.0 90.0 80.0 90.0 87.4d	10.0 0.0 0.0 0.0 2.5
7 ANTHEM FLEX 3.0 fl oz/a C 107 INDUCE 0.25 % v/v C 201 306 405 Mean =	0.0 0.0 0.0 0.0 0.0d	90.0 70.0 65.0 60.0 70.4d	0.0 0.0 0.0 0.0 0.0
8 ANTHEM FLEX 3.0 fl oz/a C 108 METRIBUZIN 3 oz/a C 207 INDUCE 0.25 % v/v C 301 407 Mean =	0.0 0.0 0.0 0.0 0.0d	95.0 90.0 70.0 60.0 77.4d	0.0 0.0 0.0 0.0 0.0
9 AXIAL XL 16.4 fl oz/a D 109 INDUCE 0.25 % v/v D 204 HARMONY EXTRA (0.6 oz/a) 309 HARMONY SG 0.4 oz/a E 403 EXPRESS SG 0.2 oz/a E INDUCE 0.25 % v/v E Mean =	5.0 15.0 10.0 15.0 10.4d	97.0 95.0 95.0 90.0 94.2d	0.0 0.0 2.0 2.0 1.0

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 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

				W, Weed LOLMG Lolium multiflo> Annual ryegrass		W, Weed LOLMG Lolium multiflo> Annual ryegrass		
Pest Type					C, TRZAW BCER Triticum aestiv> Winter wheat			
Pest Code								
Pest Scientific Name								
Pest Name								
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Rating Date				Apr-27-2022	Apr-27-2022	Jun-17-2022		
Part Rated				PLANT, P	PLANT, P	PLANT, P		
Rating Type				CONTRO	STUNT	CONTORL		
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size								
Number of Subsamples				1	1	1		
Data Entry Date				Oct-12-2022	Oct-12-2022	Oct-12-2022		
EDC App						Rating Shell		
Days After First/Last Applic.				-, 33	-, 33	-, 84		
Plant-Eval Interval				189 DP-1	189 DP-1	240 DP-1		
ARM Action Codes								
Number of Decimals								
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	7	8	9
1	Roundup PowerMAX 3	30 fl oz/a	B		101	0.0	0.0	0.0
	Amsol AMS	5 % v/v	B		202	0.0	0.0	0.0
					303	0.0	0.0	0.0
					406	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0
2	Roundup PowerMAX 3	30 fl oz/a	A		102	75.0	0.0	70.0
	ANTHEM FLEX	3.0 fl oz/a	A		203	60.0	0.0	90.0
	Amsol AMS	5 % v/v	A		305	60.0	0.0	50.0
					408	80.0	0.0	0.0
					Mean =	68.8	0.0	52.5
3	Roundup PowerMAX 3	30 fl oz/a	A		103	85.0	0.0	80.0
	ANTHEM FLEX	3.0 fl oz/a	A		209	70.0	0.0	60.0
	FINESSE (0.5 oz/a)				302	50.0	0.0	40.0
	GLEAN XP (75WG)	0.4166667 oz/a	A		409	90.0	0.0	60.0
	ALLY XP	0.104167 oz/a	A					
	Amsol AMS	5 % v/v	A					
					Mean =	73.8	0.0	60.0
4	FINESSE (0.5 oz/a)				104	85.0	0.0	50.0
	GLEAN XP (75WG)	0.4166667 oz/a	A		205	50.0	0.0	20.0
	ALLY XP	0.104167 oz/a	A		308	80.0	0.0	70.0
					404	0.0	0.0	40.0
					Mean =	53.8	0.0	45.0
5	Roundup PowerMAX 3	30 fl oz/a	B		105	75.0	0.0	65.0
	ANTHEM FLEX	3.0 fl oz/a	B		206	95.0	0.0	0.0
	INDUCE	0.25 % v/v	B		304	50.0	0.0	50.0
	Amsol AMS	5 % v/v	B		402	50.0	0.0	65.0
					Mean =	67.5	0.0	45.0

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University of Kentucky

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 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type	W, Weed	L, Weed	L, Weed
Pest Code	LOLMG	LOLMG	LOLMG
Pest Scientific Name	Lolium multiflo>	Lolium multiflo>	Lolium multiflo>
Pest Name	Annual ryegrass	Annual ryegrass	Annual ryegrass
Crop Type, Code		C, TRZAW	
BBCH Scale		BCER	
Crop Scientific Name		Triticum aestiv>	
Crop Name		Winter wheat	
Rating Date	Apr-27-2022	Apr-27-2022	Jun-17-2022
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	STUNT	CONTORL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size			
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App			Rating Shell
Days After First/Last Applic.	-, 33	-, 33	-, 84
Plant-Eval Interval	189 DP-1	189 DP-1	240 DP-1
ARM Action Codes			
Number of Decimals			
Trt Treatment	Rate	Rate Unit	Appl Code Plot
No. Name			
6 Roundup PowerMAX 3	30 fl oz/a	B	106
ANHEM FLEX	3.2 fl oz/a	B	208
FINESSE (0.3 oz/a)			307
GLEAN XP (75WG)	0.25 oz/a	B	401
ALLY XP	0.062 oz/a	B	
INDUCE	0.25 % v/v	B	
Amsol AMS	5 % v/v	B	
Mean =			
7 ANHEM FLEX	3.0 fl oz/a	C	107
INDUCE	0.25 % v/v	C	201
			306
			405
Mean =			
8 ANHEM FLEX	3.0 fl oz/a	C	108
METRIBUZIN	3 oz/a	C	207
INDUCE	0.25 % v/v	C	301
			407
Mean =			
9 AXIAL XL	16.4 fl oz/a	D	109
INDUCE	0.25 % v/v	D	204
HARMONY EXTRA (0.6 oz/a)			309
HARMONY SG	0.4 oz/a	E	403
EXPRESS SG	0.2 oz/a	E	
INDUCE	0.25 % v/v	E	
Mean =			

d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type				
Pest Code				
Pest Scientific Name				
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	
Rating Date		Jun-23-2022	Jun-23-2022	
Part Rated		PLOT, P	GRAIN, C	
Rating Type		PLOT LENGTH	WEIGHT	
Rating Unit/Min/Max		FT, -, -	LB, -, -	
Sample Size			1 PLOT	
Number of Subsamples		1	1	1
Data Entry Date		Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App				
Days After First/Last Applic.		-, 90	-, 90	-, 90
Plant-Eval Interval		246 DP-1	246 DP-1	246 DP-1
ARM Action Codes		EC	ER3	
Number of Decimals				
Trt Treatment	Rate	Rate Unit	Appl Code Plot	
No. Name				10 11 12
1 Roundup PowerMAX 3	30 fl oz/a	B	101	26.20
Amsol AMS	5 % v/v	B	202	2.380
			303	4.760
			406	25.60
			Mean =	27.60
				2.650
				3.263
				12.20
				12.20
2 Roundup PowerMAX 3	30 fl oz/a	A	102	25.90
ANTHEM FLEX	3.0 fl oz/a	A	203	6.320
Amsol AMS	5 % v/v	A	305	11.940
			408	26.20
			Mean =	26.50
				10.150
				9.470
				11.83
3 Roundup PowerMAX 3	30 fl oz/a	A	103	25.80
ANTHEM FLEX	3.0 fl oz/a	A	209	6.400
FINESSE (0.5 oz/a)			302	11.160
GLEAN XP (75WG)	0.4166667 oz/a	A	409	25.50
ALLY XP	0.104167 oz/a	A		26.70
Amsol AMS	5 % v/v	A		13.010
			Mean =	11.70
				25.98
				10.190
				11.88
4 FINESSE (0.5 oz/a)			104	25.80
GLEAN XP (75WG)	0.4166667 oz/a	A	205	9.320
ALLY XP	0.104167 oz/a	A	308	9.460
			404	25.50
			Mean =	26.67*
				11.83*
				10.372
				11.83
5 Roundup PowerMAX 3	30 fl oz/a	B	105	25.80
ANTHEM FLEX	3.0 fl oz/a	B	206	7.870
INDUCE	0.25 % v/v	B	304	25.90
Amsol AMS	5 % v/v	B	402	8.340
			Mean =	26.10
				27.00
				13.880
				10.030
				12.20
				11.98

d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control
 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type				
Pest Code				
Pest Scientific Name				
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	
Rating Date		Jun-23-2022	Jun-23-2022	
Part Rated		PLOT, P	GRAIN, C	
Rating Type		PLOT LENGTH	WEIGHT	
Rating Unit/Min/Max		FT, -, -	LB, -, -	
Sample Size			1 PLOT	
Number of Subsamples		1	1	1
Data Entry Date		Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App				
Days After First/Last Applic.		-, 90	-, 90	-, 90
Plant-Eval Interval		246 DP-1	246 DP-1	246 DP-1
ARM Action Codes		EC	ER3	
Number of Decimals				
Trt Treatment	Rate	Rate Unit	Appl Code Plot	
No. Name				10 11 12
6 Roundup PowerMAX 3	30 fl oz/a	B	106	25.70 7.070 11.90
ANTHEM FLEX	3.2 fl oz/a	B	208	25.90 11.070 11.70
FINESSE (0.3 oz/a)			307	25.90 11.70
GLEAN XP (75WG)	0.25 oz/a	B	401	26.70 13.760 12.00
ALLY XP	0.062 oz/a	B		
INDUCE	0.25 % v/v	B		
Amsol AMS	5 % v/v	B		
			Mean =	26.05 10.633 11.83
7 ANTHEM FLEX	3.0 fl oz/a	C	107	25.80 8.260 12.00
INDUCE	0.25 % v/v	C	201	25.90 9.900 12.10
			306	26.20 11.70
			405	27.10 12.300 11.90
			Mean =	26.25 10.153 11.93
8 ANTHEM FLEX	3.0 fl oz/a	C	108	25.80 8.770 11.70
METRIBUZIN	3 oz/a	C	207	26.10 11.200 11.70
INDUCE	0.25 % v/v	C	301	25.20 12.00
			407	26.70 12.600 11.70
			Mean =	25.95 10.857 11.78
9 AXIAL XL	16.4 fl oz/a	D	109	25.90 9.910 11.80
INDUCE	0.25 % v/v	D	204	25.90 12.690 11.90
HARMONY EXTRA (0.6 oz/a)			309	25.20 11.70
HARMONY SG	0.4 oz/a	E	403	26.57* . 11.80*
EXPRESS SG	0.2 oz/a	E		
INDUCE	0.25 % v/v	E		
			Mean =	25.89 12.282 11.80

d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

				C, TRZAW BCER	C, TRZAW BCER	
Pest Type						
Pest Code						
Pest Scientific Name						
Pest Name						
Crop Type, Code						
BBCH Scale						
Crop Scientific Name				Triticum aestiv>	Triticum aestiv>	
Crop Name				Winter wheat	Winter wheat	
Rating Date				Jun-23-2022	Jun-23-2022	
Part Rated				GRAIN, C	GRAIN, C	
Rating Type				TEST WIEGHT	YIELD	
Rating Unit/Min/Max				LB/BU, -, -	BU, -, -	
Sample Size					1 A	
Number of Subsamples				1	1	
Data Entry Date				Oct-12-2022		
EDC App						
Days After First/Last Applic.				-, 90	-, 90	
Plant-Eval Interval				246 DP-1	246 DP-1	
ARM Action Codes					ER3 TY1	
Number of Decimals					1	
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code Plot		
					13	14
1	Roundup PowerMAX 3	30 fl oz/a	B	101	56.60	13.4
	Amsol AMS	5 % v/v	B	202	56.40	26.6
				303	57.00	
				406	59.50	14.2
				Mean =	57.38	18.0
2	Roundup PowerMAX 3	30 fl oz/a	A	102	54.80	36.1
	ANTHEM FLEX	3.0 fl oz/a	A	203	56.80	67.1
	Amsol AMS	5 % v/v	A	305	57.80	
				408	57.70	56.8
				Mean =	56.78	53.3
3	Roundup PowerMAX 3	30 fl oz/a	A	103	54.60	36.6
	ANTHEM FLEX	3.0 fl oz/a	A	209	57.30	63.8
	FINESSE (0.5 oz/a)			302	57.10	
	GLEAN XP (75WG)	0.4166667 oz/a	A	409	58.60	72.2
	ALLY XP	0.104167 oz/a	A			
	Amsol AMS	5 % v/v	A			
				Mean =	56.90	57.6
4	FINESSE (0.5 oz/a)			104	55.80	53.4
	GLEAN XP (75WG)	0.4166667 oz/a	A	205	56.60	53.9
	ALLY XP	0.104167 oz/a	A	308	57.50	
				404	58.12*	
				Mean =	57.01	58.6
5	Roundup PowerMAX 3	30 fl oz/a	B	105	55.20	45.1
	ANTHEM FLEX	3.0 fl oz/a	B	206	56.70	47.7
	INDUCE	0.25 % v/v	B	304	57.30	
	Amsol AMS	5 % v/v	B	402	57.80	75.8
				Mean =	56.75	56.2

d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type					
Pest Code					
Pest Scientific Name					
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
Rating Date				Jun-23-2022	Jun-23-2022
Part Rated				GRAIN, C	GRAIN, C
Rating Type				TEST WIEGHT	YIELD
Rating Unit/Min/Max				LB/BU, -, -	BU, -, -
Sample Size					1 A
Number of Subsamples				1	1
Data Entry Date				Oct-12-2022	
EDC App					
Days After First/Last Applic.				-, 90	-, 90
Plant-Eval Interval				246 DP-1	246 DP-1
ARM Action Codes					ER3 TY1
Number of Decimals					1
Trt Treatment		Rate	Rate Appl		
No. Name		Rate	Unit Code Plot	13	14
6	Roundup PowerMAX 3	30 fl oz/a	B 106	57.00	40.7
	ANTHEM FLEX	3.2 fl oz/a	B 208	57.70	63.4
	FINESSE (0.3 oz/a)		307	57.70	
	GLEAN XP (75WG)	0.25 oz/a	B 401	57.70	76.1
	ALLY XP	0.062 oz/a	B		
	INDUCE	0.25 % v/v	B		
	Amsol AMS	5 % v/v	B		
			Mean =	57.53	60.1
7	ANTHEM FLEX	3.0 fl oz/a	C 107	56.30	47.3
	INDUCE	0.25 % v/v	C 201	56.00	56.4
			306	57.30	
			405	57.90	67.1
			Mean =	56.88	56.9
8	ANTHEM FLEX	3.0 fl oz/a	C 108	56.60	50.4
	METRIBUZIN	3 oz/a	C 207	56.90	63.6
	INDUCE	0.25 % v/v	C 301	57.20	
			407	58.00	69.9
			Mean =	57.18	61.3
9	AXIAL XL	16.4 fl oz/a	D 109	56.70	56.6
	INDUCE	0.25 % v/v	D 204	56.50	72.5
	HARMONY EXTRA (0.6 oz/a)		309	57.20	
	HARMONY SG	0.4 oz/a	E 403	58.29*	.
	EXPRESS SG	0.2 oz/a	E		
	INDUCE	0.25 % v/v	E		
			Mean =	57.17	69.5

d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

LOLMG, Lolium multiflorum gaudini, Annual ryegrass = US

Crop Type, Code

C = EPPO species (Bayer) codes

TRZAW, BCER, Triticum aestivum, Winter wheat = US

Part Rated

PLANT = plant

PLOT = plot

GRAIN = grain

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

STUNT = stunting

CONTRO = control / burndown or knockdown

WEIGHT = weight

MOICON = moisture content

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

FT, , = foot

LB, , = pound

BU, , = bushel

PLOT = total plot

A = acre

EDC App

Rating Shell = Data pulled from Excel Rating Shell

Plant-Eval Interval

26 DP-1 = 1 TRZAW Oct-20-2021

170 DP-1 = 1 TRZAW Oct-20-2021

182 DP-1 = 1 TRZAW Oct-20-2021

189 DP-1 = 1 TRZAW Oct-20-2021

240 DP-1 = 1 TRZAW Oct-20-2021

246 DP-1 = 1 TRZAW Oct-20-2021

ARM Action Codes

ET7 = Excluded treatment 7

AS = Automatic square root transformation of X+0.5

AL = Automatic log transformation of X+1

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

ER3 = Excluded replicate 3

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

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control
 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

				W, Weed LOLMG Lolium multiflo> Annual ryegrass	W, Weed LOLMG Lolium multiflo> Annual ryegrass	
Pest Type						
Pest Code						
Pest Scientific Name						
Pest Name						
Crop Type, Code				C, TRZAW		
BBCH Scale				BCER		
Crop Scientific Name				Triticum aestiv>		
Crop Name				Winter wheat		
Rating Date				Nov-15-2021	Nov-15-2021	
Part Rated				PLANT, C	PLANT, P	
Rating Type				PHYGEN	CONTROL	
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	
Sample Size						
Number of Subsamples				1	1	
Data Entry Date				Oct-12-2022	Oct-12-2022	
EDC App				Rating Shell	Rating Shell	
Days After First/Last Applic.				-, 24	-, 24	
Plant-Eval Interval				26 DP-1	26 DP-1	
ARM Action Codes					ET7	
Number of Decimals					AS	
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3
			Appl Code			dAS
1	Roundup PowerMAX 3 Amsol AMS	30 fl oz/a 5 % v/v	B B	0.0 a	0.0 b	0.0 b
2	Roundup PowerMAX 3 ANTHEM FLEX Amsol AMS	30 fl oz/a 3.0 fl oz/a 5 % v/v	A A A	0.0 a	75.0 a	43.6 a
3	Roundup PowerMAX 3 ANTHEM FLEX FINESSE (0.5 oz/a) GLEAN XP (75WG) ALLY XP Amsol AMS	30 fl oz/a 3.0 fl oz/a 0.4166667 oz/a 0.104167 oz/a 5 % v/v	A A A A A	0.0 a	91.8 a	72.1 a
4	FINESSE (0.5 oz/a) GLEAN XP (75WG) ALLY XP	0.4166667 oz/a 0.104167 oz/a	A A	0.0 a	70.0 a	64.1 a
5	Roundup PowerMAX 3 ANTHEM FLEX INDUCE Amsol AMS	30 fl oz/a 3.0 fl oz/a 0.25 % v/v 5 % v/v	B B B B	0.0 a	83.8 a	70.2 a
6	Roundup PowerMAX 3 ANTHEM FLEX FINESSE (0.3 oz/a) GLEAN XP (75WG) ALLY XP INDUCE Amsol AMS	30 fl oz/a 3.2 fl oz/a 0.25 oz/a 0.062 oz/a 0.25 % v/v 5 % v/v	B B B B B B	0.0 a	92.3 a	93.0 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=10,11,12,13,14
 Excluded replicate 3 in column 11; 3 in 14
 Could not calculate LSD (% mean diff) for columns 1,8 because error mean square = 0.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type		W, Weed	W, Weed
Pest Code		LOLMG	LOLMG
Pest Scientific Name		Lolium multiflo>	Lolium multiflo>
Pest Name		Annual ryegrass	Annual ryegrass
Crop Type, Code	C, TRZAW		
BBCH Scale	BCER		
Crop Scientific Name	Triticum aestiv>		
Crop Name	Winter wheat		
Rating Date	Nov-15-2021	Nov-15-2021	Apr-8-2022
Part Rated	PLANT, C	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size			
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App	Rating Shell	Rating Shell	Rating Shell
Days After First/Last Applic.	-, 24	-, 24	-, 14
Plant-Eval Interval	26 DP-1	26 DP-1	170 DP-1
ARM Action Codes		ET7	AS
Number of Decimals			
Trt Treatment	1	2	3
No. Name			dAS
Rate			
Rate Unit			
Appl Code			
7 ANTHEM FLEX	0.0 a	63.8	80.9 a
INDUCE			
3.0 fl oz/a C			
0.25 % v/v C			
8 ANTHEM FLEX	0.0 a	77.5 a	78.1 a
METRIBUZIN			
INDUCE			
3.0 fl oz/a C			
3 oz/a C			
0.25 % v/v C			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=10,11,12,13,14
 Excluded replicate 3 in column 11; 3 in 14
 Could not calculate LSD (% mean diff) for columns 1,8 because error mean square = 0.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control
 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type		W, Weed	W, Weed
Pest Code		LOLMG	LOLMG
Pest Scientific Name		Lolium multiflo>	Lolium multiflo>
Pest Name		Annual ryegrass	Annual ryegrass
Crop Type, Code	C, TRZAW		
BBCH Scale	BCER		
Crop Scientific Name	Triticum aestiv>		
Crop Name	Winter wheat		
Rating Date	Nov-15-2021	Nov-15-2021	Apr-8-2022
Part Rated	PLANT, C	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size			
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App	Rating Shell	Rating Shell	Rating Shell
Days After First/Last Applic.	-, 24	-, 24	-, 14
Plant-Eval Interval	26 DP-1	26 DP-1	170 DP-1
ARM Action Codes		ET7	AS
Number of Decimals			
Trt Treatment			
No. Name	Rate	Rate	Rate
		Unit	Code
		1	2
			3
			dAS
9 AXIAL XL	16.4 fl oz/a D	0.0 a	0.0 b
INDUCE	0.25 % v/v D		
HARMONY EXTRA (0.6 oz/a)			
HARMONY SG	0.4 oz/a E		
EXPRESS SG	0.2 oz/a E		
INDUCE	0.25 % v/v E		
LSD P=.05		14.97	34.19 - 37.97
Standard Deviation	0.00	10.18	1.51t
CV	0.0	16.62	19.56t
Levene's F^	.	0.554	1.188
Levene's Prob(F)	.	0.785	0.343
Shapiro-Wilk^	.	0.9355	0.8701*
P(Shapiro-Wilk)^	.	0.0559	0.0006*
Skewness^	.	-0.8095	-1.6408*
P(Skewness)^	.	0.0714	0.0003*
Kurtosis^	.	0.4588	6.4924*
P(Kurtosis)^	.	0.5918	0.0*
Replicate F	0.000	3.875	2.338
Replicate Prob(F)	1.0000	0.0238	0.0989
Treatment F	0.000	57.476	13.629
Treatment Prob(F)	1.0000	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=10,11,12,13,14
 Excluded replicate 3 in column 11; 3 in 14
 Could not calculate LSD (% mean diff) for columns 1,8 because error mean square = 0.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control
 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type		W, Weed	
Pest Code		LOLMG	
Pest Scientific Name		Lolium multiflo>	
Pest Name		Annual 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
Rating Date	Apr-8-2022	Apr-20-2022	Apr-20-2022
Part Rated	PLANT, C	PLANT, P	PLANT, C
Rating Type	STUNT	CONTROL	STUNT
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size			
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App	Rating Shell	Rating Shell	Rating Shell
Days After First/Last Applic.	-, 14	-, 26	-, 26
Plant-Eval Interval	170 DP-1	182 DP-1	182 DP-1
ARM Action Codes	AL	AL	
Number of Decimals			
Trt Treatment	Rate	Rate	Appl
No. Name	Rate	Unit	Code
1 Roundup PowerMAX 3	30 fl oz/a	B	4
Amsol AMS	5 % v/v	B	dAL
2 Roundup PowerMAX 3	30 fl oz/a	A	5
ANTHEM FLEX	3.0 fl oz/a	A	dAL
Amsol AMS	5 % v/v	A	
3 Roundup PowerMAX 3	30 fl oz/a	A	6
ANTHEM FLEX	3.0 fl oz/a	A	
FINESSE (0.5 oz/a)			
GLEAN XP (75WG)	0.4166667 oz/a	A	
ALLY XP	0.104167 oz/a	A	
Amsol AMS	5 % v/v	A	
4 FINESSE (0.5 oz/a)			
GLEAN XP (75WG)	0.4166667 oz/a	A	
ALLY XP	0.104167 oz/a	A	
5 Roundup PowerMAX 3	30 fl oz/a	B	
ANTHEM FLEX	3.0 fl oz/a	B	
INDUCE	0.25 % v/v	B	
Amsol AMS	5 % v/v	B	
6 Roundup PowerMAX 3	30 fl oz/a	B	
ANTHEM FLEX	3.2 fl oz/a	B	
FINESSE (0.3 oz/a)			
GLEAN XP (75WG)	0.25 oz/a	B	
ALLY XP	0.062 oz/a	B	
INDUCE	0.25 % v/v	B	
Amsol AMS	5 % v/v	B	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
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 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=10,11,12,13,14
 Excluded replicate 3 in column 11; 3 in 14
 Could not calculate LSD (% mean diff) for columns 1,8 because error mean square = 0.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control
 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type		W, Weed	
Pest Code		LOLMG	
Pest Scientific Name		Lolium multiflo>	
Pest Name		Annual 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
Rating Date	Apr-8-2022	Apr-20-2022	Apr-20-2022
Part Rated	PLANT, C	PLANT, P	PLANT, C
Rating Type	STUNT	CONTROL	STUNT
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size			
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App	Rating Shell	Rating Shell	Rating Shell
Days After First/Last Applic.	-, 14	-, 26	-, 26
Plant-Eval Interval	170 DP-1	182 DP-1	182 DP-1
ARM Action Codes	AL	AL	
Number of Decimals			
Trt No.	4	5	6
Treatment Name			
Rate	4 dAL	5 dAL	6
Rate Unit			
Appl Code			
7 ANTHEM FLEX	0.0 b	70.4 a	0.0 a
INDUCE			
3.0 fl oz/a C			
0.25 % v/v C			
8 ANTHEM FLEX	0.0 b	77.4 a	0.0 a
METRIBUZIN			
3 oz/a C			
0.25 % v/v C			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
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 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=10,11,12,13,14
 Excluded replicate 3 in column 11; 3 in 14
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 ^Calculated from residual.
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University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control
 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type		W, Weed	
Pest Code		LOLMG	
Pest Scientific Name		Lolium multiflo>	
Pest Name		Annual 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
Rating Date	Apr-8-2022	Apr-20-2022	Apr-20-2022
Part Rated	PLANT, C	PLANT, P	PLANT, C
Rating Type	STUNT	CONTROL	STUNT
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size			
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App	Rating Shell	Rating Shell	Rating Shell
Days After First/Last Applic.	-, 14	-, 26	-, 26
Plant-Eval Interval	170 DP-1	182 DP-1	182 DP-1
ARM Action Codes	AL	AL	
Number of Decimals			
Trt Treatment			
No. Name	Rate	Rate	Appl Code
		4	5
		dAL	dAL
9 AXIAL XL	16.4 fl oz/a D	10.4 a	94.2 a
INDUCE	0.25 % v/v D		1.0 a
HARMONY EXTRA (0.6 oz/a)			
HARMONY SG	0.4 oz/a E		
EXPRESS SG	0.2 oz/a E		
INDUCE	0.25 % v/v E		
LSD P=.05		1.05 - 4.58	40.69 - 62.24
Standard Deviation		0.15t	0.32t
CV		109.82t	19.55t
Levene's F^		1.105	1.523
Levene's Prob(F)		0.391	0.196
Shapiro-Wilk^		0.6784*	0.7121*
P(Shapiro-Wilk)^		0.0*	0.0*
Skewness^		1.8536*	-2.4847*
P(Skewness)^		0.0*	0.0*
Kurtosis^		10.7059*	13.4444*
P(Kurtosis)^		0.0*	0.0*
Replicate F		0.225	0.970
Replicate Prob(F)		0.8782	0.4233
Treatment F		21.032	16.170
Treatment Prob(F)		0.0001	0.0001

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University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control
 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

				W, Weed LOLMG Lolium multifo> Annual ryegrass	C, TRZAW BCER Triticum aestiv> Winter wheat	W, Weed LOLMG Lolium multifo> Annual ryegrass	
Pest Type							
Pest Code							
Pest Scientific Name							
Pest Name							
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date				Apr-27-2022	Apr-27-2022	Jun-17-2022	
Part Rated				PLANT, P	PLANT, P	PLANT, P	
Rating Type				CONTRO	STUNT	CONTORL	
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	
Sample Size							
Number of Subsamples				1	1	1	
Data Entry Date				Oct-12-2022	Oct-12-2022	Oct-12-2022	
EDC App						Rating Shell	
Days After First/Last Applic.				-, 33	-, 33	-, 84	
Plant-Eval Interval				189 DP-1	189 DP-1	240 DP-1	
ARM Action Codes							
Number of Decimals							
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	7	8	9
1	Roundup PowerMAX 3 Amsol AMS	30 fl oz/a 5 % v/v	B B		0.0 b	0.0 a	0.0 c
2	Roundup PowerMAX 3 ANTHEM FLEX Amsol AMS	30 fl oz/a 3.0 fl oz/a 5 % v/v	A A A		68.8 a	0.0 a	52.5 ab
3	Roundup PowerMAX 3 ANTHEM FLEX FINESSE (0.5 oz/a) GLEAN XP (75WG) ALLY XP Amsol AMS	30 fl oz/a 3.0 fl oz/a 0.4166667 oz/a 0.104167 oz/a 5 % v/v	A A A A A		73.8 a	0.0 a	60.0 ab
4	FINESSE (0.5 oz/a) GLEAN XP (75WG) ALLY XP	0.4166667 oz/a 0.104167 oz/a	A A A		53.8 a	0.0 a	45.0 b
5	Roundup PowerMAX 3 ANTHEM FLEX INDUCE Amsol AMS	30 fl oz/a 3.0 fl oz/a 0.25 % v/v 5 % v/v	B B B B		67.5 a	0.0 a	45.0 b
6	Roundup PowerMAX 3 ANTHEM FLEX FINESSE (0.3 oz/a) GLEAN XP (75WG) ALLY XP INDUCE Amsol AMS	30 fl oz/a 3.2 fl oz/a 0.25 oz/a 0.062 oz/a 0.25 % v/v 5 % v/v	B B B B B B		62.5 a	0.0 a	85.0 ab

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 Missing data estimates are included in columns: Yates=10,11,12,13,14
 Excluded replicate 3 in column 11; 3 in 14
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 d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type	W, Weed		W, Weed
Pest Code	LOLMG		LOLMG
Pest Scientific Name	Lolium multiflo>		Lolium multiflo>
Pest Name	Annual ryegrass		Annual ryegrass
Crop Type, Code		C, TRZAW	
BBCH Scale		BCER	
Crop Scientific Name		Triticum aestiv>	
Crop Name		Winter wheat	
Rating Date	Apr-27-2022	Apr-27-2022	Jun-17-2022
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	STUNT	CONTORL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size			
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App			Rating Shell
Days After First/Last Applic.	-, 33	-, 33	-, 84
Plant-Eval Interval	189 DP-1	189 DP-1	240 DP-1
ARM Action Codes			
Number of Decimals			
Trt Treatment	7	8	9
No. Name	Rate	Rate	Rate
7 ANTHEM FLEX	3.0 fl oz/a C	0.0 a	57.5 ab
INDUCE	0.25 % v/v C		
8 ANTHEM FLEX	3.0 fl oz/a C	0.0 a	63.8 ab
METRIBUZIN	3 oz/a C		
INDUCE	0.25 % v/v C		

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 Missing data estimates are included in columns: Yates=10,11,12,13,14
 Excluded replicate 3 in column 11; 3 in 14
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University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type	W, Weed		W, Weed
Pest Code	LOLMG		LOLMG
Pest Scientific Name	Lolium multiflo>		Lolium multiflo>
Pest Name	Annual ryegrass		Annual ryegrass
Crop Type, Code		C, TRZAW	
BBCH Scale		BCER	
Crop Scientific Name		Triticum aestiv>	
Crop Name		Winter wheat	
Rating Date	Apr-27-2022	Apr-27-2022	Jun-17-2022
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	STUNT	CONTORL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size			
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App			Rating Shell
Days After First/Last Applic.	-, 33	-, 33	-, 84
Plant-Eval Interval	189 DP-1	189 DP-1	240 DP-1
ARM Action Codes			
Number of Decimals			
Trt Treatment	7	8	9
No. Name			
Rate			
Rate Unit			
Appl Code			
9 AXIAL XL	75.0 a	0.0 a	95.0 a
INDUCE			
HARMONY EXTRA (0.6 oz/a)			
HARMONY SG			
EXPRESS SG			
INDUCE			
LSD P=.05	33.44	.	29.05
Standard Deviation	22.91	0.00	19.91
CV	37.58	0.0	35.57
Levene's F^	0.432	.	0.851
Levene's Prob(F)	0.891	.	0.568
Shapiro-Wilk^	0.9447	.	0.9252*
P(Shapiro-Wilk)^	0.071	.	0.0179*
Skewness^	-0.8299*	.	-0.3804
P(Skewness)^	0.05*	.	0.3583
Kurtosis^	1.5006	.	2.1856*
P(Kurtosis)^	0.069	.	0.0098*
Replicate F	1.649	0.000	2.067
Replicate Prob(F)	0.2045	1.0000	0.1312
Treatment F	4.536	0.000	7.356
Treatment Prob(F)	0.0018	1.0000	0.0001

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 Missing data estimates are included in columns: Yates=10,11,12,13,14
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University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control
 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type			
Pest Code			
Pest Scientific Name			
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
Rating Date	Jun-23-2022	Jun-23-2022	Jun-23-2022
Part Rated	PLOT, P	GRAIN, C	GRAIN, C
Rating Type	PLOT LENGTH	WEIGHT	MOICON
Rating Unit/Min/Max	FT, -, -	LB, -, -	%, 0, 100
Sample Size		1 PLOT	
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App			
Days After First/Last Applic.	-, 90	-, 90	-, 90
Plant-Eval Interval	246 DP-1	246 DP-1	246 DP-1
ARM Action Codes	EC	ER3	
Number of Decimals			
Trt Treatment No. Name	Rate	Rate Unit	Appl Code
1 Roundup PowerMAX 3 Amsol AMS		30 fl oz/a B 5 % v/v B	10
2 Roundup PowerMAX 3 ANTHEM FLEX Amsol AMS		30 fl oz/a A 3.0 fl oz/a A 5 % v/v A	11
3 Roundup PowerMAX 3 ANTHEM FLEX FINESSE (0.5 oz/a) GLEAN XP (75WG) ALLY XP Amsol AMS	0.4166667 oz/a 0.104167 oz/a 5 % v/v A	30 fl oz/a A 3.0 fl oz/a A	12
4 FINESSE (0.5 oz/a) GLEAN XP (75WG) ALLY XP	0.4166667 oz/a 0.104167 oz/a	A A	
5 Roundup PowerMAX 3 ANTHEM FLEX INDUCE Amsol AMS		30 fl oz/a B 3.0 fl oz/a B 0.25 % v/v B 5 % v/v B	
6 Roundup PowerMAX 3 ANTHEM FLEX FINESSE (0.3 oz/a) GLEAN XP (75WG) ALLY XP INDUCE Amsol AMS		30 fl oz/a B 3.2 fl oz/a B 0.25 oz/a B 0.062 oz/a B 0.25 % v/v B 5 % v/v B	

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 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
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University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control
 Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type			
Pest Code			
Pest Scientific Name			
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
Rating Date	Jun-23-2022	Jun-23-2022	Jun-23-2022
Part Rated	PLOT, P	GRAIN, C	GRAIN, C
Rating Type	PLOT LENGTH	WEIGHT	MOICON
Rating Unit/Min/Max	FT, -, -	LB, -, -	%, 0, 100
Sample Size		1 PLOT	
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App			
Days After First/Last Applic.	-, 90	-, 90	-, 90
Plant-Eval Interval	246 DP-1	246 DP-1	246 DP-1
ARM Action Codes	EC	ER3	
Number of Decimals			
Trt Treatment	Rate	Rate	Appl Code
No. Name			
7 ANTHEM FLEX	3.0 fl oz/a C		10
INDUCE	0.25 % v/v C		11
			12
8 ANTHEM FLEX	3.0 fl oz/a C		26.25 a
METRIBUZIN	3 oz/a C		10.153 a
INDUCE	0.25 % v/v C		11.93 b
			25.95 a
			10.857 a
			11.78 b

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University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type			
Pest Code			
Pest Scientific Name			
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
Rating Date	Jun-23-2022	Jun-23-2022	Jun-23-2022
Part Rated	PLOT, P	GRAIN, C	GRAIN, C
Rating Type	PLOT LENGTH	WEIGHT	MOICON
Rating Unit/Min/Max	FT, -, -	LB, -, -	%, 0, 100
Sample Size		1 PLOT	
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2022	Oct-12-2022	Oct-12-2022
EDC App			
Days After First/Last Applic.	-, 90	-, 90	-, 90
Plant-Eval Interval	246 DP-1	246 DP-1	246 DP-1
ARM Action Codes	EC	ER3	
Number of Decimals			
Trt Treatment No. Name	Rate	Rate Unit	Appl Code
			10
			11
			12
9 AXIAL XL	16.4 fl oz/a	D	25.89 a
INDUCE	0.25 % v/v	D	12.282 a
HARMONY EXTRA (0.6 oz/a)			11.80 b
HARMONY SG	0.4 oz/a	E	
EXPRESS SG	0.2 oz/a	E	
INDUCE	0.25 % v/v	E	
LSD P=.05			0.373
Standard Deviation			0.252
CV			0.97
Levene's F^			0.984
Levene's Prob(F)			0.468
Shapiro-Wilk^			0.9587
P(Shapiro-Wilk)^			0.2869
Skewness^			-0.4391
P(Skewness)^			0.3351
Kurtosis^			-0.6293
P(Kurtosis)^			0.4772
Replicate F			26.989
Replicate Prob(F)			0.0001
Treatment F			1.214
Treatment Prob(F)			0.3427
			17.103
			0.0002
			7.779
			0.0005
			0.684
			0.5715
			3.666
			0.0074

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University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type				
Pest Code				
Pest Scientific Name				
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
Rating Date			Jun-23-2022	Jun-23-2022
Part Rated			GRAIN, C	GRAIN, C
Rating Type			TEST WIEGHT	YIELD
Rating Unit/Min/Max			LB/BU, -, -	BU, -, -
Sample Size				1 A
Number of Subsamples			1	1
Data Entry Date			Oct-12-2022	
EDC App				
Days After First/Last Applic.			-, 90	-, 90
Plant-Eval Interval			246 DP-1	246 DP-1
ARM Action Codes				ER3 TY1
Number of Decimals				1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code
1	Roundup PowerMAX 3 Amsol AMS		30 fl oz/a B 5 % v/v B	13
				14
				57.38 a
				18.0 b
2	Roundup PowerMAX 3 ANTHEM FLEX Amsol AMS		30 fl oz/a A 3.0 fl oz/a A 5 % v/v A	13
				14
				56.78 a
				53.3 a
3	Roundup PowerMAX 3 ANTHEM FLEX FINESSE (0.5 oz/a) GLEAN XP (75WG) ALLY XP Amsol AMS		30 fl oz/a A 3.0 fl oz/a A 0.4166667 oz/a A 0.104167 oz/a A 5 % v/v A	13
				14
				56.90 a
				57.6 a
4	FINESSE (0.5 oz/a) GLEAN XP (75WG) ALLY XP		0.4166667 oz/a A 0.104167 oz/a A	13
				14
				57.01 a
				58.6 a
5	Roundup PowerMAX 3 ANTHEM FLEX INDUCE Amsol AMS		30 fl oz/a B 3.0 fl oz/a B 0.25 % v/v B 5 % v/v B	13
				14
				56.75 a
				56.2 a
6	Roundup PowerMAX 3 ANTHEM FLEX FINESSE (0.3 oz/a) GLEAN XP (75WG) ALLY XP INDUCE Amsol AMS		30 fl oz/a B 3.2 fl oz/a B 0.25 oz/a B 0.062 oz/a B 0.25 % v/v B 5 % v/v B	13
				14
				57.53 a
				60.1 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=10,11,12,13,14
 Excluded replicate 3 in column 11; 3 in 14
 Could not calculate LSD (% mean diff) for columns 1,8 because error mean square = 0.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type		
Pest Code		
Pest Scientific Name		
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
Rating Date	Jun-23-2022	Jun-23-2022
Part Rated	GRAIN, C	GRAIN, C
Rating Type	TEST WIEGHT	YIELD
Rating Unit/Min/Max	LB/BU, -, -	BU, -, -
Sample Size		1 A
Number of Subsamples	1	1
Data Entry Date	Oct-12-2022	
EDC App		
Days After First/Last Applic.	-, 90	-, 90
Plant-Eval Interval	246 DP-1	246 DP-1
ARM Action Codes		ER3 TY1
Number of Decimals		1
Trt Treatment	13	14
No. Name	Rate	Rate
	Unit	Code
7 ANTHEM FLEX	3.0 fl oz/a C	
INDUCE	0.25 % v/v C	56.88 a
		56.9 a
8 ANTHEM FLEX	3.0 fl oz/a C	
METRIBUZIN	3 oz/a C	57.18 a
INDUCE	0.25 % v/v C	61.3 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=10,11,12,13,14
 Excluded replicate 3 in column 11; 3 in 14
 Could not calculate LSD (% mean diff) for columns 1,8 because error mean square = 0.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type		
Pest Code		
Pest Scientific Name		
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
Rating Date	Jun-23-2022	Jun-23-2022
Part Rated	GRAIN, C	GRAIN, C
Rating Type	TEST WIEGHT	YIELD
Rating Unit/Min/Max	LB/BU, -, -	BU, -, -
Sample Size		1 A
Number of Subsamples	1	1
Data Entry Date	Oct-12-2022	
EDC App		
Days After First/Last Applic.	-, 90	-, 90
Plant-Eval Interval	246 DP-1	246 DP-1
ARM Action Codes		ER3 TY1
Number of Decimals		1
Trt Treatment No. Name	13	14
Rate		
Rate Unit		
Appl Code		
9 AXIAL XL	57.17 a	69.5 a
INDUCE		
HARMONY EXTRA (0.6 oz/a)		
HARMONY SG		
EXPRESS SG		
INDUCE		
LSD P=.05	0.952	14.93
Standard Deviation	0.649	8.53
CV	1.14	15.62
Levene's F^	1.095	0.733
Levene's Prob(F)	0.399	0.662
Shapiro-Wilk^	0.9802	0.9815
P(Shapiro-Wilk)^	0.7794	0.82
Skewness^	-0.2754	-0.2605
P(Skewness)^	0.5171	0.54
Kurtosis^	-0.4451	0.4761
P(Kurtosis)^	0.5919	0.5665
Replicate F	18.796	15.938
Replicate Prob(F)	0.0001	0.0002
Treatment F	0.690	8.596
Treatment Prob(F)	0.6962	0.0003

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=10,11,12,13,14
 Excluded replicate 3 in column 11; 3 in 14
 Could not calculate LSD (% mean diff) for columns 1,8 because error mean square = 0.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

Anthem Flex and Finesse Herbicides in Winter Wheat for Annual Ryegrass and Winter Annual Broadleaf Weed Control

Trial ID: TSM-21-033 (22-3_WHT-REC) Cooperator Trial ID:
 Protocol ID: USA-21-756 Location: PRINCETON, KY Trial Year: 2021
 Project ID: Project ID 2: Project ID 3:
 Study Director: WIGGINS, M Sponsor Contact:
 Investigator (Creator): Leon, C. Conducted Under GEP: No

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

LOLMG, Lolium multiflorum gaudini, Annual ryegrass = US

Crop Type, Code

C = EPPO species (Bayer) codes

TRZAW, BCER, Triticum aestivum, Winter wheat = US

Part Rated

PLANT = plant

PLOT = plot

GRAIN = grain

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

STUNT = stunting

CONTRO = control / burndown or knockdown

WEIGHT = weight

MOICON = moisture content

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

FT, , = foot

LB, , = pound

BU, , = bushel

PLOT = total plot

A = acre

EDC App

Rating Shell = Data pulled from Excel Rating Shell

Plant-Eval Interval

26 DP-1 = 1 TRZAW Oct-20-2021

170 DP-1 = 1 TRZAW Oct-20-2021

182 DP-1 = 1 TRZAW Oct-20-2021

189 DP-1 = 1 TRZAW Oct-20-2021

240 DP-1 = 1 TRZAW Oct-20-2021

246 DP-1 = 1 TRZAW Oct-20-2021

ARM Action Codes

ET7 = Excluded treatment 7

AS = Automatic square root transformation of X+0.5

AL = Automatic log transformation of X+1

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

ER3 = Excluded replicate 3

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

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NuFarm Burndown

Trial ID: 22-6 Cooperator Trial ID:
 Protocol ID: 22-6 Location: LEXINGTON, KY Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Reps: 4 Plots: 6.5 by 30 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.0167 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Code 1	Comment	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4			
1	UNTREATED													101	207	311	405			
2	Leopard COC	35		WG L	1.5 OZ/A	1 % V/V			BRNDWN A	BRNDWN A		1.498 g/mx	20.0 mL/mx	102	204	301	407			
3	Amicide Advance NIS	6 LBAE/GAL	L	L	16 FL OZ/A	0.25 % V/V			BRNDWN A	BRNDWN A		16.67 mL/mx	4.999 mL/mx	103	206	308	411			
4	WEEDAR 64 NIS	3.8		E L	25 FL OZ/A	0.25 % V/V			BRNDWN A	BRNDWN A		26.04 mL/mx	4.999 mL/mx	104	210	305	402			
5	WEEDONE LV4 NIS	3.8		E L	25 FL OZ/A	0.25 % V/V			BRNDWN A	BRNDWN A		26.04 mL/mx	4.999 mL/mx	105	201	303	401			
6	Amicide Advance COC	6 LBAE/GAL	L	L	16 FL OZ/A	1 % V/V			BRNDWN A	BRNDWN A		16.67 mL/mx	20.0 mL/mx	106	205	309	403			
7	Leopard Amicide Advance COC	35 LBAE/GAL	L	WG L	1.5 OZ/A	1 % V/V			BRNDWN A	BRNDWN A		1.498 g/mx	16.67 mL/mx	20.0 mL/mx	107	208	306	404		
8	Leopard Amicide Advance credit xtreme COC	35 LBAE/GAL	L	WG L	1.5 OZ/A	1 % V/V			BRNDWN A	BRNDWN A		1.498 g/mx	16.67 mL/mx	22.92 mL/mx	20.0 mL/mx	108	211	307	408	
	AMS	100		SG	8.5 LB/100 GAL				BRNDWN A			20.37 g/mx								
9	Leopard Amicide Advance Panther COC	35 LBAE/GAL	L	WG L	1.5 OZ/A	1 % V/V			BRNDWN A	BRNDWN A		1.498 g/mx	16.67 mL/mx	2.083 mL/mx	20.0 mL/mx	109	202	304	406	
10	Leopard Amicide Advance Panther MTZ COC	35 LBAE/GAL	L	WG L	1.5 OZ/A	1 % V/V			BRNDWN A	BRNDWN A		1.498 g/mx	16.67 mL/mx	12.5 mL/mx	20.0 mL/mx	110	209	302	410	
11	Leopard Amicide Advance Panther credit extreme COC	35 LBAE/GAL	L	WG L	1.5 OZ/A	1 % V/V			BRNDWN A	BRNDWN A		1.498 g/mx	16.67 mL/mx	2.083 mL/mx	22.92 mL/mx	20.0 mL/mx	111	203	310	409
	AMS	100		SG	8.5 LB/100 GAL				BRNDWN A			20.37 g/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
8.987 g		Leopard	35		WG	
139.985 mL		COC			L	
116.667 mL		Amicide Advance	6	LBAE/GAL	L	
14.998 mL		NIS			L	
26.042 mL		WEEDAR 64	3.8		E	
26.042 mL		WEEDONE LV4	3.8		E	
22.917 mL		credit xtreme	4		L	
40.741 g		AMS	100		SG	
4.167 mL		Panther			SC	
12.500 mL		Panther MTZ			L	
22.917 mL		credit extreme	4		L	

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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).

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

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

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

ARM Trial Created On: 4-7-2022

Initiation Date: 4-10-2022 **Planned Completion Date:** 6-1-2022

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 **E-mail:** travis.legleiter@uky.edu
City: PRINCETON **State/Prov:** KY **Postal Code:** 42445
Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
Country: USA United States **E-mail:** sara.carter@uky.edu
City: LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312

Pest Description

Pest 1 Type: W **Code:** TRZAW Triticum aestivum
Common Name: Winter wheat **Stage Scale:** BBCH

Pest 2 Type: W **Code:** STEME Stellaria media
Common Name: chickweed **Stage Scale:** BBCH

Pest 3 Type: W **Code:** LAMAM Lamium amplexicaule
Common Name: Henbit deadnettle **Stage Scale:** BBCH

Pest 4 Type: W **Code:** BROSE Bromus secalinus
Common Name: Cheat grass **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 6.5 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT
Treated Plot Area: 195.0 FT2 **Tillage Type:** NOTILL no-till
Replications: 4 **Treatments:** 11 **Plots:** 44 **Study Design:** RACOB L Randomized Complete Block (RCB)

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WET wet
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

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Application Description

A

Application Date 4-10-2022
Appl. Start Time 2:30 PM
Appl. Stop Time 3:10 PM
Application Method SPRAY
Application Timing BURNDOWN
Application Placement BROFOL
Applied By SARA
Air Temperature Start, Stop 57, - F
% Relative Humidity Start, Stop 39, -
Wind Velocity+Dir. Start 6 MPH, S
Soil Temperature 48 F
Soil Moisture WET
Soil Surface Condition MEDTRA
% Cloud Cover 5
Next Moisture Occurred On 4-11-2022

Pest Stage At Each Application

A

Pest 1 Code, Type, Scale TRZAW, W, BBCH
Height Average 4 IN
Pest 2 Code, Type, Scale STEME, W, BBCH
Height Average 4 IN
Pest 3 Code, Type, Scale LAMAM, W, BBCH
Height Average 5 IN
Pest 4 Code, Type, Scale BROSE, W, BBCH
Height Average 4 IN

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 6.67 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 4-7-2022		Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS 11-1-2022		Sara Carter	Automatically added by ARM: Status changed to: E: changed by (EKYCAS).
STATUS 11-1-2022		Sara Carter	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.
STATUS 12-13-2022		Sara Carter	Automatically added by ARM: Status changed to: F: changed by (EKYCAS).

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	TRZAW	STEME	LAMAM	BROSE	TRZAW
Pest Scientific Name	Triticum aestiv>	Stellaria media	Lamium amplexic>	Bromus secalinus	Triticum aestiv>
Pest Name	Winter wheat	chickweed	Henbit deadnett>	Cheat grass	Winter wheat
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	4-19-2022	4-19-2022	4-19-2022	4-19-2022	4-28-2022
Part Rated					
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
EDC App					
Rating Timing	7 DAA	7 DAA	7 DAA	7 DAA	14 DAA
Days After First/Last Applic.	9, 9	9, 9	9, 9	9, 9	18, 18
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A	18 DA-A
Plant-Eval Interval					
Days After Emergence					
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	1	2	3	4	5
1	UNTREATED		101	0.0	0.0	0.0	0.0	25.0
			207	0.0	0.0	0.0	0.0	0.0
			311	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	TRZAW	STEME	LAMAM	BROSE	TRZAW
Pest Scientific Name	Triticum aestiv>	Stellaria media	Lamium amplexic>	Bromus secalinus	Triticum aestiv>
Pest Name	Winter wheat	chickweed	Henbit deadnett>	Cheat grass	Winter wheat
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	4-19-2022	4-19-2022	4-19-2022	4-19-2022	4-28-2022
Part Rated					
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
EDC App					
Rating Timing	7 DAA	7 DAA	7 DAA	7 DAA	14 DAA
Days After First/Last Applic.	9, 9	9, 9	9, 9	9, 9	18, 18
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A	18 DA-A
Plant-Eval Interval					
Days After Emergence					
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	1	2	3	4	5
					405	0.0	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0	0.0	6.3
2	Leopard	1.5 OZ/A		A	102	0.0	0.0	0.0	0.0	40.0
	COC	1 % V/V		A	204	0.0	0.0	0.0	0.0	50.0
					301	0.0	0.0	0.0	0.0	70.0
					407	0.0	0.0	0.0	0.0	50.0
					Mean =	0.0	0.0	0.0	0.0	52.5
3	Amicide Advance	16 FL OZ/A		A	103	0.0	30.0	50.0	0.0	0.0
	NIS	0.25 % V/V		A	206	0.0	25.0	50.0	0.0	0.0
					308	0.0	30.0	45.0	0.0	0.0
					411	0.0	25.0	50.0	0.0	0.0
					Mean =	0.0	27.5	48.8	0.0	0.0
4	WEEDAR 64	25 FL OZ/A		A	104	0.0	45.0	50.0	10.0	0.0
	NIS	0.25 % V/V		A	210	0.0	45.0	50.0	15.0	0.0
					305	0.0	45.0	50.0	15.0	0.0
					402	0.0	45.0	50.0	20.0	0.0
					Mean =	0.0	45.0	50.0	15.0	0.0
5	WEEDONE LV4	25 FL OZ/A		A	105	0.0	35.0	25.0	0.0	0.0
	NIS	0.25 % V/V		A	201	0.0	45.0	35.0	0.0	15.0
					303	0.0	35.0	35.0	0.0	50.0
					401	0.0	35.0	35.0	0.0	10.0
					Mean =	0.0	37.5	32.5	0.0	18.8
6	Amicide Advance	16 FL OZ/A		A	106	10.0	25.0	45.0	10.0	20.0
	COC	1 % V/V		A	205	10.0	25.0	45.0	25.0	0.0
					309	10.0	35.0	45.0	25.0	30.0
					403	15.0	25.0	35.0	25.0	0.0
					Mean =	11.3	27.5	42.5	21.3	12.5
7	Leopard	1.5 OZ/A		A	107	25.0	50.0	45.0	15.0	55.0
	Amicide Advance	16 FL OZ/A		A	208	30.0	45.0	50.0	20.0	40.0
	COC	1 % V/V		A	306	25.0	45.0	50.0	20.0	60.0
					404	30.0	50.0	50.0	20.0	40.0
					Mean =	27.5	47.5	48.8	18.8	48.8
8	Leopard	1.5 OZ/A		A	108	50.0	65.0	75.0	50.0	60.0
	Amicide Advance	16 FL OZ/A		A	211	35.0	65.0	85.0	45.0	85.0
	credit xtreme	22 FL OZ/A		A	307	50.0	65.0	75.0	50.0	85.0
	COC	1 % V/V		A	408	45.0	65.0	70.0	50.0	80.0
	AMS	8.5 LB/100 GAL		A						
					Mean =	45.0	65.0	76.3	48.8	77.5
9	Leopard	1.5 OZ/A		A	109	65.0	80.0	85.0	85.0	40.0
	Amicide Advance	16 FL OZ/A		A	202	75.0	75.0	80.0	85.0	70.0
	Panther	2 FL OZ/A		A	304	75.0	80.0	85.0	85.0	65.0
	COC	1 % V/V		A	406	75.0	80.0	85.0	85.0	70.0
					Mean =	72.5	78.8	83.8	85.0	61.3
10	Leopard	1.5 OZ/A		A	110	40.0	95.0	95.0	95.0	50.0
	Amicide Advance	16 FL OZ/A		A	209	35.0	95.0	95.0	95.0	30.0
	Panther MTZ	12 FL OZ/A		A	302	45.0	95.0	95.0	95.0	60.0
	COC	1 % V/V		A	410	45.0	95.0	95.0	95.0	40.0
					Mean =	41.3	95.0	95.0	95.0	45.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	TRZAW	STEME	LAMAM	BROSE	TRZAW
Pest Scientific Name	Triticum aestiv>	Stellaria media	Lamium amplexic>	Bromus secalinus	Triticum aestiv>
Pest Name	Winter wheat	chickweed	Henbit deadnett>	Cheat grass	Winter wheat
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	4-19-2022	4-19-2022	4-19-2022	4-19-2022	4-28-2022
Part Rated					
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
EDC App					
Rating Timing	7 DAA	7 DAA	7 DAA	7 DAA	14 DAA
Days After First/Last Applic.	9, 9	9, 9	9, 9	9, 9	18, 18
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A	18 DA-A
Plant-Eval Interval					
Days After Emergence					
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	1	2	3	4	5
11	Leopard	1.5 OZ/A	A 111	90.0	100.0	100.0	100.0	80.0
	Amicide Advance	16 FL OZ/A	A 203	90.0	100.0	100.0	100.0	80.0
	Panther	2 FL OZ/A	A 310	90.0	95.0	100.0	100.0	90.0
	credit extreme	22 FL OZ/A	A 409	90.0	95.0	100.0	100.0	75.0
	COC	1 % V/V	A					
	AMS	8.5 LB/100 GAL	A					
			Mean =	90.0	97.5	100.0	100.0	81.3

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	STEME	LAMAM	BROSE	TRZAW	STEME
Pest Scientific Name	Stellaria media	Lamium amplexic>	Bromus secalinus	Triticum aestiv>	Stellaria media
Pest Name	chickweed	Henbit deadnett>	Cheat grass	Winter wheat	chickweed
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	4-28-2022	4-28-2022	4-28-2022	5-11-2022	5-11-2022
Part Rated					
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
EDC App					
Rating Timing	14 DAA	14 DAA	14 DAA	28 DAA	28 DAA
Days After First/Last Applic.	18, 18	18, 18	18, 18	31, 31	31, 31
Trt-Eval Interval	18 DA-A	18 DA-A	18 DA-A	31 DA-A	31 DA-A
Plant-Eval Interval					
Days After Emergence					
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	6	7	8	9	10
					405	0.0	10.0	0.0	0.0	20.0
					Mean =	8.8	10.0	0.0	0.0	25.0
2	Leopard	1.5 OZ/A		A	102	75.0	60.0	95.0	50.0	90.0
	COC	1 % V/V		A	204	65.0	50.0	95.0	50.0	85.0
					301	15.0	10.0	0.0	65.0	85.0
					407	60.0	85.0	15.0	50.0	90.0
					Mean =	53.8	51.3	51.3	53.8	87.5
3	Amicide Advance	16 FL OZ/A		A	103	40.0	40.0	0.0	0.0	85.0
	NIS	0.25 % V/V		A	206	10.0	10.0	95.0	0.0	90.0
					308	50.0	0.0	10.0	0.0	95.0
					411	0.0	0.0	0.0	0.0	90.0
					Mean =	25.0	12.5	26.3	0.0	90.0
4	WEEDAR 64	25 FL OZ/A		A	104	50.0	40.0	20.0	0.0	85.0
	NIS	0.25 % V/V		A	210	0.0	0.0	0.0	0.0	88.0
					305	75.0	50.0	95.0	0.0	85.0
					402	10.0	10.0	0.0	0.0	85.0
					Mean =	33.8	25.0	28.8	0.0	85.8
5	WEEDONE LV4	25 FL OZ/A		A	105	50.0	50.0	0.0	5.0	65.0
	NIS	0.25 % V/V		A	201	20.0	20.0	10.0	10.0	50.0
					303	45.0	35.0	90.0	15.0	50.0
					401	20.0	15.0	10.0	10.0	50.0
					Mean =	33.8	30.0	27.5	10.0	53.8
6	Amicide Advance	16 FL OZ/A		A	106	85.0	80.0	95.0	50.0	75.0
	COC	1 % V/V		A	205	60.0	60.0	0.0	60.0	80.0
					309	90.0	85.0	95.0	50.0	80.0
					403	10.0	10.0	0.0	50.0	40.0
					Mean =	61.3	58.8	47.5	52.5	68.8
7	Leopard	1.5 OZ/A		A	107	80.0	80.0	0.0	65.0	100.0
	Amicide Advance	16 FL OZ/A		A	208	60.0	50.0	10.0	60.0	100.0
	COC	1 % V/V		A	306	10.0	20.0	0.0	60.0	100.0
					404	75.0	10.0	90.0	60.0	100.0
					Mean =	56.3	40.0	25.0	61.3	100.0
8	Leopard	1.5 OZ/A		A	108	95.0	90.0	15.0	85.0	95.0
	Amicide Advance	16 FL OZ/A		A	211	95.0	95.0	75.0	90.0	85.0
	credit xtreme	22 FL OZ/A		A	307	10.0	0.0	85.0	90.0	95.0
	COC	1 % V/V		A	408	100.0	100.0	100.0	85.0	85.0
	AMS	8.5 LB/100 GAL		A						
					Mean =	75.0	71.3	68.8	87.5	90.0
9	Leopard	1.5 OZ/A		A	109	100.0	100.0	95.0	35.0	100.0
	Amicide Advance	16 FL OZ/A		A	202	100.0	100.0	100.0	40.0	100.0
	Panther	2 FL OZ/A		A	304	100.0	100.0	100.0	40.0	100.0
	COC	1 % V/V		A	406	100.0	100.0	100.0	50.0	100.0
					Mean =	100.0	100.0	98.8	41.3	100.0
10	Leopard	1.5 OZ/A		A	110	100.0	100.0	10.0	45.0	100.0
	Amicide Advance	16 FL OZ/A		A	209	100.0	100.0	50.0	35.0	100.0
	Panther MTZ	12 FL OZ/A		A	302	100.0	100.0	95.0	35.0	100.0
	COC	1 % V/V		A	410	100.0	100.0	100.0	35.0	100.0
					Mean =	100.0	100.0	63.8	37.5	100.0

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	STEME	LAMAM	BROSE	TRZAW	STEME
Pest Scientific Name	Stellaria media	Lamium amplexic>	Bromus secalinus	Triticum aestiv>	Stellaria media
Pest Name	chickweed	Henbit deadnett>	Cheat grass	Winter wheat	chickweed
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	4-28-2022	4-28-2022	4-28-2022	5-11-2022	5-11-2022
Part Rated					
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
EDC App					
Rating Timing	14 DAA	14 DAA	14 DAA	28 DAA	28 DAA
Days After First/Last Applic.	18, 18	18, 18	18, 18	31, 31	31, 31
Trt-Eval Interval	18 DA-A	18 DA-A	18 DA-A	31 DA-A	31 DA-A
Plant-Eval Interval					
Days After Emergence					
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	6	7	8	9	10	
11	Leopard	1.5 OZ/A	A 111	90.0	90.0	90.0	85.0	100.0	
	Amicide Advance	16 FL OZ/A	A 203	100.0	100.0	100.0	85.0	100.0	
	Panther	2 FL OZ/A	A 310	100.0	100.0	90.0	85.0	100.0	
	credit extreme	22 FL OZ/A	A 409	80.0	100.0	95.0	90.0	100.0	
	COC	1 % V/V	A						
	AMS	8.5 LB/100 GAL	A						
			Mean =	92.5	97.5	93.8	86.3	100.0	

University of Kentucky

Pest Type	W, Weed	W, Weed
Pest Code	LAMAM	BROSE
Pest Scientific Name	Lamium amplexic>	Bromus secalinus
Pest Name	Henbit deadnett>	Cheat grass
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	5-11-2022	5-11-2022
Part Rated		
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
EDC App		
Rating Timing	28 DAA	28 DAA
Days After First/Last Applic.	31, 31	31, 31
Trt-Eval Interval	31 DA-A	31 DA-A
Plant-Eval Interval		
Days After Emergence		
ARM Action Codes		
Number of Decimals		

Trt	Treatment	Rate	Appl		
No.	Name	Rate Unit	Code Plot	11	12
1	UNTREATED		101	15.0	0.0
			207	20.0	0.0
			311	20.0	0.0

University of Kentucky

Pest Type	W, Weed	W, Weed
Pest Code	LAMAM	BROSE
Pest Scientific Name	Lamium amplexic>	Bromus secalinus
Pest Name	Henbit deadnett>	Cheat grass
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	5-11-2022	5-11-2022
Part Rated		
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
EDC App		
Rating Timing	28 DAA	28 DAA
Days After First/Last Applic.	31, 31	31, 31
Trt-Eval Interval	31 DA-A	31 DA-A
Plant-Eval Interval		
Days After Emergence		
ARM Action Codes		
Number of Decimals		

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	11	12
					405	20.0	0.0
					Mean =	18.8	0.0
2	Leopard	1.5 OZ/A		A	102	100.0	85.0
	COC	1 % V/V		A	204	95.0	100.0
					301	95.0	100.0
					407	95.0	100.0
					Mean =	96.3	96.3
3	Amicide Advance	16 FL OZ/A		A	103	95.0	100.0
	NIS	0.25 % V/V		A	206	90.0	100.0
					308	90.0	100.0
					411	90.0	100.0
					Mean =	91.3	100.0
4	WEEDAR 64	25 FL OZ/A		A	104	85.0	85.0
	NIS	0.25 % V/V		A	210	85.0	90.0
					305	85.0	85.0
					402	85.0	85.0
					Mean =	85.0	86.3
5	WEEDONE LV4	25 FL OZ/A		A	105	85.0	65.0
	NIS	0.25 % V/V		A	201	85.0	55.0
					303	90.0	65.0
					401	85.0	65.0
					Mean =	86.3	62.5
6	Amicide Advance	16 FL OZ/A		A	106	75.0	75.0
	COC	1 % V/V		A	205	60.0	80.0
					309	85.0	80.0
					403	80.0	85.0
					Mean =	75.0	80.0
7	Leopard	1.5 OZ/A		A	107	100.0	95.0
	Amicide Advance	16 FL OZ/A		A	208	100.0	98.0
	COC	1 % V/V		A	306	100.0	95.0
					404	100.0	95.0
					Mean =	100.0	95.8
8	Leopard	1.5 OZ/A		A	108	95.0	55.0
	Amicide Advance	16 FL OZ/A		A	211	95.0	65.0
	credit xtreme	22 FL OZ/A		A	307	65.0	65.0
	COC	1 % V/V		A	408	95.0	65.0
	AMS	8.5 LB/100 GAL		A			
					Mean =	87.5	62.5
9	Leopard	1.5 OZ/A		A	109	100.0	95.0
	Amicide Advance	16 FL OZ/A		A	202	100.0	90.0
	Panther	2 FL OZ/A		A	304	100.0	95.0
	COC	1 % V/V		A	406	100.0	95.0
					Mean =	100.0	93.8
10	Leopard	1.5 OZ/A		A	110	100.0	100.0
	Amicide Advance	16 FL OZ/A		A	209	100.0	100.0
	Panther MTZ	12 FL OZ/A		A	302	100.0	100.0
	COC	1 % V/V		A	410	100.0	100.0
					Mean =	100.0	100.0

University of Kentucky

Pest Type	W, Weed	W, Weed
Pest Code	LAMAM	BROSE
Pest Scientific Name	Lamium amplexic>	Bromus secalinus
Pest Name	Henbit deadnett>	Cheat grass
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	5-11-2022	5-11-2022
Part Rated		
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
EDC App		
Rating Timing	28 DAA	28 DAA
Days After First/Last Applic.	31, 31	31, 31
Trt-Eval Interval	31 DA-A	31 DA-A
Plant-Eval Interval		
Days After Emergence		
ARM Action Codes		
Number of Decimals		

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	11	12
11	Leopard	1.5 OZ/A		A	111	100.0	100.0
	Amicide Advance	16 FL OZ/A		A	203	100.0	100.0
	Panther	2 FL OZ/A		A	310	100.0	100.0
	credit extreme	22 FL OZ/A		A	409	100.0	100.0
	COC	1 % V/V		A			
	AMS	8.5 LB/100 GAL	A				
				Mean =		100.0	100.0

University of Kentucky

NuFarm Burndown

Trial ID: 22-6 Cooperator Trial ID:
 Protocol ID: 22-6 Location: LEXINGTON, KY Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

TRZAW, Triticum aestivum, Winter wheat = US

STEME, Stellaria media, chickweed = US

LAMAM, Lamium amplexicaule, Henbit deadnettle = US

BROSE, Bromus secalinus, Cheat grass = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Rating Date

Part Rated

Rating Type

Rating Unit/Min/Max

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6
1	UNTREATED				0.0 f	0.0 g	0.0 h	0.0 g	6.3 c	8.8 c
2	Leopard	1.5 OZ/A		A	0.0 f	0.0 g	0.0 h	0.0 g	52.5 b	53.8 abc
	COC	1 % V/V		A						
3	Amicide Advance	16 FL OZ/A		A	0.0 f	27.5 f	48.8 e	0.0 g	0.0 c	25.0 bc
	NIS	0.25 % V/V		A						
4	WEEDAR 64	25 FL OZ/A		A	0.0 f	45.0 d	50.0 e	15.0 f	0.0 c	33.8 bc
	NIS	0.25 % V/V		A						
5	WEEDONE LV4	25 FL OZ/A		A	0.0 f	37.5 e	32.5 g	0.0 g	18.8 c	33.8 bc
	NIS	0.25 % V/V		A						
6	Amicide Advance	16 FL OZ/A		A	11.3 e	27.5 f	42.5 f	21.3 e	12.5 c	61.3 abc
	COC	1 % V/V		A						
7	Leopard	1.5 OZ/A		A	27.5 d	47.5 d	48.8 e	18.8 ef	48.8 b	56.3 abc
	Amicide Advance	16 FL OZ/A		A						
	COC	1 % V/V		A						
8	Leopard	1.5 OZ/A		A	45.0 c	65.0 c	76.3 d	48.8 d	77.5 a	75.0 ab
	Amicide Advance	16 FL OZ/A		A						
	credit xtreme	22 FL OZ/A		A						
	COC	1 % V/V		A						
	AMS	8.5 LB/100 GAL		A						
9	Leopard	1.5 OZ/A		A	72.5 b	78.8 b	83.8 c	85.0 c	61.3 b	100.0 a
	Amicide Advance	16 FL OZ/A		A						
	Panther	2 FL OZ/A		A						
	COC	1 % V/V		A						
10	Leopard	1.5 OZ/A		A	41.3 c	95.0 a	95.0 b	95.0 b	45.0 b	100.0 a
	Amicide Advance	16 FL OZ/A		A						
	Panther MTZ	12 FL OZ/A		A						
	COC	1 % V/V		A						

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	LAMAM	BROSE	TRZAW	STEME	LAMAM			
Pest Scientific Name	Lamium amplexic>	Bromus secalinus	Triticum aestiv>	Stellaria media	Lamium amplexic>			
Pest Name	Henbit deadnett>	Cheat grass	Winter wheat	chickweed	Henbit deadnett>			
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Rating Date	4-28-2022	4-28-2022	5-11-2022	5-11-2022	5-11-2022			
Part Rated								
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			
EDC App								
Rating Timing	14 DAA	14 DAA	28 DAA	28 DAA	28 DAA			
Days After First/Last Applic.	18, 18	18, 18	31, 31	31, 31	31, 31			
Trt-Eval Interval	18 DA-A	18 DA-A	31 DA-A	31 DA-A	31 DA-A			
Plant-Eval Interval								
Days After Emergence								
ARM Action Codes								
Number of Decimals								
Trt No.	Treatment Name	Rate Unit	Appl Code	7	8	9	10	11
1	UNTREATED			10.0 c	0.0 b	0.0 f	25.0 d	18.8 d
2	Leopard	1.5 OZ/A	A	51.3 abc	51.3 ab	53.8 c	87.5 a	96.3 ab
	COC	1 % V/V	A					
3	Amicide Advance	16 FL OZ/A	A	12.5 c	26.3 ab	0.0 f	90.0 a	91.3 ab
	NIS	0.25 % V/V	A					
4	WEEDAR 64	25 FL OZ/A	A	25.0 bc	28.8 ab	0.0 f	85.8 a	85.0 b
	NIS	0.25 % V/V	A					
5	WEEDONE LV4	25 FL OZ/A	A	30.0 bc	27.5 ab	10.0 e	53.8 c	86.3 b
	NIS	0.25 % V/V	A					
6	Amicide Advance	16 FL OZ/A	A	58.8 abc	47.5 ab	52.5 c	68.8 b	75.0 c
	COC	1 % V/V	A					
7	Leopard	1.5 OZ/A	A	40.0 bc	25.0 ab	61.3 b	100.0 a	100.0 a
	Amicide Advance	16 FL OZ/A	A					
	COC	1 % V/V	A					
8	Leopard	1.5 OZ/A	A	71.3 ab	68.8 ab	87.5 a	90.0 a	87.5 ab
	Amicide Advance	16 FL OZ/A	A					
	credit xtreme	22 FL OZ/A	A					
	COC	1 % V/V	A					
	AMS	8.5 LB/100 GAL	A					
9	Leopard	1.5 OZ/A	A	100.0 a	98.8 a	41.3 d	100.0 a	100.0 a
	Amicide Advance	16 FL OZ/A	A					
	Panther	2 FL OZ/A	A					
	COC	1 % V/V	A					
10	Leopard	1.5 OZ/A	A	100.0 a	63.8 ab	37.5 d	100.0 a	100.0 a
	Amicide Advance	16 FL OZ/A	A					
	Panther MTZ	12 FL OZ/A	A					
	COC	1 % V/V	A					

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	LAMAM	BROSE	TRZAW	STEME	LAMAM
Pest Scientific Name	Lamium amplexic>	Bromus secalinus	Triticum aestiv>	Stellaria media	Lamium amplexic>
Pest Name	Henbit deadnett>	Cheat grass	Winter wheat	chickweed	Henbit deadnett>
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	4-28-2022	4-28-2022	5-11-2022	5-11-2022	5-11-2022
Part Rated					
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
EDC App					
Rating Timing	14 DAA	14 DAA	28 DAA	28 DAA	28 DAA
Days After First/Last Applic.	18, 18	18, 18	31, 31	31, 31	31, 31
Trt-Eval Interval	18 DA-A	18 DA-A	31 DA-A	31 DA-A	31 DA-A
Plant-Eval Interval					
Days After Emergence					
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl	7	8	9	10	11
No.	Name	Rate Unit	Code					
11	Leopard	1.5 OZ/A	A	97.5 a	93.8 ab	86.3 a	100.0 a	100.0 a
	Amicide Advance	16 FL OZ/A	A					
	Panther	2 FL OZ/A	A					
	credit extreme	22 FL OZ/A	A					
	COC	1 % V/V	A					
	AMS	8.5 LB/100 GAL	A					
	LSD P=.05			34.42	57.28	6.08	9.49	8.60
	Standard Deviation			23.83	39.67	4.21	6.57	5.95
	CV			43.97	82.14	10.77	8.03	6.97
	Levene's F^			0.97	1.584	0.51	1.121	1.168
	Levene's Prob(F)			0.487	0.155	0.871	0.377	0.346
	Shapiro-Wilk^			0.9526	0.9544	0.8646*	0.817*	0.7475*
	P(Shapiro-Wilk)^			0.0685	0.0805	0.0001*	0.0*	0.0*
	Skewness^			-0.5942	0.4457	1.3987*	-1.8804*	-2.0406*
	P(Skewness)^			0.1152	0.2344	0.0005*	0.0*	0.0*
	Kurtosis^			1.6274*	-0.4687	1.7659*	9.5251*	9.0668*
	P(Kurtosis)^			0.0301*	0.5216	0.0191*	0.0*	0.0*
	Replicate F			1.769	0.567	0.342	1.723	0.342
	Replicate Prob(F)			0.1742	0.6413	0.7952	0.1833	0.7952
	Treatment F			8.255	2.403	245.744	52.696	62.731
	Treatment Prob(F)			0.0001	0.0310	0.0001	0.0001	0.0001

University of Kentucky

Pest Type W, Weed
 Pest Code BROSE
 Pest Scientific Name Bromus secalinus
 Pest Name Cheat grass
 Crop Type, Code
 BBCH Scale
 Crop Scientific Name
 Crop Name
 Rating Date 5-11-2022
 Part Rated
 Rating Type CONTRO
 Rating Unit/Min/Max %, 0, 100
 Number of Subsamples 1
 EDC App
 Rating Timing 28 DAA
 Days After First/Last Applic. 31, 31
 Trt-Eval Interval 31 DA-A
 Plant-Eval Interval
 Days After Emergence
 ARM Action Codes
 Number of Decimals

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	12
1	UNTREATED				0.0 e
2	Leopard	1.5 OZ/A	A		96.3 a
	COC	1 % V/V	A		
3	Amicide Advance	16 FL OZ/A	A		100.0 a
	NIS	0.25 % V/V	A		
4	WEEDAR 64	25 FL OZ/A	A		86.3 b
	NIS	0.25 % V/V	A		
5	WEEDONE LV4	25 FL OZ/A	A		62.5 d
	NIS	0.25 % V/V	A		
6	Amicide Advance	16 FL OZ/A	A		80.0 c
	COC	1 % V/V	A		
7	Leopard	1.5 OZ/A	A		95.8 a
	Amicide Advance	16 FL OZ/A	A		
	COC	1 % V/V	A		
8	Leopard	1.5 OZ/A	A		62.5 d
	Amicide Advance	16 FL OZ/A	A		
	credit xtreme	22 FL OZ/A	A		
	COC	1 % V/V	A		
	AMS	8.5 LB/100 GAL	A		
9	Leopard	1.5 OZ/A	A		93.8 a
	Amicide Advance	16 FL OZ/A	A		
	Panther	2 FL OZ/A	A		
	COC	1 % V/V	A		
10	Leopard	1.5 OZ/A	A		100.0 a
	Amicide Advance	16 FL OZ/A	A		
	Panther MTZ	12 FL OZ/A	A		
	COC	1 % V/V	A		

University of Kentucky

Pest Type W, Weed
 Pest Code BROSE
 Pest Scientific Name Bromus secalinus
 Pest Name Cheat grass
 Crop Type, Code
 BBCH Scale
 Crop Scientific Name
 Crop Name
 Rating Date 5-11-2022
 Part Rated
 Rating Type CONTRO
 Rating Unit/Min/Max %, 0, 100
 Number of Subsamples 1
 EDC App
 Rating Timing 28 DAA
 Days After First/Last Applic. 31, 31
 Trt-Eval Interval 31 DA-A
 Plant-Eval Interval
 Days After Emergence
 ARM Action Codes
 Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	
					12
11	Leopard	1.5 OZ/A		A	100.0 a
	Amicide Advance	16 FL OZ/A		A	
	Panther	2 FL OZ/A		A	
	credit extreme	22 FL OZ/A		A	
	COC	1 % V/V		A	
	AMS	8.5 LB/100 GAL		A	
	LSD P=.05				4.92
	Standard Deviation				3.40
	CV				4.27
	Levene's F^				0.421
	Levene's Prob(F)				0.926
	Shapiro-Wilk^				0.9173*
	P(Shapiro-Wilk)^				0.0039*
	Skewness^				-1.1887*
	P(Skewness)^				0.0025*
	Kurtosis^				2.2175*
	P(Kurtosis)^				0.0038*
	Replicate F				1.877
	Replicate Prob(F)				0.1547
	Treatment F				308.929
	Treatment Prob(F)				0.0001

University of Kentucky

NuFarm Burndown

Trial ID: 22-6 Cooperator Trial ID:
Protocol ID: 22-6 Location: LEXINGTON, KY Trial Year: 2022
Project ID: Project ID 2: Project ID 3:
Study Director: TRAVIS LEGLEITER Sponsor Contact:
Investigator (Creator): Sara Carter

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

TRZAW, Triticum aestivum, Winter wheat = US

STEME, Stellaria media, chickweed = US

LAMAM, Lamium amplexicaule, Henbit deadnettle = US

BROSE, Bromus secalinus, Cheat grass = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

University of Kentucky

Trial ID: 22-8_BUR-REC	Location: UKREC	Trial Year: 2022
Protocol ID: 22-8-BUR-REC	Investigator (Creator): Travis Legleiter	Study Director: Travis Legleiter
Project ID: KY Corn Growers 2022	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	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Appl Description	Amt Product to Measure	Rep 1	2	3	4
1	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	40 fl oz/a		1.5 lb ae/a	Burndown A		Burndown	41.67 mL/mx	101	211	306	408
	Sharpen	2.85	lba/gal	SC	1 fl oz/a	0.0223	lbai/a	Burndown A		Burndown	1.042 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5 % v/v		8.5 lbai/100gal	Burndown A		Burndown	49.99 mL/mx				
	MSO	100	%	SL	1 % v/v			Burndown A		Burndown	20.0 mL/mx				
2	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	40 fl oz/a		1.5 lb ae/a	Burndown A		Burndown	41.67 mL/mx	102	205	308	409
	Sharpen	2.85	lba/gal	SC	3 fl oz/a	0.067	lbai/a	Burndown A		Burndown	3.125 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5 % v/v		8.5 lbai/100gal	Burndown A		Burndown	49.99 mL/mx				
	MSO	100	%	SL	1 % v/v			Burndown A		Burndown	20.0 mL/mx				
3	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	40 fl oz/a		1.5 lb ae/a	Burndown A		Burndown	41.67 mL/mx	103	206	310	406
	Reviton	2.83	lba/gal	SC	1 fl oz/a	0.0223	lbai/a	Burndown A		Burndown	1.042 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5 % v/v		8.5 lbai/100gal	Burndown A		Burndown	49.99 mL/mx				
	MSO	100	%	SL	1 % v/v			Burndown A		Burndown	20.0 mL/mx				
4	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	40 fl oz/a		1.5 lb ae/a	Burndown A		Burndown	41.67 mL/mx	104	207	309	407
	Reviton	2.83	lba/gal	SC	3 fl oz/a	0.067	lbai/a	Burndown A		Burndown	3.125 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5 % v/v		8.5 lbai/100gal	Burndown A		Burndown	49.99 mL/mx				
	MSO	100	%	SL	1 % v/v			Burndown A		Burndown	20.0 mL/mx				
5	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	40 fl oz/a		1.5 lb ae/a	Burndown A		Burndown	41.67 mL/mx	105	203	307	402
	Verdict	5.57	LBA/GAL	EC	15 fl oz/a	0.65	lbai/a	Burndown A		Burndown	15.62 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5 % v/v		8.5 lbai/100gal	Burndown A		Burndown	49.99 mL/mx				
	MSO	100	%	SL	1 % v/v			Burndown A		Burndown	20.0 mL/mx				
6	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	40 fl oz/a		1.5 lb ae/a	Burndown A		Burndown	41.67 mL/mx	106	204	303	401
	Verdict	5.57	LBA/GAL	EC	15 fl oz/a	0.65	lbai/a	Burndown A		Burndown	15.62 mL/mx				
	AAtrex	4	LBA/GAL	F	1 qt/a		1 lbai/a	Burndown A		Burndown	33.33 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	2.5 % v/v		8.5 lbai/100gal	Burndown A		Burndown	49.99 mL/mx				
7	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	40 fl oz/a		1.5 lb ae/a	Burndown A		Burndown	41.67 mL/mx	107	202	305	404
	Instigate (6 oz)														
	Resolve	25	%	DF	1.0008 oz/a	0.0156	lbae/a	Burndown A		Burndown	0.9994 g/mx				
	Callisto	4	lba/gal	SC	5 fl oz/a	0.156	lbae/a	Burndown A		Burndown	5.208 mL/mx				
8	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	40 fl oz/a		1.5 lb ae/a	Burndown A		Burndown	41.67 mL/mx	108	210	302	411
	Instigate (6 oz)														
	Resolve	25	%	DF	1.0008 oz/a	0.0156	lbae/a	Burndown A		Burndown	0.9994 g/mx				
	Callisto	4	lba/gal	SC	5 fl oz/a	0.156	lbae/a	Burndown A		Burndown	5.208 mL/mx				
9	Gramoxone	2	LBA/GAL	L	4 pt/a		1 lbai/a	Burndown A		Burndown	66.67 mL/mx	109	201	304	403
	AAtrex	4	LBA/GAL	F	1 qt/a		1 lbai/a	Burndown A		Burndown	33.33 mL/mx				
	2,4-D LV4	4	lbae/gal	SL	1 pt/a	0.5	lbai/a	Burndown A		Burndown	16.67 mL/mx				
	COC	100	%	SL	1 % v/v			Burndown A		Burndown	20.0 mL/mx				
10	Reviton	2.83	lba/gal	SC	1 fl oz/a	0.0221	lbai/a	Burndown A		Burndown	1.042 mL/mx	110	209	311	410
	Select Max	0.97	lba/gal	SL	6 fl oz/a	0.0455	lbai/a	Burndown A		Burndown	6.25 mL/mx				
	2,4-D LV4	4	lbae/gal	SL	1 pt/a	0.5	lbai/a	Burndown A		Burndown	16.67 mL/mx				
	Amsol AMS	3.4	lba/gal	SL	5 % v/v	2.55	lbai/a	Burndown A		Burndown	99.99 mL/mx				
11	UNTREATED										111	208	301	405	

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
416.666	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
5.208	mL	Sharpen	2.85	lba/gal	SC	
624.932	mL	Amsol AMS	3.4	lba/gal	SL	
199.978	mL	MSO	100	%	SL	
6.510	mL	Reviton	2.83	lba/gal	SC	
39.062	mL	Verdict	5.57	LBA/GAL	EC	
125.000	mL	AAtrex	4	LBA/GAL	F	
2.498	g	Resolve	25	%	DF	
13.021	mL	Callisto	4	lba/gal	SC	

University of Kentucky

Italian Ryegrass Burndown in Corn		
Trial ID: 22-8_BUR-REC	Location: UKREC	Trial Year: 2022
Protocol ID: 22-8-BUR-REC	Investigator (Creator): Travis Legleiter	
Project ID: KY Corn Growers 2022	Study Director: Travis Legleiter	
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
83.333	mL	Gramoxone	2	LBA/GAL	L	
41.667	mL	2,4-D LV4	4	lbae/gal	SL	
24.997	mL	COC	100	%	SL	
7.812	mL	Select Max	.97	lba/gal	SL	
6.249	mL	NIS	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

Trial ID: 22-8_BUR-REC	Italian Ryegrass Burndown in Corn	Location: UKREC	Trial Year: 2022
Protocol ID: 22-8-BUR-REC	Investigator (Creator): Travis Legleiter	Study Director: Travis Legleiter	
Project ID: KY Corn Growers 2022	Sponsor Contact:		

General Trial Information
Study Director: Travis Legleiter Title: Assistant Professor
Trial Status: E established
ARM Trial Created On: Mar-16-2022
Trial Location
City: Princeton
State/Prov.: Kentucky
Postal Code: 42445
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
E-mail: Travis.Legleiter@uky.edu
City: Princeton, KY Postal Code: 42445

University of Kentucky

Italian Ryegrass Burndown in Corn

Trial ID: 22-8_BUR-REC Location: UKREC Trial Year: 2022
 Protocol ID: 22-8-BUR-REC Investigator (Creator): Travis Legleiter
 Project ID: KY Corn Growers 2022 Study Director: Travis Legleiter
 Sponsor Contact:

Pest Description

Pest 1 Type: W	Code: LOLMU <i>Lolium multiflorum</i>	Entry Date: Aug-25-2022
	Common Name: Bearded ryegrass	Stage Scale: BBCH
Pest 2 Type: W	Code: OXAST <i>Oxalis stricta</i>	Entry Date: Aug-25-2022
	Common Name: upright wood sorrel	Stage Scale: BBCH
Pest 3 Type: W	Code: THLAR <i>Thlaspi arvense</i>	Entry Date: Aug-25-2022
	Common Name: Field pennycress	Stage Scale: BBCH
Pest 4 Type: W	Code: HORPU <i>Hordeum pusillum</i>	Entry Date: Aug-25-2022
	Common Name: Little barley	Stage Scale: BBCH
Pest 5 Type: W	Code: ERICA <i>Erigeron canadensis</i>	Entry Date: Aug-25-2022
	Common Name: mare's-tail	Stage Scale: BBCH
Pest 6 Type: W	Code: ALLVI <i>Allium vineale</i>	Entry Date: Aug-25-2022
	Common Name: Field garlic	Stage Scale: BBCH
Pest 7 Type: W	Code: CERVU <i>Cerastium fontanum vulgare</i>	Entry Date: Aug-25-2022
	Common Name: common mouse-ear chickweed	Stage Scale: BBCH
Pest 8 Type: W	Code: LAMAM <i>Lamium amplexicaule</i>	Entry Date: Aug-25-2022
	Common Name: Henbit deadnettle	Stage Scale: BBCH
Pest 9 Type: W	Code: AMBTR <i>Ambrosia trifida</i>	Entry Date: Aug-25-2022
	Common Name: Giant ragweed	Stage Scale: BBCH
Pest10 Type: W	Code: PLAMA <i>Plantago major</i>	Entry Date: Aug-25-2022
	Common Name: Englishman's foot	Stage Scale: BBCH
Pest11 Type: W	Code: RUMCR <i>Rumex crispus</i>	Entry Date: Aug-25-2022
	Common Name: Curly dock	Stage Scale: BBCH
Pest12 Type: W	Code: CAPBP <i>Capsella bursa-pastoris</i>	Entry Date: Aug-25-2022
	Common Name: Shepherd's purse	Stage Scale: BBCH
Pest13 Type: W	Code: GERCA <i>Geranium carolinianum</i>	Entry Date: Aug-25-2022
	Common Name: Carolina geranium	Stage Scale: BBCH
Pest14 Type: W	Code: BROSS <i>Bromus</i> sp.	Entry Date: Aug-25-2022
	Common Name: Bromegrass	Stage Scale: BBCH
Pest15 Type: W	Code: CARHI <i>Cardamine hirsuta</i>	Entry Date: Aug-25-2022
	Common Name: bristly bittercress	Stage Scale: BBCH
Pest16 Type: W	Code: TRZAW <i>Triticum aestivum</i>	Entry Date: Aug-25-2022
	Common Name: Winter wheat	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 FT ²	Tillage Type: NOTILL no-till
Treatments: 11	Study Design: RACOB� Randomized Complete Block (RCB)
Replications: 4	

University of Kentucky

Italian Ryegrass Burndown in Corn	
Trial ID: 22-8_BUR-REC	Location: UKREC
Protocol ID: 22-8-BUR-REC	Trial Year: 2022
Project ID: KY Corn Growers 2022	Investigator (Creator): Travis Legleiter
	Study Director: Travis Legleiter
	Sponsor Contact:

Application Description

	A
Application Date	Apr-14-2022
Appl. Start Time	1:30 PM
Appl. Stop Time	2:07 PM
Application Method	SPRAY
Application Timing	PREPOS
Application Placement	FOLIAR
Applied By	JLG
Appl. Entry Date	May-5-2022
Air Temperature Start, Stop	61, 62 F
% Relative Humidity Start, Stop	44, 41
Wind Velocity+Dir. Start	1.9 MPH, W
Wind Velocity+Dir. Stop	1.5 MPH, W
Wind Velocity+Dir. Max	12.5 MPH, W
Wet Leaves (Y/N)	N, no
Soil Temperature	60 F
Soil Moisture	WET
% Cloud Cover	0

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	LOLMU, W, BBCH
Height Average	10.5 IN
Height Minimum, Maximum	3, 18
Density Average	4.25 ft ²
Density Minimum, Maximum	0, 12
Pest 2 Code, Type, Scale	OXAST, W, BBCH
Height Average	2.25 IN
Height Minimum, Maximum	2, 2.5
Density Average	2.25 ft ²
Density Minimum, Maximum	0, 18
Pest 3 Code, Type, Scale	THLAR, W, BBCH
Height Average	12 IN
Height Minimum, Maximum	2.5, 22
Density Average	5 ft ²
Density Minimum, Maximum	0, 36
Pest 4 Code, Type, Scale	HORPU, W, BBCH
Height Average	7.25 IN
Height Minimum, Maximum	5.25, 9.25
Density Average	1.8 ft ²
Density Minimum, Maximum	0, 10
Pest 5 Code, Type, Scale	ERICA, W, BBCH
Height Average	2 IN
Height Minimum, Maximum	1.5, 2.5

University of Kentucky

Italian Ryegrass Burndown in Corn

Trial ID: 22-8_BUR-REC Location: UKREC Trial Year: 2022
 Protocol ID: 22-8-BUR-REC Investigator (Creator): Travis Legleiter
 Project ID: KY Corn Growers 2022 Study Director: Travis Legleiter
 Sponsor Contact:

Density Average	1.13 ft2
Density Minimum, Maximum	0, 6
Pest 6 Code, Type, Scale	ALLVI, W, BBCH
Height Average	5.5 IN
Height Minimum, Maximum	3, 8
Density Average	2 ft2
Density Minimum, Maximum	0, 16
Pest 7 Code, Type, Scale	CERVU, W, BBCH
Height Average	1.4 IN
Height Minimum, Maximum	0.25, 2.5
Density Average	1.4 ft2
Density Minimum, Maximum	0, 6
Pest 8 Code, Type, Scale	LAMAM, W, BBCH
Height Average	3.25 IN
Height Minimum, Maximum	1.5, 5
Density Average	1.75 ft2
Density Minimum, Maximum	0, 9
Pest 9 Code, Type, Scale	AMBTR, W, BBCH
Height Average	2.125 IN
Height Minimum, Maximum	0.75, 3.5
Density Average	4.5 ft2
Density Minimum, Maximum	0, 14
Pest10 Code, Type, Scale	PLAMA, W, BBCH
Height Average	2.75 IN
Height Minimum, Maximum	0, 2.75
Density Average	0.13 ft2
Density Minimum, Maximum	0, 1
Pest11 Code, Type, Scale	RUMCR, W, BBCH
Height Average	1.125 IN
Height Minimum, Maximum	1, 1.25
Density Average	0.25 ft2
Density Minimum, Maximum	0, 2
Pest12 Code, Type, Scale	CAPBP, W, BBCH
Height Average	4.375 IN
Height Minimum, Maximum	4, 4.75
Density Average	0.38 ft2
Density Minimum, Maximum	0, 3
Pest13 Code, Type, Scale	GERCA, W, BBCH
Height Average	4.25 IN
Height Minimum, Maximum	0, 4.25
Density Average	0.13 ft2
Density Minimum, Maximum	0, 1
Pest14 Code, Type, Scale	BROSS, W, BBCH
Height Average	3.625 IN
Height Minimum, Maximum	3.25, 4

University of Kentucky

Italian Ryegrass Burndown in Corn	
Trial ID: 22-8_BUR-REC	Location: UKREC
Protocol ID: 22-8-BUR-REC	Trial Year: 2022
Project ID: KY Corn Growers 2022	Investigator (Creator): Travis Legleiter
	Study Director: Travis Legleiter
	Sponsor Contact:

Density Average	1.13 ft2
Density Minimum, Maximum	0, 9
Pest15 Code, Type, Scale	CARHI, W, BBCH
Height Average	8.5 IN
Height Minimum, Maximum	0, 8.5
Density Average	0.13 ft2
Density Minimum, Maximum	0, 1
Pest16 Code, Type, Scale	TRZAW, W, BBCH
Height Average	13.5 IN
Height Minimum, Maximum	12, 15
Density Average	0.5 ft2
Density Minimum, Maximum	0, 3

Application Equipment	
	A
Appl. Equipment	backpack
Equipment Type	BACCAI
Operation Pressure	32 PSI
Nozzle Model	XR11002
Nozzle Type	FLAFXR
Nozzle TradeName	XR TeeJet
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 Overage	436.0 mL
Mix Size	2.0 L
Propellant	COMCO2

Notes			
Context	Date	By	Notes
STATUS	Mar-16-2022	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	May-5-2022	Travis Legleiter	Automatically added by ARM: Trial Status changed to: E: changed by (EKYLET).
STATUS	May-5-2022	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

University of Kentucky

Italian Ryegrass Burndown in Corn	
Trial ID: 22-8_BUR-REC	Location: UKREC
Protocol ID: 22-8-BUR-REC	Trial Year: 2022
Project ID: KY Corn Growers 2022	Investigator (Creator): Travis Legleiter
	Study Director: Travis Legleiter
	Sponsor Contact:

				W, Weed LOLMG Annual ryegrass Apr-27-2022 plant, P Control %, 0, 100 1 13, 13 13 DA-A	W, Weed LOLMG Annual ryegrass May-4-2022 plant, P control %, 0, 100 1 20, 20 20 DA-A	W, Weed TRZAW Winter wheat May-4-2022 plant, P control %, 0, 100 1 20, 20 20 DA-A	W, Weed HORPU Little barley May-4-2022 plant, P control %, 0, 100 1 20, 20 20 DA-A
Trt No.	Treatment Name	Rate	Appl Unit Code Plot	1	2	3	4
1	Roundup PowerMAX 3	40 fl oz/a	A 101	50.0	98.0	100.0	100.0
	Sharpen	1 fl oz/a	A 211	75.0	97.0	95.0	100.0
	Amsol AMS	2.5 % v/v	A 306	80.0	98.0	98.0	100.0
	MSO	1 % v/v	A 408	70.0	98.0	100.0	100.0
			Mean =	69.2d	97.8	98.3	100.0
2	Roundup PowerMAX 3	40 fl oz/a	A 102	75.0	97.0	97.0	100.0
	Sharpen	3 fl oz/a	A 205	90.0	98.0	100.0	100.0
	Amsol AMS	2.5 % v/v	A 308	90.0	95.0	90.0	100.0
	MSO	1 % v/v	A 409	50.0	97.0	100.0	100.0
			Mean =	78.0d	96.8	96.8	100.0
3	Roundup PowerMAX 3	40 fl oz/a	A 103	70.0	95.0	97.0	100.0
	Reviton	1 fl oz/a	A 206	90.0	100.0	100.0	100.0
	Amsol AMS	2.5 % v/v	A 310	60.0	97.0	90.0	100.0
	MSO	1 % v/v	A 406	90.0	98.0	95.0	100.0
			Mean =	78.9d	97.5	95.5	100.0
4	Roundup PowerMAX 3	40 fl oz/a	A 104	75.0	97.0	100.0	100.0
	Reviton	3 fl oz/a	A 207	90.0	98.0	100.0	100.0
	Amsol AMS	2.5 % v/v	A 309	80.0	97.0	95.0	100.0
	MSO	1 % v/v	A 407	80.0	97.0	97.0	97.0
			Mean =	81.6d	97.3	98.0	99.3
5	Roundup PowerMAX 3	40 fl oz/a	A 105	50.0	97.0	100.0	100.0
	Verdict	15 fl oz/a	A 203	70.0	95.0	90.0	100.0
	Amsol AMS	2.5 % v/v	A 307	80.0	96.0	95.0	100.0
	MSO	1 % v/v	A 402	90.0	98.0	100.0	100.0
			Mean =	73.8d	96.5	96.3	100.0
6	Roundup PowerMAX 3	40 fl oz/a	A 106	25.0	95.0	95.0	100.0
	Verdict	15 fl oz/a	A 204	15.0	50.0	50.0	100.0
	AAtrex	1 qt/a	A 303	70.0	85.0	80.0	100.0
	Amsol AMS	2.5 % v/v	A 401	90.0	90.0	90.0	100.0
	MSO	1 % v/v	A				
			Mean =	50.5d	80.0	78.8	100.0
7	Roundup PowerMAX 3	40 fl oz/a	A 107	10.0	90.0	80.0	100.0
	Instigate (6 oz)		A 202	10.0	80.0	80.0	100.0
	Resolve	1.0008 oz/a	A 305	60.0	80.0	80.0	100.0
	Callisto	5 fl oz/a	A 404	20.0	70.0	70.0	100.0
	Amsol AMS	2.5 % v/v	A				
	MSO	1 % v/v	A				
			Mean =	22.8d	80.0	77.5	100.0

d=Means are reported in de-transformed data units

University of Kentucky

Trial ID: 22-8_BUR-REC Protocol ID: 22-8-BUR-REC Project ID: KY Corn Growers 2022	Italian Ryegrass Burndown in Corn Location: UKREC Investigator (Creator): Travis Legleiter Study Director: Travis Legleiter Sponsor Contact:	Trial Year: 2022
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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	LOLMG	LOLMG	TRZAW	HORPU
Pest Name	Annual ryegrass	Annual ryegrass	Winter wheat	Little barley
Rating Date	Apr-27-2022	May-4-2022	May-4-2022	May-4-2022
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
Days After First/Last Applic.	13, 13	20, 20	20, 20	20, 20
Trt-Eval Interval	13 DA-A	20 DA-A	20 DA-A	20 DA-A
Trt Treatment	Rate	Rate	Rate	Rate
No. Name	Unit	Unit	Unit	Unit
Code	Plot	Plot	Plot	Plot
8 Roundup PowerMAX 3	40 fl oz/a	A	108	50.0
Instigate (6 oz)			210	10.0
Resolve	1.0008 oz/a	A	302	80.0
Callisto	5 fl oz/a	A	411	10.0
AAtrex	1 qt/a	A		
Amsol AMS	2.5 % v/v	A		
MSO	1 % v/v	A		
Mean =				35.1d
9 Gramoxone	4 pt/a	A	109	80.0
AAtrex	1 qt/a	A	201	90.0
2,4-D LV4	1 pt/a	A	304	80.0
COC	1 % v/v	A	403	50.0
Mean =				76.3d
10 Reviton	1 fl oz/a	A	110	10.0
Select Max	6 fl oz/a	A	209	5.0
2,4-D LV4	1 pt/a	A	311	10.0
Amsol AMS	5 % v/v	A	410	10.0
NIS	0.25 % v/v	A		
Mean =				8.6d
11 UNTREATED			111	0.0
			208	0.0
			301	0.0
			405	0.0
Mean =				0.0d

Pest Type
 W, Weed = Weed or volunteer crop

Pest Code
 LOLMG, Lolium multiflorum gaudini, Annual ryegrass = US
 TRZAW, Triticum aestivum, Winter wheat = US
 HORPU, Hordeum pusillum, Little barley = US

P = Pest is Part Rated

Rating Unit/Min/Max
 %, 0, 100 = percent

d=Means are reported in de-transformed data units

University of Kentucky

Italian Ryegrass Burndown in Corn	
Trial ID: 22-8_BUR-REC	Location: UKREC
Protocol ID: 22-8-BUR-REC	Trial Year: 2022
Project ID: KY Corn Growers 2022	Investigator (Creator): Travis Legleiter
	Study Director: Travis Legleiter
	Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code	LOLMG	LOLMG	TRZAW	HORPU	
Pest Name	Annual ryegrass	Annual ryegrass	Winter wheat	Little barley	
Rating Date	Apr-27-2022	May-4-2022	May-4-2022	May-4-2022	
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	
Days After First/Last Applic.	13, 13	20, 20	20, 20	20, 20	
Trt-Eval Interval	13 DA-A	20 DA-A	20 DA-A	20 DA-A	
Trt Treatment	1	2	3	4	
No. Name	dAA				
1 Roundup PowerMAX 3 Sharpen Amsol AMS MSO	40 fl oz/a A 1 fl oz/a A 2.5 % v/v A 1 % v/v A	69.2 a	97.8 a	98.3 a	100.0 a
2 Roundup PowerMAX 3 Sharpen Amsol AMS MSO	40 fl oz/a A 3 fl oz/a A 2.5 % v/v A 1 % v/v A	78.0 a	96.8 a	96.8 ab	100.0 a
3 Roundup PowerMAX 3 Reviton Amsol AMS MSO	40 fl oz/a A 1 fl oz/a A 2.5 % v/v A 1 % v/v A	78.9 a	97.5 a	95.5 ab	100.0 a
4 Roundup PowerMAX 3 Reviton Amsol AMS MSO	40 fl oz/a A 3 fl oz/a A 2.5 % v/v A 1 % v/v A	81.6 a	97.3 a	98.0 a	99.3 a
5 Roundup PowerMAX 3 Verdict Amsol AMS MSO	40 fl oz/a A 15 fl oz/a A 2.5 % v/v A 1 % v/v A	73.8 a	96.5 a	96.3 ab	100.0 a
6 Roundup PowerMAX 3 Verdict AAtrex Amsol AMS MSO	40 fl oz/a A 15 fl oz/a A 1 qt/a A 2.5 % v/v A 1 % v/v A	50.5 ab	80.0 a	78.8 ab	100.0 a
7 Roundup PowerMAX 3 Instigate (6 oz) Resolve Callisto Amsol AMS MSO	40 fl oz/a A 1.0008 oz/a A 5 fl oz/a A 2.5 % v/v A 1 % v/v A	22.8 bc	80.0 a	77.5 ab	100.0 a
8 Roundup PowerMAX 3 Instigate (6 oz) Resolve Callisto AAtrex Amsol AMS MSO	40 fl oz/a A 1.0008 oz/a A 5 fl oz/a A 1 qt/a A 2.5 % v/v A 1 % v/v A	35.1 abc	80.8 a	76.3 b	95.0 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
t=Mean descriptions are reported in transformed data units, and are not de-transformed.
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
^Calculated from residual.
d=Means are reported in de-transformed data units

University of Kentucky

Italian Ryegrass Burndown in Corn	
Trial ID: 22-8_BUR-REC	Location: UKREC
Protocol ID: 22-8-BUR-REC	Trial Year: 2022
Project ID: KY Corn Growers 2022	Investigator (Creator): Travis Legleiter
	Study Director: Travis Legleiter
	Sponsor Contact:

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	LOLMG	LOLMG	TRZAW	HORPU
Pest Name	Annual ryegrass	Annual ryegrass	Winter wheat	Little barley
Rating Date	Apr-27-2022	May-4-2022	May-4-2022	May-4-2022
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
Days After First/Last Applic.	13, 13	20, 20	20, 20	20, 20
Trt-Eval Interval	13 DA-A	20 DA-A	20 DA-A	20 DA-A
Trt Treatment	1	2	3	4
No. Name	Rate Unit Code	Rate Unit Code	Rate Unit Code	Rate Unit Code
9 Gramoxone	4 pt/a A	76.3 a	94.0 a	95.3 ab
AAtrex	1 qt/a A			87.5 a
2,4-D LV4	1 pt/a A			
COC	1 % v/v A			
10 Reviton	1 fl oz/a A	8.6 cd	31.3 b	31.3 c
Select Max	6 fl oz/a A			31.3 b
2,4-D LV4	1 pt/a A			
Amsol AMS	5 % v/v A			
NIS	0.25 % v/v A			
11 UNTREATED		0.0 d	0.0 c	0.0 d
LSD P=.05		24.92 - 29.37	13.67	13.42
Standard Deviation		12.69t	9.46	9.29
CV		28.31t	12.22	12.11
Levene's F^		2.205	1.316	1.314
Levene's Prob(F)		0.043*	0.263	0.264
Skewness^		0.103	-0.8007*	-0.3933
Kurtosis^		-0.0117	3.3238*	3.0587*
Replicate F		1.538	0.813	0.805
Replicate Prob(F)		0.2249	0.4969	0.5009
Treatment F		11.729	46.316	47.958
Treatment Prob(F)		0.0001	0.0001	0.0001

<u>Pest Type</u>
W, Weed = Weed or volunteer crop
<u>Pest Code</u>
LOLMG, Lolium multiflorum gaudini, Annual ryegrass = US
TRZAW, Triticum aestivum, Winter wheat = US
HORPU, Hordeum pusillum, Little barley = US
P = Pest is Part Rated
<u>Rating Unit/Min/Max</u>
%, 0, 100 = percent

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
t=Mean descriptions are reported in transformed data units, and are not de-transformed.
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
^Calculated from residual.
d=Means are reported in de-transformed data units

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COMPETITIVE SOYBEAN SYSTEMS COMPARISON

Trial ID: 22-9
Protocol ID: HP22USAMGC Location: LEXINGTON, KY
Project ID: Project ID 2: Project ID 3:
Study Director: TRAVIS LEGLEITER Sponsor Contact:
Investigator (Creator): Sara Carter

Cooperator Trial ID:
Trial Year: 2022

Reps: 1 Plots: 15 by 250 feet
Appl. Amount: 15 GAL/AC Mix Size: 1.5 GAL (total for 1 plots; minimum=1.2913 GAL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Unit	Other Rate	Other Unit	Appl Timing	Appl Code	Comment 1	Amt to Measure	Product	Rep 1
1	AG 37FX2															101
	XTENDIMAX	2.9		SL	22 OZ/A						PRE	A		108.4 mL/mx		
	VAPORGRIP AGENT	394 GA/L		SL	20 OZ/A						PRE	A		98.58 mL/mx		
	MAULER	480 GA/L		SL	8 OZ/A						PRE	A		39.43 mL/mx		
	WARRANT	3		CS	48 OZ/A						PRE	A		236.6 mL/mx		
	INTACT			L	0.5 % V/V						PRE	A		56.78 mL/mx		
	XTENDIMAX	2.9		SL	22 OZ/A						V3	B		108.4 mL/mx		
	VAPORGRIP AGENT	394 GA/L		SL	20 OZ/A						V3	B		98.58 mL/mx		
	ROUNDUP POWERMAX 3	575 GA/L		SL	30 OZ/A						V3	B		147.9 mL/mx		
	WARRANT	3		CS	48 OZ/A						V3	B		236.6 mL/mx		
	CLASS ACT RIDION			L	1 % V/V						V3	B		113.6 mL/mx		
	INTACT			L	0.5 % V/V						V3	B		56.78 mL/mx		
2	AG 40FX1															102
	XTENDIMAX	2.9		SL	22 OZ/A						PRE	A		108.4 mL/mx		
	VAPORGRIP AGENT	394 GA/L		SL	20 OZ/A						PRE	A		98.58 mL/mx		
	MAULER	480 GA/L		SL	8 OZ/A						PRE	A		39.43 mL/mx		
	WARRANT	3		CS	48 OZ/A						PRE	A		236.6 mL/mx		
	INTACT			L	0.5 % V/V						PRE	A		56.78 mL/mx		
	XTENDIMAX	2.9		SL	22 OZ/A						V3	B		108.4 mL/mx		
	VAPORGRIP AGENT	394 GA/L		SL	20 OZ/A						V3	B		98.58 mL/mx		
	ROUNDUP POWERMAX 3	575 GA/L		SL	30 OZ/A						V3	B		147.9 mL/mx		
	WARRANT	3		CS	48 OZ/A						V3	B		236.6 mL/mx		
	CLASS ACT RIDION			L	1 % V/V						V3	B		113.6 mL/mx		
	INTACT			L	0.5 % V/V						V3	B		56.78 mL/mx		
3	AG 42FX0															103
	XTENDIMAX	2.9		SL	22 OZ/A						PRE	A		108.4 mL/mx		
	VAPORGRIP AGENT	394 GA/L		SL	20 OZ/A						PRE	A		98.58 mL/mx		
	MAULER	480 GA/L		SL	8 OZ/A						PRE	A		39.43 mL/mx		
	WARRANT	3		CS	48 OZ/A						PRE	A		236.6 mL/mx		
	INTACT			L	0.5 % V/V						PRE	A		56.78 mL/mx		
	XTENDIMAX	2.9		SL	22 OZ/A						V3	B		108.4 mL/mx		
	VAPORGRIP AGENT	394 GA/L		SL	20 OZ/A						V3	B		98.58 mL/mx		
	ROUNDUP POWERMAX 3	575 GA/L		SL	30 OZ/A						V3	B		147.9 mL/mx		
	WARRANT	3		CS	48 OZ/A						V3	B		236.6 mL/mx		
	CLASS ACT RIDION			L	1 % V/V						V3	B		113.6 mL/mx		
	INTACT			L	0.5 % V/V						V3	B		56.78 mL/mx		
4	NUTECH 46N02E															104
	ENLIST ONE	3.8		L	32 OZ/A						PRE	A		157.7 mL/mx		
	SONIC	70		DF	4 OZ/A						PRE	A		18.9 g/mx		
	ENLIST ONE	3.8		L	32 OZ/A						V3	B		157.7 mL/mx		
	DURANGO DMA	5.4		SL	36 OZ/A						V3	B		177.4 mL/mx		
	DUAL II MAGNUM	7.64		EC	16 OZ/A						V3	B		78.86 mL/mx		
	N-PAK AMS LIQUID			L	2.5 % V/V						V3	B		283.9 mL/mx		
5	DYNAGROW 39EN19															105
	ENLIST ONE	3.8		L	32 OZ/A						PRE	A		157.7 mL/mx		
	SONIC	70		DF	4 OZ/A						PRE	A		18.9 g/mx		
	ENLIST ONE	3.8		L	32 OZ/A						V3	B		157.7 mL/mx		
	DURANGO DMA	5.4		SL	36 OZ/A						V3	B		177.4 mL/mx		
	DUAL II MAGNUM	7.64		EC	16 OZ/A						V3	B		78.86 mL/mx		
	N-PAK AMS LIQUID			L	2.5 % V/V						V3	B		283.9 mL/mx		

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Reps: 1 Plots: 15 by 250 feet
 Appl. Amount: 15 GAL/AC Mix Size: 1.5 GAL (total for 1 plots; minimum=1.2913 GAL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Comment 1	Amt to Measure	Product	Rep 1
6	XITAVO X04522E												106
	ENLIST ONE	3.8	L		32 OZ/A			PRE	A		157.7 mL/mx		
	SONIC	70	DF		4 OZ/A			PRE	A		18.9 g/mx		
	ENLIST ONE	3.8	L		32 OZ/A			V3	B		157.7 mL/mx		
	DURANGO DMA	5.4	SL		36 OZ/A			V3	B		177.4 mL/mx		
	DUAL II MAGNUM	7.64	EC		16 OZ/A			V3	B		78.86 mL/mx		
	N-PAK AMS LIQUID		L		2.5 % V/V			V3	B		283.9 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
650.617 mL		XTENDIMAX	2.9		SL	
591.470 mL		VAPORGRIP AGENT	394	GAL	SL	
118.294 mL		MAULER	480	GAL	SL	
1,419.528 mL		WARRANT	3		CS	
340.650 mL		INTACT			L	
443.603 mL		ROUNDUP POWERMAX 3 575		GAL	SL	
340.650 mL		CLASS ACT RIDION			L	
567.811 mL		LIBERTY 280	2.34		SL	
1,703.250 mL		N-PAK AMS LIQUID			L	
946.352 mL		ENLIST ONE	3.8		L	
56.699 g		SONIC	70		DF	
532.323 mL		DURANGO DMA	5.4		SL	
236.588 mL		DUAL II MAGNUM	7.64		EC	

* 'Per area' calculations based on application amount= 18 GPA, 15 GAL/AC, mix size= 3,1.5 GAL (mix size basis).
 * 'Per volume' calculations use spray volume= 18 GPA, 15 GAL/AC, mix size= 3,1.5 GAL.

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

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

ARM Trial Created On: 5-5-2022
Initiation Date: 5-31-2022 **Planned Completion Date:** 10-31-2022

Trial Location

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

Latitude of LL Corner °: 38.11095883 N
Longitude of LL Corner °: -84.485934 W
GPS Accuracy of LL Corner: 6.6 FT
Altitude of LL Corner: 802.80 FT

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 **E-mail:** travis.legleiter@uky.edu
City: PRINCETON **State/Prov:** KY **Postal Code:** 42445
Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
Country: USA United States **E-mail:** sara.carter@uky.edu
City: LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312

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Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale: BSOY**
Entry Date: 11-1-2022 **Stage Scale:** BBCH
Variety: SEE TRT LIST FOR VARIETY
Planting Date: 5-31-2022 **Planting Rate:** 150000 S/A
Depth: 1.25 IN
Rows per Plot: 6 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** FE field equipment
Seed Bed: SMOOTH smooth
Soil Temperature: 71 F **Soil Moisture:** WET wet
Emergence Date: 6-5-2022
Harvest Date: 10-11-2022 **Harvest Equipment:** HEGE
Moisture Meter: HarvestMaster **Harvested Width:** 5 FT
% Standard Moisture: 13.0 **Harvested Length:** 250 FT
Weighing Equipment: HarvestMaster

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** 11-1-2022
Common Name: Giant ragweed **Stage Scale:** BBCH
Crop: 1 GLXMA

Pest 2 Type: W **Code:** IPOSS Ipomoea sp. **Entry Date:** 11-1-2022
Common Name: Morning glory **Stage Scale:** BBCH
Crop: 1 GLXMA

Pest 3 Type: W **Code:** SETFA Setaria faberi **Entry Date:** 11-1-2022
Common Name: Giant foxtail **Stage Scale:** BBCH
Crop: 1 GLXMA

Site and Design

Treated Plot Width: 15 FT **Site Type:** FIELD field
Treated Plot Length: 250 FT
Treated Plot Area: 3750.0 FT2 **Tillage Type:** CONTIL conventional-till
Replications: 1 **Treatments:** 6 **Plots:** 6 **Study Design:** NONRAN Non-Randomized

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

Application Description

	A	B	C (not applied)
Application Date	6-1-2022	7-14-2022	
Appl. Start Time	3:00 PM	5:30 PM	
Appl. Stop Time	3:45 PM	6:10 PM	
Interval to Prev. Appl.		43 DAYS	
Application Method	SPRAY	SPRAY	
Application Timing	PRE	V3	
Application Placement	BROSOI	BROFOL	
Applied By	SARA	SARA	
Appl. Entry Date	11-1-2022	11-1-2022	
Air Temperature Start, Stop	88, - F	88, - F	
% Relative Humidity Start, Stop	68, -	39, -	
Wind Velocity+Dir. Start	4 MPH, SW	6 MPH, NW	
Soil Temperature	72 F	76 F	
Soil Moisture	GOOD	GOOD	
Soil Surface Condition	SMOOTH	SMOOTH	
% Cloud Cover	30	30	
Next Moisture Occurred On	6-2-2022	7-17-2022	

Comment:

I did not make the R1 application as it was not needed. No weeds were present.

Crop Stage At Each Application

	A	B	C (not applied)
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-4	39	
Height Average		6 IN	

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Pest Stage At Each Application

	A	B	C (not applied)
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		4 IN	
Crop Part Attacked, Code	-, GLXMA	-, GLXMA	-, GLXMA
Pest 2 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH	IPOSS, W, BBCH
Height Average		2 IN	
Crop Part Attacked, Code	-, GLXMA	-, GLXMA	-, GLXMA
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH
Height Average		2 IN	
Crop Part Attacked, Code	-, GLXMA	-, GLXMA	-, GLXMA

Application Equipment

	A	B	C (not applied)
Appl. Equipment	ATV	ATV	
Equipment Type	ALTEVE	ALTEVE	
Operation Pressure	30 PSI	30 PSI	
Nozzle Model	TTI 003	TTI 003	
Nozzle Type	TEEJTU	TEEJTU	
Nozzle Spacing	20 IN	20.0 IN	
Boom Length	15.0 FT	15.0 FT	
Boom Height	24.0 IN	24.0 IN	
Boom Flow Rate	- IN	- IN	
Ground Speed	4 MPH	4 MPH	
Carrier	WATER	WATER	
Application Amount	18 GPA	18 GPA	
Mix Size	3.0 GAL	3.0 GAL	
Propellant	CO2	CO2	

Notes

Context	Date	By	Notes
STATUS 5-5-2022		Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS 11-1-2022		Sara Carter	Automatically added by ARM: Status changed to: F: changed by (EKYCAS).

Deviations

No. 1: Date:11-17-2022 By:Sara Carter

Deviations:

Application C not applied

Reasons:

No weeds present

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA	AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Ambrosia trifida
Pest Name	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed
Crop Type, Code	C, GLXMA			C, GLXMA
BBCH Scale	BSOY			BSOY
Crop Scientific Name	Glycine max			Glycine max
Crop Name	Soybean			Soybean
Rating Date	6-15-2022	6-15-2022	6-15-2022	7-28-2022
Part Rated				
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 10
Sample Size				
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	14, 14	14, 14	14, 14	57, 14
Trt-Eval Interval				
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	58 DP-1
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	53 DE-1
ARM Action Codes				
Number of Decimals				

Trt	Treatment	Rate	Appl							
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	
1	AG 37FX2			101	0.0	100.0	100.0	100.0	0.0	100.0
	XTENDIMAX	22 OZ/A	A							
	VAPORGRIP AGENT	20 OZ/A	A							
	MAULER	8 OZ/A	A							
	WARRANT	48 OZ/A	A							
	INTACT	0.5 % V/V	A							
	XTENDIMAX	22 OZ/A	B							
	VAPORGRIP AGENT	20 OZ/A	B							
	ROUNDUP POWERMAX 3	30 OZ/A	B							
	WARRANT	48 OZ/A	B							
	CLASS ACT RIDION	1 % V/V	B							

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Pest Type		W, Weed	W, Weed	W, Weed		W, Weed
Pest Code		AMBTR	IPOSS	SETFA		AMBTR
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida
Pest Name		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed
Crop Type, Code	C, GLXMA				C, GLXMA	
BBCH Scale	BSOY				BSOY	
Crop Scientific Name	Glycine max				Glycine max	
Crop Name	Soybean				Soybean	
Rating Date	6-15-2022	6-15-2022	6-15-2022	6-15-2022	7-28-2022	7-28-2022
Part Rated						
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100
Sample Size						
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	57, 14	57, 14
Trt-Eval Interval						
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1	58 DP-1	58 DP-1
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	10 DE-1	53 DE-1	53 DE-1
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5	6
	INTACT	0.5 % V/V	B							
	LIBERTY 280	32 OZ/A	G							
	N-PAK AMS LIQUID	2.5 % V/V	G							
			Mean =		0.0	100.0	100.0	100.0	0.0	100.0
2	AG 40FX1			102	0.0	100.0	100.0	100.0	0.0	100.0
	XTENDIMAX	22 OZ/A	A							
	VAPORGRIP AGENT	20 OZ/A	A							
	MAULER	8 OZ/A	A							
	WARRANT	48 OZ/A	A							
	INTACT	0.5 % V/V	A							
	XTENDIMAX	22 OZ/A	B							
	VAPORGRIP AGENT	20 OZ/A	B							
	ROUNDUP POWERMAX 3	30 OZ/A	B							
	WARRANT	48 OZ/A	B							
	CLASS ACT RIDION	1 % V/V	B							
	INTACT	0.5 % V/V	B							
	LIBERTY 280	32 OZ/A	G							
	N-PAK AMS LIQUID	2.5 % V/V	G							
			Mean =		0.0	100.0	100.0	100.0	0.0	100.0
3	AG 42FX0			103	0.0	100.0	100.0	100.0	0.0	100.0
	XTENDIMAX	22 OZ/A	A							
	VAPORGRIP AGENT	20 OZ/A	A							
	MAULER	8 OZ/A	A							
	WARRANT	48 OZ/A	A							
	INTACT	0.5 % V/V	A							
	XTENDIMAX	22 OZ/A	B							
	VAPORGRIP AGENT	20 OZ/A	B							
	ROUNDUP POWERMAX 3	30 OZ/A	B							
	WARRANT	48 OZ/A	B							
	CLASS ACT RIDION	1 % V/V	B							
	INTACT	0.5 % V/V	B							
	LIBERTY 280	32 OZ/A	G							
	N-PAK AMS LIQUID	2.5 % V/V	G							
			Mean =		0.0	100.0	100.0	100.0	0.0	100.0
4	NUTECH 46N02E			104	0.0	100.0	100.0	100.0	0.0	100.0
	ENLIST ONE	32 OZ/A	A							
	SONIC	4 OZ/A	A							
	ENLIST ONE	32 OZ/A	B							
	DURANGO DMA	36 OZ/A	B							
	DUAL II MAGNUM	16 OZ/A	B							
	N-PAK AMS LIQUID	2.5 % V/V	B							
	LIBERTY 280	32 OZ/A	G							
	N-PAK AMS LIQUID	2.5 % V/V	G							
			Mean =		0.0	100.0	100.0	100.0	0.0	100.0

University of Kentucky

Pest Type		W, Weed	W, Weed	W, Weed		W, Weed
Pest Code		AMBTR	IPOSS	SETFA		AMBTR
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida
Pest Name		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed
Crop Type, Code	C, GLXMA				C, GLXMA	
BBCH Scale	BSOY				BSOY	
Crop Scientific Name	Glycine max				Glycine max	
Crop Name	Soybean				Soybean	
Rating Date	6-15-2022	6-15-2022	6-15-2022	6-15-2022	7-28-2022	7-28-2022
Part Rated						
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100
Sample Size						
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	57, 14	57, 14
Trt-Eval Interval						
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1	58 DP-1	58 DP-1
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	10 DE-1	53 DE-1	53 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6
5	DYNAGROW 39EN19		105	0.0	100.0	100.0	100.0	0.0	100.0
	ENLIST ONE	32 OZ/A	A						
	SONIC	4 OZ/A	A						
	ENLIST ONE	32 OZ/A	B						
	DURANGO DMA	36 OZ/A	B						
	DUAL II MAGNUM	16 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
			Mean =	0.0	100.0	100.0	100.0	0.0	100.0
6	XITAVO X04522E		106	0.0	100.0	100.0	100.0	0.0	100.0
	ENLIST ONE	32 OZ/A	A						
	SONIC	4 OZ/A	A						
	ENLIST ONE	32 OZ/A	B						
	DURANGO DMA	36 OZ/A	B						
	DUAL II MAGNUM	16 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
			Mean =	0.0	100.0	100.0	100.0	0.0	100.0

University of Kentucky

Pest Type	W, Weed	W, Weed			
Pest Code	IPOSS	SETFA			
Pest Scientific Name	Ipomoea sp.	Setaria faberi			
Pest Name	Morning glory	Giant foxtail			
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale			BSOY	BSOY	BSOY
Crop Scientific Name			Glycine max	Glycine max	Glycine max
Crop Name			Soybean	Soybean	Soybean
Rating Date	7-28-2022	7-28-2022	10-11-2022	10-11-2022	10-11-2022
Part Rated					
Rating Type	CONTRO	CONTRO	YIELD	MOICON	YIELD
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size			1 PLOT		1 A
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	57, 14	57, 14	132, 89	132, 89	132, 89
Trt-Eval Interval					
Plant-Eval Interval	58 DP-1	58 DP-1	133 DP-1	133 DP-1	133 DP-1
Days After Emergence	53 DE-1	53 DE-1	128 DE-1	128 DE-1	128 DE-1
ARM Action Codes					TY1
Number of Decimals					1

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	7	8	9	10	11	12
1	AG 37FX2		101	100.0	100.0		100.700	9.680	60.7
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	MAULER	8 OZ/A	A						
	WARRANT	48 OZ/A	A						
	INTACT	0.5 % V/V	A						
	XTENDIMAX	22 OZ/A	B						
	VAPORGRIP AGENT	20 OZ/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	WARRANT	48 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						

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Pest Type	W, Weed	W, Weed			
Pest Code	IPOSS	SETFA			
Pest Scientific Name	Ipomoea sp.	Setaria faberi			
Pest Name	Morning glory	Giant foxtail			
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale			BSOY	BSOY	BSOY
Crop Scientific Name			Glycine max	Glycine max	Glycine max
Crop Name			Soybean	Soybean	Soybean
Rating Date	7-28-2022	7-28-2022	10-11-2022	10-11-2022	10-11-2022
Part Rated					
Rating Type	CONTRO	CONTRO	YIELD	MOICON	YIELD
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size			1 PLOT		1 A
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	57, 14	57, 14	132, 89	132, 89	132, 89
Trt-Eval Interval					
Plant-Eval Interval	58 DP-1	58 DP-1	133 DP-1	133 DP-1	133 DP-1
Days After Emergence	53 DE-1	53 DE-1	128 DE-1	128 DE-1	128 DE-1
ARM Action Codes					TY1
Number of Decimals					1

Trt No.	Treatment Name	Rate	Appl Code	7	8	9	10	11	12
	INTACT	0.5 % V/V	B						
	LIBERTY 280	32 OZ/A	G						
	N-PAK AMS LIQUID	2.5 % V/V	G						
			Mean =	100.0	100.0	100.700	9.680	60.7	
2	AG 40FX1			102	100.0	100.0	110.500	9.740	66.6
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	MAULER	8 OZ/A	A						
	WARRANT	48 OZ/A	A						
	INTACT	0.5 % V/V	A						
	XTENDIMAX	22 OZ/A	B						
	VAPORGRIP AGENT	20 OZ/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	WARRANT	48 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	INTACT	0.5 % V/V	B						
	LIBERTY 280	32 OZ/A	G						
	N-PAK AMS LIQUID	2.5 % V/V	G						
			Mean =	100.0	100.0	110.500	9.740	66.6	
3	AG 42FX0			103	100.0	100.0	93.530	9.600	56.4
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	MAULER	8 OZ/A	A						
	WARRANT	48 OZ/A	A						
	INTACT	0.5 % V/V	A						
	XTENDIMAX	22 OZ/A	B						
	VAPORGRIP AGENT	20 OZ/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	WARRANT	48 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	INTACT	0.5 % V/V	B						
	LIBERTY 280	32 OZ/A	G						
	N-PAK AMS LIQUID	2.5 % V/V	G						
			Mean =	100.0	100.0	93.530	9.600	56.4	
4	NUTECH 46N02E			104	100.0	100.0	98.300	9.290	59.5
	ENLIST ONE	32 OZ/A	A						
	SONIC	4 OZ/A	A						
	ENLIST ONE	32 OZ/A	B						
	DURANGO DMA	36 OZ/A	B						
	DUAL II MAGNUM	16 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
	LIBERTY 280	32 OZ/A	G						
	N-PAK AMS LIQUID	2.5 % V/V	G						
			Mean =	100.0	100.0	98.300	9.290	59.5	

University of Kentucky

Pest Type	W, Weed	W, Weed			
Pest Code	IPOSS	SETFA			
Pest Scientific Name	Ipomoea sp.	Setaria faberi			
Pest Name	Morning glory	Giant foxtail			
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale			BSOY	BSOY	BSOY
Crop Scientific Name			Glycine max	Glycine max	Glycine max
Crop Name			Soybean	Soybean	Soybean
Rating Date	7-28-2022	7-28-2022	10-11-2022	10-11-2022	10-11-2022
Part Rated					
Rating Type	CONTRO	CONTRO	YIELD	MOICON	YIELD
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size			1 PLOT		1 A
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	57, 14	57, 14	132, 89	132, 89	132, 89
Trt-Eval Interval					
Plant-Eval Interval	58 DP-1	58 DP-1	133 DP-1	133 DP-1	133 DP-1
Days After Emergence	53 DE-1	53 DE-1	128 DE-1	128 DE-1	128 DE-1
ARM Action Codes					TY1
Number of Decimals					1

Trt No.	Treatment Name	Rate	Appl Code	7	8	9	10	11	12
5	DYNAGROW 39EN19			105	100.0	100.0	93.300	9.510	56.4
	ENLIST ONE	32 OZ/A	A						
	SONIC	4 OZ/A	A						
	ENLIST ONE	32 OZ/A	B						
	DURANGO DMA	36 OZ/A	B						
	DUAL II MAGNUM	16 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
	Mean =				100.0	100.0	93.300	9.510	56.4
6	XITAVO X04522E			106	100.0	100.0	61.870	9.570	37.4
	ENLIST ONE	32 OZ/A	A						
	SONIC	4 OZ/A	A						
	ENLIST ONE	32 OZ/A	B						
	DURANGO DMA	36 OZ/A	B						
	DUAL II MAGNUM	16 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
	Mean =				100.0	100.0	61.870	9.570	37.4

University of Kentucky

COMPETITIVE SOYBEAN SYSTEMS COMPARISON

Trial ID: 22-9
 Protocol ID: HP22USAMGC Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

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
 YIELD = yield
 MOICON = moisture content

Rating Unit/Min/Max

%, 0, 100 = percent
 lb/plot, , = pounds per plot
 BU, , = bushel

PLOT = total plot

A = acre

Plant-Eval Interval

15 DP-1 = 1 GLXMA 5-31-2022
 58 DP-1 = 1 GLXMA 5-31-2022
 133 DP-1 = 1 GLXMA 5-31-2022

ARM Action Codes

TY1 = 0.5808*[10]*((100-[11])/87)

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Rating Date

Part Rated

Rating Type

Rating Unit/Min/Max

Sample Size

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

	W, Weed AMBTR Ambrosia trifida Giant ragweed	W, Weed IPOSS Ipomoea sp. Morning glory	W, Weed SETFA Setaria faberi Giant foxtail		W, Weed AMBTR Ambrosia trifida Giant ragweed
Crop Type, Code	C, GLXMA			C, GLXMA	
BBCH Scale	BSOY			BSOY	
Crop Scientific Name	Glycine max			Glycine max	
Crop Name	Soybean			Soybean	
Rating Date	6-15-2022	6-15-2022	6-15-2022	7-28-2022	7-28-2022
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100
Number of Subsamples	1	1	1	1	1
Days After First/Last Applic.	14, 14	14, 14	14, 14	57, 14	57, 14
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	58 DP-1	58 DP-1
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	53 DE-1	53 DE-1

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
1	AG 37FX2			0.0	100.0	100.0	100.0	0.0	100.0
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	MAULER	8 OZ/A	A						
	WARRANT	48 OZ/A	A						
	INTACT	0.5 % V/V	A						
	XTENDIMAX	22 OZ/A	B						
	VAPORGRIP AGENT	20 OZ/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	WARRANT	48 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	INTACT	0.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						

University of Kentucky

Pest Type		W, Weed	W, Weed	W, Weed		W, Weed
Pest Code		AMBTR	IPOSS	SETFA		AMBTR
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida
Pest Name		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed
Crop Type, Code	C, GLXMA				C, GLXMA	
BBCH Scale	BSOY				BSOY	
Crop Scientific Name	Glycine max				Glycine max	
Crop Name	Soybean				Soybean	
Rating Date	6-15-2022	6-15-2022	6-15-2022	6-15-2022	7-28-2022	7-28-2022
Part Rated						
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100
Sample Size						
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	57, 14	57, 14
Trt-Eval Interval						
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1	58 DP-1	58 DP-1
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	10 DE-1	53 DE-1	53 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl	1	2	3	4	5	6
No.	Name	Rate Unit	Code						
2	AG 40FX1			0.0	100.0	100.0	100.0	0.0	100.0
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	MAULER	8 OZ/A	A						
	WARRANT	48 OZ/A	A						
	INTACT	0.5 % V/V	A						
	XTENDIMAX	22 OZ/A	B						
	VAPORGRIP AGENT	20 OZ/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	WARRANT	48 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	INTACT	0.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
3	AG 42FX0			0.0	100.0	100.0	100.0	0.0	100.0
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	MAULER	8 OZ/A	A						
	WARRANT	48 OZ/A	A						
	INTACT	0.5 % V/V	A						
	XTENDIMAX	22 OZ/A	B						
	VAPORGRIP AGENT	20 OZ/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	WARRANT	48 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	INTACT	0.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
4	NUTECH 46N02E			0.0	100.0	100.0	100.0	0.0	100.0
	ENLIST ONE	32 OZ/A	A						
	SONIC	4 OZ/A	A						
	ENLIST ONE	32 OZ/A	B						
	DURANGO DMA	36 OZ/A	B						
	DUAL II MAGNUM	16 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
5	DYNAGROW 39EN19			0.0	100.0	100.0	100.0	0.0	100.0
	ENLIST ONE	32 OZ/A	A						
	SONIC	4 OZ/A	A						
	ENLIST ONE	32 OZ/A	B						
	DURANGO DMA	36 OZ/A	B						
	DUAL II MAGNUM	16 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						

University of Kentucky

Pest Type		W, Weed	W, Weed	W, Weed		W, Weed
Pest Code		AMBTR	IPOSS	SETFA		AMBTR
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida
Pest Name		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed
Crop Type, Code	C, GLXMA				C, GLXMA	
BBCH Scale	BSOY				BSOY	
Crop Scientific Name	Glycine max				Glycine max	
Crop Name	Soybean				Soybean	
Rating Date	6-15-2022	6-15-2022	6-15-2022	6-15-2022	7-28-2022	7-28-2022
Part Rated						
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100
Sample Size						
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	57, 14	57, 14
Trt-Eval Interval						
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1	58 DP-1	58 DP-1
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	10 DE-1	53 DE-1	53 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl	1	2	3	4	5	6
No.	Name	Rate Unit	Code						
6	XITAVO X04522E			0.0	100.0	100.0	100.0	0.0	100.0
	ENLIST ONE	32 OZ/A	A						
	SONIC	4 OZ/A	A						
	ENLIST ONE	32 OZ/A	B						
	DURANGO DMA	36 OZ/A	B						
	DUAL II MAGNUM	16 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
	LSD P=.05			.	.	.	.	.	.
	Standard Deviation			.	.	.	.	.	.
	CV			.	.	.	.	.	.
	Levene's F^			.	.	.	.	.	.
	Levene's Prob(F)		
	Shapiro-Wilk^		
	P(Shapiro-Wilk)^		
	Skewness^		
	P(Skewness)^		
	Kurtosis^		
	P(Kurtosis)^		

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Pest Type		W, Weed	W, Weed						
Pest Code		IPOSS	SETFA						
Pest Scientific Name		Ipomoea sp.	Setaria faberi						
Pest Name		Morning glory	Giant foxtail						
Crop Type, Code				C, GLXMA	C, GLXMA	C, GLXMA			
BBCH Scale				BSOY	BSOY	BSOY			
Crop Scientific Name				Glycine max	Glycine max	Glycine max			
Crop Name				Soybean	Soybean	Soybean			
Rating Date		7-28-2022	7-28-2022	10-11-2022	10-11-2022	10-11-2022			
Part Rated									
Rating Type		CONTRO	CONTRO	YIELD	MOICON	YIELD			
Rating Unit/Min/Max		% , 0, 100	% , 0, 100	lb/plot, -, -	% , 0, 100	BU, -, -			
Sample Size				1 PLOT		1 A			
Number of Subsamples		1	1	1	1	1			
EDC App									
Rating Timing									
Days After First/Last Applic.		57, 14	57, 14	132, 89	132, 89	132, 89			
Trt-Eval Interval									
Plant-Eval Interval		58 DP-1	58 DP-1	133 DP-1	133 DP-1	133 DP-1			
Days After Emergence		53 DE-1	53 DE-1	128 DE-1	128 DE-1	128 DE-1			
ARM Action Codes						TY1			
Number of Decimals						1			
Trt No.	Treatment Name	Rate	Appl Code	7	8	9	10	11	12
		Rate Unit							
1	AG 37FX2			100.0	100.0		100.700	9.680	60.7
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	MAULER	8 OZ/A	A						
	WARRANT	48 OZ/A	A						
	INTACT	0.5 % V/V	A						
	XTENDIMAX	22 OZ/A	B						
	VAPORGRIP AGENT	20 OZ/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	WARRANT	48 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	INTACT	0.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						

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Pest Type	W, Weed	W, Weed			
Pest Code	IPOSS	SETFA			
Pest Scientific Name	Ipomoea sp.	Setaria faberi			
Pest Name	Morning glory	Giant foxtail			
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale			BSOY	BSOY	BSOY
Crop Scientific Name			Glycine max	Glycine max	Glycine max
Crop Name			Soybean	Soybean	Soybean
Rating Date	7-28-2022	7-28-2022	10-11-2022	10-11-2022	10-11-2022
Part Rated					
Rating Type	CONTRO	CONTRO	YIELD	MOICON	YIELD
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size			1 PLOT		1 A
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	57, 14	57, 14	132, 89	132, 89	132, 89
Trt-Eval Interval					
Plant-Eval Interval	58 DP-1	58 DP-1	133 DP-1	133 DP-1	133 DP-1
Days After Emergence	53 DE-1	53 DE-1	128 DE-1	128 DE-1	128 DE-1
ARM Action Codes					TY1
Number of Decimals					1

Trt	Treatment	Rate	Appl	7	8	9	10	11	12
No.	Name	Rate Unit	Code						
2	AG 40FX1			100.0	100.0		110.500	9.740	66.6
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	MAULER	8 OZ/A	A						
	WARRANT	48 OZ/A	A						
	INTACT	0.5 % V/V	A						
	XTENDIMAX	22 OZ/A	B						
	VAPORGRIP AGENT	20 OZ/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	WARRANT	48 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	INTACT	0.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
3	AG 42FX0			100.0	100.0		93.530	9.600	56.4
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	MAULER	8 OZ/A	A						
	WARRANT	48 OZ/A	A						
	INTACT	0.5 % V/V	A						
	XTENDIMAX	22 OZ/A	B						
	VAPORGRIP AGENT	20 OZ/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	WARRANT	48 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	INTACT	0.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
4	NUTECH 46N02E			100.0	100.0		98.300	9.290	59.5
	ENLIST ONE	32 OZ/A	A						
	SONIC	4 OZ/A	A						
	ENLIST ONE	32 OZ/A	B						
	DURANGO DMA	36 OZ/A	B						
	DUAL II MAGNUM	16 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						
5	DYNAGROW 39EN19			100.0	100.0		93.300	9.510	56.4
	ENLIST ONE	32 OZ/A	A						
	SONIC	4 OZ/A	A						
	ENLIST ONE	32 OZ/A	B						
	DURANGO DMA	36 OZ/A	B						
	DUAL II MAGNUM	16 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
	LIBERTY 280	32 OZ/A	€						
	N-PAK AMS LIQUID	2.5 % V/V	€						

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COMPETITIVE SOYBEAN SYSTEMS COMPARISON

Trial ID: 22-9
 Protocol ID: HP22USAMGC Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

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

YIELD = yield

MOICON = moisture content

Rating Unit/Min/Max

%, 0, 100 = percent

lb/plot, , = pounds per plot

BU, , = bushel

PLOT = total plot

A = acre

Plant-Eval Interval

15 DP-1 = 1 GLXMA 5-31-2022

58 DP-1 = 1 GLXMA 5-31-2022

133 DP-1 = 1 GLXMA 5-31-2022

ARM Action Codes

TY1 = $0.5808 * [10] * (100 - [11]) / 87$

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TRIVOLT PROGRAMS CORN

Trial ID: 22-10
 Protocol ID: HP22USAE0A Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Reps: 4		Plots: 10 by 33 feet		Mix Size: 2.2 L (total for 4 plots; minimum=1.7206 L)													
Appl. Amount: 15 GAL/AC																	
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Comment	Amt	Product	Rep				
No.	Name	Conc	Unit	Type	Rate	Rate	Rate	Unit	Timing	Code	1	to Measure	1	2	3	4	
1	UNTREATED												101	207	303	402	
2	FFA+IFT+TCM+CSA ATRAZINE	489.8	GAL/L 4	SC L	20 OZ/A 1 QT/A			PRE PRE	A A			22.92 mL/mx 36.67 mL/mx	102	210	305	407	
3	ACURON	3.44		ZC	3 QT/A			PRE	A			110.0 mL/mx	103	205	304	405	
4	RESICORE ATRAZINE	3.3		SC L	3 QT/A 1 QT/A			PRE PRE	A A			110.0 mL/mx 36.67 mL/mx	104	203	306	404	
5	FFA+IFT+TCM+CSA ATRAZINE DIFLEXX DUO ATRAZINE ROUNDUP POWERMAX 3 CLASS ACT RIDION	489.8	GAL/L 4 194 ga/l 4 575 GA/L	SC L SC L SL L	12 OZ/A 1 PT/A 24 OZ/A 1 PT/A 30 OZ/A 1 % V/V			PRE PRE MP MP MP MP	A A B B B B			13.75 mL/mx 18.33 mL/mx 27.5 mL/mx 18.33 mL/mx 34.37 mL/mx 22.0 mL/mx	105	209	308	410	
6	FFA+IFT+TCM+CSA ATRAZINE LAUDIS ATRAZINE ROUNDUP POWERMAX 3 N-PAK AMS LIQUID	489.8	GAL/L 4 3.5 4 575 GA/L	SC L SC L SL L	12 OZ/A 1 PT/A 3 OZ/A 1 PT/A 30 OZ/A 2.5 % V/V			PRE PRE MP MP MP MP	A A B B B B			13.75 mL/mx 18.33 mL/mx 3.437 mL/mx 18.33 mL/mx 34.37 mL/mx 54.99 mL/mx	106	204	309	401	
7	FFA+IFT+TCM+CSA ATRAZINE CAPRENO ATRAZINE N-PAK AMS LIQUID	489.8	GAL/L 4 0.28 4	SC L SC L L	12 OZ/A 1 PT/A 3 OZ/A 1 PT/A 2.5 % V/V			PRE PRE MP MP MP	A A B B B			13.75 mL/mx 18.33 mL/mx 3.437 mL/mx 18.33 mL/mx 54.99 mL/mx	107	201	302	409	
8	FFA+IFT+TCM+CSA ATRAZINE CAPRENO ATRAZINE ROUNDUP POWERMAX 3 N-PAK AMS LIQUID	489.8	GAL/L 4 0.28 4 575 GA/L	SC L SC L SL L	12 OZ/A 1 PT/A 3 OZ/A 1 PT/A 30 OZ/A 2.5 % V/V			PRE PRE MP MP MP MP	A A B B B B			13.75 mL/mx 18.33 mL/mx 3.437 mL/mx 18.33 mL/mx 34.37 mL/mx 54.99 mL/mx	108	202	301	406	
9	FFA+IFT+TCM+CSA HARNESS MAX ATRAZINE ROUNDUP POWERMAX 3 N-PAK AMS LIQUID	489.8	GAL/L 3.82 LB/GAL 4 575 GA/L	SC SE L SL L	12 OZ/A 40 OZ/A 1 PT/A 30 OZ/A 2.5 % V/V			PRE MP MP MP MP	A B B B B			13.75 mL/mx 45.83 mL/mx 18.33 mL/mx 34.37 mL/mx 54.99 mL/mx	109	208	310	403	
10	ACURON PRINCEP ROUNDUP POWERMAX 3 N-PAK AMS LIQUID	3.44		ZC F SL L	3 QT/A 1 LB AI/A 30 OZ/A 2.5 % V/V			PRE PRE MP MP	A A B B			110.0 mL/mx 36.66 mL/mx 34.37 mL/mx 54.99 mL/mx	110	206	307	408	

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
91.667	mL	FFA+IFT+TCM+CSA	489.8		GA/L		SC		
238.333	mL	ATRAZINE	4				L		
219.999	mL	ACURON	3.44				ZC		
110.000	mL	RESICORE	3.3				SC		
27.500	mL	DIFLEXX DUO	194		ga/l		SC		
171.875	mL	ROUNDUP POWERMAX 3	575		GA/L		SL		
21.998	mL	CLASS ACT RIDION					L		
3.437	mL	LAUDIS	3.5				SC		
274.970	mL	N-PAK AMS LIQUID					L		
6.875	mL	CAPRENO	.28				SC		
45.833	mL	HARNESS MAX	3.82		LB/GAL		SE		
36.663	mL	PRINCEP	4				F		

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

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

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

ARM Trial Created On: 5-6-2022
Initiation Date: 5-11-2022 **Planned Completion Date:** 10-1-2022

Trial Location

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

Latitude of LL Corner °: 38.11904033 N
Longitude of LL Corner °: -84.4934815 W
GPS Accuracy of LL Corner: 6.6 FT
Altitude of LL Corner: 798.90 FT

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 **E-mail:** travis.legleiter@uky.edu
City: PRINCETON **State/Prov:** KY **Postal Code:** 42445
Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
Country: USA United States **E-mail:** sara.carter@uky.edu
City: LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312

Crop Description

Crop 1: C ZEAMX Zea mays Corn **BBCH Scale:** BCOR
Stage Scale: BBCH
Variety: NK 1349
Attributes: RR/LL
Planting Date: 5-11-2022 **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: 68 F **Soil Moisture:** GOOD good
Emergence Date: 5-17-2022

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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:** 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

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 33 FT
Treated Plot Area: 330.0 FT² **Tillage Type:** CONTIL conventional-till
Replications: 4 **Treatments:** 10 **Plots:** 40 **Study Design:** RACOBL Randomized Complete Block (RCB)

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

Application Description

	A	B
Application Date	5-13-2022	6-15-2022
Appl. Start Time	1:00 PM	2:00 PM
Appl. Stop Time	1:45 PM	2:30 PM
Interval to Prev. Appl.		33 DAYS
Application Method	SPRAY	SPRAY
Application Timing	PRE	V3-V4
Application Placement	BROSOI	BROFOL
Applied By	SARA	SARA
Air Temperature Start, Stop	82, - F	88, - F
% Relative Humidity Start, Stop	41, -	42, -
Wind Velocity+Dir. Start	4 MPH, E	4 MPH, W
Soil Temperature	68 F	78 F
Soil Moisture	GOOD	GOOD
Soil Surface Condition	SMOOTH	SMOOTH
% Cloud Cover	40	5
Next Moisture Occurred On	5-14-2022	6-17-2022

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR
Days after Emergence	-4	29
Height Average		6 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		4 IN
Crop Part Attacked, Code -, ZEAMX		-, ZEAMX
Pest 2 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH
Height Average		2.5 IN
Crop Part Attacked, Code -, ZEAMX		-, ZEAMX
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Height Average		3 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	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
Boom Flow Rate	- IN	- IN
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	15 GPA
Mix Size	2.2 liters	2.2 liters
Propellant	CO2	CO2

Notes

Context	Date	By	Notes
STATUS 5-6-2022		Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS 10-17-2022		Sara Carter	Automatically added by ARM: Status changed to: F: changed by (EKYCAS).

Pest Type				W, Weed	W, Weed	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 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	5-27-2022	6-3-2022	7-1-2022	7-1-2022	7-1-2022	7-1-2022	7-13-2022
Part Rated							
Rating Type	PHYGEN	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Number of Subsamples	1	1	1	1	1	1	1
EDC App							
Rating Timing							
Days After First/Last Applic.	14, 14	21, 21	49, 16	49, 16	49, 16	49, 16	61, 28
Trt-Eval Interval							
Plant-Eval Interval	16 DP-1	23 DP-1	51 DP-1	51 DP-1	51 DP-1	51 DP-1	63 DP-1
Days After Emergence	10 DE-1	17 DE-1	45 DE-1	45 DE-1	45 DE-1	45 DE-1	57 DE-1
ARM Action Codes							
Number of Decimals							

Trt	Treatment	Rate	Appl		1	2	3	4	5	6	7
No.	Name	Rate Unit	Code Plot								
1	UNTREATED			101	0.0	0.0	0.0	0.0	0.0	0.0	0.0
				207	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
				402	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
2	FFA+IFT+TCM+CSA ATRAZINE	20 OZ/A 1 QT/A	A	102	0.0	0.0	0.0	95.0	50.0	95.0	0.0
				210	0.0	0.0	0.0	98.0	65.0	98.0	0.0
				305	0.0	0.0	0.0	95.0	65.0	98.0	0.0
				407	0.0	0.0	0.0	95.0	70.0	95.0	0.0
				Mean =	0.0	0.0	0.0	95.8	62.5	96.5	0.0
3	ACURON	3 QT/A	A	103	0.0	0.0	0.0	90.0	70.0	70.0	0.0
				205	0.0	0.0	0.0	95.0	75.0	65.0	0.0
				304	0.0	0.0	0.0	90.0	70.0	65.0	0.0
				405	0.0	0.0	0.0	90.0	70.0	70.0	0.0
				Mean =	0.0	0.0	0.0	91.3	71.3	67.5	0.0
4	RESICORE ATRAZINE	3 QT/A 1 QT/A	A	104	0.0	0.0	0.0	85.0	65.0	95.0	0.0
				203	0.0	0.0	0.0	90.0	60.0	95.0	0.0
				306	0.0	0.0	0.0	90.0	60.0	95.0	0.0
				404	0.0	0.0	0.0	95.0	65.0	95.0	0.0
				Mean =	0.0	0.0	0.0	90.0	62.5	95.0	0.0
5	FFA+IFT+TCM+CSA ATRAZINE DIFLEXX DUO ATRAZINE ROUNDUP POWERMAX 3 CLASS ACT RIDION	12 OZ/A 1 PT/A 24 OZ/A 1 PT/A 30 OZ/A 1 % V/V	A A B B B B	105	0.0	0.0	0.0	100.0	100.0	100.0	0.0
				209	0.0	0.0	0.0	100.0	100.0	100.0	0.0
				308	0.0	0.0	0.0	100.0	100.0	100.0	0.0
				410	0.0	0.0	0.0	100.0	100.0	100.0	0.0
				Mean =	0.0	0.0	0.0	100.0	100.0	100.0	0.0

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Pest Type				W, Weed	W, Weed	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 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	5-27-2022	6-3-2022	7-1-2022	7-1-2022	7-1-2022	7-1-2022	7-13-2022
Part Rated							
Rating Type	PHYGEN	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Number of Subsamples	1	1	1	1	1	1	1
EDC App							
Rating Timing							
Days After First/Last Applic.	14, 14	21, 21	49, 16	49, 16	49, 16	49, 16	61, 28
Trt-Eval Interval							
Plant-Eval Interval	16 DP-1	23 DP-1	51 DP-1	51 DP-1	51 DP-1	51 DP-1	63 DP-1
Days After Emergence	10 DE-1	17 DE-1	45 DE-1	45 DE-1	45 DE-1	45 DE-1	57 DE-1
ARM Action Codes							
Number of Decimals							

Trt	Treatment	Rate	Appl	Plot						
No.	Name	Rate Unit	Code	1	2	3	4	5	6	7
6	FFA+IFT+TCM+CSA	12 OZ/A	A 106	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ATRAZINE	1 PT/A	A 204	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	LAUDIS	3 OZ/A	B 309	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ATRAZINE	1 PT/A	B 401	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ROUNDUP POWERMAX 3	30 OZ/A	B							
	N-PAK AMS LIQUID	2.5 % V/V	B							
	Mean =			0.0	0.0	0.0	100.0	100.0	100.0	0.0
7	FFA+IFT+TCM+CSA	12 OZ/A	A 107	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ATRAZINE	1 PT/A	A 201	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	CAPRENO	3 OZ/A	B 302	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ATRAZINE	1 PT/A	B 409	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	N-PAK AMS LIQUID	2.5 % V/V	B							
	Mean =			0.0	0.0	0.0	100.0	100.0	100.0	0.0
8	FFA+IFT+TCM+CSA	12 OZ/A	A 108	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ATRAZINE	1 PT/A	A 202	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	CAPRENO	3 OZ/A	B 301	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ATRAZINE	1 PT/A	B 406	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ROUNDUP POWERMAX 3	30 OZ/A	B							
	N-PAK AMS LIQUID	2.5 % V/V	B							
	Mean =			0.0	0.0	0.0	100.0	100.0	100.0	0.0
9	FFA+IFT+TCM+CSA	12 OZ/A	A 109	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	HARNESS MAX	40 OZ/A	B 208	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ATRAZINE	1 PT/A	B 310	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ROUNDUP POWERMAX 3	30 OZ/A	B 403	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	N-PAK AMS LIQUID	2.5 % V/V	B							
	Mean =			0.0	0.0	0.0	100.0	100.0	100.0	0.0
10	ACURON	3 QT/A	A 110	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	PRINCEP	1 LB A/A	A 206	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	ROUNDUP POWERMAX 3	30 OZ/A	B 307	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	N-PAK AMS LIQUID	2.5 % V/V	B 408	0.0	0.0	0.0	100.0	100.0	100.0	0.0
	Mean =			0.0	0.0	0.0	100.0	100.0	100.0	0.0

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Pest Type	W, Weed	W, Weed	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 Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	7-13-2022	7-13-2022	7-13-2022
Part Rated			
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	61, 28	61, 28	61, 28
Trt-Eval Interval			
Plant-Eval Interval	63 DP-1	63 DP-1	63 DP-1
Days After Emergence	57 DE-1	57 DE-1	57 DE-1
ARM Action Codes			
Number of Decimals			

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	8	9	10
1	UNTREATED				101	0.0	0.0	0.0
					207	0.0	0.0	0.0
					303	0.0	0.0	0.0
					402	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0
2	FFA+IFT+TCM+CSA ATRAZINE	20 OZ/A 1 QT/A	A	102	95.0	80.0	95.0	
				210	98.0	85.0	98.0	
				305	95.0	85.0	98.0	
				407	98.0	90.0	100.0	
				Mean =	96.5	85.0	97.8	
3	ACURON	3 QT/A	A	103	95.0	95.0	85.0	
				205	95.0	95.0	85.0	
				304	95.0	95.0	90.0	
				405	95.0	95.0	90.0	
				Mean =	95.0	95.0	87.5	
4	RESICORE ATRAZINE	3 QT/A 1 QT/A	A	104	95.0	85.0	95.0	
				203	95.0	85.0	98.0	
				306	95.0	90.0	98.0	
				404	95.0	90.0	95.0	
				Mean =	95.0	87.5	96.5	
5	FFA+IFT+TCM+CSA ATRAZINE DIFLEXX DUO ATRAZINE ROUNDUP POWERMAX 3 CLASS ACT RIDION	12 OZ/A 1 PT/A 24 OZ/A 1 PT/A 30 OZ/A 1 % V/V	A A B B B B	105	98.0	95.0	98.0	
				209	98.0	95.0	98.0	
				308	95.0	95.0	95.0	
				410	98.0	95.0	98.0	
				Mean =	97.3	95.0	97.3	

University of Kentucky

Pest Type	W, Weed	W, Weed	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 Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Rating Date	7-13-2022	7-13-2022	7-13-2022
Part Rated			
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	61, 28	61, 28	61, 28
Trt-Eval Interval			
Plant-Eval Interval	63 DP-1	63 DP-1	63 DP-1
Days After Emergence	57 DE-1	57 DE-1	57 DE-1
ARM Action Codes			
Number of Decimals			

Trt	Treatment	Rate	Appl	8	9	10
No. Name		Rate Unit	Code Plot			
6	FFA+IFT+TCM+CSA	12 OZ/A	A 106	98.0	98.0	100.0
	ATRAZINE	1 PT/A	A 204	98.0	98.0	100.0
	LAUDIS	3 OZ/A	B 309	98.0	95.0	100.0
	ATRAZINE	1 PT/A	B 401	98.0	98.0	95.0
	ROUNDUP POWERMAX 3	30 OZ/A	B			
	N-PAK AMS LIQUID	2.5 % V/V	B			
			Mean =	98.0	97.3	98.8
7	FFA+IFT+TCM+CSA	12 OZ/A	A 107	100.0	98.0	100.0
	ATRAZINE	1 PT/A	A 201	100.0	95.0	100.0
	CAPRENO	3 OZ/A	B 302	100.0	98.0	98.0
	ATRAZINE	1 PT/A	B 409	100.0	98.0	95.0
	N-PAK AMS LIQUID	2.5 % V/V	B			
			Mean =	100.0	97.3	98.3
8	FFA+IFT+TCM+CSA	12 OZ/A	A 108	100.0	100.0	100.0
	ATRAZINE	1 PT/A	A 202	100.0	100.0	100.0
	CAPRENO	3 OZ/A	B 301	100.0	100.0	100.0
	ATRAZINE	1 PT/A	B 406	100.0	100.0	100.0
	ROUNDUP POWERMAX 3	30 OZ/A	B			
	N-PAK AMS LIQUID	2.5 % V/V	B			
			Mean =	100.0	100.0	100.0
9	FFA+IFT+TCM+CSA	12 OZ/A	A 109	100.0	100.0	100.0
	HARNESS MAX	40 OZ/A	B 208	100.0	100.0	100.0
	ATRAZINE	1 PT/A	B 310	100.0	100.0	100.0
	ROUNDUP POWERMAX 3	30 OZ/A	B 403	100.0	100.0	100.0
	N-PAK AMS LIQUID	2.5 % V/V	B			
			Mean =	100.0	100.0	100.0
10	ACURON	3 QT/A	A 110	100.0	100.0	100.0
	PRINCEP	1 LB AI/A	A 206	100.0	100.0	100.0
	ROUNDUP POWERMAX 3	30 OZ/A	B 307	100.0	100.0	100.0
	N-PAK AMS LIQUID	2.5 % V/V	B 408	100.0	100.0	100.0
			Mean =	100.0	100.0	100.0

University of Kentucky

TRIVOLT PROGRAMS CORN

Trial ID: 22-10
 Protocol ID: HP22USAE0A Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

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

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

16 DP-1 = 1 ZEAMX 5-11-2022

23 DP-1 = 1 ZEAMX 5-11-2022

51 DP-1 = 1 ZEAMX 5-11-2022

63 DP-1 = 1 ZEAMX 5-11-2022

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Rating Date

Part Rated

Rating Type

Rating Unit/Min/Max

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5
1	UNTREATED				0.0 a	0.0 a	0.0 a	0.0 d	0.0 d
2	FFA+IFT+TCM+CSA	20 OZ/A	A		0.0 a	0.0 a	0.0 a	95.8 b	62.5 c
	ATRAZINE	1 QT/A	A						
3	ACURON	3 QT/A	A		0.0 a	0.0 a	0.0 a	91.3 c	71.3 b
4	RESICORE	3 QT/A	A		0.0 a	0.0 a	0.0 a	90.0 c	62.5 c
	ATRAZINE	1 QT/A	A						
5	FFA+IFT+TCM+CSA	12 OZ/A	A		0.0 a	0.0 a	0.0 a	100.0 a	100.0 a
	ATRAZINE	1 PT/A	A						
	DIFLEXX DUO	24 OZ/A	B						
	ATRAZINE	1 PT/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
6	FFA+IFT+TCM+CSA	12 OZ/A	A		0.0 a	0.0 a	0.0 a	100.0 a	100.0 a
	ATRAZINE	1 PT/A	A						
	LAUDIS	3 OZ/A	B						
	ATRAZINE	1 PT/A	B						
	ROUNDUP POWERMAX 3	30 OZ/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						
7	FFA+IFT+TCM+CSA	12 OZ/A	A		0.0 a	0.0 a	0.0 a	100.0 a	100.0 a
	ATRAZINE	1 PT/A	A						
	CAPRENO	3 OZ/A	B						
	ATRAZINE	1 PT/A	B						
	N-PAK AMS LIQUID	2.5 % V/V	B						

W, Weed
 W, Weed
 AMBTR
 IPOSS
 Ambrosia trifida
 Ipomoea sp.
 Giant ragweed
 Morning glory

C, ZEAMX C, ZEAMX C, ZEAMX
 BCOR BCOR BCOR
 Zea mays Zea mays Zea mays
 Corn Corn Corn

5-27-2022 6-3-2022 7-1-2022

PHYGEN PHYGEN PHYGEN
 %, 0, 10 %, 0, 10 %, 0, 10
 1 1 1

14, 14 21, 21 49, 16

16 DP-1 23 DP-1 51 DP-1
 10 DE-1 17 DE-1 45 DE-1

7-1-2022 7-1-2022
 CONTRO CONTRO
 %, 0, 100 %, 0, 100
 1 1

49, 16 49, 16

51 DP-1 51 DP-1
 45 DE-1 45 DE-1

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Pest Type				W, Weed	W, Weed
Pest Code				AMBTR	IPOSS
Pest Scientific Name				Ambrosia trifida	Ipomoea sp.
Pest Name				Giant ragweed	Morning glory
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	5-27-2022	6-3-2022	7-1-2022	7-1-2022	7-1-2022
Part Rated					
Rating Type	PHYGEN	PHYGEN	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	14, 14	21, 21	49, 16	49, 16	49, 16
Trt-Eval Interval					
Plant-Eval Interval	16 DP-1	23 DP-1	51 DP-1	51 DP-1	51 DP-1
Days After Emergence	10 DE-1	17 DE-1	45 DE-1	45 DE-1	45 DE-1
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate Unit	Appl Code	1	2	3	4	5
8	FFA+IFT+TCM+CSA	12 OZ/A	A	0.0 a	0.0 a	0.0 a	100.0 a	100.0 a
	ATRAZINE	1 PT/A	A					
	CAPRENO	3 OZ/A	B					
	ATRAZINE	1 PT/A	B					
	ROUNDUP POWERMAX 3	30 OZ/A	B					
	N-PAK AMS LIQUID	2.5 % V/V	B					
9	FFA+IFT+TCM+CSA	12 OZ/A	A	0.0 a	0.0 a	0.0 a	100.0 a	100.0 a
	HARNESS MAX	40 OZ/A	B					
	ATRAZINE	1 PT/A	B					
	ROUNDUP POWERMAX 3	30 OZ/A	B					
	N-PAK AMS LIQUID	2.5 % V/V	B					
10	ACURON	3 QT/A	A	0.0 a	0.0 a	0.0 a	100.0 a	100.0 a
	PRINCEP	1 LB AI/A	A					
	ROUNDUP POWERMAX 3	30 OZ/A	B					
	N-PAK AMS LIQUID	2.5 % V/V	B					
	LSD P=.05			.	.	.	2.26	4.39
	Standard Deviation			0.00	0.00	0.00	1.56	3.02
	CV			0.0	0.0	0.0	1.78	3.8
	Levene's F^			.	.	.	1.707	1.563
	Levene's Prob(F)			.	.	.	0.131	0.172
	Shapiro-Wilk^			.	.	.	0.803*	0.7689*
	P(Shapiro-Wilk)^			.	.	.	0.0*	0.0*
	Skewness^			.	.	.	0.6695	-1.8748*
	P(Skewness)^			.	.	.	0.092	0.0*
	Kurtosis^			.	.	.	6.7337*	11.0729*
	P(Kurtosis)^			.	.	.	0.0*	0.0*
	Replicate F			0.000	0.000	0.000	1.342	0.797
	Replicate Prob(F)			1.0000	1.0000	1.0000	0.2814	0.5061
	Treatment F			0.000	0.000	0.000	1585.703	461.172
	Treatment Prob(F)			1.0000	1.0000	1.0000	0.0001	0.0001

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	SETFA	AMBTR	IPOSS	SETFA			
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi			
Pest Name	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail			
Crop Type, Code	C, ZEAMX						
BBCH Scale	BCOR						
Crop Scientific Name	Zea mays						
Crop Name	Corn						
Rating Date	7-1-2022	7-13-2022	7-13-2022	7-13-2022			
Part Rated							
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1			
EDC App							
Rating Timing							
Days After First/Last Applic.	49, 16	61, 28	61, 28	61, 28			
Trt-Eval Interval							
Plant-Eval Interval	51 DP-1	63 DP-1	63 DP-1	63 DP-1			
Days After Emergence	45 DE-1	57 DE-1	57 DE-1	57 DE-1			
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl	6	7	8	9	10
No. Name	Rate Unit	Code					
1 UNTREATED			0.0 d	0.0 a	0.0 e	0.0 e	0.0 c
2 FFA+IFT+TCM+CSA	20 OZ/A	A	96.5 b	0.0 a	96.5 c	85.0 d	97.8 a
ATRAZINE	1 QT/A	A					
3 ACURON	3 QT/A	A	67.5 c	0.0 a	95.0 d	95.0 b	87.5 b
4 RESICORE	3 QT/A	A	95.0 b	0.0 a	95.0 d	87.5 c	96.5 a
ATRAZINE	1 QT/A	A					
5 FFA+IFT+TCM+CSA	12 OZ/A	A	100.0 a	0.0 a	97.3 bc	95.0 b	97.3 a
ATRAZINE	1 PT/A	A					
DIFLEXX DUO	24 OZ/A	B					
ATRAZINE	1 PT/A	B					
ROUNDUP POWERMAX 3	30 OZ/A	B					
CLASS ACT RIDION	1 % V/V	B					
6 FFA+IFT+TCM+CSA	12 OZ/A	A	100.0 a	0.0 a	98.0 b	97.3 ab	98.8 a
ATRAZINE	1 PT/A	A					
LAUDIS	3 OZ/A	B					
ATRAZINE	1 PT/A	B					
ROUNDUP POWERMAX 3	30 OZ/A	B					
N-PAK AMS LIQUID	2.5 % V/V	B					
7 FFA+IFT+TCM+CSA	12 OZ/A	A	100.0 a	0.0 a	100.0 a	97.3 ab	98.3 a
ATRAZINE	1 PT/A	A					
CAPRENO	3 OZ/A	B					
ATRAZINE	1 PT/A	B					
N-PAK AMS LIQUID	2.5 % V/V	B					

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	SETFA	AMBTR	IPOSS	SETFA			
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi			
Pest Name	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail			
Crop Type, Code	C, ZEAMX						
BBCH Scale	BCOR						
Crop Scientific Name	Zea mays						
Crop Name	Corn						
Rating Date	7-1-2022	7-13-2022	7-13-2022	7-13-2022			
Part Rated							
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1			
EDC App							
Rating Timing							
Days After First/Last Applic.	49, 16	61, 28	61, 28	61, 28			
Trt-Eval Interval							
Plant-Eval Interval	51 DP-1	63 DP-1	63 DP-1	63 DP-1			
Days After Emergence	45 DE-1	57 DE-1	57 DE-1	57 DE-1			
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl	6	7	8	9	10
No. Name	Rate Unit	Code					
8 FFA+IFT+TCM+CSA	12 OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a
ATRAZINE	1 PT/A	A					
CAPRENO	3 OZ/A	B					
ATRAZINE	1 PT/A	B					
ROUNDUP POWERMAX 3	30 OZ/A	B					
N-PAK AMS LIQUID	2.5 % V/V	B					
9 FFA+IFT+TCM+CSA	12 OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a
HARNESS MAX	40 OZ/A	B					
ATRAZINE	1 PT/A	B					
ROUNDUP POWERMAX 3	30 OZ/A	B					
N-PAK AMS LIQUID	2.5 % V/V	B					
10 ACURON	3 QT/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a
PRINCEP	1 LB AI/A	A					
ROUNDUP POWERMAX 3	30 OZ/A	B					
N-PAK AMS LIQUID	2.5 % V/V	B					
LSD P=.05	1.62	.			1.02	2.42	2.58
Standard Deviation	1.12	0.00			0.70	1.67	1.78
CV	1.3	0.0			0.8	1.95	2.03
Levene's F^	268246959994560000000000000000.00*	.			3.107*	2.225*	2.142
Levene's Prob(F)	0.00*	.			0.009*	0.049*	0.057
Shapiro-Wilk^	0.7157*	.			0.8614*	0.9197*	0.9451
P(Shapiro-Wilk)^	0.0*	.			0.0002*	0.0076*	0.0514
Skewness^	0.0	.			-0.7706	-0.3	-0.5173
P(Skewness)^	1.0	.			0.0539	0.4437	0.1898
Kurtosis^	3.1585*	.			2.9977*	3.0884*	0.1743
P(Kurtosis)^	0.0002*	.			0.0003*	0.0002*	0.8197
Replicate F	0.107	0.000			1.678	1.606	0.379
Replicate Prob(F)	0.9552	1.0000			0.1952	0.2112	0.7686
Treatment F	3251.929	0.000			7842.266	1342.446	1215.197
Treatment Prob(F)	0.0001	1.0000			0.0001	0.0001	0.0001

University of Kentucky

TRIVOLT PROGRAMS CORN

Trial ID: 22-10
 Protocol ID: HP22USAE0A Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

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

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

16 DP-1 = 1 ZEAMX 5-11-2022

23 DP-1 = 1 ZEAMX 5-11-2022

51 DP-1 = 1 ZEAMX 5-11-2022

63 DP-1 = 1 ZEAMX 5-11-2022

University of Kentucky

SC618/2 PASS PRE FB POST SB SAFETY YIELD

Trial ID: 22-11
 Protocol ID: HN22USAE0B Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:

Trial Year: 2022

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	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Comment	Amt	Product	Rep		
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Unit	Code	1	to Measure	1	2	3	
1	UNTREATED WEED FREE									32			101	204	30
2	DFE+FFA+MRB	619	GA/L	SC	19	OZ/A		PRE	A	0	21.77	mL/mx	102	208	30
	WARRANT	359	GA/L	CS	48	OZ/A		MP	B	0	61.05	g/mx			
	ROUNDUP POWERMAX 3	575	GA/L	SL	30	OZ/A		MP	B	0	34.37	mL/mx			
	XTENDIMAX VAPORGRIP	350	GA/L	SL	22	OZ/A		MP	B	0	30.35	g/mx			
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	43.2	%AW/W	XL	0.5	% V/V		MP	B	0	11.66	g/mx			
	VAPORGRIP XTRA AGENT	394	GA/L	SL	20	OZ/A		MP	B	0	22.92	mL/mx			
	CLASS ACT RIDION	100	%AW/W	XL	1	% V/V		MP	B	0	22.0	mL/mx			
	LIBERTY 280	280	GA/L	SL	32	OZ/A		LP	C	0	41.91	g/mx			
	N-PAK AMS LIQUID	34	%AW/W	XL	2.5	% V/V		LP	C	0	54.99	mL/mx			
3	DFE+FFA+MRB	619	GA/L	SC	38	OZ/A		PRE	A	0	43.54	mL/mx	103	202	30
	WARRANT	359	GA/L	CS	48	OZ/A		MP	B	0	61.05	g/mx			
	ROUNDUP POWERMAX 3	575	GA/L	SL	30	OZ/A		MP	B	0	34.37	mL/mx			
	XTENDIMAX VAPORGRIP	350	GA/L	SL	22	OZ/A		MP	B	0	30.35	g/mx			
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	43.2	%AW/W	XL	0.5	% V/V		MP	B	0	11.66	g/mx			
	VAPORGRIP XTRA AGENT	394	GA/L	SL	20	OZ/A		MP	B	0	22.92	mL/mx			
	CLASS ACT RIDION	100	%AW/W	XL	1	% V/V		MP	B	0	22.0	mL/mx			
	LIBERTY 280	280	GA/L	SL	32	OZ/A		LP	C	0	41.91	g/mx			
	N-PAK AMS LIQUID	34	%AW/W	XL	2.5	% V/V		LP	C	0	54.99	mL/mx			
4	WARRANT	359	GA/L	CS	48	OZ/A		PRE	A	0	61.05	g/mx	104	206	30
	MAULER	480	GA/L	SL	8	OZ/A		PRE	A	0	10.63	g/mx			
	WARRANT	359	GA/L	CS	48	OZ/A		MP	B	0	61.05	g/mx			
	ROUNDUP POWERMAX 3	575	GA/L	SL	30	OZ/A		MP	B	0	34.37	mL/mx			
	XTENDIMAX VAPORGRIP	350	GA/L	SL	22	OZ/A		MP	B	0	30.35	g/mx			
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	43.2	%AW/W	XL	0.5	% V/V		MP	B	0	11.66	g/mx			
	VAPORGRIP XTRA AGENT	394	GA/L	SL	20	OZ/A		MP	B	0	22.92	mL/mx			
	CLASS ACT RIDION	100	%AW/W	XL	1	% V/V		MP	B	0	22.0	mL/mx			
	LIBERTY 280	280	GA/L	SL	32	OZ/A		LP	C	0	41.91	g/mx			
	N-PAK AMS LIQUID	34	%AW/W	XL	2.5	% V/V		LP	C	0	54.99	mL/mx			
5	WARRANT ULTRA HERBICIDE	413	GA/L	CS	50	OZ/A		PRE	A	0	64.4	g/mx	105	201	30
	WARRANT	359	GA/L	CS	48	OZ/A		MP	B	0	61.05	g/mx			
	ROUNDUP POWERMAX 3	575	GA/L	SL	30	OZ/A		MP	B	0	34.37	mL/mx			
	XTENDIMAX VAPORGRIP	350	GA/L	SL	22	OZ/A		MP	B	0	30.35	g/mx			
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	43.2	%AW/W	XL	0.5	% V/V		MP	B	0	11.66	g/mx			
	VAPORGRIP XTRA AGENT	394	GA/L	SL	20	OZ/A		MP	B	0	22.92	mL/mx			
	CLASS ACT RIDION	100	%AW/W	XL	1	% V/V		MP	B	0	22.0	mL/mx			
	LIBERTY 280	280	GA/L	SL	32	OZ/A		LP	C	0	41.91	g/mx			
	N-PAK AMS LIQUID	34	%AW/W	XL	2.5	% V/V		LP	C	0	54.99	mL/mx			
6	VALOR EZ	480	GA/L	SC	2	OZ/A		PRE	A	0	2.651	g/mx	106	205	30
	WARRANT	359	GA/L	CS	48	OZ/A		MP	B	0	61.05	g/mx			
	ROUNDUP POWERMAX 3	575	GA/L	SL	30	OZ/A		MP	B	0	34.37	mL/mx			
	XTENDIMAX VAPORGRIP	350	GA/L	SL	22	OZ/A		MP	B	0	30.35	g/mx			
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	43.2	%AW/W	XL	0.5	% V/V		MP	B	0	11.66	g/mx			
	VAPORGRIP XTRA AGENT	394	GA/L	SL	20	OZ/A		MP	B	0	22.92	mL/mx			
	CLASS ACT RIDION	100	%AW/W	XL	1	% V/V		MP	B	0	22.0	mL/mx			
	LIBERTY 280	280	GA/L	SL	32	OZ/A		LP	C	0	41.91	g/mx			
	N-PAK AMS LIQUID	34	%AW/W	XL	2.5	% V/V		LP	C	0	54.99	mL/mx			

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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 Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Comment 1	Amt to Measure	Product	Rep 1	Rep 2	Rep 3
7	BOUNDARY 6.5 EC	777	GA/L	EC	1.8	PT/A			PRE	A	0	35.64 g/mx		107	203	30
	WARRANT	359	GA/L	CS	48	OZ/A			MP	B	0	61.05 g/mx				
	ROUNDUP POWERMAX 3	575	GA/L	SL	30	OZ/A			MP	B	0	34.37 mL/mx				
	XTENDIMAX VAPORGRIP	350	GA/L	SL	22	OZ/A			MP	B	0	30.35 g/mx				
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	43.2	%AW/W	XL	0.5	% V/V			MP	B	0	11.66 g/mx				
	VAPORGRIP XTRA AGENT	394	GA/L	SL	20	OZ/A			MP	B	0	22.92 mL/mx				
	CLASS ACT RIDION	100	%AW/W	XL	1	% V/V			MP	B	0	22.0 mL/mx				
	LIBERTY 280	280	GA/L	SL	32	OZ/A			LP	C	0	41.91 g/mx				
	N-PAK AMS LIQUID	34	%AW/W	XL	2.5	% V/V			LP	C	0	54.99 mL/mx				
8	FIERCE MTZ	317	GA/L	SC	1.25	PT/A			PRE	A	0	22.92 mL/mx		108	207	30
	WARRANT	359	GA/L	CS	48	OZ/A			MP	B	0	61.05 g/mx				
	ROUNDUP POWERMAX 3	575	GA/L	SL	30	OZ/A			MP	B	0	34.37 mL/mx				
	XTENDIMAX VAPORGRIP	350	GA/L	SL	22	OZ/A			MP	B	0	30.35 g/mx				
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	43.2	%AW/W	XL	0.5	% V/V			MP	B	0	11.66 g/mx				
	VAPORGRIP XTRA AGENT	394	GA/L	SL	20	OZ/A			MP	B	0	22.92 mL/mx				
	CLASS ACT RIDION	100	%AW/W	XL	1	% V/V			MP	B	0	22.0 mL/mx				
	LIBERTY 280	280	GA/L	SL	32	OZ/A			LP	C	0	41.91 g/mx				
	N-PAK AMS LIQUID	34	%AW/W	XL	2.5	% V/V			LP	C	0	54.99 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
65.312	mL	DFE+FFA+MRB	619%	GA/L	OZ/A g/1000	
440.000	mL	WARRANT	359%	GA/L	OZ/A g/1000	
240.625	mL	ROUNDUP POWERMAX 3	575%	GA/L	OZ/A g/1000	
176.458	mL	XTENDIMAX VAPORGRIP	350%	GA/L	OZ/A g/1000	
76.992	mL	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	43.2%	%AW/W	% V/V g/1000	
160.417	mL	VAPORGRIP XTRA AGENT	394%	GA/L	OZ/A g/1000	
153.983	mL	CLASS ACT RIDION	100%	%AW/W	% V/V g/1000	
256.666	mL	LIBERTY 280	280%	GA/L	OZ/A g/1000	
384.958	mL	N-PAK AMS LIQUID	34%	%AW/W	% V/V g/1000	
9.167	mL	MAULER	480%	GA/L	OZ/A g/1000	
57.292	mL	WARRANT ULTRA HERBICIDE	413%	GA/L	OZ/A g/1000	
2.292	mL	VALOR EZ	480%	GA/L	OZ/A g/1000	
33.000	mL	BOUNDARY 6.5 EC	777%	GA/L	PT/A g/1000	
22.917	mL	FIERCE MTZ	317%	GA/L	PT/A g/1000	

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

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

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

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

ARM Trial Created On: 5-5-2022
Initiation Date: 5-17-2022 **Planned Completion Date:** 11-1-2022
Completion Date: 10-11-2022

Trial Location

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

Latitude of LL Corner °: 38.11307033 N
Longitude of LL Corner °: -84.4845455 W
GPS Accuracy of LL Corner: 6.6 FT
Altitude of LL Corner: 786.10 FT

Conducted Under GLP: No
Conducted Under GEP: No **Study Rules:** Default

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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 **E-mail:** travis.legleiter@uky.edu
City: PRINCETON **State/Prov:** KY **Postal Code:** 42445
Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
Country: USA United States **E-mail:** sara.carter@uky.edu
City: LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312

Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Stage Scale: BBCH
Variety: AG 37XF2
Attributes: XTEND FLEX
Planting Date: 5-17-2022 **Planting Rate:** 150000 S/A
Depth: 1.25 IN
Rows per Plot: 6 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** FE field equipment
Seed Bed: MEDIUM medium
Soil Temperature: 67 F **Soil Moisture:** WET wet
Emergence Date: 5-23-2022
Harvest Date: 10-11-2022 **Harvest Equipment:** HEGE
Moisture Meter: HarvestMaster **Harvested Width:** 5 FT
% Standard Moisture: 13.0 **Harvested Length:** 28 FT
Weighing Equipment: HarvestMaster

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
Crop: 1 GLXMA

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 33 FT
Treated Plot Area: 330.0 FT2 **Tillage Type:** NOTILL no-till
Replications: 4 **Treatments:** 8 **Plots:** 32 **Study Design:** RACOB L Randomized Complete Block (RCB)

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

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Application Description

	A	B	C
Application Date	5-18-2022	6-17-2022	7-14-2022
Appl. Start Time	8:45 AM	4:45 PM	2:00 PM
Appl. Stop Time	9:10 AM	5:00 PM	2:20 PM
Interval to Prev. Appl.		30 DAYS	27 DAYS
Application Method	SPRAY	SPRAY	SPRAY
Application Timing	PRE	MP	LP
Application Placement	BROFOL	BROFOL	BROFOL
Applied By	SARA	SARA	SARA
Air Temperature Start, Stop	75, - F	88, - F	84, - F
% Relative Humidity Start, Stop	65, -	39, -	45, -
Wind Velocity+Dir. Start	6 MPH, SW	6 MPH, NW	4 MPH, WSW
Soil Temperature	67 F	78 F	76 F
Soil Moisture	WET	GOOD	GOOD
Soil Surface Condition	MEDIUM	MEDIUM	MEDIUM
% Cloud Cover	30	30	25
Next Moisture Occurred On	5-18-2022	6-22-2022	7-17-2022

Comment:

oversprayed entire field with 29 oz/A Liberty + 2.5% AMS prior to planting.

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-5	25	52
Height Average		6 IN	14 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	2 IN	4 IN	6 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA	-, GLXMA
Pest 2 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH	IPOSS, W, BBCH
Height Average	1.5 IN	2 IN	4 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA	-, GLXMA
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH
Height Average	2 IN	3 IN	5 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA	-, GLXMA

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	11002	8002 DG
Nozzle Type	FLAT FAN	AIR INDUC	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
Boom Flow Rate	- IN	- IN	- IN
Ground Speed	4 MPH	4 MPH	4 MPH
Carrier	WATER	WATER	WATER
Application Amount	15 GPA	15 GPA	15 GPA
Mix Size	2.2 liters	2.2 liters	2.2 liters
Propellant	CO2	CO2	CO2

Notes

Context	Date	By	Notes
STATUS	5-5-2022	Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	11-17-2022	Sara Carter	Automatically added by ARM: Status changed to: F: changed by (EKYCAS).

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	6-1-2022	6-1-2022	6-1-2022	6-1-2022
Part Rated				
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1
ARM Action Codes				
Number of Decimals				

Trt	Treatment	Rate	Appl	1	2	3	4
No.	Name	Rate Unit	Code Plot				
1	UNTREATED WEED FREE			101 0.0	100.0	100.0	100.0
				204 0.0	100.0	100.0	100.0
				308 0.0	100.0	100.0	100.0
				403 0.0	100.0	100.0	100.0
			Mean =	0.0	100.0	100.0	100.0
2	DFE+FFA+MRB	19 OZ/A	A	102 0.0	95.0	70.0	100.0
	WARRANT	48 OZ/A	B	208 0.0	95.0	75.0	100.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	301 0.0	95.0	75.0	100.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	405 0.0	95.0	75.0	100.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B				
	VAPORGRIP XTRA AGENT	20 OZ/A	B				
	CLASS ACT RIDION	1 % V/V	B				
	LIBERTY 280	32 OZ/A	C				
	N-PAK AMS LIQUID	2.5 % V/V	C				
			Mean =	0.0	95.0	73.8	100.0
3	DFE+FFA+MRB	38 OZ/A	A	103 0.0	95.0	95.0	100.0
	WARRANT	48 OZ/A	B	202 0.0	100.0	90.0	100.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	307 0.0	100.0	95.0	100.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	406 0.0	100.0	95.0	100.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B				
	VAPORGRIP XTRA AGENT	20 OZ/A	B				
	CLASS ACT RIDION	1 % V/V	B				
	LIBERTY 280	32 OZ/A	C				
	N-PAK AMS LIQUID	2.5 % V/V	C				
			Mean =	0.0	98.8	93.8	100.0
4	WARRANT	48 OZ/A	A	104 0.0	95.0	65.0	95.0
	MAULER	8 OZ/A	A	206 0.0	95.0	70.0	90.0
	WARRANT	48 OZ/A	B	305 0.0	95.0	70.0	95.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	404 0.0	95.0	75.0	95.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B				
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B				
	VAPORGRIP XTRA AGENT	20 OZ/A	B				
	CLASS ACT RIDION	1 % V/V	B				
	LIBERTY 280	32 OZ/A	C				
	N-PAK AMS LIQUID	2.5 % V/V	C				
			Mean =	0.0	95.0	70.0	93.8
5	WARRANT ULTRA HERBICIDE	50 OZ/A	A	105 0.0	100.0	95.0	95.0
	WARRANT	48 OZ/A	B	201 0.0	100.0	95.0	95.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	302 0.0	100.0	95.0	95.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	407 0.0	100.0	95.0	95.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B				
	VAPORGRIP XTRA AGENT	20 OZ/A	B				
	CLASS ACT RIDION	1 % V/V	B				
	LIBERTY 280	32 OZ/A	C				
	N-PAK AMS LIQUID	2.5 % V/V	C				
			Mean =	0.0	100.0	95.0	95.0

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	6-1-2022	6-1-2022	6-1-2022	6-1-2022
Part Rated				
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0 , 10	% , 0 , 100	% , 0 , 100	% , 0 , 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4
6	VALOR EZ	2 OZ/A	A	106	0.0	95.0	90.0	90.0
	WARRANT	48 OZ/A	B	205	0.0	95.0	95.0	90.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	304	0.0	95.0	90.0	90.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	401	0.0	95.0	90.0	90.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
		Mean =				0.0	95.0	91.3	90.0
7	BOUNDARY 6.5 EC	1.8 PT/A	A	107	0.0	85.0	90.0	80.0
	WARRANT	48 OZ/A	B	203	0.0	85.0	90.0	85.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	306	0.0	90.0	95.0	80.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	402	0.0	95.0	90.0	80.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
		Mean =				0.0	88.8	91.3
8	FIERCE MTZ	1.25 PT/A	A	108	0.0	100.0	100.0	100.0
	WARRANT	48 OZ/A	B	207	0.0	100.0	100.0	100.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	303	0.0	100.0	100.0	100.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	408	0.0	100.0	100.0	100.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
		Mean =				0.0	100.0	100.0

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	6-7-2022	6-7-2022	6-7-2022	6-7-2022
Part Rated				
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	20, 20	20, 20	20, 20	20, 20
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A	20 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	21 DP-1
Days After Emergence	15 DE-1	15 DE-1	15 DE-1	15 DE-1
ARM Action Codes				
Number of Decimals				

Trt	Treatment	Rate	Appl	5	6	7	8	
No.	Name	Rate Unit	Code Plot					
1	UNTREATED WEED FREE			101	0.0	90.0	90.0	95.0
				204	0.0	90.0	95.0	95.0
				308	0.0	95.0	90.0	95.0
				403	0.0	90.0	90.0	95.0
			Mean =	0.0	91.3	91.3	95.0	
2	DFE+FFA+MRB	19 OZ/A	A	102	0.0	90.0	90.0	95.0
	WARRANT	48 OZ/A	B	208	0.0	90.0	95.0	95.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	301	0.0	90.0	90.0	95.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	405	0.0	80.0	90.0	95.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
			Mean =	0.0	87.5	91.3	95.0	
3	DFE+FFA+MRB	38 OZ/A	A	103	0.0	95.0	85.0	85.0
	WARRANT	48 OZ/A	B	202	0.0	95.0	85.0	80.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	307	0.0	95.0	85.0	85.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	406	0.0	95.0	85.0	85.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
			Mean =	0.0	95.0	85.0	83.8	
4	WARRANT	48 OZ/A	A	104	0.0	90.0	75.0	85.0
	MAULER	8 OZ/A	A	206	0.0	90.0	80.0	85.0
	WARRANT	48 OZ/A	B	305	0.0	90.0	80.0	90.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	404	0.0	90.0	85.0	85.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
			Mean =	0.0	90.0	80.0	86.3	
5	WARRANT ULTRA HERBICIDE	50 OZ/A	A	105	0.0	95.0	90.0	85.0
	WARRANT	48 OZ/A	B	201	0.0	95.0	95.0	85.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	302	0.0	95.0	90.0	85.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	407	0.0	95.0	90.0	85.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
			Mean =	0.0	95.0	91.3	85.0	

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	6-7-2022	6-7-2022	6-7-2022	6-7-2022
Part Rated				
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0 , 10	% , 0 , 100	% , 0 , 100	% , 0 , 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	20, 20	20, 20	20, 20	20, 20
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A	20 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	21 DP-1
Days After Emergence	15 DE-1	15 DE-1	15 DE-1	15 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Appl Code	Plot	5	6	7	8
6	VALOR EZ	2 OZ/A	A	106	0.0	90.0	75.0	85.0
	WARRANT	48 OZ/A	B	205	0.0	90.0	70.0	90.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	304	0.0	90.0	75.0	85.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	401	0.0	90.0	75.0	85.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
		Mean =				0.0	90.0	73.8	86.3
7	BOUNDARY 6.5 EC	1.8 PT/A	A	107	0.0	85.0	65.0	50.0
	WARRANT	48 OZ/A	B	203	0.0	85.0	60.0	50.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	306	0.0	85.0	65.0	65.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	402	0.0	85.0	65.0	50.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
		Mean =				0.0	85.0	63.8	53.8
8	FIERCE MTZ	1.25 PT/A	A	108	0.0	95.0	90.0	90.0
	WARRANT	48 OZ/A	B	207	0.0	95.0	90.0	90.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	303	0.0	95.0	85.0	90.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	408	0.0	95.0	90.0	90.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
		Mean =				0.0	95.0	88.8

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	6-15-2022	6-17-2022	6-17-2022	6-17-2022
Part Rated				
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	28, 28	30, 30	30, 30	30, 30
Trt-Eval Interval	28 DA-A	30 DA-A	30 DA-A	30 DA-A
Plant-Eval Interval	29 DP-1	31 DP-1	31 DP-1	31 DP-1
Days After Emergence	23 DE-1	25 DE-1	25 DE-1	25 DE-1
ARM Action Codes				
Number of Decimals				

Trt	Treatment	Rate	Appl	9	10	11	12	13
No.	Name	Rate Unit	Code Plot					
1	UNTREATED WEED FREE			101	0.0	90.0	90.0	95.0
				204	0.0	90.0	90.0	95.0
				308	0.0	90.0	90.0	95.0
				403	0.0	90.0	90.0	95.0
			Mean =	0.0	90.0	90.0	95.0	95.0
2	DFE+FFA+MRB	19 OZ/A	A	102	0.0	90.0	90.0	95.0
	WARRANT	48 OZ/A	B	208	0.0	90.0	90.0	95.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	301	0.0	90.0	90.0	95.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	405	0.0	80.0	90.0	95.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
			Mean =	0.0	87.5	90.0	95.0	95.0
3	DFE+FFA+MRB	38 OZ/A	A	103	0.0	90.0	85.0	85.0
	WARRANT	48 OZ/A	B	202	0.0	90.0	85.0	85.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	307	0.0	90.0	85.0	85.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	406	0.0	90.0	85.0	85.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
			Mean =	0.0	90.0	85.0	85.0	85.0
4	WARRANT	48 OZ/A	A	104	0.0	90.0	75.0	85.0
	MAULER	8 OZ/A	A	206	0.0	90.0	80.0	85.0
	WARRANT	48 OZ/A	B	305	0.0	90.0	80.0	85.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	404	0.0	90.0	80.0	85.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
			Mean =	0.0	90.0	78.8	85.0	85.0
5	WARRANT ULTRA HERBICIDE	50 OZ/A	A	105	0.0	90.0	80.0	85.0
	WARRANT	48 OZ/A	B	201	0.0	90.0	90.0	85.0
	ROUNDUP POWERMAX 3	30 OZ/A	B	302	0.0	90.0	90.0	85.0
	XTENDIMAX VAPORGRIP	22 OZ/A	B	407	0.0	90.0	90.0	85.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
			Mean =	0.0	90.0	87.5	85.0	85.0

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	6-15-2022	6-17-2022	6-17-2022	6-17-2022
Part Rated				
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0 , 10	% , 0 , 100	% , 0 , 100	% , 0 , 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	28, 28	30, 30	30, 30	30, 30
Trt-Eval Interval	28 DA-A	30 DA-A	30 DA-A	30 DA-A
Plant-Eval Interval	29 DP-1	31 DP-1	31 DP-1	31 DP-1
Days After Emergence	23 DE-1	25 DE-1	25 DE-1	25 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Appl Code	Plot	9	10	11	12	13
6	VALOR EZ	2 OZ/A	A	106	0.0	90.0	75.0	85.0	
	WARRANT	48 OZ/A	B	205	0.0	90.0	75.0	85.0	
	ROUNDUP POWERMAX 3	30 OZ/A	B	304	0.0	90.0	75.0	85.0	
	XTENDIMAX VAPORGRIP	22 OZ/A	B	401	0.0	90.0	75.0	85.0	
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B						
	VAPORGRIP XTRA AGENT	20 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	LIBERTY 280	32 OZ/A	C						
	N-PAK AMS LIQUID	2.5 % V/V	C						
				Mean =	0.0	90.0	75.0	85.0	
7	BOUNDARY 6.5 EC	1.8 PT/A	A	107	0.0	85.0	65.0	50.0	
	WARRANT	48 OZ/A	B	203	0.0	85.0	65.0	50.0	
	ROUNDUP POWERMAX 3	30 OZ/A	B	306	0.0	85.0	65.0	50.0	
	XTENDIMAX VAPORGRIP	22 OZ/A	B	402	0.0	85.0	65.0	50.0	
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B						
	VAPORGRIP XTRA AGENT	20 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	LIBERTY 280	32 OZ/A	C						
	N-PAK AMS LIQUID	2.5 % V/V	C						
				Mean =	0.0	85.0	65.0	50.0	
8	FIERCE MTZ	1.25 PT/A	A	108	0.0	90.0	90.0	90.0	
	WARRANT	48 OZ/A	B	207	0.0	90.0	90.0	90.0	
	ROUNDUP POWERMAX 3	30 OZ/A	B	303	0.0	90.0	90.0	90.0	
	XTENDIMAX VAPORGRIP	22 OZ/A	B	408	0.0	90.0	90.0	90.0	
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B						
	VAPORGRIP XTRA AGENT	20 OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	LIBERTY 280	32 OZ/A	C						
	N-PAK AMS LIQUID	2.5 % V/V	C						
				Mean =	0.0	90.0	90.0	90.0	

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Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	10-11-2022	10-11-2022	10-11-2022
Part Rated			
Rating Type	YIELD	MOICON	YIELD
Rating Unit/Min/Max	lb/plot, -, -	%, 0, 100	BU, -, -
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	146, 89	146, 89	146, 89
Trt-Eval Interval			
Plant-Eval Interval	147 DP-1	147 DP-1	147 DP-1
Days After Emergence	141 DE-1	141 DE-1	141 DE-1
ARM Action Codes			TY1
Number of Decimals			1

Trt	Treatment	Rate	Appl	14	15	16
No.	Name	Rate Unit	Code Plot			
1	UNTREATED WEED FREE		101	3.790	9.620	20.4
			204	8.520	9.610	45.9
			308	7.520	9.950	40.4
			403	11.400	9.220	61.7
			Mean =	7.808	9.600	42.1
2	DFF+FFA+MRB	19 OZ/A	A 102	4.990	10.400	26.7
	WARRANT	48 OZ/A	B 208	7.520	9.680	40.5
	ROUNDUP POWERMAX 3	30 OZ/A	B 301	7.760	10.200	41.5
	XTENDIMAX VAPORGRIP	22 OZ/A	B 405	9.410	9.120	51.0
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B			
	VAPORGRIP XTRA AGENT	20 OZ/A	B			
	CLASS ACT RIDION	1 % V/V	B			
	LIBERTY 280	32 OZ/A	C			
	N-PAK AMS LIQUID	2.5 % V/V	C			
			Mean =	7.420	9.850	39.9
3	DFF+FFA+MRB	38 OZ/A	A 103	5.500	10.100	29.5
	WARRANT	48 OZ/A	B 202	7.980	9.430	43.1
	ROUNDUP POWERMAX 3	30 OZ/A	B 307	8.010	9.440	43.2
	XTENDIMAX VAPORGRIP	22 OZ/A	B 406	7.730	9.270	41.8
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B			
	VAPORGRIP XTRA AGENT	20 OZ/A	B			
	CLASS ACT RIDION	1 % V/V	B			
	LIBERTY 280	32 OZ/A	C			
	N-PAK AMS LIQUID	2.5 % V/V	C			
			Mean =	7.305	9.560	39.4
4	WARRANT	48 OZ/A	A 104	5.780	10.100	31.0
	MAULER	8 OZ/A	A 206	8.100	9.590	43.7
	WARRANT	48 OZ/A	B 305	10.920	9.350	59.0
	ROUNDUP POWERMAX 3	30 OZ/A	B 404	8.500	9.530	45.8
	XTENDIMAX VAPORGRIP	22 OZ/A	B			
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B			
	VAPORGRIP XTRA AGENT	20 OZ/A	B			
	CLASS ACT RIDION	1 % V/V	B			
	LIBERTY 280	32 OZ/A	C			
	N-PAK AMS LIQUID	2.5 % V/V	C			
			Mean =	8.325	9.643	44.9
5	WARRANT ULTRA HERBICIDE	50 OZ/A	A 105	4.880	9.960	26.2
	WARRANT	48 OZ/A	B 201	7.330	10.000	39.3
	ROUNDUP POWERMAX 3	30 OZ/A	B 302	7.870	9.500	42.5
	XTENDIMAX VAPORGRIP	22 OZ/A	B 407	9.400	9.690	50.6
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B			
	VAPORGRIP XTRA AGENT	20 OZ/A	B			
	CLASS ACT RIDION	1 % V/V	B			
	LIBERTY 280	32 OZ/A	C			
	N-PAK AMS LIQUID	2.5 % V/V	C			
			Mean =	7.370	9.788	39.6

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Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	10-11-2022	10-11-2022	10-11-2022
Part Rated			
Rating Type	YIELD	MOICON	YIELD
Rating Unit/Min/Max	lb/plot, -, -	%, 0, 100	BU, -, -
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	146, 89	146, 89	146, 89
Trt-Eval Interval			
Plant-Eval Interval	147 DP-1	147 DP-1	147 DP-1
Days After Emergence	141 DE-1	141 DE-1	141 DE-1
ARM Action Codes			TY1
Number of Decimals			1

Trt No.	Treatment Name	Rate	Appl Code	Plot	14	15	16
6	VALOR EZ	2 OZ/A	A	106	4.740	9.850	25.5
	WARRANT	48 OZ/A	B	205	9.270	9.300	50.1
	ROUNDUP POWERMAX 3	30 OZ/A	B	304	9.310	9.350	50.3
	XTENDIMAX VAPORGRIP	22 OZ/A	B	401	8.190	10.300	43.8
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B				
	VAPORGRIP XTRA AGENT	20 OZ/A	B				
	CLASS ACT RIDION	1 % V/V	B				
	LIBERTY 280	32 OZ/A	C				
	N-PAK AMS LIQUID	2.5 % V/V	C				
	Mean =				7.878	9.700	42.4
7	BOUNDARY 6.5 EC	1.8 PT/A	A	107	2.380	10.100	12.8
	WARRANT	48 OZ/A	B	203	7.710	9.820	41.4
	ROUNDUP POWERMAX 3	30 OZ/A	B	306	8.560	9.250	46.3
	XTENDIMAX VAPORGRIP	22 OZ/A	B	402	8.420	10.100	45.1
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B				
	VAPORGRIP XTRA AGENT	20 OZ/A	B				
	CLASS ACT RIDION	1 % V/V	B				
	LIBERTY 280	32 OZ/A	C				
	N-PAK AMS LIQUID	2.5 % V/V	C				
	Mean =				6.768	9.818	36.4
8	FIERCE MTZ	1.25 PT/A	A	108	5.370	9.830	28.9
	WARRANT	48 OZ/A	B	207	8.190	9.680	44.1
	ROUNDUP POWERMAX 3	30 OZ/A	B	303	8.330	10.200	44.6
	XTENDIMAX VAPORGRIP	22 OZ/A	B	408	9.220	9.400	49.8
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B				
	VAPORGRIP XTRA AGENT	20 OZ/A	B				
	CLASS ACT RIDION	1 % V/V	B				
	LIBERTY 280	32 OZ/A	C				
	N-PAK AMS LIQUID	2.5 % V/V	C				
	Mean =				7.778	9.778	41.8

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SC618/2 PASS PRE FB POST SB SAFETY YIELD

Trial ID: 22-11
 Protocol ID: HN22USAEOB Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

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
 YIELD = yield
 MOICON = moisture content

Rating Unit/Min/Max

%, 0, 100 = percent
 lb/plot, , = pounds per plot
 BU, , = bushel

Plant-Eval Interval

15 DP-1 = 1 GLXMA 5-17-2022
 21 DP-1 = 1 GLXMA 5-17-2022
 29 DP-1 = 1 GLXMA 5-17-2022
 31 DP-1 = 1 GLXMA 5-17-2022
 147 DP-1 = 1 GLXMA 5-17-2022

ARM Action Codes

TY1 = 5.18571429*[14]*(100-[15])/87

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Rating Date

Part Rated

Rating Type

Rating Unit/Min/Max

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5
1	UNTREATED WEED FREE			0.0 a	100.0 a	100.0 a	100.0 a	0.0 a
2	DFF+FFA+MRB	19 OZ/A	A	0.0 a	95.0 b	73.8 c	100.0 a	0.0 a
	WARRANT	48 OZ/A	B					
	ROUNDUP POWERMAX 3	30 OZ/A	B					
	XTENDIMAX VAPORGRIP	22 OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
3	DFF+FFA+MRB	38 OZ/A	A	0.0 a	98.8 a	93.8 b	100.0 a	0.0 a
	WARRANT	48 OZ/A	B					
	ROUNDUP POWERMAX 3	30 OZ/A	B					
	XTENDIMAX VAPORGRIP	22 OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, GLXMA				C, GLXMA
BBCH Scale	BSOY				BSOY
Crop Scientific Name	Glycine max				Glycine max
Crop Name	Soybean				Soybean
Rating Date	6-1-2022	6-1-2022	6-1-2022	6-1-2022	6-7-2022
Part Rated					
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	20, 20
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	20 DA-A
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1	21 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1	15 DE-1
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5
4	WARRANT	48	OZ/A	A	0.0 a	95.0 b	70.0 d	93.8 b	0.0 a
	MAULER	8	OZ/A	A					
	WARRANT	48	OZ/A	B					
	ROUNDUP POWERMAX 3	30	OZ/A	B					
	XTENDIMAX VAPORGRIP	22	OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B					
	VAPORGRIP XTRA AGENT	20	OZ/A	B					
	CLASS ACT RIDION	1	% V/V	B					
	LIBERTY 280	32	OZ/A	C					
	N-PAK AMS LIQUID	2.5	% V/V	C					
5	WARRANT ULTRA HERBICIDE	50	OZ/A	A	0.0 a	100.0 a	95.0 b	95.0 b	0.0 a
	WARRANT	48	OZ/A	B					
	ROUNDUP POWERMAX 3	30	OZ/A	B					
	XTENDIMAX VAPORGRIP	22	OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B					
	VAPORGRIP XTRA AGENT	20	OZ/A	B					
	CLASS ACT RIDION	1	% V/V	B					
	LIBERTY 280	32	OZ/A	C					
	N-PAK AMS LIQUID	2.5	% V/V	C					
6	VALOR EZ	2	OZ/A	A	0.0 a	95.0 b	91.3 b	90.0 c	0.0 a
	WARRANT	48	OZ/A	B					
	ROUNDUP POWERMAX 3	30	OZ/A	B					
	XTENDIMAX VAPORGRIP	22	OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B					
	VAPORGRIP XTRA AGENT	20	OZ/A	B					
	CLASS ACT RIDION	1	% V/V	B					
	LIBERTY 280	32	OZ/A	C					
	N-PAK AMS LIQUID	2.5	% V/V	C					
7	BOUNDARY 6.5 EC	1.8	PT/A	A	0.0 a	88.8 c	91.3 b	81.3 d	0.0 a
	WARRANT	48	OZ/A	B					
	ROUNDUP POWERMAX 3	30	OZ/A	B					
	XTENDIMAX VAPORGRIP	22	OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B					
	VAPORGRIP XTRA AGENT	20	OZ/A	B					
	CLASS ACT RIDION	1	% V/V	B					
	LIBERTY 280	32	OZ/A	C					
	N-PAK AMS LIQUID	2.5	% V/V	C					

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Pest Type	W, Weed	W, Weed	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 Type, Code	C, GLXMA			C, GLXMA				
BBCH Scale	BSOY			BSOY				
Crop Scientific Name	Glycine max			Glycine max				
Crop Name	Soybean			Soybean				
Rating Date	6-1-2022	6-1-2022	6-1-2022	6-1-2022				
Part Rated								
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO				
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100				
Number of Subsamples	1	1	1	1				
EDC App								
Rating Timing								
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14				
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A				
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1				
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1				
ARM Action Codes								
Number of Decimals								
Trt	Treatment	Rate	Appl	1	2	3	4	5
	No. Name	Rate Unit	Code					
8	FIERCE MTZ	1.25 PT/A	A	0.0 a	100.0 a	100.0 a	100.0 a	0.0 a
	WARRANT	48 OZ/A	B					
	ROUNDUP POWERMAX 3	30 OZ/A	B					
	XTENDIMAX VAPORGRIP	22 OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
	LSD P=.05			.	2.72	3.31	1.97	.
	Standard Deviation			0.00	1.85	2.25	1.34	0.00
	CV			0.0	1.92	2.52	1.41	0.0
	Levene's F^			.	3.338*	0.681	0.857	.
	Levene's Prob(F)			.	0.013*	0.687	0.553	.
	Shapiro-Wilk^			.	0.8611*	0.958	0.6568*	.
	P(Shapiro-Wilk)^			.	0.0007*	0.2423	0.0*	.
	Skewness^			.	0.6853	0.2542	0.0	.
	P(Skewness)^			.	0.1242	0.562	1.0	.
	Kurtosis^			.	4.5394*	0.6329	7.6609*	.
	P(Kurtosis)^			.	0.0*	0.4605	0.0*	.
	Replicate F			0.000	1.522	1.235	0.000	0.000
	Replicate Prob(F)			1.0000	0.2381	0.3219	1.0000	1.0000
	Treatment F			0.000	18.130	102.000	101.000	0.000
	Treatment Prob(F)			1.0000	0.0001	0.0001	0.0001	1.0000

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Pest Type	W, Weed	W, Weed	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 Type, Code				C, GLXMA
BBCH Scale				BSOY
Crop Scientific Name				Glycine max
Crop Name				Soybean
Rating Date	6-7-2022	6-7-2022	6-7-2022	6-15-2022
Part Rated				
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	20, 20	20, 20	20, 20	28, 28
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A	28 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	29 DP-1
Days After Emergence	15 DE-1	15 DE-1	15 DE-1	23 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Appl Code	6	7	8	9
		Rate Unit					
1	UNTREATED WEED FREE			91.3 ab	91.3 a	95.0 a	0.0 a
2	DFF+FFA+MRB	19 OZ/A	A	87.5 bc	91.3 a	95.0 a	0.0 a
	WARRANT	48 OZ/A	B				
	ROUNDUP POWERMAX 3	30 OZ/A	B				
	XTENDIMAX VAPORGRIP	22 OZ/A	B				
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B				
	VAPORGRIP XTRA AGENT	20 OZ/A	B				
	CLASS ACT RIDION	1 % V/V	B				
	LIBERTY 280	32 OZ/A	C				
	N-PAK AMS LIQUID	2.5 % V/V	C				
3	DFF+FFA+MRB	38 OZ/A	A	95.0 a	85.0 b	83.8 b	0.0 a
	WARRANT	48 OZ/A	B				
	ROUNDUP POWERMAX 3	30 OZ/A	B				
	XTENDIMAX VAPORGRIP	22 OZ/A	B				
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B				
	VAPORGRIP XTRA AGENT	20 OZ/A	B				
	CLASS ACT RIDION	1 % V/V	B				
	LIBERTY 280	32 OZ/A	C				
	N-PAK AMS LIQUID	2.5 % V/V	C				

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Pest Type	W, Weed	W, Weed	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 Type, Code				C, GLXMA
BBCH Scale				BSOY
Crop Scientific Name				Glycine max
Crop Name				Soybean
Rating Date	6-7-2022	6-7-2022	6-7-2022	6-15-2022
Part Rated				
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	20, 20	20, 20	20, 20	28, 28
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A	28 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	29 DP-1
Days After Emergence	15 DE-1	15 DE-1	15 DE-1	23 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Unit	Appl Code	6	7	8	9
4	WARRANT	48	OZ/A	A	90.0 b	80.0 c	86.3 b	0.0 a
	MAULER	8	OZ/A	A				
	WARRANT	48	OZ/A	B				
	ROUNDUP POWERMAX 3	30	OZ/A	B				
	XTENDIMAX VAPORGRIP	22	OZ/A	B				
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B				
	VAPORGRIP XTRA AGENT	20	OZ/A	B				
	CLASS ACT RIDION	1	% V/V	B				
	LIBERTY 280	32	OZ/A	C				
	N-PAK AMS LIQUID	2.5	% V/V	C				
5	WARRANT ULTRA HERBICIDE	50	OZ/A	A	95.0 a	91.3 a	85.0 b	0.0 a
	WARRANT	48	OZ/A	B				
	ROUNDUP POWERMAX 3	30	OZ/A	B				
	XTENDIMAX VAPORGRIP	22	OZ/A	B				
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B				
	VAPORGRIP XTRA AGENT	20	OZ/A	B				
	CLASS ACT RIDION	1	% V/V	B				
	LIBERTY 280	32	OZ/A	C				
	N-PAK AMS LIQUID	2.5	% V/V	C				
6	VALOR EZ	2	OZ/A	A	90.0 b	73.8 d	86.3 b	0.0 a
	WARRANT	48	OZ/A	B				
	ROUNDUP POWERMAX 3	30	OZ/A	B				
	XTENDIMAX VAPORGRIP	22	OZ/A	B				
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B				
	VAPORGRIP XTRA AGENT	20	OZ/A	B				
	CLASS ACT RIDION	1	% V/V	B				
	LIBERTY 280	32	OZ/A	C				
	N-PAK AMS LIQUID	2.5	% V/V	C				
7	BOUNDARY 6.5 EC	1.8	PT/A	A	85.0 c	63.8 e	53.8 c	0.0 a
	WARRANT	48	OZ/A	B				
	ROUNDUP POWERMAX 3	30	OZ/A	B				
	XTENDIMAX VAPORGRIP	22	OZ/A	B				
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B				
	VAPORGRIP XTRA AGENT	20	OZ/A	B				
	CLASS ACT RIDION	1	% V/V	B				
	LIBERTY 280	32	OZ/A	C				
	N-PAK AMS LIQUID	2.5	% V/V	C				

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Pest Type	W, Weed	W, Weed	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 Type, Code				C, GLXMA
BBCH Scale				BSOY
Crop Scientific Name				Glycine max
Crop Name				Soybean
Rating Date	6-7-2022	6-7-2022	6-7-2022	6-15-2022
Part Rated				
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	20, 20	20, 20	20, 20	28, 28
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A	28 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	29 DP-1
Days After Emergence	15 DE-1	15 DE-1	15 DE-1	23 DE-1
ARM Action Codes				
Number of Decimals				

Trt	Treatment	Rate	Appl	6	7	8	9
No.	Name	Rate Unit	Code				
8	FIERCE MTZ	1.25 PT/A	A	95.0 a	88.8 ab	90.0 ab	0.0 a
	WARRANT	48 OZ/A	B				
	ROUNDUP POWERMAX 3	30 OZ/A	B				
	XTENDIMAX VAPORGRIP	22 OZ/A	B				
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B				
	VAPORGRIP XTRA AGENT	20 OZ/A	B				
	CLASS ACT RIDION	1 % V/V	B				
	LIBERTY 280	32 OZ/A	C				
	N-PAK AMS LIQUID	2.5 % V/V	C				
	LSD P=.05			2.85	3.93	4.39	.
	Standard Deviation			1.94	2.67	2.99	0.00
	CV			2.13	3.22	3.54	0.0
	Levene's F^			0.738	0.353	0.527	.
	Levene's Prob(F)			0.642	0.92	0.805	.
	Shapiro-Wilk^			0.7945*	0.9484	0.8203*	.
	P(Shapiro-Wilk)^			0.0*	0.1298	0.0001*	.
	Skewness^			-1.7501*	-0.3031	1.7349*	.
	P(Skewness)^			0.0003*	0.4898	0.0004*	.
	Kurtosis^			7.8647*	-0.0557	5.952*	.
	P(Kurtosis)^			0.0*	0.948	0.0*	.
	Replicate F			1.317	0.583	1.400	0.000
	Replicate Prob(F)			0.2954	0.6325	0.2706	1.0000
	Treatment F			14.941	56.500	77.000	0.000
	Treatment Prob(F)			0.0001	0.0001	0.0001	1.0000

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Pest Type	W, Weed	W, Weed	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 Type, Code				C, GLXMA
BBCH Scale				BSOY
Crop Scientific Name				Glycine max
Crop Name				Soybean
Rating Date	6-17-2022	6-17-2022	6-17-2022	10-11-2022
Part Rated				
Rating Type	CONTRO	CONTRO	CONTRO	YIELD
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	lb/plot, -, -
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	30, 30	30, 30	30, 30	146, 89
Trt-Eval Interval	30 DA-A	30 DA-A	30 DA-A	
Plant-Eval Interval	31 DP-1	31 DP-1	31 DP-1	147 DP-1
Days After Emergence	25 DE-1	25 DE-1	25 DE-1	141 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Appl Code	10	11	12	13	14
		Rate Unit						
1	UNTREATED WEED FREE			90.0 a	90.0 a	95.0 a		7.808 a
2	DFF+FFA+MRB	19 OZ/A	A	87.5 ab	90.0 a	95.0 a		7.420 a
	WARRANT	48 OZ/A	B					
	ROUNDUP POWERMAX 3	30 OZ/A	B					
	XTENDIMAX VAPORGRIP	22 OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					
3	DFF+FFA+MRB	38 OZ/A	A	90.0 a	85.0 b	85.0 c		7.305 a
	WARRANT	48 OZ/A	B					
	ROUNDUP POWERMAX 3	30 OZ/A	B					
	XTENDIMAX VAPORGRIP	22 OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
	VAPORGRIP XTRA AGENT	20 OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	LIBERTY 280	32 OZ/A	C					
	N-PAK AMS LIQUID	2.5 % V/V	C					

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Pest Type	W, Weed	W, Weed	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 Type, Code				C, GLXMA
BBCH Scale				BSOY
Crop Scientific Name				Glycine max
Crop Name				Soybean
Rating Date	6-17-2022	6-17-2022	6-17-2022	10-11-2022
Part Rated				
Rating Type	CONTRO	CONTRO	CONTRO	YIELD
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	lb/plot, -, -
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	30, 30	30, 30	30, 30	146, 89
Trt-Eval Interval	30 DA-A	30 DA-A	30 DA-A	
Plant-Eval Interval	31 DP-1	31 DP-1	31 DP-1	147 DP-1
Days After Emergence	25 DE-1	25 DE-1	25 DE-1	141 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Unit	Appl Code	10	11	12	13	14
4	WARRANT	48	OZ/A	A	90.0 a	78.8 c	85.0 c		8.325 a
	MAULER	8	OZ/A	A					
	WARRANT	48	OZ/A	B					
	ROUNDUP POWERMAX 3	30	OZ/A	B					
	XTENDIMAX VAPORGRIP	22	OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B					
	VAPORGRIP XTRA AGENT	20	OZ/A	B					
	CLASS ACT RIDION	1	% V/V	B					
	LIBERTY 280	32	OZ/A	C					
	N-PAK AMS LIQUID	2.5	% V/V	C					
5	WARRANT ULTRA HERBICIDE	50	OZ/A	A	90.0 a	87.5 ab	85.0 c		7.370 a
	WARRANT	48	OZ/A	B					
	ROUNDUP POWERMAX 3	30	OZ/A	B					
	XTENDIMAX VAPORGRIP	22	OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B					
	VAPORGRIP XTRA AGENT	20	OZ/A	B					
	CLASS ACT RIDION	1	% V/V	B					
	LIBERTY 280	32	OZ/A	C					
	N-PAK AMS LIQUID	2.5	% V/V	C					
6	VALOR EZ	2	OZ/A	A	90.0 a	75.0 d	85.0 c		7.878 a
	WARRANT	48	OZ/A	B					
	ROUNDUP POWERMAX 3	30	OZ/A	B					
	XTENDIMAX VAPORGRIP	22	OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B					
	VAPORGRIP XTRA AGENT	20	OZ/A	B					
	CLASS ACT RIDION	1	% V/V	B					
	LIBERTY 280	32	OZ/A	C					
	N-PAK AMS LIQUID	2.5	% V/V	C					
7	BOUNDARY 6.5 EC	1.8	PT/A	A	85.0 b	65.0 e	50.0 d		6.768 a
	WARRANT	48	OZ/A	B					
	ROUNDUP POWERMAX 3	30	OZ/A	B					
	XTENDIMAX VAPORGRIP	22	OZ/A	B					
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5	% V/V	B					
	VAPORGRIP XTRA AGENT	20	OZ/A	B					
	CLASS ACT RIDION	1	% V/V	B					
	LIBERTY 280	32	OZ/A	C					
	N-PAK AMS LIQUID	2.5	% V/V	C					

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Pest Type	W, Weed	W, Weed	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 Type, Code				C, GLXMA			
BBCH Scale				BSOY			
Crop Scientific Name				Glycine max			
Crop Name				Soybean			
Rating Date	6-17-2022	6-17-2022	6-17-2022	10-11-2022			
Part Rated							
Rating Type	CONTRO	CONTRO	CONTRO	YIELD			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	lb/plot, -, -			
Number of Subsamples	1	1	1	1			
EDC App							
Rating Timing							
Days After First/Last Applic.	30, 30	30, 30	30, 30	146, 89			
Trt-Eval Interval	30 DA-A	30 DA-A	30 DA-A				
Plant-Eval Interval	31 DP-1	31 DP-1	31 DP-1	147 DP-1			
Days After Emergence	25 DE-1	25 DE-1	25 DE-1	141 DE-1			
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl	10	11	12	13	14
No. Name	Rate Unit	Code					
8 FIERCE MTZ	1.25 PT/A	A	90.0 a	90.0 a	90.0 b		7.778 a
WARRANT	48 OZ/A	B					
ROUNDUP POWERMAX 3	30 OZ/A	B					
XTENDIMAX VAPORGRIP	22 OZ/A	B					
INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B					
VAPORGRIP XTRA AGENT	20 OZ/A	B					
CLASS ACT RIDION	1 % V/V	B					
LIBERTY 280	32 OZ/A	C					
N-PAK AMS LIQUID	2.5 % V/V	C					
LSD P=.05			2.60	2.74	.	.	1.5299
Standard Deviation			1.77	1.86	0.00	.	1.0404
CV			1.98	2.25	0.0	.	13.72
Levene's F^			0.643	0.396	.	.	1.158
Levene's Prob(F)			0.716	0.895	.	.	0.362
Shapiro-Wilk^			0.5947*	0.7384*	.	.	0.9723
P(Shapiro-Wilk)^			0.0*	0.0*	.	.	0.5642
Skewness^			-2.7492*	-1.8964*	.	.	0.3032
P(Skewness)^			0.0*	0.0001*	.	.	0.4897
Kurtosis^			13.5402*	7.2755*	.	.	0.0446
P(Kurtosis)^			0.0*	0.0*	.	.	0.9583
Replicate F			1.000	2.032	0.000		28.802
Replicate Prob(F)			0.4123	0.1401	1.0000		0.0001
Treatment F			4.429	95.194	0.000		0.813
Treatment Prob(F)			0.0037	0.0001	1.0000		0.5867

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Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Crop Type, Code	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	10-11-2022	10-11-2022
Part Rated		
Rating Type	MOICON	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Number of Subsamples	1	1
EDC App		
Rating Timing		
Days After First/Last Applic.	146, 89	146, 89
Trt-Eval Interval		
Plant-Eval Interval	147 DP-1	147 DP-1
Days After Emergence	141 DE-1	141 DE-1
ARM Action Codes		TY1
Number of Decimals		1

Trt No.	Treatment Name	Rate	Appl Code	15	16
		Rate Unit			
1	UNTREATED WEED FREE				
2	DFF+FFA+MRB	19 OZ/A	A	9.600 a	42.1 a
	WARRANT	48 OZ/A	B	9.850 a	39.9 a
	ROUNDUP POWERMAX 3	30 OZ/A	B		
	XTENDIMAX VAPORGRIP	22 OZ/A	B		
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B		
	VAPORGRIP XTRA AGENT	20 OZ/A	B		
	CLASS ACT RIDION	1 % V/V	B		
	LIBERTY 280	32 OZ/A	C		
	N-PAK AMS LIQUID	2.5 % V/V	C		
3	DFF+FFA+MRB	38 OZ/A	A	9.560 a	39.4 a
	WARRANT	48 OZ/A	B		
	ROUNDUP POWERMAX 3	30 OZ/A	B		
	XTENDIMAX VAPORGRIP	22 OZ/A	B		
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B		
	VAPORGRIP XTRA AGENT	20 OZ/A	B		
	CLASS ACT RIDION	1 % V/V	B		
	LIBERTY 280	32 OZ/A	C		
	N-PAK AMS LIQUID	2.5 % V/V	C		

University of Kentucky

Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Crop Type, Code	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	10-11-2022	10-11-2022
Part Rated		
Rating Type	MOICON	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Number of Subsamples	1	1
EDC App		
Rating Timing		
Days After First/Last Applic.	146, 89	146, 89
Trt-Eval Interval		
Plant-Eval Interval	147 DP-1	147 DP-1
Days After Emergence	141 DE-1	141 DE-1
ARM Action Codes		TY1
Number of Decimals		1

Trt No.	Treatment Name	Rate	Appl Code	15	16
		Rate Unit			
4	WARRANT	48 OZ/A	A	9.643 a	44.9 a
	MAULER	8 OZ/A	A		
	WARRANT	48 OZ/A	B		
	ROUNDUP POWERMAX 3	30 OZ/A	B		
	XTENDIMAX VAPORGRIP	22 OZ/A	B		
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B		
	VAPORGRIP XTRA AGENT	20 OZ/A	B		
	CLASS ACT RIDION	1 % V/V	B		
	LIBERTY 280	32 OZ/A	C		
	N-PAK AMS LIQUID	2.5 % V/V	C		
5	WARRANT ULTRA HERBICIDE	50 OZ/A	A	9.788 a	39.6 a
	WARRANT	48 OZ/A	B		
	ROUNDUP POWERMAX 3	30 OZ/A	B		
	XTENDIMAX VAPORGRIP	22 OZ/A	B		
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B		
	VAPORGRIP XTRA AGENT	20 OZ/A	B		
	CLASS ACT RIDION	1 % V/V	B		
	LIBERTY 280	32 OZ/A	C		
	N-PAK AMS LIQUID	2.5 % V/V	C		
6	VALOR EZ	2 OZ/A	A	9.700 a	42.4 a
	WARRANT	48 OZ/A	B		
	ROUNDUP POWERMAX 3	30 OZ/A	B		
	XTENDIMAX VAPORGRIP	22 OZ/A	B		
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B		
	VAPORGRIP XTRA AGENT	20 OZ/A	B		
	CLASS ACT RIDION	1 % V/V	B		
	LIBERTY 280	32 OZ/A	C		
	N-PAK AMS LIQUID	2.5 % V/V	C		
7	BOUNDARY 6.5 EC	1.8 PT/A	A	9.818 a	36.4 a
	WARRANT	48 OZ/A	B		
	ROUNDUP POWERMAX 3	30 OZ/A	B		
	XTENDIMAX VAPORGRIP	22 OZ/A	B		
	INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V	B		
	VAPORGRIP XTRA AGENT	20 OZ/A	B		
	CLASS ACT RIDION	1 % V/V	B		
	LIBERTY 280	32 OZ/A	C		
	N-PAK AMS LIQUID	2.5 % V/V	C		

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Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C, GLXMA	C, GLXMA	
BBCH Scale	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	
Rating Date	10-11-2022	10-11-2022	
Part Rated			
Rating Type	MOICON	YIELD	
Rating Unit/Min/Max	%, 0, 100	BU, -, -	
Number of Subsamples	1	1	
EDC App			
Rating Timing			
Days After First/Last Applic.	146, 89	146, 89	
Trt-Eval Interval			
Plant-Eval Interval	147 DP-1	147 DP-1	
Days After Emergence	141 DE-1	141 DE-1	
ARM Action Codes		TY1	
Number of Decimals		1	
Trt Treatment		15	16
No. Name	Rate Unit Appl Code		
8 FIERCE MTZ	1.25 PT/A A	9.778 a	41.8 a
WARRANT	48 OZ/A B		
ROUNDUP POWERMAX 3	30 OZ/A B		
XTENDIMAX VAPORGRIP	22 OZ/A B		
INTACT DRIFT CONTROL & FOLIAR AGENT (DFR)	0.5 % V/V B		
VAPORGRIP XTRA AGENT	20 OZ/A B		
CLASS ACT RIDION	1 % V/V B		
LIBERTY 280	32 OZ/A C		
N-PAK AMS LIQUID	2.5 % V/V C		
LSD P=.05		0.5338	8.36
Standard Deviation		0.3630	5.68
CV		3.74	13.92
Levene's F^		0.557	1.129
Levene's Prob(F)		0.783	0.378
Shapiro-Wilk^		0.9734	0.9721
P(Shapiro-Wilk)^		0.5984	0.5583
Skewness^		0.4096	0.3143
P(Skewness)^		0.3522	0.474
Kurtosis^		0.0516	0.0385
P(Kurtosis)^		0.9518	0.964
Replicate F		2.152	28.319
Replicate Prob(F)		0.1240	0.0001
Treatment F		0.349	0.801
Treatment Prob(F)		0.9211	0.5952

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SC618/2 PASS PRE FB POST SB SAFETY YIELD

Trial ID: 22-11
Protocol ID: HN22USAE0B Location: LEXINGTON, KY Cooperator Trial ID:
Project ID: Project ID 2: Project ID 3: Trial Year: 2022
Study Director: TRAVIS LEGLEITER Sponsor Contact:
Investigator (Creator): Sara Carter

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

YIELD = yield

MOICON = moisture content

Rating Unit/Min/Max

%, 0, 100 = percent

lb/plot, , = pounds per plot

BU, , = bushel

Plant-Eval Interval

15 DP-1 = 1 GLXMA 5-17-2022

21 DP-1 = 1 GLXMA 5-17-2022

29 DP-1 = 1 GLXMA 5-17-2022

31 DP-1 = 1 GLXMA 5-17-2022

147 DP-1 = 1 GLXMA 5-17-2022

ARM Action Codes

TY1 = 5.18571429*[14]*(100-[15])/87

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SC619 COMPETITIVE COMPARISONS

Trial ID: 22-12
 Protocol ID: HN22USAEOD Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:
 Trial Year: 2022

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	Rate	Other Rate	Other Rate	Appl Unit	Appl Timing	Appl Code	Comment	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	UNTREATED													101	210	302	410
2	DFF+FFA+MRB	619	GA/L	SC	15.2	OZ/A			PRE	A		17.42 mL/mx		102	211	309	402
3	DFF+FFA+MRB	619	GA/L	SC	19	OZ/A			PRE	A		21.77 mL/mx		103	204	310	403
4	DFF+FFA+MRB	619	GA/L	SC	15.2	OZ/A			PRE	A		17.42 mL/mx		104	203	305	404
	XTENDIMAX	2.9		SL	22	OZ/A			PRE	A		25.21 mL/mx					
	VAPORGRIP AGENT	394	GA/L	SL	20	OZ/A			PRE	A		22.92 mL/mx					
	INTACT			L	0.5	% V/V			PRE	A		11.0 mL/mx					
5	DFF+FFA+MRB	619	GA/L	SC	19	OZ/A			PRE	A		21.77 mL/mx		105	202	306	408
	XTENDIMAX	2.9		SL	22	OZ/A			PRE	A		25.21 mL/mx					
	VAPORGRIP AGENT	394	GA/L	SL	20	OZ/A			PRE	A		22.92 mL/mx					
	INTACT			L	0.5	% V/V			PRE	A		11.0 mL/mx					
6	WARRANT	3		CS	48	OZ/A			PRE	A		55.0 mL/mx		106	208	301	406
	MAULER	480	GA/L	SL	8	OZ/A			PRE	A		9.167 mL/mx					
7	WARRANT ULTRA	3.49	LBA/GAL	CS	50	OZ/A			PRE	A		57.29 mL/mx		107	205	311	409
8	VALOR EZ	4	LB/GAL	SC	2	OZ/A			PRE	A		2.292 mL/mx		108	206	308	407
9	BOUNDARY	6.5		E	1.8	PT/A			PRE	A		33.0 mL/mx		109	207	303	411
10	FIERCE MTZ	2.64	LB/GAL	SC	1.25	PT/A			PRE	A		22.92 mL/mx		110	209	304	405
11	SONIC	70		DF	6.45	OZ/A			PRE	A		7.085 g/mx		111	201	307	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
78.375	mL	DFF+FFA+MRB	619	GA/L	SC	
50.417	mL	XTENDIMAX	2.9		SL	
45.833	mL	VAPORGRIP AGENT	394	GA/L	SL	
21.998	mL	INTACT			L	
55.000	mL	WARRANT	3		CS	
9.167	mL	MAULER	480	GA/L	SL	
57.292	mL	WARRANT ULTRA	3.49	LBA/GAL	CS	
2.292	mL	VALOR EZ	4	LB/GAL	SC	
33.000	mL	BOUNDARY	6.5		E	
22.917	mL	FIERCE MTZ	2.64	LB/GAL	SC	
7.085	g	SONIC	70		DF	

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

General Trial Information

Study Director: TRAVIS LEGLEITER Title: EXTENSION SPECIALIST
 Investigator: Sara Carter Title: RESEARCH SPECIALIST

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

ARM Trial Created On: 5-6-2022
 Initiation Date: 5-16-2022 Planned Completion Date: 10-31-2022

Trial Location

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

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Latitude of LL Corner °: 38.1180385 N
Longitude of LL Corner °: -84.49409883 W
GPS Accuracy of LL Corner: 13.1 FT
Altitude of LL Corner: 802.80 FT

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Role: STYDIR	study director	Title: EXTENSION SPECIALIST
Study Director: TRAVIS LEGLEITER		
Organization: UNIVERSITY OF KENTUCKY		
Address 1: 348 UNIVERSITY DRIVE	Phone No.: 8595621323	
Address 2: PO BOX 469		
Country: USA	United States	E-mail: travis.legleiter@uky.edu
City: PRINCETON		State/Prov: KY
		Postal Code: 42445
Role: INVEST	investigator	Title: RESEARCH SPECIALIST
Investigator: Sara Carter		
Organization: UNIVERSITY OF KENTUCKY		Org. Type: UNIVERSITY
Address 1: 105 PLANT SCIENCE BUILDING	Phone No.: 859-259-1914	Mobile No.: 859-559-6710
Country: USA	United States	E-mail: sara.carter@uky.edu
City: LEXINGTON		State/Prov: KY
		Postal Code: 40546-0312

Crop Description

Crop 1: C	GLXMA Glycine max	Soybean	BBCH Scale: BSOY
	Entry Date: 11-22-2022	Stage Scale: BBCH	
	Variety: AG 37XF2		
	Attributes: XTEND FLEX		
	Planting Date: 5-16-2022	Planting Rate: 150000	S/A
	Depth: 1.25 IN		
	Rows per Plot: 6	Planting Method: PLANTD	planted
	Row Spacing: 30 IN	Planting Equipment: FE	field equipment
		Seed Bed: SMOOTH	smooth
	Soil Temperature: 67 F	Soil Moisture: GOOD	good
	Emergence Date: 5-24-2022		

Pest Description

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

Site and Design

Treated Plot Width: 10 FT	Site Type: FIELD	field
Treated Plot Length: 33 FT		
Treated Plot Area: 330.0 FT2	Tillage Type: CONTIL	conventional-till
Replications: 4	Treatments: 11	Plots: 44
	Study Design: RACOB	
	Randomized Complete Block (RCB)	

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR	wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT	Distance: 7 MI

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Application Description

A
 Application Date 5-17-2022
 Appl. Start Time 6:00 PM
 Appl. Stop Time 6:45 PM
 Application Method SPRAY
 Application Timing PRE
 Application Placement BROSOI
 Applied By SARA
 Air Temperature Start, Stop 81, - F
 % Relative Humidity Start, Stop 55, -
 Wind Velocity+Dir. Start 4 MPH, SW
 Soil Temperature 67 F
 Soil Moisture GOOD
 Soil Surface Condition SMOOTH
 % Cloud Cover 30
 Next Moisture Occurred On 5-18-2022

Crop Stage At Each Application

A
 Crop 1 Code, BBCH Scale GLXMA, BSOY
 Days after Emergence -7

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
 Boom Flow Rate - IN
 Ground Speed 4 MPH
 Carrier WATER
 Application Amount 15 GPA
 Mix Size 2.2 liters
 Propellant CO2

Notes

Context	Date	By	Notes
STATUS 5-6-2022		Sara Carter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS 11-22-2022		Sara Carter	Automatically added by ARM: Status changed to: F: changed by (EKYCAS).

Pest Type	W, Weed	W, Weed	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 Type, Code	C, GLXMA			C, GLXMA	C, GLXMA
BBCH Scale	BSOY			BSOY	BSOY
Crop Scientific Name	Glycine max			Glycine max	Glycine max
Crop Name	Soybean			Soybean	Soybean
Rating Date	5-31-2022	5-31-2022	5-31-2022	6-6-2022	6-14-2022
Part Rated					
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	20, 20
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	20 DA-A
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1	21 DP-1
Days After Emergence	7 DE-1	7 DE-1	7 DE-1	7 DE-1	13 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6
1	UNTREATED		101	0.0	0.0	0.0	0.0	0.0	0.0

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, GLXMA				C, GLXMA	C, GLXMA
BBCH Scale	BSOY				BSOY	BSOY
Crop Scientific Name	Glycine max				Glycine max	Glycine max
Crop Name	Soybean				Soybean	Soybean
Rating Date	5-31-2022	5-31-2022	5-31-2022	5-31-2022	6-6-2022	6-14-2022
Part Rated						
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 10
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	20, 20	28, 28
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	20 DA-A	28 DA-A
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1	21 DP-1	29 DP-1
Days After Emergence	7 DE-1	7 DE-1	7 DE-1	7 DE-1	13 DE-1	21 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl	Code	Plot	1	2	3	4	5	6
					210	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
					410	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
2	DFF+FFA+MRB	15.2 OZ/A	A		102	0.0	60.0	75.0	100.0	0.0	0.0
					211	0.0	50.0	85.0	100.0	0.0	0.0
					309	0.0	65.0	85.0	100.0	0.0	0.0
					402	0.0	60.0	85.0	100.0	0.0	0.0
					Mean =	0.0	58.8	82.5	100.0	0.0	0.0
3	DFF+FFA+MRB	19 OZ/A	A		103	0.0	85.0	85.0	100.0	0.0	0.0
					204	0.0	80.0	85.0	100.0	0.0	0.0
					310	0.0	90.0	90.0	100.0	0.0	0.0
					403	0.0	85.0	85.0	100.0	0.0	0.0
					Mean =	0.0	85.0	86.3	100.0	0.0	0.0
4	DFF+FFA+MRB	15.2 OZ/A	A		104	0.0	100.0	100.0	100.0	0.0	0.0
	XTENDIMAX	22 OZ/A	A		203	0.0	100.0	100.0	100.0	0.0	0.0
	VAPORGRIP AGENT	20 OZ/A	A		305	0.0	100.0	100.0	100.0	0.0	0.0
	INTACT	0.5 % V/V	A		404	0.0	100.0	100.0	100.0	0.0	0.0
					Mean =	0.0	100.0	100.0	100.0	0.0	0.0
5	DFF+FFA+MRB	19 OZ/A	A		105	0.0	100.0	100.0	100.0	0.0	0.0
	XTENDIMAX	22 OZ/A	A		202	0.0	100.0	100.0	100.0	0.0	0.0
	VAPORGRIP AGENT	20 OZ/A	A		306	0.0	100.0	100.0	100.0	0.0	0.0
	INTACT	0.5 % V/V	A		408	0.0	100.0	100.0	100.0	0.0	0.0
					Mean =	0.0	100.0	100.0	100.0	0.0	0.0
6	WARRANT	48 OZ/A	A		106	0.0	40.0	85.0	100.0	0.0	0.0
	MAULER	8 OZ/A	A		208	0.0	45.0	85.0	100.0	0.0	0.0
					301	0.0	50.0	85.0	100.0	0.0	0.0
					406	0.0	45.0	85.0	100.0	0.0	0.0
					Mean =	0.0	45.0	85.0	100.0	0.0	0.0
7	WARRANT ULTRA	50 OZ/A	A		107	0.0	98.0	100.0	100.0	0.0	0.0
					205	0.0	95.0	100.0	100.0	0.0	0.0
					311	0.0	98.0	100.0	100.0	0.0	0.0
					409	0.0	98.0	100.0	100.0	0.0	0.0
					Mean =	0.0	97.3	100.0	100.0	0.0	0.0
8	VALOR EZ	2 OZ/A	A		108	0.0	98.0	100.0	100.0	0.0	0.0
					206	0.0	95.0	100.0	100.0	0.0	0.0
					308	0.0	98.0	100.0	100.0	0.0	0.0
					407	0.0	98.0	100.0	100.0	0.0	0.0
					Mean =	0.0	97.3	100.0	100.0	0.0	0.0
9	BOUNDARY	1.8 PT/A	A		109	0.0	95.0	100.0	100.0	0.0	0.0
					207	0.0	95.0	100.0	100.0	0.0	0.0
					303	0.0	95.0	100.0	100.0	0.0	0.0
					411	0.0	95.0	100.0	100.0	0.0	0.0
					Mean =	0.0	95.0	100.0	100.0	0.0	0.0
10	FIERCE MTZ	1.25 PT/A	A		110	0.0	100.0	100.0	100.0	0.0	0.0
					209	0.0	100.0	100.0	100.0	0.0	0.0
					304	0.0	100.0	100.0	100.0	0.0	0.0
					405	0.0	100.0	100.0	100.0	0.0	0.0
					Mean =	0.0	100.0	100.0	100.0	0.0	0.0

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, GLXMA				C, GLXMA	C, GLXMA
BBCH Scale	BSOY				BSOY	BSOY
Crop Scientific Name	Glycine max				Glycine max	Glycine max
Crop Name	Soybean				Soybean	Soybean
Rating Date	5-31-2022	5-31-2022	5-31-2022	5-31-2022	6-6-2022	6-14-2022
Part Rated						
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 10
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	20, 20	28, 28
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	20 DA-A	28 DA-A
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1	21 DP-1	29 DP-1
Days After Emergence	7 DE-1	7 DE-1	7 DE-1	7 DE-1	13 DE-1	21 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl							
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6	
11	SONIC	6.45 OZ/A	A	111	0.0	98.0	100.0	100.0	0.0	0.0
				201	0.0	100.0	100.0	100.0	0.0	0.0
				307	0.0	100.0	100.0	100.0	0.0	0.0
				401	0.0	100.0	100.0	100.0	0.0	0.0
			Mean =	0.0	0.0	99.5	100.0	100.0	0.0	0.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	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 Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date	6-14-2022	6-14-2022	6-14-2022	6-30-2022	6-30-2022	6-30-2022
Part Rated						
Rating Type	CONTRO	CONTRO	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
EDC App						
Rating Timing						
Days After First/Last Applic.	28, 28	28, 28	28, 28	44, 44	44, 44	44, 44
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	44 DA-A	44 DA-A	44 DA-A
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	45 DP-1	45 DP-1	45 DP-1
Days After Emergence	21 DE-1	21 DE-1	21 DE-1	37 DE-1	37 DE-1	37 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl	7	8	9	10	11	12	13
No.	Name	Rate Unit	Code Plot							
			210	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
			410	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
2	DFF+FFA+MRB	15.2 OZ/A	A 102	60.0	75.0	100.0	50.0	70.0	100.0	100.0
			211	55.0	75.0	100.0	50.0	70.0	100.0	100.0
			309	60.0	75.0	100.0	50.0	70.0	100.0	100.0
			402	60.0	75.0	100.0	50.0	70.0	100.0	100.0
			Mean =	58.8	75.0	100.0	50.0	70.0	100.0	100.0
3	DFF+FFA+MRB	19 OZ/A	A 103	80.0	80.0	100.0	70.0	75.0	100.0	100.0
			204	80.0	85.0	100.0	70.0	75.0	100.0	100.0
			310	85.0	80.0	100.0	70.0	75.0	100.0	100.0
			403	80.0	85.0	100.0	70.0	75.0	100.0	100.0
			Mean =	81.3	82.5	100.0	70.0	75.0	100.0	100.0
4	DFF+FFA+MRB	15.2 OZ/A	A 104	95.0	95.0	100.0	90.0	90.0	100.0	100.0
	XTENDIMAX	22 OZ/A	A 203	95.0	95.0	100.0	90.0	90.0	100.0	100.0
	VAPORGRIP AGENT	20 OZ/A	A 305	95.0	95.0	100.0	90.0	90.0	100.0	100.0
	INTACT	0.5 % V/V	A 404	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			Mean =	95.0	95.0	100.0	90.0	90.0	100.0	100.0
5	DFF+FFA+MRB	19 OZ/A	A 105	95.0	95.0	100.0	90.0	90.0	100.0	100.0
	XTENDIMAX	22 OZ/A	A 202	95.0	95.0	100.0	90.0	90.0	100.0	100.0
	VAPORGRIP AGENT	20 OZ/A	A 306	95.0	95.0	100.0	90.0	90.0	100.0	100.0
	INTACT	0.5 % V/V	A 408	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			Mean =	95.0	95.0	100.0	90.0	90.0	100.0	100.0
6	WARRANT	48 OZ/A	A 106	40.0	80.0	100.0	35.0	75.0	100.0	100.0
	MAULER	8 OZ/A	A 208	40.0	85.0	100.0	35.0	75.0	100.0	100.0
			301	45.0	80.0	100.0	35.0	75.0	100.0	100.0
			406	40.0	80.0	100.0	35.0	75.0	100.0	100.0
			Mean =	41.3	81.3	100.0	35.0	75.0	100.0	100.0
7	WARRANT ULTRA	50 OZ/A	A 107	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			205	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			311	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			409	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			Mean =	95.0	95.0	100.0	90.0	90.0	100.0	100.0
8	VALOR EZ	2 OZ/A	A 108	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			206	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			308	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			407	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			Mean =	95.0	95.0	100.0	90.0	90.0	100.0	100.0
9	BOUNDARY	1.8 PT/A	A 109	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			207	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			303	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			411	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			Mean =	95.0	95.0	100.0	90.0	90.0	100.0	100.0
10	FIERCE MTZ	1.25 PT/A	A 110	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			209	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			304	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			405	95.0	95.0	100.0	90.0	90.0	100.0	100.0
			Mean =	95.0	95.0	100.0	90.0	90.0	100.0	100.0

University of Kentucky

SC619 COMPETITIVE COMPARISONS

Trial ID: 22-12
Protocol ID: HN22USAEOD Location: LEXINGTON, KY
Project ID: Project ID 2: Project ID 3:
Study Director: TRAVIS LEGLEITER Sponsor Contact:
Investigator (Creator): Sara Carter

Cooperator Trial ID:

Trial Year: 2022

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

Plant-Eval Interval

15 DP-1 = 1 GLXMA 5-16-2022

21 DP-1 = 1 GLXMA 5-16-2022

29 DP-1 = 1 GLXMA 5-16-2022

45 DP-1 = 1 GLXMA 5-16-2022

Pest Type

Pest Code
Pest Scientific Name
Pest Name

W, Weed
AMBTR
Ambrosia trifida
Giant ragweed

W, Weed
IPOSS
Ipomoea sp.
Morning glory

W, Weed
SETFA
Setaria faberi
Giant foxtail

W, Weed
AMBTR
Ambrosia trifida
Giant ragweed

Crop Type, Code

C, GLXMA

BBCH Scale

BSOY

Crop Scientific Name

Glycine max

Crop Name

Soybean

Rating Date

5-31-2022

5-31-2022

5-31-2022

5-31-2022

6-6-2022

6-14-2022

6-14-2022

Part Rated

Rating Type

PHYGEN

CONTRO

CONTRO

CONTRO

PHYGEN

PHYGEN

CONTRO

Rating Unit/Min/Max

%, 0, 10

%, 0, 100

%, 0, 100

%, 0, 100

%, 0, 10

%, 0, 10

%, 0, 100

Number of Subsamples

1

1

1

1

1

1

1

EDC App

Rating Timing

Days After First/Last Applic.

14, 14

14, 14

14, 14

14, 14

20, 20

28, 28

28, 28

Trt-Eval Interval

14 DA-A

14 DA-A

14 DA-A

14 DA-A

20 DA-A

28 DA-A

28 DA-A

Plant-Eval Interval

15 DP-1

15 DP-1

15 DP-1

15 DP-1

21 DP-1

29 DP-1

29 DP-1

Days After Emergence

7 DE-1

7 DE-1

7 DE-1

7 DE-1

13 DE-1

21 DE-1

21 DE-1

ARM Action Codes

Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7
1	UNTREATED				0.0 a	0.0 e	0.0 d	0.0 b	0.0 a	0.0 a	0.0 e
2	DFF+FFA+MRB	15.2	OZ/A	A	0.0 a	58.8 c	82.5 c	100.0 a	0.0 a	0.0 a	58.8 c
3	DFF+FFA+MRB	19	OZ/A	A	0.0 a	85.0 b	86.3 b	100.0 a	0.0 a	0.0 a	81.3 b
4	DFF+FFA+MRB	15.2	OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	0.0 a	0.0 a	95.0 a
	XTENDIMAX	22	OZ/A	A							
	VAPORGRIP AGENT	20	OZ/A	A							
	INTACT	0.5 %	V/V	A							
5	DFF+FFA+MRB	19	OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	0.0 a	0.0 a	95.0 a
	XTENDIMAX	22	OZ/A	A							
	VAPORGRIP AGENT	20	OZ/A	A							
	INTACT	0.5 %	V/V	A							
6	WARRANT	48	OZ/A	A	0.0 a	45.0 d	85.0 b	100.0 a	0.0 a	0.0 a	41.3 d
	MAULER	8	OZ/A	A							
7	WARRANT ULTRA	50	OZ/A	A	0.0 a	97.3 a	100.0 a	100.0 a	0.0 a	0.0 a	95.0 a
8	VALOR EZ	2	OZ/A	A	0.0 a	97.3 a	100.0 a	100.0 a	0.0 a	0.0 a	95.0 a
9	BOUNDARY	1.8	PT/A	A	0.0 a	95.0 a	100.0 a	100.0 a	0.0 a	0.0 a	95.0 a
10	FIERCE MTZ	1.25	PT/A	A	0.0 a	100.0 a	100.0 a	100.0 a	0.0 a	0.0 a	95.0 a

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Pest Type		W, Weed	W, Weed	W, Weed		W, Weed			
Pest Code		AMBTR	IPOSS	SETFA		AMBTR			
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida			
Pest Name		Giant ragweed	Morning glory	Giant foxtail		Giant ragweed			
Crop Type, Code	C, GLXMA				C, GLXMA	C, GLXMA			
BBCH Scale	BSOY				BSOY	BSOY			
Crop Scientific Name	Glycine max				Glycine max	Glycine max			
Crop Name	Soybean				Soybean	Soybean			
Rating Date	5-31-2022	5-31-2022	5-31-2022	5-31-2022	6-6-2022	6-14-2022	6-14-2022		
Part Rated									
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	PHYGEN	CONTRO		
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 10	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1	1		
EDC App									
Rating Timing									
Days After First/Last Applic.	14, 14	14, 14	14, 14	14, 14	20, 20	28, 28	28, 28		
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	20 DA-A	28 DA-A	28 DA-A		
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1	21 DP-1	29 DP-1	29 DP-1		
Days After Emergence	7 DE-1	7 DE-1	7 DE-1	7 DE-1	13 DE-1	21 DE-1	21 DE-1		
ARM Action Codes									
Number of Decimals									
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7
No. Name	Rate Unit	Code							
11 SONIC	6.45 OZ/A	A	0.0 a	99.5 a	100.0 a	100.0 a	0.0 a	0.0 a	95.0 a
LSD P=.05			.	3.48	2.40	.	.	.	1.78
Standard Deviation			0.00	2.41	1.66	0.00	0.00	0.00	1.23
CV			0.0	3.02	1.92	0.0	0.0	0.0	1.6
Levene's F^			.	1.008	0.814	.	.	.	0.651
Levene's Prob(F)			.	0.457	0.618	.	.	.	0.76
Shapiro-Wilk^			.	0.922*	0.7146*	.	.	.	0.8735*
P(Shapiro-Wilk)^			.	0.0056*	0.0*	.	.	.	0.0002*
Skewness^			.	-0.95*	-2.1557*	.	.	.	0.3474
P(Skewness)^			.	0.0137*	0.0*	.	.	.	0.3525
Kurtosis^			.	3.3104*	12.6816*	.	.	.	3.3116*
P(Kurtosis)^			.	0.0*	0.0*	.	.	.	0.0*
Replicate F			0.000	3.513	1.301	0.000	0.000	0.000	2.375
Replicate Prob(F)			1.0000	0.0270	0.2921	1.0000	1.0000	1.0000	0.0898
Treatment F			0.000	723.862	1269.493	0.000	0.000	0.000	2594.100
Treatment Prob(F)			1.0000	0.0001	0.0001	1.0000	1.0000	1.0000	0.0001

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed				
Pest Code	IPOSS	SETFA	AMBTR	IPOSS	SETFA				
Pest Scientific Name	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi				
Pest Name	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail				
Crop Type, Code									
BBCH Scale									
Crop Scientific Name									
Crop Name									
Rating Date	6-14-2022	6-14-2022	6-30-2022	6-30-2022	6-30-2022				
Part Rated									
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 1				
EDC App									
Rating Timing									
Days After First/Last Applic.	28, 28	28, 28	44, 44	44, 44	44, 44				
Trt-Eval Interval	28 DA-A	28 DA-A	44 DA-A	44 DA-A	44 DA-A				
Plant-Eval Interval	29 DP-1	29 DP-1	45 DP-1	45 DP-1	45 DP-1				
Days After Emergence	21 DE-1	21 DE-1	37 DE-1	37 DE-1	37 DE-1				
ARM Action Codes									
Number of Decimals									
Trt No.	Treatment Name	Rate	Appl	8	9	10	11	12	13
		Rate Unit	Code						
1	UNTREATED			0.0 d	0.0 b	0.0 e	0.0 d	0.0 b	
2	DFF+FFA+MRB	15.2 OZ/A	A	75.0 c	100.0 a	50.0 c	70.0 c	100.0 a	
3	DFF+FFA+MRB	19 OZ/A	A	82.5 b	100.0 a	70.0 b	75.0 b	100.0 a	
4	DFF+FFA+MRB	15.2 OZ/A	A	95.0 a	100.0 a	90.0 a	90.0 a	100.0 a	
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	INTACT	0.5 % V/V	A						
5	DFF+FFA+MRB	19 OZ/A	A	95.0 a	100.0 a	90.0 a	90.0 a	100.0 a	
	XTENDIMAX	22 OZ/A	A						
	VAPORGRIP AGENT	20 OZ/A	A						
	INTACT	0.5 % V/V	A						
6	WARRANT	48 OZ/A	A	81.3 b	100.0 a	35.0 d	75.0 b	100.0 a	
	MAULER	8 OZ/A	A						
7	WARRANT ULTRA	50 OZ/A	A	95.0 a	100.0 a	90.0 a	90.0 a	100.0 a	
8	VALOR EZ	2 OZ/A	A	95.0 a	100.0 a	90.0 a	90.0 a	100.0 a	
9	BOUNDARY	1.8 PT/A	A	95.0 a	100.0 a	90.0 a	90.0 a	100.0 a	
10	FIERCE MTZ	1.25 PT/A	A	95.0 a	100.0 a	90.0 a	90.0 a	100.0 a	

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	IPOSS	SETFA	AMBTR	IPOSS	SETFA			
Pest Scientific Name	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi			
Pest Name	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail			
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Rating Date	6-14-2022	6-14-2022	6-30-2022	6-30-2022	6-30-2022			
Part Rated								
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 1			
EDC App								
Rating Timing								
Days After First/Last Applic.	28, 28	28, 28	44, 44	44, 44	44, 44			
Trt-Eval Interval	28 DA-A	28 DA-A	44 DA-A	44 DA-A	44 DA-A			
Plant-Eval Interval	29 DP-1	29 DP-1	45 DP-1	45 DP-1	45 DP-1			
Days After Emergence	21 DE-1	21 DE-1	37 DE-1	37 DE-1	37 DE-1			
ARM Action Codes								
Number of Decimals								
Trt Treatment	Rate	Appl	8	9	10	11	12	13
No. Name	Rate Unit	Code						
11 SONIC	6.45 OZ/A	A	95.0 a	100.0 a	90.0 a	90.0 a	100.0 a	
LSD P=.05			1.61
Standard Deviation			1.12	0.00	0.00	0.00	0.00	.
CV			1.36	0.0	0.0	0.0	0.0	.
Levene's F^			3.286*
Levene's Prob(F)			0.005*
Shapiro-Wilk^			0.8373*
P(Shapiro-Wilk)^			0.0*
Skewness^			0.8344*
P(Skewness)^			0.0291*
Kurtosis^			3.7515*
P(Kurtosis)^			0.0*
Replicate F			1.667	0.000	0.000	0.000	0.000	
Replicate Prob(F)			0.1952	1.0000	1.0000	1.0000	1.0000	
Treatment F			2546.091	0.000	0.000	0.000	0.000	
Treatment Prob(F)			0.0001	1.0000	1.0000	1.0000	1.0000	

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SC619 COMPETITIVE COMPARISONS

Trial ID: 22-12
 Protocol ID: HN22USAEOD Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

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

Plant-Eval Interval

15 DP-1 = 1 GLXMA 5-16-2022

21 DP-1 = 1 GLXMA 5-16-2022

29 DP-1 = 1 GLXMA 5-16-2022

45 DP-1 = 1 GLXMA 5-16-2022

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DICAMBA PAIRED SOIL RESIDUAL SB PRE EFFICACY PHYTO

Trial ID: 22-13 Cooperator Trial ID:
 Protocol ID: HN22USADHD Location: LEX Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact: BAYER
 Investigator (Creator): Sara Carter

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 Type	Form Rate	Form Unit	Other Rate	Other Unit	Appl Timing	Appl Code	Comment	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	UNTREATED												101	210	301	411
2	WARRANT MAULER	3 480 GA/L	CS SL	48 OZ/A 8 OZ/A				PRE PRE	A A		55.0 mL/mx 9.167 mL/mx		102	212	305	406
3	WARRANT	3	CS	48 OZ/A				PRE	A		55.0 mL/mx		103	202	310	412
4	WARRANT ULTRA	3.49 LBA/GAL	CS	50 OZ/A				PRE	A		57.29 mL/mx		104	213	303	401
5	FIERCE EZ	3.04 LBA/GAL	SC	6 OZ/A				PRE	A		6.875 mL/mx		105	204	309	404
6	VALOR EZ	4 LB/GAL	SC	2 OZ/A				PRE	A		2.292 mL/mx		106	214	313	407
7	AUTHORITY MTZ	45	DF	10 OZ/A				PRE	A		10.98 g/mx		107	208	304	408
8	WARRANT MAULER XTENDIMAX VAPORGRIP AGENT	3 480 GA/L 2.9 394 GA/L	CS SL SL SL	48 OZ/A 8 OZ/A 22 OZ/A 20 OZ/A				PRE PRE PRE PRE	A A A A		55.0 mL/mx 9.167 mL/mx 25.21 mL/mx 22.92 mL/mx		108	205	306	405
9	WARRANT XTENDIMAX VAPORGRIP AGENT	3 2.9 394 GA/L	CS SL SL	48 OZ/A 22 OZ/A 20 OZ/A				PRE PRE PRE	A A A		55.0 mL/mx 25.21 mL/mx 22.92 mL/mx		109	207	311	402
10	WARRANT ULTRA INTACT XTENDIMAX VAPORGRIP AGENT	3.49 LBA/GAL 2.9 394 GA/L	CS L SL SL	50 OZ/A 0.5 % V/V 22 OZ/A 20 OZ/A				PRE PRE PRE PRE	A A A A		57.29 mL/mx 11.0 mL/mx 25.21 mL/mx 22.92 mL/mx		110	201	308	414
11	FIERCE EZ XTENDIMAX VAPORGRIP AGENT INTACT	3.04 LBA/GAL 2.9 394 GA/L	SC SL SL L	6 OZ/A 22 OZ/A 20 OZ/A 0.5 % V/V				PRE PRE PRE PRE	A A A A		6.875 mL/mx 25.21 mL/mx 22.92 mL/mx 11.0 mL/mx		111	206	312	413
12	VALOR EZ XTENDIMAX VAPORGRIP AGENT	4 LB/GAL 2.9 394 GA/L	SC SL SL	2 OZ/A 22 OZ/A 20 OZ/A				PRE PRE PRE	A A A		2.292 mL/mx 25.21 mL/mx 22.92 mL/mx		112	203	307	410
13	AUTHORITY MTZ XTENDIMAX VAPORGRIP AGENT	45 2.9 394 GA/L	DF SL SL	10 OZ/A 22 OZ/A 20 OZ/A				PRE PRE PRE	A A A		10.98 g/mx 25.21 mL/mx 22.92 mL/mx		113	211	302	403
14	XTENDIMAX VAPORGRIP AGENT	2.9 394 GA/L	SL SL	22 OZ/A 20 OZ/A				PRE PRE	A A		25.21 mL/mx 22.92 mL/mx		114	209	314	409

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
220.000	mL	WARRANT	3		CS	
18.333	mL	MAULER	480	GA/L	SL	
114.583	mL	WARRANT ULTRA	3.49	LBA/GAL	CS	
13.750	mL	FIERCE EZ	3.04	LBA/GAL	SC	
4.583	mL	VALOR EZ	4	LB/GAL	SC	
21.968	g	AUTHORITY MTZ	45		DF	
176.458	mL	XTENDIMAX	2.9		SL	
160.417	mL	VAPORGRIP AGENT	394	GA/L	SL	
21.998	mL	INTACT			L	

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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= 2.2 L (mix size basis).

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

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

Discipline: H herbicide

Status: F one-year/final

ARM Trial Created On: 5-5-2022

Initiation Date: 5-6-2022 **Planned Completion Date:** 9-1-2022

Trial Location

City: LEXINGTON **Country:** USA United States

State/Prov.: KENTUCKY

Postal Code: 40511

Latitude of LL Corner °: 38.1178175 N

Longitude of LL Corner °: -84.49421783 W

GPS Accuracy of LL Corner: 6.6 FT

Altitude of LL Corner: 807.70 FT

Conducted Under GLP: No

Conducted Under GEP: No

Contacts

Role: STYDIR study director

Study Director: TRAVIS LEGLEITER

Title: EXTENSION SPECIALIST

Organization: UNIVERSITY OF KENTUCKY

Org. Type: UNIVERSITY

Address 1: 348 UNIVERSITY DRIVE

Phone No.: 8595621323

Address 2: PO BOX 469

Country: USA United States

E-mail: travis.legleiter@uky.edu

City: PRINCETON

State/Prov: KY

Postal Code: 42445

Role: INVEST investigator

Investigator: Sara Carter

Title: RESEARCH SPECIALIST

Organization: UNIVERSITY OF KENTUCKY

Org. Type: UNIVERSITY

Address 1: 105 PLANT SCIENCE BUILDING

Phone No.: 859-259-1914

Mobile No.: 859-559-6710

Country: USA United States

E-mail: sara.carter@uky.edu

City: LEXINGTON

State/Prov: KY

Postal Code: 40546-0312

Role: SPONSR sponsor

Sponsor: BAYER

Crop Description

Crop 1: C GLXMA Glycine max Soybean

BBCH Scale: BSOY

Entry Date: 9-14-2022

Stage Scale: BBCH

Variety: AG37FX2

Planting Date: 5-16-2022

Planting Rate: 150000 S/A

Depth: 1.25 IN

Rows per Plot: 6

Planting Method: PLANTD planted

Row Spacing: 30 IN

Planting Equipment: FE field equipment

Seed Bed: SMOOTH smooth

Soil Temperature: 68 F

Soil Moisture: SLIWET slightly wet, moist

Emergence Date: 5-22-2022

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida

Common Name: Giant ragweed

Stage Scale: BBCH

Pest 2 Type: W **Code:** IPOSS Ipomoea sp.

Common Name: Morning glory

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

Tillage Type: CONTIL conventional-till

Replications: 4

Treatments: 14

Plots: 56

Study Design: RACOB� Randomized Complete Block (RCB)

Soil Description

Description Name: MAURY

% Sand: 6 **% OM:** 2.6

Texture: SIL silt loam

% Silt: 62

Soil Name: MAURY SILT LOAM

% Clay: 32

Fert. Level: E excellent

pH: 6.4

CEC: 18

Soil Drainage: E

excellent

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Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: Airport Distance: 7 mi

Application Description

A
Application Date 5-17-2022
Appl. Start Time 1:00 PM
Appl. Stop Time 2:00 PM
Application Method SPRAY
Application Timing PRE
Application Placement BROSOI
Applied By SARA
Air Temperature Start, Stop 80, - F
% Relative Humidity Start, Stop 60, -
Wind Velocity+Dir. Start 4 KPH, SW
Wet Leaves (Y/N) N, no
Soil Temperature 67 F
Soil Moisture GOOD
Soil Surface Condition SMOOTH
% Cloud Cover 30
Next Moisture Occurred On 5-18-2022

Crop Stage At Each Application

A
Crop 1 Code, BBCH Scale GLXMA, BSOY
Days after Emergence -5
Height Average 0 IN

Pest Stage At Each Application

A
Pest 1 Code, Type, Scale AMBTR, W, BBCH
Pest 2 Code, Type, Scale IPOSS, W, BBCH

Application Equipment

A
Appl. Equipment BACKPACK
Equipment Type BELSPR
Operation Pressure 35 PSI
Nozzle Model TTI 003
Nozzle Type FLAFAI
Nozzle Spacing 20 IN
Boom Length 10 FT
Boom Height 20 IN
Boom Flow Rate - IN
Ground Speed 4 MPH
Carrier WATER
Application Amount 15 GPA
Mix Size 2.2 liters
Propellant CO2

Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	IPOSS	AMBTR	IPOSS	AMBTR
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Ambrosia trifida	Ipomoea sp.	Ambrosia trifida
Pest Name		Giant ragweed	Morning glory	Giant ragweed	Morning glory	Giant ragweed
Crop Type, Code		C, GLXMA				
BBCH Scale		BSOY				
Crop Scientific Name		Glycine max				
Crop Name		Soybean				
Rating Date		5-31-2022	5-31-2022	6-6-2022	6-6-2022	6-17-2022
Part Rated						
Rating Type		PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max		0-10, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples		1	1	1	1	1
EDC App						
Rating Timing		14 DAA	14 DAA	14 DAA	21 DAA	21 DAA
Days After First/Last Applic.		14, 14	14, 14	14, 14	20, 20	20, 20
Trt-Eval Interval		14 DA-A	14 DA-A	14 DA-A	20 DA-A	20 DA-A
Plant-Eval Interval		15 DP-1	15 DP-1	15 DP-1	21 DP-1	21 DP-1
Days After Emergence		9 DE-1	9 DE-1	9 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	4	5	6
1	UNTREATED		101	0.0	0.0	0.0	0.0	0.0	0.0
			210	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
			411	0.0	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	AMBTR	IPOSS	AMBTR	IPOSS	AMBTR	
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Ambrosia trifida	Ipomoea sp.	Ambrosia trifida	
Pest Name	Giant ragweed	Morning glory	Giant ragweed	Morning glory	Giant ragweed	
Crop Type, Code	C, GLXMA					
BBCH Scale	BSOY					
Crop Scientific Name	Glycine max					
Crop Name	Soybean					
Rating Date	5-31-2022	5-31-2022	5-31-2022	6-6-2022	6-6-2022	6-17-2022
Part Rated						
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	0-10, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing	14 DAA	14 DAA	14 DAA	21 DAA	21 DAA	35 DAA
Days After First/Last Applic.	14, 14	14, 14	14, 14	20, 20	20, 20	31, 31
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	20 DA-A	20 DA-A	31 DA-A
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	21 DP-1	21 DP-1	32 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	15 DE-1	15 DE-1	26 DE-1
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	Plots					
						1	2	3	4	5	6
					Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	WARRANT MAULER	48 OZ/A	A	102	0.0	50.0	50.0	30.0	50.0	20.0	
				212	0.0	55.0	45.0	40.0	45.0	30.0	
				305	0.0	50.0	45.0	35.0	45.0	30.0	
				406	0.0	50.0	50.0	30.0	50.0	30.0	
				Mean =	0.0	51.3	47.5	33.8	47.5	27.5	
3	WARRANT	48 OZ/A	A	103	0.0	60.0	80.0	40.0	50.0	25.0	
				202	0.0	65.0	75.0	45.0	55.0	30.0	
				310	0.0	60.0	85.0	40.0	50.0	30.0	
				412	0.0	60.0	75.0	35.0	45.0	35.0	
				Mean =	0.0	61.3	78.8	40.0	50.0	30.0	
4	WARRANT ULTRA	50 OZ/A	A	104	0.0	80.0	80.0	65.0	50.0	55.0	
				213	0.0	80.0	85.0	70.0	55.0	65.0	
				303	0.0	85.0	85.0	75.0	55.0	60.0	
				401	0.0	90.0	85.0	70.0	55.0	65.0	
				Mean =	0.0	83.8	83.8	70.0	53.8	61.3	
5	FIERCE EZ	6 OZ/A	A	105	0.0	95.0	100.0	88.0	65.0	85.0	
				204	0.0	95.0	100.0	85.0	65.0	80.0	
				309	0.0	95.0	100.0	80.0	65.0	75.0	
				404	0.0	90.0	100.0	85.0	70.0	80.0	
				Mean =	0.0	93.8	100.0	84.5	66.3	80.0	
6	VALOR EZ	2 OZ/A	A	106	0.0	88.0	100.0	75.0	80.0	80.0	
				214	0.0	85.0	100.0	75.0	85.0	65.0	
				313	0.0	88.0	100.0	70.0	80.0	70.0	
				407	0.0	88.0	100.0	75.0	85.0	65.0	
				Mean =	0.0	87.3	100.0	73.8	82.5	70.0	
7	AUTHORITY MTZ	10 OZ/A	A	107	0.0	75.0	100.0	60.0	55.0	45.0	
				208	0.0	85.0	100.0	55.0	45.0	35.0	
				304	0.0	85.0	100.0	65.0	65.0	45.0	
				408	0.0	90.0	100.0	50.0	65.0	45.0	
				Mean =	0.0	83.8	100.0	57.5	57.5	42.5	
8	WARRANT MAULER XTENDIMAX VAPORGRIP AGENT	48 OZ/A	A	108	0.0	100.0	100.0	95.0	90.0	75.0	
				205	0.0	100.0	100.0	98.0	95.0	75.0	
				306	0.0	100.0	95.0	95.0	95.0	85.0	
				405	0.0	100.0	100.0	95.0	90.0	85.0	
				Mean =	0.0	100.0	98.8	95.8	92.5	80.0	
9	WARRANT XTENDIMAX VAPORGRIP AGENT	48 OZ/A	A	109	0.0	100.0	100.0	98.0	100.0	90.0	
				207	0.0	100.0	100.0	95.0	100.0	85.0	
				311	0.0	100.0	100.0	95.0	100.0	90.0	
				402	0.0	100.0	100.0	98.0	100.0	85.0	
				Mean =	0.0	100.0	100.0	96.5	100.0	87.5	
10	WARRANT ULTRA INTACT XTENDIMAX VAPORGRIP AGENT	50 OZ/A	A	110	0.0	100.0	100.0	98.0	100.0	95.0	
				201	0.0	100.0	100.0	98.0	100.0	90.0	
				308	0.0	100.0	100.0	98.0	100.0	90.0	
				414	0.0	100.0	100.0	98.0	100.0	85.0	
				Mean =	0.0	100.0	100.0	98.0	100.0	90.0	

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	IPOSS	AMBTR	IPOSS	AMBTR
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Ambrosia trifida	Ipomoea sp.	Ambrosia trifida
Pest Name		Giant ragweed	Morning glory	Giant ragweed	Morning glory	Giant ragweed
Crop Type, Code	C, GLXMA					
BBCH Scale	BSOY					
Crop Scientific Name	Glycine max					
Crop Name	Soybean					
Rating Date	5-31-2022	5-31-2022	5-31-2022	6-6-2022	6-6-2022	6-17-2022
Part Rated						
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	0-10, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing	14 DAA	14 DAA	14 DAA	21 DAA	21 DAA	35 DAA
Days After First/Last Applic.	14, 14	14, 14	14, 14	20, 20	20, 20	31, 31
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	20 DA-A	20 DA-A	31 DA-A
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	21 DP-1	21 DP-1	32 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	15 DE-1	15 DE-1	26 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl		1	2	3	4	5	6
No.	Name	Rate Unit	Code Plot							
11	FIERCE EZ	6 OZ/A	A 111	0.0	100.0	100.0	100.0	98.0	100.0	90.0
	XTENDIMAX	22 OZ/A	A 206	0.0	100.0	100.0	100.0	95.0	100.0	85.0
	VAPORGRIP AGENT	20 OZ/A	A 312	0.0	100.0	100.0	100.0	98.0	100.0	90.0
	INTACT	0.5 % V/V	A 413	0.0	100.0	100.0	100.0	95.0	100.0	90.0
			Mean =	0.0	100.0	100.0	100.0	96.5	100.0	88.8
12	VALOR EZ	2 OZ/A	A 112	0.0	100.0	100.0	100.0	100.0	100.0	90.0
	XTENDIMAX	22 OZ/A	A 203	0.0	100.0	100.0	100.0	100.0	100.0	85.0
	VAPORGRIP AGENT	20 OZ/A	A 307	0.0	100.0	100.0	100.0	98.0	100.0	85.0
			410	0.0	100.0	100.0	100.0	95.0	100.0	90.0
			Mean =	0.0	100.0	100.0	100.0	98.3	100.0	87.5
13	AUTHORITY MTZ	10 OZ/A	A 113	0.0	100.0	100.0	100.0	95.0	100.0	85.0
	XTENDIMAX	22 OZ/A	A 211	0.0	100.0	100.0	100.0	95.0	100.0	85.0
	VAPORGRIP AGENT	20 OZ/A	A 302	0.0	100.0	100.0	100.0	98.0	100.0	85.0
			403	0.0	100.0	100.0	100.0	95.0	100.0	90.0
			Mean =	0.0	100.0	100.0	100.0	95.8	100.0	86.3
14	XTENDIMAX	22 OZ/A	A 114	0.0	100.0	100.0	100.0	90.0	100.0	85.0
	VAPORGRIP AGENT	20 OZ/A	A 209	0.0	100.0	100.0	100.0	85.0	100.0	80.0
			314	0.0	100.0	100.0	100.0	90.0	100.0	80.0
			409	0.0	100.0	100.0	100.0	92.0	100.0	75.0
			Mean =	0.0	100.0	100.0	100.0	89.3	100.0	80.0

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Pest Type W, Weed
 Pest Code IPOSS
 Pest Scientific Name Ipomoea sp.
 Pest Name Morning glory
 Crop Type, Code
 BBCH Scale
 Crop Scientific Name
 Crop Name
 Rating Date 6-17-2022
 Part Rated
 Rating Type CONTROL
 Rating Unit/Min/Max %, 0, 100
 Number of Subsamples 1
 EDC App
 Rating Timing 35 DAA
 Days After First/Last Applic. 31, 31
 Trt-Eval Interval 31 DA-A
 Plant-Eval Interval 32 DP-1
 Days After Emergence 26 DE-1
 ARM Action Codes
 Number of Decimals

Trt No.	Treatment Name	Rate	Appl Code	Plot
1	UNTREATED			7
		101		0.0
		210		0.0
		301		0.0
		411		0.0

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Pest Type W, Weed
 Pest Code IPOSS
 Pest Scientific Name Ipomoea sp.
 Pest Name Morning glory
 Crop Type, Code
 BBCH Scale
 Crop Scientific Name
 Crop Name
 Rating Date 6-17-2022
 Part Rated
 Rating Type CONTROL
 Rating Unit/Min/Max %, 0, 100
 Number of Subsamples 1
 EDC App
 Rating Timing 35 DAA
 Days After First/Last Applic. 31, 31
 Trt-Eval Interval 31 DA-A
 Plant-Eval Interval 32 DP-1
 Days After Emergence 26 DE-1
 ARM Action Codes
 Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	7
						Mean = 0.0
2	WARRANT MAULER	48 OZ/A	A	102	40.0	
		8 OZ/A	A	212	40.0	
				305	35.0	
				406	40.0	
						Mean = 38.8
3	WARRANT	48 OZ/A	A	103	45.0	
				202	45.0	
				310	40.0	
				412	45.0	
						Mean = 43.8
4	WARRANT ULTRA	50 OZ/A	A	104	45.0	
				213	50.0	
				303	45.0	
				401	45.0	
						Mean = 46.3
5	FIERCE EZ	6 OZ/A	A	105	50.0	
				204	55.0	
				309	50.0	
				404	65.0	
						Mean = 55.0
6	VALOR EZ	2 OZ/A	A	106	70.0	
				214	75.0	
				313	70.0	
				407	70.0	
						Mean = 71.3
7	AUTHORITY MTZ	10 OZ/A	A	107	50.0	
				208	45.0	
				304	50.0	
				408	55.0	
						Mean = 50.0
8	WARRANT MAULER	48 OZ/A	A	108	75.0	
		8 OZ/A	A	205	80.0	
	XTENDIMAX	22 OZ/A	A	306	75.0	
	VAPORGRIP AGENT	20 OZ/A	A	405	88.0	
						Mean = 79.5
9	WARRANT XTENDIMAX	48 OZ/A	A	109	90.0	
		22 OZ/A	A	207	90.0	
	VAPORGRIP AGENT	20 OZ/A	A	311	85.0	
				402	90.0	
						Mean = 88.8
10	WARRANT ULTRA INTACT	50 OZ/A	A	110	90.0	
		0.5 % V/V	A	201	85.0	
	XTENDIMAX	22 OZ/A	A	308	90.0	
	VAPORGRIP AGENT	20 OZ/A	A	414	85.0	
						Mean = 87.5

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Pest Type W, Weed
 Pest Code IPOSS
 Pest Scientific Name Ipomoea sp.
 Pest Name Morning glory
 Crop Type, Code
 BBCH Scale
 Crop Scientific Name
 Crop Name
 Rating Date 6-17-2022
 Part Rated
 Rating Type CONTROL
 Rating Unit/Min/Max %, 0, 100
 Number of Subsamples 1
 EDC App
 Rating Timing 35 DAA
 Days After First/Last Applic. 31, 31
 Trt-Eval Interval 31 DA-A
 Plant-Eval Interval 32 DP-1
 Days After Emergence 26 DE-1
 ARM Action Codes
 Number of Decimals

Trt	Treatment	Rate	Appl		
No.	Name	Rate Unit	Code Plot	7	
11	FIERCE EZ	6 OZ/A	A	111	90.0
	XTENDIMAX	22 OZ/A	A	206	95.0
	VAPORGRIP AGENT	20 OZ/A	A	312	90.0
	INTACT	0.5 % V/V	A	413	85.0
				Mean =	90.0
12	VALOR EZ	2 OZ/A	A	112	90.0
	XTENDIMAX	22 OZ/A	A	203	95.0
	VAPORGRIP AGENT	20 OZ/A	A	307	90.0
				410	95.0
				Mean =	92.5
13	AUTHORITY MTZ	10 OZ/A	A	113	95.0
	XTENDIMAX	22 OZ/A	A	211	95.0
	VAPORGRIP AGENT	20 OZ/A	A	302	95.0
				403	90.0
				Mean =	93.8
14	XTENDIMAX	22 OZ/A	A	114	95.0
	VAPORGRIP AGENT	20 OZ/A	A	209	90.0
				314	95.0
				409	95.0
				Mean =	93.8

University of Kentucky

DICAMBA PAIRED SOIL RESIDUAL SB PRE EFFICACY PHYTO

Trial ID: 22-13
 Protocol ID: HN22USADHD Location: LEX
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact: BAYER
 Investigator (Creator): Sara Carter

Cooperator Trial ID:
 Trial Year: 2022

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

IPOSS, Ipomoea sp., Morning glory = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit/Min/Max

0-10, 0, 10 = 0-10 index/scale

%, 0, 100 = percent

Plant-Eval Interval

15 DP-1 = 1 GLXMA 5-16-2022

21 DP-1 = 1 GLXMA 5-16-2022

32 DP-1 = 1 GLXMA 5-16-2022

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Rating Date

Part Rated

Rating Type

Rating Unit/Min/Max

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

	W, Weed AMBTR	W, Weed IPOSS	W, Weed AMBTR	W, Weed IPOSS	W, Weed AMBTR
	Ambrosia trifida	Ipomoea sp.	Ambrosia trifida	Ipomoea sp.	Ambrosia trifida
	Giant ragweed	Morning glory	Giant ragweed	Morning glory	Giant ragweed
	C, GLXMA				
	BSOY				
	Glycine max				
	Soybean				
	5-31-2022	5-31-2022	6-6-2022	6-6-2022	6-17-2022
	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL
	0-10, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
	1	1	1	1	1
	14 DAA	14 DAA	14 DAA	21 DAA	21 DAA
	14, 14	14, 14	14, 14	20, 20	20, 20
	14 DA-A	14 DA-A	14 DA-A	20 DA-A	20 DA-A
	15 DP-1	15 DP-1	15 DP-1	21 DP-1	21 DP-1
	9 DE-1	9 DE-1	9 DE-1	15 DE-1	15 DE-1

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
1	UNTREATED			0.0 a	0.0 f	0.0 e	0.0 h	0.0 h	0.0 g
2	WARRANT MAULER	48 OZ/A A		0.0 a	51.3 e	47.5 d	33.8 g	47.5 g	27.5 f
3	WARRANT	48 OZ/A A		0.0 a	61.3 d	78.8 c	40.0 f	50.0 fg	30.0 f
4	WARRANT ULTRA	50 OZ/A A		0.0 a	83.8 c	83.8 b	70.0 d	53.8 ef	61.3 d
5	FIERCE EZ	6 OZ/A A		0.0 a	93.8 b	100.0 a	84.5 c	66.3 d	80.0 b
6	VALOR EZ	2 OZ/A A		0.0 a	87.3 c	100.0 a	73.8 d	82.5 c	70.0 c
7	AUTHORITY MTZ	10 OZ/A A		0.0 a	83.8 c	100.0 a	57.5 e	57.5 e	42.5 e
8	WARRANT MAULER	48 OZ/A A		0.0 a	100.0 a	98.8 a	95.8 a	92.5 b	80.0 b
	XTENDIMAX	22 OZ/A A							
	VAPORGRIP AGENT	20 OZ/A A							
9	WARRANT	48 OZ/A A		0.0 a	100.0 a	100.0 a	96.5 a	100.0 a	87.5 ab
	XTENDIMAX	22 OZ/A A							
	VAPORGRIP AGENT	20 OZ/A A							
10	WARRANT ULTRA	50 OZ/A A		0.0 a	100.0 a	100.0 a	98.0 a	100.0 a	90.0 a
	INTACT	0.5 % V/V A							
	XTENDIMAX	22 OZ/A A							
	VAPORGRIP AGENT	20 OZ/A A							
11	FIERCE EZ	6 OZ/A A		0.0 a	100.0 a	100.0 a	96.5 a	100.0 a	88.8 ab
	XTENDIMAX	22 OZ/A A							
	VAPORGRIP AGENT	20 OZ/A A							
	INTACT	0.5 % V/V A							
12	VALOR EZ	2 OZ/A A		0.0 a	100.0 a	100.0 a	98.3 a	100.0 a	87.5 ab
	XTENDIMAX	22 OZ/A A							
	VAPORGRIP AGENT	20 OZ/A A							
13	AUTHORITY MTZ	10 OZ/A A		0.0 a	100.0 a	100.0 a	95.8 a	100.0 a	86.3 ab
	XTENDIMAX	22 OZ/A A							
	VAPORGRIP AGENT	20 OZ/A A							

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code		AMBTR	IPOSS	AMBTR	IPOSS	AMBTR		
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Ambrosia trifida	Ipomoea sp.	Ambrosia trifida		
Pest Name		Giant ragweed	Morning glory	Giant ragweed	Morning glory	Giant ragweed		
Crop Type, Code	C, GLXMA							
BBCH Scale	BSOY							
Crop Scientific Name	Glycine max							
Crop Name	Soybean							
Rating Date	5-31-2022	5-31-2022	5-31-2022	6-6-2022	6-6-2022	6-17-2022		
Part Rated								
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit/Min/Max	0-10, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1		
EDC App								
Rating Timing	14 DAA	14 DAA	14 DAA	21 DAA	21 DAA	35 DAA		
Days After First/Last Applic.	14, 14	14, 14	14, 14	20, 20	20, 20	31, 31		
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	20 DA-A	20 DA-A	31 DA-A		
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	21 DP-1	21 DP-1	32 DP-1		
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	15 DE-1	15 DE-1	26 DE-1		
ARM Action Codes								
Number of Decimals								
Trt Treatment	Rate	Appl	1	2	3	4	5	6
No. Name	Rate Unit	Code						
14 XTENDIMAX	22 OZ/A	A	0.0 a	100.0 a	100.0 a	89.3 b	100.0 a	80.0 b
VAPORGRIP AGENT	20 OZ/A	A						
LSD P=.05			.	3.50	2.61	4.54	4.69	6.11
Standard Deviation			0.00	2.45	1.83	3.18	3.28	4.27
CV			0.0	2.95	2.11	4.32	4.37	6.56
Levene's F^			.	1.70	3.821*	1.667	4.206*	0.878
Levene's Prob(F)			.	0.097	0.00*	0.105	0.00*	0.581
Shapiro-Wilk^			.	0.8569*	0.7354*	0.9792	0.853*	0.9664
P(Shapiro-Wilk)^			.	0.0*	0.0*	0.4416	0.0*	0.1197
Skewness^			.	-0.4013	0.1888	-0.0099	-1.0305*	-0.2277
P(Skewness)^			.	0.2256	0.5666	0.9759	0.0027*	0.4898
Kurtosis^			.	4.685*	5.5394*	0.494	6.9713*	-0.0733
P(Kurtosis)^			.	0.0*	0.0*	0.447	0.0*	0.9099
Replicate F			0.000	0.946	0.134	0.889	0.553	0.807
Replicate Prob(F)			1.0000	0.4276	0.9392	0.4551	0.6491	0.4977
Treatment F			0.000	541.043	1003.227	365.967	341.809	180.822
Treatment Prob(F)			1.0000	0.0001	0.0001	0.0001	0.0001	0.0001

University of Kentucky

Pest Type W, Weed
 Pest Code IPOSS
 Pest Scientific Name Ipomoea sp.
 Pest Name Morning glory
 Crop Type, Code
 BBCH Scale
 Crop Scientific Name
 Crop Name
 Rating Date 6-17-2022
 Part Rated
 Rating Type CONTROL
 Rating Unit/Min/Max %, 0, 100
 Number of Subsamples 1
 EDC App
 Rating Timing 35 DAA
 Days After First/Last Applic. 31, 31
 Trt-Eval Interval 31 DA-A
 Plant-Eval Interval 32 DP-1
 Days After Emergence 26 DE-1
 ARM Action Codes
 Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	
				7	
1	UNTREATED				0.0 h
2	WARRANT MAULER	48 OZ/A	A		38.8 g
3	WARRANT	48 OZ/A	A		43.8 fg
4	WARRANT ULTRA	50 OZ/A	A		46.3 ef
5	FIERCE EZ	6 OZ/A	A		55.0 d
6	VALOR EZ	2 OZ/A	A		71.3 c
7	AUTHORITY MTZ	10 OZ/A	A		50.0 de
8	WARRANT MAULER	48 OZ/A	A		79.5 b
	XTENDIMAX	22 OZ/A	A		
	VAPORGRIP AGENT	20 OZ/A	A		
9	WARRANT	48 OZ/A	A		88.8 a
	XTENDIMAX	22 OZ/A	A		
	VAPORGRIP AGENT	20 OZ/A	A		
10	WARRANT ULTRA	50 OZ/A	A		87.5 a
	INTACT	0.5 % V/V	A		
	XTENDIMAX	22 OZ/A	A		
	VAPORGRIP AGENT	20 OZ/A	A		
11	FIERCE EZ	6 OZ/A	A		90.0 a
	XTENDIMAX	22 OZ/A	A		
	VAPORGRIP AGENT	20 OZ/A	A		
	INTACT	0.5 % V/V	A		
12	VALOR EZ	2 OZ/A	A		92.5 a
	XTENDIMAX	22 OZ/A	A		
	VAPORGRIP AGENT	20 OZ/A	A		
13	AUTHORITY MTZ	10 OZ/A	A		93.8 a
	XTENDIMAX	22 OZ/A	A		
	VAPORGRIP AGENT	20 OZ/A	A		

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Pest Type W, Weed
 Pest Code IPOSS
 Pest Scientific Name Ipomoea sp.
 Pest Name Morning glory
 Crop Type, Code
 BBCH Scale
 Crop Scientific Name
 Crop Name
 Rating Date 6-17-2022
 Part Rated
 Rating Type CONTROL
 Rating Unit/Min/Max %, 0, 100
 Number of Subsamples 1
 EDC App
 Rating Timing 35 DAA
 Days After First/Last Applic. 31, 31
 Trt-Eval Interval 31 DA-A
 Plant-Eval Interval 32 DP-1
 Days After Emergence 26 DE-1
 ARM Action Codes
 Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	
14	XTENDIMAX	22	OZ/A	A	93.8 a
	VAPORGRIP AGENT	20	OZ/A	A	
	LSD P=.05				5.04
	Standard Deviation				3.52
	CV				5.3
	Levene's F^				0.816
	Levene's Prob(F)				0.641
	Shapiro-Wilk^				0.9751
	P(Shapiro-Wilk)^				0.2964
	Skewness^				0.2824
	P(Skewness)^				0.3922
	Kurtosis^				0.7351
	P(Kurtosis)^				0.2593
	Replicate F				1.625
	Replicate Prob(F)				0.1991
	Treatment F				257.118
	Treatment Prob(F)				0.0001

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DICAMBA PAIRED SOIL RESIDUAL SB PRE EFFICACY PHYTO

Trial ID: 22-13
Protocol ID: HN22USADHD Location: LEX
Project ID: Project ID 2: Project ID 3:
Study Director: TRAVIS LEGLEITER Sponsor Contact: BAYER
Investigator (Creator): Sara Carter

Cooperator Trial ID:

Trial Year: 2022

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

IPOSS, Ipomoea sp., Morning glory = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit/Min/Max

0-10, 0, 10 = 0-10 index/scale

%, 0, 100 = percent

Plant-Eval Interval

15 DP-1 = 1 GLXMA 5-16-2022

21 DP-1 = 1 GLXMA 5-16-2022

32 DP-1 = 1 GLXMA 5-16-2022

University of Kentucky

CROP TOLERANCE AND EFFICACY IN CONVENTIONAL TILL SOYBEANS

Trial ID: 22-15 Cooperator Trial ID:
 Protocol ID: HSM050B4-2022US Location: LEXINGTON, KY Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Reps: 4 Plots: 10 by 33 feet
 Appl. Amount: 15 GAL/AC Mix Size: 2.5 L (total for 4 plots; minimum=1.7206 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Code	Comment	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	UNTREATED													101	207	308	404
2	TENDOVO			ZC	1.75	QT/A			PRE	A		72.92 mL/mx		102	212	302	401
	VOLT EDGE			L	20	FL OZ/A			V4	B		26.04 mL/mx					
	INTACT			L	0.5	% V/V			V4	B		12.5 mL/mx					
	CLASS ACT RIDION			L	1	% V/V			V4	B		25.0 mL/mx					
	TAVIUM	406.8	GAE/L	CS	3.53	PT/A			V4	B		73.54 mL/mx					
	ROUNDUP POWERMAX 3			SL	30	FL OZ/A			V4	B		39.06 mL/mx					
3	TENDOVO			ZC	2.1	QT/A			PRE	A		87.5 mL/mx		103	206	303	407
	VOLT EDGE			L	20	FL OZ/A			V4	B		26.04 mL/mx					
	INTACT			L	0.5	% V/V			V4	B		12.5 mL/mx					
	CLASS ACT RIDION			L	1	% V/V			V4	B		25.0 mL/mx					
	TAVIUM	406.8	GAE/L	CS	3.53	PT/A			V4	B		73.54 mL/mx					
	ROUNDUP POWERMAX 3			SL	30	FL OZ/A			V4	B		39.06 mL/mx					
4	BOUNDARY	6.5		E	1.8	PT/A			PRE	A		37.5 mL/mx		104	202	306	409
	VOLT EDGE			L	20	FL OZ/A			V4	B		26.04 mL/mx					
	INTACT			L	0.5	% V/V			V4	B		12.5 mL/mx					
	CLASS ACT RIDION			L	1	% V/V			V4	B		25.0 mL/mx					
	TAVIUM	406.8	GAE/L	CS	3.53	PT/A			V4	B		73.54 mL/mx					
	ROUNDUP POWERMAX 3			SL	30	FL OZ/A			V4	B		39.06 mL/mx					
5	BROADAXE XC	7		EC	25	FL OZ/A			PRE	A		32.55 mL/mx		105	201	304	411
	VOLT EDGE			L	20	FL OZ/A			V4	B		26.04 mL/mx					
	INTACT			L	0.5	% V/V			V4	B		12.5 mL/mx					
	CLASS ACT RIDION			L	1	% V/V			V4	B		25.0 mL/mx					
	TAVIUM	406.8	GAE/L	CS	3.53	PT/A			V4	B		73.54 mL/mx					
	ROUNDUP POWERMAX 3			SL	30	FL OZ/A			V4	B		39.06 mL/mx					
6	SONIC	70		DF	6.45	OZ WT/A			PRE	A		8.051 g/mx		106	205	310	408
	VOLT EDGE			L	20	FL OZ/A			V4	B		26.04 mL/mx					
	INTACT			L	0.5	% V/V			V4	B		12.5 mL/mx					
	CLASS ACT RIDION			L	1	% V/V			V4	B		25.0 mL/mx					
	TAVIUM	406.8	GAE/L	CS	3.53	PT/A			V4	B		73.54 mL/mx					
	ROUNDUP POWERMAX 3			SL	30	FL OZ/A			V4	B		39.06 mL/mx					
7	FIERCE XLT	62.41	%	WG	4.5	OZ WT/A			PRE	A		5.617 g/mx		107	210	309	406
	VOLT EDGE			L	20	FL OZ/A			V4	B		26.04 mL/mx					
	INTACT			L	0.5	% V/V			V4	B		12.5 mL/mx					
	CLASS ACT RIDION			L	1	% V/V			V4	B		25.0 mL/mx					
	TAVIUM	406.8	GAE/L	CS	3.53	PT/A			V4	B		73.54 mL/mx					
	ROUNDUP POWERMAX 3			SL	30	FL OZ/A			V4	B		39.06 mL/mx					
8	ZIDUA PRO	4.09	LB/GAL	SC	6	FL OZ/A			PRE	A		7.812 mL/mx		108	203	305	403
	VOLT EDGE			L	20	FL OZ/A			V4	B		26.04 mL/mx					
	INTACT			L	0.5	% V/V			V4	B		12.5 mL/mx					
	CLASS ACT RIDION			L	1	% V/V			V4	B		25.0 mL/mx					
	TAVIUM	406.8	GAE/L	CS	3.53	PT/A			V4	B		73.54 mL/mx					
	ROUNDUP POWERMAX 3			SL	30	FL OZ/A			V4	B		39.06 mL/mx					

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Reps: 4		Plots: 10 by 33 feet		Mix Size: 2.5 L (total for 4 plots; minimum=1.7206 L)											
Appl. Amount: 15 GAL/AC															
Trt No.	Treatment Name	Form	Conc	Form	Rate	Form	Rate	Other	Other	Appl	Appl	Comment	Amt	Product	Rep
No.	Name	Unit	Unit	Type	Unit	Unit	Unit	Rate	Rate	Timing	Code	1	to Measure		1 2 3 4
9	AUTHORITY EDGE			SC	9 FL OZ/A					PRE	A		11.72 mL/mx		109 204 307 412
	VOLT EDGE			L	20 FL OZ/A					V4	B		26.04 mL/mx		
	INTACT			L	0.5 % V/V					V4	B		12.5 mL/mx		
	CLASS ACT RIDION			L	1 % V/V					V4	B		25.0 mL/mx		
	TAVIUM	406.8 GAE/L		CS	3.53 PT/A					V4	B		73.54 mL/mx		
	ROUNDUP POWERMAX 3			SL	30 FL OZ/A					V4	B		39.06 mL/mx		
10	TENDOVO			ZC	1.75 QT/A					PRE	A		72.92 mL/mx		110 211 312 410
	VOLT EDGE			L	20 FL OZ/A					V4	B		26.04 mL/mx		
	INTACT			L	0.5 % V/V					V4	B		12.5 mL/mx		
	CLASS ACT RIDION			L	1 % V/V					V4	B		25.0 mL/mx		
	TAVIUM	406.8 GAE/L		CS	3.53 PT/A					V4	B		73.54 mL/mx		
	ROUNDUP POWERMAX 3			SL	30 FL OZ/A					V4	B		39.06 mL/mx		
	MIRAVIS TOP	1.7		SC	13.7 OZ/A					R3	C		17.84 mL/mx		
	ENDIGO	2.06		ZC	4 OZ/A					R3	C		5.208 mL/mx		
11	TENDOVO			ZC	2.1 QT/A					PRE	A		87.5 mL/mx		111 209 301 405
	VOLT EDGE			L	20 FL OZ/A					V4	B		26.04 mL/mx		
	INTACT			L	0.5 % V/V					V4	B		12.5 mL/mx		
	CLASS ACT RIDION			L	1 % V/V					V4	B		25.0 mL/mx		
	TAVIUM	406.8 GAE/L		CS	3.53 PT/A					V4	B		73.54 mL/mx		
	ROUNDUP POWERMAX 3			SL	30 FL OZ/A					V4	B		39.06 mL/mx		
	MIRAVIS TOP	1.7		SC	13.7 OZ/A					R3	C		17.84 mL/mx		
	ENDIGO	2.06		ZC	4 OZ/A					R3	C		5.208 mL/mx		
12	VOLT EDGE			L	20 FL OZ/A					V4	B		26.04 mL/mx		112 208 311 402
	INTACT			L	0.5 % V/V					V4	B		12.5 mL/mx		
	CLASS ACT RIDION			L	1 % V/V					V4	B		25.0 mL/mx		
	TAVIUM	406.8 GAE/L		CS	3.53 PT/A					V4	B		73.54 mL/mx		
	ROUNDUP POWERMAX 3			SL	30 FL OZ/A					V4	B		39.06 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
320.832 mL		TENDOVO					ZC			
286.458 mL		VOLT EDGE					L			
137.485 mL		INTACT					L			
274.970 mL		CLASS ACT RIDION					L			
808.958 mL		TAVIUM	406.8		GAE/L		CS			
429.687 mL		ROUNDUP POWERMAX 3					SL			
37.500 mL		BOUNDARY	6.5				E			
32.552 mL		BROADAXE XC	7				EC			
8.051 g		SONIC	70				DF			
5.617 g		FIERCE XLT	62.41		%		WG			
7.812 mL		ZIDUA PRO	4.09		LB/GAL		SC			
11.719 mL		AUTHORITY EDGE					SC			
35.677 mL		MIRAVIS TOP	1.7				SC			
10.417 mL		ENDIGO	2.06				ZC			

* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.5 L (mix size basis).

* '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
Status: F one-year/final

ARM Trial Created On: 4-28-2022

Initiation Date: 5-16-2022 Planned Completion Date: 10-31-2022 Interim Data Due: 10-7-2022

Trial Location

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

University of Kentucky

Latitude of LL Corner °: 38.117557 N
 Longitude of LL Corner °: -84.4943695 W
 GPS Accuracy of LL Corner: 6.6 FT
 Altitude of LL Corner: 806.40 FT

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 **E-mail:** travis.legleiter@uky.edu
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 **State/Prov:** KY **Postal Code:** 40546-0312

Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Variety: AG 37FX2
Attributes: XtendFlex
Planting Date: 5-16-2022 **Planting Rate:** 150000 S/A
Depth: 1.25 in
Rows per Plot: 6 **Planting Method:** PLANTD planted
Row Spacing: 30 in **Planting Equipment:** FE field equipment
Seed Bed: SMOOTH smooth
Soil Temperature: 68 f **Soil Moisture:** GOOD good
Emergence Date: 5-22-2022
Harvest Date: 10-11-2022 **Harvest Equipment:** HEGE
Moisture Meter: HarvestMaster **Harvested Width:** 5 FT
% Standard Moisture: 13.0 **Harvested Length:** 28 FT
Weighing Equipment: HarvestMaster

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
Crop: 1 GLXMA

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 33 FT
Treated Plot Area: 330.0 FT² **Tillage Type:** CONTIL conventional-till
Replications: 4 **Treatments:** 12 **Plots:** 48 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: Lexington **Distance:** 7 MI

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Application Description

	A	B	C
Application Date	5-17-2022	6-17-2022	7-14-2022
Appl. Start Time	4:00 PM	1:30 PM	3:30 PM
Appl. Stop Time	5:00 PM	2:30 PM	3:45 PM
Interval to Prev. Appl.		31 DAYS	27 DAYS
Application Method	SPRAY	SPRAY	SPRAY
Application Timing	PRE	V4	R3
Application Placement	BROSOI	BROFOL	BROFOL
Applied By	SARA	SARA	SARA
Air Temperature Start, Stop	75, - F	93, - F	86, - F
% Relative Humidity Start, Stop	65, -	50, -	38, -
Wind Velocity+Dir. Start	4 MPH, SSW	6 MPH, SE	7 MPH, NW
Soil Temperature	67 F	78 F	77 F
Soil Moisture	GOOD	WET	WET
Soil Surface Condition	SMOOTH	SMOOTH	SMOOTH
% Cloud Cover	40	80	40
Next Moisture Occurred On	5-18-2022	6-22-2022	7-17-2022

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-5	26	53
Stage Majority, Percent		V4, 95	R3, 100
Height Average		6 IN	25 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Stage Majority, Percent		13, 95	18, 95
Height Average		3 IN	24 IN
Crop Part Attacked, Code -	GLXMA	GLXMA	GLXMA
Pest 2 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH	IPOSS, W, BBCH
Stage Majority, Percent		12, 95	16, 95
Height Average		3 IN	10 IN
Crop Part Attacked, Code -	GLXMA	GLXMA	GLXMA
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH
Stage Majority, Percent		13, 95	15, 95
Height Average		2 IN	14 IN
Crop Part Attacked, Code -	GLXMA	GLXMA	GLXMA

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	TTI 015	8002 DG
Nozzle Type	FLAT FAN	AIR INDUC	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
Boom Flow Rate	- IN	- IN	- IN
Ground Speed	4 MPH	4 MPH	4 MPH
Carrier	WATER	WATER	WATER
Application Amount	15 GPA	15 GPA	15 GPA
Mix Size	2.5 liters	2.5 liters	2.5 liters
Propellant	CO2	CO2	CO2

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Pest Type	W, Weed	W, Weed	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 Type, Code	C, GLXMA	C, GLXMA		C, GLXMA
BBCH Scale	BSOY	BSOY		BSOY
Crop Scientific Name	Glycine max	Glycine max		Glycine max
Crop Name	Soybean	Soybean		Soybean
Rating Date	5-27-2022	6-13-2022	6-13-2022	6-13-2022
Part Rated				
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0 , 10	% , 0 , 10	% , 0 , 100	% , 0 , 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	10, 10	27, 27	27, 27	27, 27
Trt-Eval Interval				
Plant-Eval Interval	11 DP-1	28 DP-1	28 DP-1	28 DP-1
Days After Emergence	5 DE-1	22 DE-1	22 DE-1	22 DE-1
ARM Action Codes				
Number of Decimals				

Trt	Treatment	Rate	Appl	Plot						
				1	2	3	4	5	6	
1	UNTREATED			101	0.0	0.0	0.0	0.0	0.0	0.0
				207	0.0	0.0	0.0	0.0	0.0	0.0
				308	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
				Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	TENDOVO	1.75 QT/A	A	102	0.0	0.0	95.0	95.0	100.0	0.0
	VOLT EDGE	20 FL OZ/A	B	212	0.0	0.0	90.0	95.0	100.0	0.0
	INTACT	0.5 % V/V	B	302	0.0	0.0	95.0	95.0	100.0	0.0
	CLASS ACT RIDION	1 % V/V	B	401	0.0	0.0	95.0	95.0	100.0	0.0
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
				Mean =	0.0	0.0	93.8	95.0	100.0	0.0
3	TENDOVO	2.1 QT/A	A	103	0.0	0.0	95.0	95.0	100.0	0.0
	VOLT EDGE	20 FL OZ/A	B	206	0.0	0.0	95.0	95.0	100.0	0.0
	INTACT	0.5 % V/V	B	303	0.0	0.0	95.0	95.0	100.0	0.0
	CLASS ACT RIDION	1 % V/V	B	407	0.0	0.0	95.0	95.0	100.0	0.0
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
				Mean =	0.0	0.0	95.0	95.0	100.0	0.0
4	BOUNDARY	1.8 PT/A	A	104	0.0	0.0	50.0	65.0	95.0	0.0
	VOLT EDGE	20 FL OZ/A	B	202	0.0	0.0	60.0	65.0	95.0	0.0
	INTACT	0.5 % V/V	B	306	0.0	0.0	65.0	75.0	100.0	0.0
	CLASS ACT RIDION	1 % V/V	B	409	0.0	0.0	60.0	65.0	100.0	0.0
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
				Mean =	0.0	0.0	58.8	67.5	97.5	0.0
5	BROADAXE XC	25 FL OZ/A	A	105	0.0	0.0	25.0	55.0	95.0	0.0
	VOLT EDGE	20 FL OZ/A	B	201	0.0	0.0	30.0	65.0	95.0	0.0
	INTACT	0.5 % V/V	B	304	0.0	0.0	35.0	65.0	95.0	0.0
	CLASS ACT RIDION	1 % V/V	B	411	0.0	0.0	30.0	55.0	95.0	0.0
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
				Mean =	0.0	0.0	30.0	60.0	95.0	0.0
6	SONIC	6.45 OZ WT/A	A	106	0.0	0.0	85.0	95.0	100.0	0.0
	VOLT EDGE	20 FL OZ/A	B	205	0.0	0.0	90.0	95.0	100.0	0.0
	INTACT	0.5 % V/V	B	310	0.0	0.0	95.0	95.0	100.0	0.0
	CLASS ACT RIDION	1 % V/V	B	408	0.0	0.0	90.0	95.0	100.0	0.0
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
				Mean =	0.0	0.0	90.0	95.0	100.0	0.0
7	FIERCE XLT	4.5 OZ WT/A	A	107	0.0	0.0	90.0	95.0	100.0	0.0
	VOLT EDGE	20 FL OZ/A	B	210	0.0	0.0	95.0	95.0	100.0	0.0
	INTACT	0.5 % V/V	B	309	0.0	0.0	95.0	95.0	100.0	0.0
	CLASS ACT RIDION	1 % V/V	B	406	0.0	0.0	90.0	95.0	100.0	0.0
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
				Mean =	0.0	0.0	92.5	95.0	100.0	0.0

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Pest Type			W, Weed	W, Weed	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 Type, Code	C, GLXMA	C, GLXMA				C, GLXMA
BBCH Scale	BSOY	BSOY				BSOY
Crop Scientific Name	Glycine max	Glycine max				Glycine max
Crop Name	Soybean	Soybean				Soybean
Rating Date	5-27-2022	6-13-2022	6-13-2022	6-13-2022	6-13-2022	7-1-2022
Part Rated						
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	10, 10	27, 27	27, 27	27, 27	27, 27	45, 14
Trt-Eval Interval						
Plant-Eval Interval	11 DP-1	28 DP-1	28 DP-1	28 DP-1	28 DP-1	46 DP-1
Days After Emergence	5 DE-1	22 DE-1	22 DE-1	22 DE-1	22 DE-1	40 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6
8	ZIDUA PRO	6 FL OZ/A	A 108	0.0	0.0	95.0	95.0	100.0	0.0
	VOLT EDGE	20 FL OZ/A	B 203	0.0	0.0	95.0	95.0	100.0	0.0
	INTACT	0.5 % V/V	B 305	0.0	0.0	95.0	95.0	100.0	0.0
	CLASS ACT RIDION	1 % V/V	B 403	0.0	0.0	95.0	95.0	100.0	0.0
	TAVIUM	3.53 PT/A	B						
	ROUNDUP POWERMAX 3	30 FL OZ/A	B						
			Mean =	0.0	0.0	95.0	95.0	100.0	0.0
9	AUTHORITY EDGE	9 FL OZ/A	A 109	0.0	0.0	50.0	45.0	100.0	0.0
	VOLT EDGE	20 FL OZ/A	B 204	0.0	0.0	50.0	55.0	100.0	0.0
	INTACT	0.5 % V/V	B 307	0.0	0.0	50.0	55.0	100.0	0.0
	CLASS ACT RIDION	1 % V/V	B 412	0.0	0.0	55.0	65.0	100.0	0.0
	TAVIUM	3.53 PT/A	B						
	ROUNDUP POWERMAX 3	30 FL OZ/A	B						
			Mean =	0.0	0.0	51.3	55.0	100.0	0.0
10	TENDOVO	1.75 QT/A	A 110	0.0	0.0	90.0	95.0	100.0	0.0
	VOLT EDGE	20 FL OZ/A	B 211	0.0	0.0	85.0	95.0	100.0	0.0
	INTACT	0.5 % V/V	B 312	0.0	0.0	90.0	95.0	100.0	0.0
	CLASS ACT RIDION	1 % V/V	B 410	0.0	0.0	90.0	95.0	100.0	0.0
	TAVIUM	3.53 PT/A	B						
	ROUNDUP POWERMAX 3	30 FL OZ/A	B						
	MIRAVIS TOP	13.7 OZ/A	C						
	ENDIGO	4 OZ/A	C						
			Mean =	0.0	0.0	88.8	95.0	100.0	0.0
11	TENDOVO	2.1 QT/A	A 111	0.0	0.0	98.0	95.0	100.0	0.0
	VOLT EDGE	20 FL OZ/A	B 209	0.0	0.0	95.0	95.0	100.0	0.0
	INTACT	0.5 % V/V	B 301	0.0	0.0	98.0	95.0	100.0	0.0
	CLASS ACT RIDION	1 % V/V	B 405	0.0	0.0	98.0	95.0	100.0	0.0
	TAVIUM	3.53 PT/A	B						
	ROUNDUP POWERMAX 3	30 FL OZ/A	B						
	MIRAVIS TOP	13.7 OZ/A	C						
	ENDIGO	4 OZ/A	C						
			Mean =	0.0	0.0	97.3	95.0	100.0	0.0
12	VOLT EDGE	20 FL OZ/A	B 112	0.0	0.0	0.0	0.0	0.0	0.0
	INTACT	0.5 % V/V	B 208	0.0	0.0	0.0	0.0	0.0	0.0
	CLASS ACT RIDION	1 % V/V	B 311	0.0	0.0	0.0	0.0	0.0	0.0
	TAVIUM	3.53 PT/A	B 402	0.0	0.0	0.0	0.0	0.0	0.0
	ROUNDUP POWERMAX 3	30 FL OZ/A	B						
			Mean =	0.0	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	W, Weed
Pest Code	AMBTR	IPOSS	SETFA		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory
Crop Type, Code				C, GLXMA		
BBCH Scale				BSOY		
Crop Scientific Name				Glycine max		
Crop Name				Soybean		
Rating Date	7-1-2022	7-1-2022	7-1-2022	7-14-2022	7-14-2022	7-14-2022
Part Rated						
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	45, 14	45, 14	45, 14	58, 27	58, 27	58, 27
Trt-Eval Interval						
Plant-Eval Interval	46 DP-1	46 DP-1	46 DP-1	59 DP-1	59 DP-1	59 DP-1
Days After Emergence	40 DE-1	40 DE-1	40 DE-1	53 DE-1	53 DE-1	53 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl	Code	Plot	7	8	9	10	11	12			
1	UNTREATED				101	0.0	0.0	0.0	0.0	0.0	0.0			
					207	0.0	0.0	0.0	0.0	0.0	0.0			
					308	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			
					Mean =	0.0	0.0	0.0	0.0	0.0	0.0			
2	TENDOVO	1.75 QT/A	A	102	100.0	100.0	100.0	0.0	95.0	98.0				
					VOLT EDGE	20 FL OZ/A	B	212	100.0	100.0	100.0	0.0	95.0	98.0
					INTACT	0.5 % V/V	B	302	100.0	100.0	100.0	0.0	98.0	98.0
					CLASS ACT RIDION	1 % V/V	B	401	100.0	100.0	100.0	0.0	95.0	98.0
					TAVIUM	3.53 PT/A	B							
					ROUNDUP POWERMAX 3	30 FL OZ/A	B							
Mean =				100.0	100.0	100.0	0.0	95.8	98.0					
3	TENDOVO	2.1 QT/A	A	103	100.0	100.0	100.0	0.0	95.0	98.0				
					VOLT EDGE	20 FL OZ/A	B	206	100.0	100.0	100.0	0.0	95.0	98.0
					INTACT	0.5 % V/V	B	303	100.0	100.0	100.0	0.0	98.0	98.0
					CLASS ACT RIDION	1 % V/V	B	407	100.0	100.0	100.0	0.0	95.0	98.0
					TAVIUM	3.53 PT/A	B							
					ROUNDUP POWERMAX 3	30 FL OZ/A	B							
Mean =				100.0	100.0	100.0	0.0	95.8	98.0					
4	BOUNDARY	1.8 PT/A	A	104	100.0	100.0	100.0	0.0	95.0	98.0				
					VOLT EDGE	20 FL OZ/A	B	202	100.0	100.0	100.0	0.0	95.0	98.0
					INTACT	0.5 % V/V	B	306	100.0	100.0	100.0	0.0	95.0	98.0
					CLASS ACT RIDION	1 % V/V	B	409	100.0	100.0	100.0	0.0	98.0	98.0
					TAVIUM	3.53 PT/A	B							
					ROUNDUP POWERMAX 3	30 FL OZ/A	B							
Mean =				100.0	100.0	100.0	0.0	95.8	98.0					
5	BROADAXE XC	25 FL OZ/A	A	105	100.0	100.0	100.0	0.0	95.0	98.0				
					VOLT EDGE	20 FL OZ/A	B	201	100.0	100.0	100.0	0.0	98.0	98.0
					INTACT	0.5 % V/V	B	304	100.0	100.0	100.0	0.0	98.0	98.0
					CLASS ACT RIDION	1 % V/V	B	411	100.0	100.0	100.0	0.0	95.0	98.0
					TAVIUM	3.53 PT/A	B							
					ROUNDUP POWERMAX 3	30 FL OZ/A	B							
Mean =				100.0	100.0	100.0	0.0	96.5	98.0					
6	SONIC	6.45 OZ WT/A	A	106	100.0	100.0	100.0	0.0	95.0	98.0				
					VOLT EDGE	20 FL OZ/A	B	205	100.0	100.0	100.0	0.0	98.0	98.0
					INTACT	0.5 % V/V	B	310	100.0	100.0	100.0	0.0	95.0	98.0
					CLASS ACT RIDION	1 % V/V	B	408	100.0	100.0	100.0	0.0	95.0	98.0
					TAVIUM	3.53 PT/A	B							
					ROUNDUP POWERMAX 3	30 FL OZ/A	B							
Mean =				100.0	100.0	100.0	0.0	95.8	98.0					
7	FIERCE XLT	4.5 OZ WT/A	A	107	100.0	100.0	100.0	0.0	95.0	98.0				
					VOLT EDGE	20 FL OZ/A	B	210	100.0	100.0	100.0	0.0	95.0	98.0
					INTACT	0.5 % V/V	B	309	100.0	100.0	100.0	0.0	95.0	98.0
					CLASS ACT RIDION	1 % V/V	B	406	100.0	100.0	100.0	0.0	95.0	98.0
					TAVIUM	3.53 PT/A	B							
					ROUNDUP POWERMAX 3	30 FL OZ/A	B							
Mean =				100.0	100.0	100.0	0.0	95.0	98.0					

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory
Crop Type, Code				C, GLXMA		
BBCH Scale				BSOY		
Crop Scientific Name				Glycine max		
Crop Name				Soybean		
Rating Date	7-1-2022	7-1-2022	7-1-2022	7-14-2022	7-14-2022	7-14-2022
Part Rated						
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	45, 14	45, 14	45, 14	58, 27	58, 27	58, 27
Trt-Eval Interval						
Plant-Eval Interval	46 DP-1	46 DP-1	46 DP-1	59 DP-1	59 DP-1	59 DP-1
Days After Emergence	40 DE-1	40 DE-1	40 DE-1	53 DE-1	53 DE-1	53 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl		7	8	9	10	11	12
No.	Name	Rate Unit	Code Plot							
8	ZIDUA PRO	6 FL OZ/A	A 108		100.0	100.0	100.0	0.0	95.0	98.0
	VOLT EDGE	20 FL OZ/A	B 203		100.0	100.0	100.0	0.0	95.0	98.0
	INTACT	0.5 % V/V	B 305		100.0	100.0	100.0	0.0	95.0	98.0
	CLASS ACT RIDION	1 % V/V	B 403		100.0	100.0	100.0	0.0	95.0	98.0
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
			Mean =		100.0	100.0	100.0	0.0	95.0	98.0
9	AUTHORITY EDGE	9 FL OZ/A	A 109		100.0	100.0	100.0	0.0	95.0	98.0
	VOLT EDGE	20 FL OZ/A	B 204		100.0	100.0	100.0	0.0	95.0	98.0
	INTACT	0.5 % V/V	B 307		100.0	100.0	100.0	0.0	95.0	98.0
	CLASS ACT RIDION	1 % V/V	B 412		100.0	100.0	100.0	0.0	95.0	98.0
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
			Mean =		100.0	100.0	100.0	0.0	95.0	98.0
10	TENDOVO	1.75 QT/A	A 110		100.0	100.0	100.0	0.0	98.0	98.0
	VOLT EDGE	20 FL OZ/A	B 211		100.0	100.0	100.0	0.0	98.0	98.0
	INTACT	0.5 % V/V	B 312		100.0	100.0	100.0	0.0	95.0	98.0
	CLASS ACT RIDION	1 % V/V	B 410		100.0	100.0	100.0	0.0	95.0	98.0
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
	MIRAVIS TOP	13.7 OZ/A	C							
	ENDIGO	4 OZ/A	C							
			Mean =		100.0	100.0	100.0	0.0	96.5	98.0
11	TENDOVO	2.1 QT/A	A 111		100.0	100.0	100.0	0.0	95.0	98.0
	VOLT EDGE	20 FL OZ/A	B 209		100.0	100.0	100.0	0.0	95.0	98.0
	INTACT	0.5 % V/V	B 301		100.0	100.0	100.0	0.0	95.0	98.0
	CLASS ACT RIDION	1 % V/V	B 405		100.0	100.0	100.0	0.0	95.0	98.0
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
	MIRAVIS TOP	13.7 OZ/A	C							
	ENDIGO	4 OZ/A	C							
			Mean =		100.0	100.0	100.0	0.0	95.0	98.0
12	VOLT EDGE	20 FL OZ/A	B 112		100.0	100.0	100.0	0.0	90.0	95.0
	INTACT	0.5 % V/V	B 208		100.0	100.0	100.0	0.0	95.0	95.0
	CLASS ACT RIDION	1 % V/V	B 311		100.0	100.0	100.0	0.0	95.0	95.0
	TAVIUM	3.53 PT/A	B 402		100.0	100.0	100.0	0.0	95.0	95.0
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
			Mean =		100.0	100.0	100.0	0.0	93.8	95.0

University of Kentucky

Pest Type	W, Weed		
Pest Code	SETFA		
Pest Scientific Name	Setaria faberi		
Pest Name	Giant foxtail		
Crop Type, Code		C, GLXMA	C, GLXMA
BBCH Scale		BSOY	BSOY
Crop Scientific Name		Glycine max	Glycine max
Crop Name		Soybean	Soybean
Rating Date	7-14-2022	10-11-2022	10-11-2022
Part Rated			
Rating Type	CONTRO	yield	moicon
Rating Unit/Min/Max	%, 0, 100	lb/plot, -, -	%, 0, 100
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	58, 27	147, 89	147, 89
Trt-Eval Interval			
Plant-Eval Interval	59 DP-1	148 DP-1	148 DP-1
Days After Emergence	53 DE-1	142 DE-1	142 DE-1
ARM Action Codes			TY1
Number of Decimals			1

Trt	Treatment	Rate	Appl							
No.	Name	Rate Unit	Code Plot	13	14	15	16	17		
1	UNTREATED		101	0.0		0.000	0.000	0.0		
			207	0.0		0.060	0.000	0.4		
			308	0.0		0.000	0.000	0.0		
			404	0.0		0.000	0.000	0.0		
			Mean =	0.0		0.015	0.000	0.1		
2	TENDOVO	1.75 QT/A	A 102	95.0		11.160	10.500	59.5		
			VOLT EDGE	20 FL OZ/A	B 212	95.0		11.720	10.300	62.7
			INTACT	0.5 % V/V	B 302	95.0		11.490	11.300	60.7
			CLASS ACT RIDION	1 % V/V	B 401	95.0		12.170	10.700	64.8
			TAVIUM	3.53 PT/A	B					
			ROUNDUP POWERMAX 3	30 FL OZ/A	B					
Mean =			95.0		11.635	10.700	61.9			
3	TENDOVO	2.1 QT/A	A 103	95.0		10.170	10.500	54.3		
			VOLT EDGE	20 FL OZ/A	B 206	95.0		11.510	9.950	61.8
			INTACT	0.5 % V/V	B 303	95.0		11.820	10.200	63.3
			CLASS ACT RIDION	1 % V/V	B 407	95.0		14.520	10.400	77.5
			TAVIUM	3.53 PT/A	B					
			ROUNDUP POWERMAX 3	30 FL OZ/A	B					
Mean =			95.0		12.005	10.263	64.2			
4	BOUNDARY	1.8 PT/A	A 104	95.0		12.080	10.700	64.3		
			VOLT EDGE	20 FL OZ/A	B 202	95.0		10.380	10.600	55.3
			INTACT	0.5 % V/V	B 306	95.0		9.790	10.400	52.3
			CLASS ACT RIDION	1 % V/V	B 409	95.0		11.810	10.400	63.1
			TAVIUM	3.53 PT/A	B					
			ROUNDUP POWERMAX 3	30 FL OZ/A	B					
Mean =			95.0		11.015	10.525	58.7			
5	BROADAXE XC	25 FL OZ/A	A 105	95.0		9.170	10.200	49.1		
			VOLT EDGE	20 FL OZ/A	B 201	95.0		9.470	10.500	50.5
			INTACT	0.5 % V/V	B 304	95.0		10.230	11.200	54.1
			CLASS ACT RIDION	1 % V/V	B 411	95.0		11.950	9.990	64.1
			TAVIUM	3.53 PT/A	B					
			ROUNDUP POWERMAX 3	30 FL OZ/A	B					
Mean =			95.0		10.205	10.473	54.5			
6	SONIC	6.45 OZ WT/A	A 106	95.0		12.740	10.100	68.3		
			VOLT EDGE	20 FL OZ/A	B 205	95.0		10.390	10.100	55.7
			INTACT	0.5 % V/V	B 310	95.0		11.930	10.300	63.8
			CLASS ACT RIDION	1 % V/V	B 408	95.0		12.510	9.840	67.2
			TAVIUM	3.53 PT/A	B					
			ROUNDUP POWERMAX 3	30 FL OZ/A	B					
Mean =			95.0		11.893	10.085	63.7			
7	FIERCE XLT	4.5 OZ WT/A	A 107	95.0		10.040	10.600	53.5		
			VOLT EDGE	20 FL OZ/A	B 210	95.0		12.110	10.300	64.7
			INTACT	0.5 % V/V	B 309	95.0		11.730	10.800	62.4
			CLASS ACT RIDION	1 % V/V	B 406	95.0		10.980	9.660	59.1
			TAVIUM	3.53 PT/A	B					
			ROUNDUP POWERMAX 3	30 FL OZ/A	B					
Mean =			95.0		11.215	10.340	59.9			

University of Kentucky

Pest Type	W, Weed		
Pest Code	SETFA		
Pest Scientific Name	Setaria faberi		
Pest Name	Giant foxtail		
Crop Type, Code		C, GLXMA	C, GLXMA
BBCH Scale		BSOY	BSOY
Crop Scientific Name		Glycine max	Glycine max
Crop Name		Soybean	Soybean
Rating Date	7-14-2022	10-11-2022	10-11-2022
Part Rated			
Rating Type	CONTRO	yield	moicon
Rating Unit/Min/Max	%, 0, 100	lb/plot, -, -	%, 0, 100
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	58, 27	147, 89	147, 89
Trt-Eval Interval			
Plant-Eval Interval	59 DP-1	148 DP-1	148 DP-1
Days After Emergence	53 DE-1	142 DE-1	142 DE-1
ARM Action Codes			TY1
Number of Decimals			1

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	13	14	15	16	17
8	ZIDUA PRO	6 FL OZ/A	A 108	95.0		10.050	10.500	53.6
	VOLT EDGE	20 FL OZ/A	B 203	95.0		11.080	10.400	59.2
	INTACT	0.5 % V/V	B 305	95.0		10.760	10.300	57.5
	CLASS ACT RIDION	1 % V/V	B 403	95.0		10.520	10.200	56.3
	TAVIUM	3.53 PT/A	B					
	ROUNDUP POWERMAX 3	30 FL OZ/A	B					
			Mean =	95.0		10.603	10.350	56.7
9	AUTHORITY EDGE	9 FL OZ/A	A 109	95.0		8.340	10.400	44.5
	VOLT EDGE	20 FL OZ/A	B 204	95.0		10.550	10.300	56.4
	INTACT	0.5 % V/V	B 307	95.0		11.310	11.300	59.8
	CLASS ACT RIDION	1 % V/V	B 412	95.0		9.120	10.800	48.5
	TAVIUM	3.53 PT/A	B					
	ROUNDUP POWERMAX 3	30 FL OZ/A	B					
			Mean =	95.0		9.830	10.700	52.3
10	TENDOVO	1.75 QT/A	A 110	95.0		11.170	10.900	59.3
	VOLT EDGE	20 FL OZ/A	B 211	95.0		13.190	10.300	70.5
	INTACT	0.5 % V/V	B 312	95.0		13.770	10.200	73.7
	CLASS ACT RIDION	1 % V/V	B 410	95.0		12.620	10.400	67.4
	TAVIUM	3.53 PT/A	B					
	ROUNDUP POWERMAX 3	30 FL OZ/A	B					
	MIRAVIS TOP	13.7 OZ/A	C					
	ENDIGO	4 OZ/A	C					
			Mean =	95.0		12.688	10.450	67.7
11	TENDOVO	2.1 QT/A	A 111	95.0		12.150	10.100	65.1
	VOLT EDGE	20 FL OZ/A	B 209	95.0		12.570	10.200	67.3
	INTACT	0.5 % V/V	B 301	95.0		12.310	10.200	65.9
	CLASS ACT RIDION	1 % V/V	B 405	95.0		12.820	10.100	68.7
	TAVIUM	3.53 PT/A	B					
	ROUNDUP POWERMAX 3	30 FL OZ/A	B					
	MIRAVIS TOP	13.7 OZ/A	C					
	ENDIGO	4 OZ/A	C					
			Mean =	95.0		12.463	10.150	66.7
12	VOLT EDGE	20 FL OZ/A	B 112	95.0		9.700	11.000	51.5
	INTACT	0.5 % V/V	B 208	95.0		9.410	11.500	49.6
	CLASS ACT RIDION	1 % V/V	B 311	95.0		10.320	11.000	54.7
	TAVIUM	3.53 PT/A	B 402	95.0		7.080	11.700	37.3
	ROUNDUP POWERMAX 3	30 FL OZ/A	B					
			Mean =	95.0		9.128	11.300	48.3

University of Kentucky

CROP TOLERANCE AND EFFICACY IN CONVENTIONAL TILL SOYBEANS

Trial ID: 22-15
 Protocol ID: HSM050B4-2022US Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

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
 moicon = moisture content
 YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent
 lb/plot, , = pounds per plot
 BU, , = bushel

Plant-Eval Interval

11 DP-1 = 1 GLXMA 5-16-2022
 28 DP-1 = 1 GLXMA 5-16-2022
 46 DP-1 = 1 GLXMA 5-16-2022
 59 DP-1 = 1 GLXMA 5-16-2022
 148 DP-1 = 1 GLXMA 5-16-2022

ARM Action Codes

TY1 = 5.18571429*[15]*(100-[16])/87

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Rating Date

Part Rated

Rating Type

Rating Unit/Min/Max

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

	W, Weed	W, Weed		
	AMBTR	IPOSS		
	Ambrosia trifida	Ipomoea sp.		
	Giant ragweed	Morning glory		
	C, GLXMA	C, GLXMA		
	BSOY	BSOY		
	Glycine max	Glycine max		
	Soybean	Soybean		
	5-27-2022	6-13-2022	6-13-2022	6-13-2022
	PHYGEN	PHYGEN	CONTRO	CONTRO
	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100
	1	1	1	1
	10, 10	27, 27	27, 27	27, 27
	11 DP-1	28 DP-1	28 DP-1	28 DP-1
	5 DE-1	22 DE-1	22 DE-1	22 DE-1

Trt	Treatment	Rate	Appl	1	2	3	4
No.	Name	Rate Unit	Code				
1	UNTREATED			0.0 a	0.0 a	0.0 g	0.0 e
2	TENDOVO	1.75 QT/A	A	0.0 a	0.0 a	93.8 abc	95.0 a
	VOLT EDGE	20 FL OZ/A	B				
	INTACT	0.5 % V/V	B				
	CLASS ACT RIDION	1 % V/V	B				
	TAVIUM	3.53 PT/A	B				
	ROUNDUP POWERMAX 3	30 FL OZ/A	B				
3	TENDOVO	2.1 QT/A	A	0.0 a	0.0 a	95.0 ab	95.0 a
	VOLT EDGE	20 FL OZ/A	B				
	INTACT	0.5 % V/V	B				
	CLASS ACT RIDION	1 % V/V	B				
	TAVIUM	3.53 PT/A	B				
	ROUNDUP POWERMAX 3	30 FL OZ/A	B				
4	BOUNDARY	1.8 PT/A	A	0.0 a	0.0 a	58.8 d	67.5 b
	VOLT EDGE	20 FL OZ/A	B				
	INTACT	0.5 % V/V	B				
	CLASS ACT RIDION	1 % V/V	B				
	TAVIUM	3.53 PT/A	B				
	ROUNDUP POWERMAX 3	30 FL OZ/A	B				

University of Kentucky

Pest Type			W, Weed	W, Weed
Pest Code			AMBTR	IPOSS
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.
Pest Name			Giant ragweed	Morning glory
Crop Type, Code	C, GLXMA	C, GLXMA		
BBCH Scale	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max		
Crop Name	Soybean	Soybean		
Rating Date	5-27-2022	6-13-2022	6-13-2022	6-13-2022
Part Rated				
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	10, 10	27, 27	27, 27	27, 27
Trt-Eval Interval				
Plant-Eval Interval	11 DP-1	28 DP-1	28 DP-1	28 DP-1
Days After Emergence	5 DE-1	22 DE-1	22 DE-1	22 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4
5	BROADAXE XC	25 FL OZ/A		A	0.0 a	0.0 a	30.0 f	60.0 c
	VOLT EDGE	20 FL OZ/A		B				
	INTACT	0.5 % V/V		B				
	CLASS ACT RIDION	1 % V/V		B				
	TAVIUM	3.53 PT/A		B				
6	ROUNDUP POWERMAX 3	30 FL OZ/A		B				
	SONIC	6.45 OZ WT/A		A	0.0 a	0.0 a	90.0 bc	95.0 a
	VOLT EDGE	20 FL OZ/A		B				
	INTACT	0.5 % V/V		B				
	CLASS ACT RIDION	1 % V/V		B				
7	TAVIUM	3.53 PT/A		B				
	ROUNDUP POWERMAX 3	30 FL OZ/A		B				
	FIERCE XLT	4.5 OZ WT/A		A	0.0 a	0.0 a	92.5 abc	95.0 a
	VOLT EDGE	20 FL OZ/A		B				
	INTACT	0.5 % V/V		B				
8	CLASS ACT RIDION	1 % V/V		B				
	TAVIUM	3.53 PT/A		B				
	ROUNDUP POWERMAX 3	30 FL OZ/A		B				
	ZIDUA PRO	6 FL OZ/A		A	0.0 a	0.0 a	95.0 ab	95.0 a
	VOLT EDGE	20 FL OZ/A		B				
9	INTACT	0.5 % V/V		B				
	CLASS ACT RIDION	1 % V/V		B				
	TAVIUM	3.53 PT/A		B				
	ROUNDUP POWERMAX 3	30 FL OZ/A		B				
	AUTHORITY EDGE	9 FL OZ/A		A	0.0 a	0.0 a	51.3 e	55.0 d
10	VOLT EDGE	20 FL OZ/A		B				
	INTACT	0.5 % V/V		B				
	CLASS ACT RIDION	1 % V/V		B				
	TAVIUM	3.53 PT/A		B				
	ROUNDUP POWERMAX 3	30 FL OZ/A		B				
11	TENDOVO	1.75 QT/A		A	0.0 a	0.0 a	88.8 c	95.0 a
	VOLT EDGE	20 FL OZ/A		B				
	INTACT	0.5 % V/V		B				
	CLASS ACT RIDION	1 % V/V		B				
	TAVIUM	3.53 PT/A		B				
11	ROUNDUP POWERMAX 3	30 FL OZ/A		B				
	MIRAVIS TOP	13.7 OZ/A		C				
	ENDIGO	4 OZ/A		C				
	TENDOVO	2.1 QT/A		A	0.0 a	0.0 a	97.3 a	95.0 a
	VOLT EDGE	20 FL OZ/A		B				
11	INTACT	0.5 % V/V		B				
	CLASS ACT RIDION	1 % V/V		B				
	TAVIUM	3.53 PT/A		B				
	ROUNDUP POWERMAX 3	30 FL OZ/A		B				
	MIRAVIS TOP	13.7 OZ/A		C				
11	ENDIGO	4 OZ/A		C				

University of Kentucky

Pest Type			W, Weed	W, Weed		
Pest Code			AMBTR	IPOSS		
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.		
Pest Name			Giant ragweed	Morning glory		
Crop Type, Code	C, GLXMA	C, GLXMA				
BBCH Scale	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max				
Crop Name	Soybean	Soybean				
Rating Date	5-27-2022	6-13-2022	6-13-2022	6-13-2022		
Part Rated						
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1		
EDC App						
Rating Timing						
Days After First/Last Applic.	10, 10	27, 27	27, 27	27, 27		
Trt-Eval Interval						
Plant-Eval Interval	11 DP-1	28 DP-1	28 DP-1	28 DP-1		
Days After Emergence	5 DE-1	22 DE-1	22 DE-1	22 DE-1		
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl	1	2	3	4
No. Name	Rate Unit	Code				
12 VOLT EDGE	20 FL OZ/A	B	0.0 a	0.0 a	0.0 g	0.0 e
INTACT	0.5 % V/V	B				
CLASS ACT RIDION	1 % V/V	B				
TAVIUM	3.53 PT/A	B				
ROUNDUP POWERMAX 3	30 FL OZ/A	B				
LSD P=.05			.	.	3.82	4.59
Standard Deviation			0.00	0.00	2.66	3.19
CV			0.0	0.0	4.02	4.51
Levene's F^			.	.	0.586	2.547*
Levene's Prob(F)			.	.	0.828	0.017*
Shapiro-Wilk^			.	.	0.963	0.8181*
P(Shapiro-Wilk)^			.	.	0.134	0.0*
Skewness^			.	.	-0.5504	0.6369
P(Skewness)^			.	.	0.1265	0.0783
Kurtosis^			.	.	1.0632	5.3818*
P(Kurtosis)^			.	.	0.1329	0.0*
Replicate F			0.000	0.000	3.491	1.298
Replicate Prob(F)			1.0000	1.0000	0.0264	0.2914
Treatment F			0.000	0.000	798.915	518.814
Treatment Prob(F)			1.0000	1.0000	0.0001	0.0001

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Pest Type	W, Weed		W, Weed	W, Weed
Pest Code	SETFA		AMBTR	IPOSS
Pest Scientific Name	Setaria faberi		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant foxtail		Giant ragweed	Morning glory
Crop Type, Code		C, GLXMA		
BBCH Scale		BSOY		
Crop Scientific Name		Glycine max		
Crop Name		Soybean		
Rating Date	6-13-2022	7-1-2022	7-1-2022	7-1-2022
Part Rated				
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	27, 27	45, 14	45, 14	45, 14
Trt-Eval Interval				
Plant-Eval Interval	28 DP-1	46 DP-1	46 DP-1	46 DP-1
Days After Emergence	22 DE-1	40 DE-1	40 DE-1	40 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Appl Code	5	6	7	8	
		Rate Unit						
1	UNTREATED				0.0 d	0.0 a	0.0 b	0.0 b
2	TENDOVO	1.75 QT/A	A		100.0 a	0.0 a	100.0 a	100.0 a
	VOLT EDGE	20 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
	TAVIUM	3.53 PT/A	B					
	ROUNDUP POWERMAX 3	30 FL OZ/A	B					
3	TENDOVO	2.1 QT/A	A		100.0 a	0.0 a	100.0 a	100.0 a
	VOLT EDGE	20 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
	TAVIUM	3.53 PT/A	B					
	ROUNDUP POWERMAX 3	30 FL OZ/A	B					
4	BOUNDARY	1.8 PT/A	A		97.5 b	0.0 a	100.0 a	100.0 a
	VOLT EDGE	20 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
	TAVIUM	3.53 PT/A	B					
	ROUNDUP POWERMAX 3	30 FL OZ/A	B					

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Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	SETFA	AMBTR	IPOSS
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Ipomoea sp.
Pest Name	Giant foxtail	Giant ragweed	Morning glory
Crop Type, Code		C, GLXMA	
BBCH Scale		BSOY	
Crop Scientific Name		Glycine max	
Crop Name		Soybean	
Rating Date	6-13-2022	7-1-2022	7-1-2022
Part Rated			
Rating Type	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 10	%, 0, 100
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	27, 27	45, 14	45, 14
Trt-Eval Interval			
Plant-Eval Interval	28 DP-1	46 DP-1	46 DP-1
Days After Emergence	22 DE-1	40 DE-1	40 DE-1
ARM Action Codes			
Number of Decimals			

Trt No.	Treatment Name	Rate Unit	Appl Code	5	6	7	8
5	BROADAXE XC	25 FL OZ/A	A	95.0 c	0.0 a	100.0 a	100.0 a
	VOLT EDGE	20 FL OZ/A	B				
	INTACT	0.5 % V/V	B				
	CLASS ACT RIDION	1 % V/V	B				
	TAVIUM	3.53 PT/A	B				
	ROUNDUP POWERMAX 3	30 FL OZ/A	B				
6	SONIC	6.45 OZ WT/A	A	100.0 a	0.0 a	100.0 a	100.0 a
	VOLT EDGE	20 FL OZ/A	B				
	INTACT	0.5 % V/V	B				
	CLASS ACT RIDION	1 % V/V	B				
	TAVIUM	3.53 PT/A	B				
	ROUNDUP POWERMAX 3	30 FL OZ/A	B				
7	FIERCE XLT	4.5 OZ WT/A	A	100.0 a	0.0 a	100.0 a	100.0 a
	VOLT EDGE	20 FL OZ/A	B				
	INTACT	0.5 % V/V	B				
	CLASS ACT RIDION	1 % V/V	B				
	TAVIUM	3.53 PT/A	B				
	ROUNDUP POWERMAX 3	30 FL OZ/A	B				
8	ZIDUA PRO	6 FL OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a
	VOLT EDGE	20 FL OZ/A	B				
	INTACT	0.5 % V/V	B				
	CLASS ACT RIDION	1 % V/V	B				
	TAVIUM	3.53 PT/A	B				
	ROUNDUP POWERMAX 3	30 FL OZ/A	B				
9	AUTHORITY EDGE	9 FL OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a
	VOLT EDGE	20 FL OZ/A	B				
	INTACT	0.5 % V/V	B				
	CLASS ACT RIDION	1 % V/V	B				
	TAVIUM	3.53 PT/A	B				
	ROUNDUP POWERMAX 3	30 FL OZ/A	B				
10	TENDOVO	1.75 QT/A	A	100.0 a	0.0 a	100.0 a	100.0 a
	VOLT EDGE	20 FL OZ/A	B				
	INTACT	0.5 % V/V	B				
	CLASS ACT RIDION	1 % V/V	B				
	TAVIUM	3.53 PT/A	B				
	ROUNDUP POWERMAX 3	30 FL OZ/A	B				
	MIRAVIS TOP	13.7 OZ/A	C				
	ENDIGO	4 OZ/A	C				
11	TENDOVO	2.1 QT/A	A	100.0 a	0.0 a	100.0 a	100.0 a
	VOLT EDGE	20 FL OZ/A	B				
	INTACT	0.5 % V/V	B				
	CLASS ACT RIDION	1 % V/V	B				
	TAVIUM	3.53 PT/A	B				
	ROUNDUP POWERMAX 3	30 FL OZ/A	B				
	MIRAVIS TOP	13.7 OZ/A	C				
	ENDIGO	4 OZ/A	C				

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Pest Type		W, Weed	W, Weed	W, Weed
Pest Code		SETFA	AMBTR	IPOSS
Pest Scientific Name		Setaria faberi	Ambrosia trifida	Ipomoea sp.
Pest Name		Giant foxtail	Giant ragweed	Morning glory
Crop Type, Code			C, GLXMA	
BBCH Scale			BSOY	
Crop Scientific Name			Glycine max	
Crop Name			Soybean	
Rating Date		6-13-2022	7-1-2022	7-1-2022
Part Rated				
Rating Type		CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max		%, 0, 100	%, 0, 10	%, 0, 100
Number of Subsamples		1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.		27, 27	45, 14	45, 14
Trt-Eval Interval				
Plant-Eval Interval		28 DP-1	46 DP-1	46 DP-1
Days After Emergence		22 DE-1	40 DE-1	40 DE-1
ARM Action Codes				
Number of Decimals				
Trt Treatment		5	6	7
No. Name	Rate Unit	Appl Code		8
12 VOLT EDGE	20 FL OZ/A	B	0.0 d	0.0 a
INTACT	0.5 % V/V	B		100.0 a
CLASS ACT RIDION	1 % V/V	B		100.0 a
TAVIUM	3.53 PT/A	B		
ROUNDUP POWERMAX 3	30 FL OZ/A	B		
LSD P=.05			1.20	.
Standard Deviation			0.83	0.00
CV			1.01	0.0
Levene's F^		7753491317712400000000000000.00*	.	.
Levene's Prob(F)			0.00*	.
Shapiro-Wilk^			0.6152*	.
P(Shapiro-Wilk)^			0.0*	.
Skewness^			0.0	.
P(Skewness)^			1.0	.
Kurtosis^			8.0253*	.
P(Kurtosis)^			0.0*	.
Replicate F			1.000	0.000
Replicate Prob(F)			0.4051	1.0000
Treatment F			8610.274	0.000
Treatment Prob(F)			0.0001	1.0000

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code	SETFA	AMBTR	IPOSS	SETFA	
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi	
Pest Name	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail	
Crop Type, Code	C, GLXMA				C, GLXMA
BBCH Scale	BSOY				BSOY
Crop Scientific Name	Glycine max				Glycine max
Crop Name	Soybean				Soybean
Rating Date	7-1-2022	7-14-2022	7-14-2022	7-14-2022	7-14-2022
Part Rated					
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	45, 14	58, 27	58, 27	58, 27	58, 27
Trt-Eval Interval					
Plant-Eval Interval	46 DP-1	59 DP-1	59 DP-1	59 DP-1	59 DP-1
Days After Emergence	40 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1
ARM Action Codes					
Number of Decimals					yield

Trt No.	Treatment Name	Rate	Appl Code	9	10	11	12	13	14	15
		Rate Unit								
1	UNTREATED		A	0.0 b	0.0 a	0.0 b	0.0 c	0.0 b		0.015 e
2	TENDOVO	1.75 QT/A	A	100.0 a	0.0 a	95.8 a	98.0 a	95.0 a		11.635 abc
	VOLT EDGE	20 FL OZ/A	B							
	INTACT	0.5 % V/V	B							
	CLASS ACT RIDION	1 % V/V	B							
	TAVIUM	3.53 PT/A	B							
3	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
	TENDOVO	2.1 QT/A	A	100.0 a	0.0 a	95.8 a	98.0 a	95.0 a		12.005 abc
	VOLT EDGE	20 FL OZ/A	B							
	INTACT	0.5 % V/V	B							
	CLASS ACT RIDION	1 % V/V	B							
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
4	BOUNDARY	1.8 PT/A	A	100.0 a	0.0 a	95.8 a	98.0 a	95.0 a		11.015 a-d
	VOLT EDGE	20 FL OZ/A	B							
	INTACT	0.5 % V/V	B							
	CLASS ACT RIDION	1 % V/V	B							
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code	SETFA	AMBTR	IPOSS	SETFA	
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi	
Pest Name	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail	
Crop Type, Code		C, GLXMA			C, GLXMA
BBCH Scale		BSOY			BSOY
Crop Scientific Name		Glycine max			Glycine max
Crop Name		Soybean			Soybean
Rating Date	7-1-2022	7-14-2022	7-14-2022	7-14-2022	7-14-2022
Part Rated					
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	45, 14	58, 27	58, 27	58, 27	58, 27
Trt-Eval Interval					
Plant-Eval Interval	46 DP-1	59 DP-1	59 DP-1	59 DP-1	59 DP-1
Days After Emergence	40 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl	9	10	11	12	13	14	15
No.	Name	Rate Unit	Code							
5	BROADAXE XC	25 FL OZ/A	A	100.0 a	0.0 a	96.5 a	98.0 a	95.0 a		10.205 bcd
	VOLT EDGE	20 FL OZ/A	B							
	INTACT	0.5 % V/V	B							
	CLASS ACT RIDION	1 % V/V	B							
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
6	SONIC	6.45 OZ WT/A	A	100.0 a	0.0 a	95.8 a	98.0 a	95.0 a		11.893 abc
	VOLT EDGE	20 FL OZ/A	B							
	INTACT	0.5 % V/V	B							
	CLASS ACT RIDION	1 % V/V	B							
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
7	FIERCE XLT	4.5 OZ WT/A	A	100.0 a	0.0 a	95.0 a	98.0 a	95.0 a		11.215 a-d
	VOLT EDGE	20 FL OZ/A	B							
	INTACT	0.5 % V/V	B							
	CLASS ACT RIDION	1 % V/V	B							
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
8	ZIDUA PRO	6 FL OZ/A	A	100.0 a	0.0 a	95.0 a	98.0 a	95.0 a		10.603 a-d
	VOLT EDGE	20 FL OZ/A	B							
	INTACT	0.5 % V/V	B							
	CLASS ACT RIDION	1 % V/V	B							
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
9	AUTHORITY EDGE	9 FL OZ/A	A	100.0 a	0.0 a	95.0 a	98.0 a	95.0 a		9.830 cd
	VOLT EDGE	20 FL OZ/A	B							
	INTACT	0.5 % V/V	B							
	CLASS ACT RIDION	1 % V/V	B							
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
10	TENDOVO	1.75 QT/A	A	100.0 a	0.0 a	96.5 a	98.0 a	95.0 a		12.688 a
	VOLT EDGE	20 FL OZ/A	B							
	INTACT	0.5 % V/V	B							
	CLASS ACT RIDION	1 % V/V	B							
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
	MIRAVIS TOP	13.7 OZ/A	C							
	ENDIGO	4 OZ/A	C							
11	TENDOVO	2.1 QT/A	A	100.0 a	0.0 a	95.0 a	98.0 a	95.0 a		12.463 ab
	VOLT EDGE	20 FL OZ/A	B							
	INTACT	0.5 % V/V	B							
	CLASS ACT RIDION	1 % V/V	B							
	TAVIUM	3.53 PT/A	B							
	ROUNDUP POWERMAX 3	30 FL OZ/A	B							
	MIRAVIS TOP	13.7 OZ/A	C							
	ENDIGO	4 OZ/A	C							

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	SETFA	AMBTR	IPOSS	SETFA	SETFA	SETFA			
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Setaria faberi	Setaria faberi			
Pest Name	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail	Giant foxtail	Giant foxtail			
Crop Type, Code		C, GLXMA				C, GLXMA			
BBCH Scale		BSOY				BSOY			
Crop Scientific Name		Glycine max				Glycine max			
Crop Name		Soybean				Soybean			
Rating Date	7-1-2022	7-14-2022	7-14-2022	7-14-2022	7-14-2022	10-11-2022			
Part Rated									
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	yield			
Rating Unit/Min/Max	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	lb/plot, -, -			
Number of Subsamples	1	1	1	1	1	1			
EDC App									
Rating Timing									
Days After First/Last Applic.	45, 14	58, 27	58, 27	58, 27	58, 27	147, 89			
Trt-Eval Interval									
Plant-Eval Interval	46 DP-1	59 DP-1	59 DP-1	59 DP-1	59 DP-1	148 DP-1			
Days After Emergence	40 DE-1	53 DE-1	53 DE-1	53 DE-1	53 DE-1	142 DE-1			
ARM Action Codes									
Number of Decimals									
Trt Treatment	Rate	Appl	9	10	11	12	13	14	15
No. Name	Rate Unit	Code							
12 VOLT EDGE	20 FL OZ/A	B	100.0 a	0.0 a	93.8 a	95.0 b	95.0 a		9.128 d
INTACT	0.5 % V/V	B							
CLASS ACT RIDION	1 % V/V	B							
TAVIUM	3.53 PT/A	B							
ROUNDUP POWERMAX 3	30 FL OZ/A	B							
LSD P=.05					1.89				1.5063
Standard Deviation			0.00	0.00	1.31	0.00	0.00		1.0471
CV			0.0	0.0	1.5	0.0	0.0		10.24
Levene's F^					0.964				1.105
Levene's Prob(F)					0.495				0.385
Shapiro-Wilk^					0.9647				0.9911
P(Shapiro-Wilk)^					0.1563				0.9725
Skewness^					0.0022				0.0255
P(Skewness)^					0.9951				0.9429
Kurtosis^					0.639				0.51
P(Kurtosis)^					0.3627				0.4669
Replicate F			0.000	0.000	1.370	0.000	0.000		1.379
Replicate Prob(F)			1.0000	1.0000	0.2689	1.0000	1.0000		0.2665
Treatment F			0.000	0.000	1768.550	0.000	0.000		41.910
Treatment Prob(F)			1.0000	1.0000	0.0001	1.0000	1.0000		0.0001

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Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Crop Type, Code	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	10-11-2022	10-11-2022
Part Rated		
Rating Type	moicon	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Number of Subsamples	1	1
EDC App		
Rating Timing		
Days After First/Last Applic.	147, 89	147, 89
Trt-Eval Interval		
Plant-Eval Interval	148 DP-1	148 DP-1
Days After Emergence	142 DE-1	142 DE-1
ARM Action Codes		TY1
Number of Decimals		1

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	16	17
1	UNTREATED				0.000 c	0.1 e
2	TENDOVO	1.75 QT/A	A		10.700 b	61.9 abc
	VOLT EDGE	20 FL OZ/A	B			
	INTACT	0.5 % V/V	B			
	CLASS ACT RIDION	1 % V/V	B			
	TAVIUM	3.53 PT/A	B			
	ROUNDUP POWERMAX 3	30 FL OZ/A	B			
3	TENDOVO	2.1 QT/A	A		10.263 b	64.2 abc
	VOLT EDGE	20 FL OZ/A	B			
	INTACT	0.5 % V/V	B			
	CLASS ACT RIDION	1 % V/V	B			
	TAVIUM	3.53 PT/A	B			
	ROUNDUP POWERMAX 3	30 FL OZ/A	B			
4	BOUNDARY	1.8 PT/A	A		10.525 b	58.7 a-d
	VOLT EDGE	20 FL OZ/A	B			
	INTACT	0.5 % V/V	B			
	CLASS ACT RIDION	1 % V/V	B			
	TAVIUM	3.53 PT/A	B			
	ROUNDUP POWERMAX 3	30 FL OZ/A	B			

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Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Crop Type, Code	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	10-11-2022	10-11-2022
Part Rated		
Rating Type	moicon	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Number of Subsamples	1	1
EDC App		
Rating Timing		
Days After First/Last Applic.	147, 89	147, 89
Trt-Eval Interval		
Plant-Eval Interval	148 DP-1	148 DP-1
Days After Emergence	142 DE-1	142 DE-1
ARM Action Codes		TY1
Number of Decimals		1

Trt No.	Treatment Name	Rate	Appl Code	16	17
		Rate Unit			
5	BROADAXE XC	25 FL OZ/A	A	10.473 b	54.5 bcd
	VOLT EDGE	20 FL OZ/A	B		
	INTACT	0.5 % V/V	B		
	CLASS ACT RIDION	1 % V/V	B		
	TAVIUM	3.53 PT/A	B		
	ROUNDUP POWERMAX 3	30 FL OZ/A	B		
6	SONIC	6.45 OZ WT/A	A	10.085 b	63.7 abc
	VOLT EDGE	20 FL OZ/A	B		
	INTACT	0.5 % V/V	B		
	CLASS ACT RIDION	1 % V/V	B		
	TAVIUM	3.53 PT/A	B		
	ROUNDUP POWERMAX 3	30 FL OZ/A	B		
7	FIERCE XLT	4.5 OZ WT/A	A	10.340 b	59.9 a-d
	VOLT EDGE	20 FL OZ/A	B		
	INTACT	0.5 % V/V	B		
	CLASS ACT RIDION	1 % V/V	B		
	TAVIUM	3.53 PT/A	B		
	ROUNDUP POWERMAX 3	30 FL OZ/A	B		
8	ZIDUA PRO	6 FL OZ/A	A	10.350 b	56.7 a-d
	VOLT EDGE	20 FL OZ/A	B		
	INTACT	0.5 % V/V	B		
	CLASS ACT RIDION	1 % V/V	B		
	TAVIUM	3.53 PT/A	B		
	ROUNDUP POWERMAX 3	30 FL OZ/A	B		
9	AUTHORITY EDGE	9 FL OZ/A	A	10.700 b	52.3 cd
	VOLT EDGE	20 FL OZ/A	B		
	INTACT	0.5 % V/V	B		
	CLASS ACT RIDION	1 % V/V	B		
	TAVIUM	3.53 PT/A	B		
	ROUNDUP POWERMAX 3	30 FL OZ/A	B		
10	TENDOVO	1.75 QT/A	A	10.450 b	67.7 a
	VOLT EDGE	20 FL OZ/A	B		
	INTACT	0.5 % V/V	B		
	CLASS ACT RIDION	1 % V/V	B		
	TAVIUM	3.53 PT/A	B		
	ROUNDUP POWERMAX 3	30 FL OZ/A	B		
	MIRAVIS TOP	13.7 OZ/A	C		
	ENDIGO	4 OZ/A	C		
11	TENDOVO	2.1 QT/A	A	10.150 b	66.7 ab
	VOLT EDGE	20 FL OZ/A	B		
	INTACT	0.5 % V/V	B		
	CLASS ACT RIDION	1 % V/V	B		
	TAVIUM	3.53 PT/A	B		
	ROUNDUP POWERMAX 3	30 FL OZ/A	B		
	MIRAVIS TOP	13.7 OZ/A	C		
	ENDIGO	4 OZ/A	C		

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Pest Type					
Pest Code					
Pest Scientific Name					
Pest Name					
Crop Type, Code		C, GLXMA	C, GLXMA		
BBCH Scale		BSOY	BSOY		
Crop Scientific Name		Glycine max	Glycine max		
Crop Name		Soybean	Soybean		
Rating Date		10-11-2022	10-11-2022		
Part Rated					
Rating Type		moicon	YIELD		
Rating Unit/Min/Max		%, 0, 100	BU, -, -		
Number of Subsamples		1	1		
EDC App					
Rating Timing					
Days After First/Last Applic.		147, 89	147, 89		
Trt-Eval Interval					
Plant-Eval Interval		148 DP-1	148 DP-1		
Days After Emergence		142 DE-1	142 DE-1		
ARM Action Codes			TY1		
Number of Decimals			1		
Trt Treatment		Rate	Appl	16	17
No. Name		Rate Unit	Code		
12 VOLT EDGE		20 FL OZ/A	B	11.300 a	48.3 d
INTACT		0.5 % V/V	B		
CLASS ACT RIDION		1 % V/V	B		
TAVIUM		3.53 PT/A	B		
ROUNDUP POWERMAX 3		30 FL OZ/A	B		
LSD P=.05				0.4601	8.08
Standard Deviation				0.3198	5.61
CV				3.33	10.29
Levene's F^				2.045	1.121
Levene's Prob(F)				0.052	0.374
Shapiro-Wilk^				0.9848	0.99
P(Shapiro-Wilk)^				0.7833	0.9523
Skewness^				0.0387	-0.0024
P(Skewness)^				0.9133	0.9946
Kurtosis^				-0.4643	0.4815
P(Kurtosis)^				0.5075	0.492
Replicate F				1.521	1.378
Replicate Prob(F)				0.2273	0.2666
Treatment F				362.323	41.718
Treatment Prob(F)				0.0001	0.0001

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CROP TOLERANCE AND EFFICACY IN CONVENTIONAL TILL SOYBEANS

Trial ID: 22-15
 Protocol ID: HSM050B4-2022US Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

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

moicon = moisture content

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

lb/plot, , = pounds per plot

BU, , = bushel

Plant-Eval Interval

11 DP-1 = 1 GLXMA 5-16-2022

28 DP-1 = 1 GLXMA 5-16-2022

46 DP-1 = 1 GLXMA 5-16-2022

59 DP-1 = 1 GLXMA 5-16-2022

148 DP-1 = 1 GLXMA 5-16-2022

ARM Action Codes

TY1 = 5.18571429*[15]*(100-[16])/87

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AMVAC corn herbicide weed control treatments for academic trials.

Trial ID: 22-20 Cooperator Trial ID:
 Protocol ID: 22C04H049 Location: LEXINGTON, KY Trial Year: 2022
 Project ID: 049 Project ID 2: Project ID 3:
 Study Director: Joe Bruce Sponsor Contact:
 Investigator (Creator): Sara Carter

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)

No.	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Comment	Amt	Product	Rep			
													Conc	Unit	Type	Rate
1	Impact Core	7.15 LB/GAL	EC		1.68 LB AI/A		30 FL OZ/A	EAPOCR B				34.46 mL/mx	101 210 311 402			
	Atrazine	4 LBA/GAL	F		1.5 LB AI/A		3 PT/A	EAPOCR B				54.99 mL/mx				
	MSO	100 %	L		0.5 % V/V		0.5 % V/V	EAPOCR B				11.0 mL/mx				
	Ammonium sulfate	21 % N	SG		2.5 LB/A		2.5 LB/A	EAPOCR B				43.94 g/mx				
2	Impact Core	7.15 LB/GAL	EC		1.12 LB AI/A		20 FL OZ/A	EAPOCR B				22.97 mL/mx	102 204 310 411			
	Impact	2.8 LBAE/GAL	SC	0.0109	LB AE/A		0.5 FL OZ/A	EAPOCR B				0.5709 mL/mx				
	Atrazine	4 LBA/GAL	F		1.5 LB AI/A		3 PT/A	EAPOCR B				54.99 mL/mx				
	MSO	100 %	L		1 % V/V		1 % V/V	EAPOCR B				22.0 mL/mx				
Ammonium sulfate	21 % N	SG		2.5 LB/A		2.5 LB/A	EAPOCR B				43.94 g/mx					
3	Impact Core	7.15 LB/GAL	EC		1.12 LB AI/A		20 FL OZ/A	EAPOCR B				22.97 mL/mx	103 211 301 404			
	Atrazine	4 LBA/GAL	F		1.5 LB AI/A		3 PT/A	EAPOCR B				54.99 mL/mx				
	Roundup PowerMax	4.5 LBAE/GAL	SL		1 LB AE/A		28.4 FL OZ/A	EAPOCR B				32.59 mL/mx				
	MSO	100 %	L		0.5 % V/V		0.5 % V/V	EAPOCR B				11.0 mL/mx				
Ammonium sulfate	21 % N	SG		2.5 LB/A		2.5 LB/A	EAPOCR B				43.94 g/mx					
4	Impact Core	7.15 LB/GAL	EC		1.68 LB AI/A		30 FL OZ/A	EAPOCR B				34.46 mL/mx	104 207 306 409			
	Hornet	68.5 %AW/W	WG	0.128	LB AI/A		3 OZ/A	EAPOCR B				3.284 g/mx				
	Roundup PowerMax	4.5 LBAE/GAL	SL		1 LB AE/A		28.4 FL OZ/A	EAPOCR B				32.59 mL/mx				
	MSO	100 %	L		0.5 % V/V		0.5 % V/V	EAPOCR B				11.0 mL/mx				
Ammonium sulfate	21 % N	SG		2.5 LB/A		2.5 LB/A	EAPOCR B				43.94 g/mx					
5	Sinate	2.57 LBA/GAL	SL		0.56 LB AI/A		28 FL OZ/A	EAPOCR B				31.96 mL/mx	105 209 307 406			
	Atrazine	4 LBA/GAL	F		1.5 LB AI/A		3 PT/A	EAPOCR B				54.99 mL/mx				
	Dual II Magnum	7.64 LB/GAL	EC		1.27 LB AI/A		1.33 PT/A	EAPOCR B				24.38 mL/mx				
	MSO	100 %	L		1 % V/V		1 % V/V	EAPOCR B				22.0 mL/mx				
Ammonium sulfate	21 % N	SG		3 LB/A		3 LB/A	EAPOCR B				52.72 g/mx					
6	Dual II Magnum	7.64 LB/GAL	EC		1.43 LB AI/A		1.5 PT/A	PREPRE A				27.45 mL/mx	106 201 302 408			
	Impact Core	7.15 LB/GAL	EC		1.12 LB AI/A		20 FL OZ/A	POSPOS C				22.97 mL/mx				
	Atrazine	4 LBA/GAL	F		0.5 LB AI/A		1 PT/A	POSPOS C				18.33 mL/mx				
	MSO	100 %	L		0.5 % V/V		0.5 % V/V	POSPOS C				11.0 mL/mx				
Ammonium sulfate	21 % N	SG		2.5 LB/A		2.5 LB/A	POSPOS C				43.94 g/mx					
7	Dual II Magnum	7.64 LB/GAL	EC		1.43 LB AI/A		1.5 PT/A	PREPRE A				27.45 mL/mx	107 202 305 407			
	Impact	2.8 LBAE/GAL	SC	0.022	LB AE/A		1 FL OZ/A	POSPOS C				1.152 mL/mx				
	Atrazine	4 LBA/GAL	F		0.5 LB AI/A		1 PT/A	POSPOS C				18.33 mL/mx				
	MSO	100 %	L		1 % V/V		1 % V/V	POSPOS C				22.0 mL/mx				
Ammonium sulfate	21 % N	SG		2.5 LB/A		2.5 LB/A	POSPOS C				43.94 g/mx					
8	Dual II Magnum	7.64 LB/GAL	EC		1.43 LB AI/A		1.5 PT/A	PREPRE A				27.45 mL/mx	108 205 304 401			
	Sinate	2.57 LBA/GAL	SL		0.48 LB AI/A		24 FL OZ/A	POSPOS C				27.39 mL/mx				
	Atrazine	4 LBA/GAL	F		0.5 LB AI/A		1 PT/A	POSPOS C				18.33 mL/mx				
	MSO	100 %	L		1 % V/V		1 % V/V	POSPOS C				22.0 mL/mx				
Ammonium sulfate	21 % N	SG		3 LB/A		3 LB/A	POSPOS C				52.72 g/mx					
9	Dual II Magnum	7.64 LB/GAL	EC		1.43 LB AI/A		1.5 PT/A	PREPRE A				27.45 mL/mx	109 203 308 405			
	Impact	2.8 LBAE/GAL	SC	0.0328	LB AE/A		1.5 FL OZ/A	LAPOCR D				1.718 mL/mx				
	MSO	100 %	L		1 % V/V		1 % V/V	LAPOCR D				22.0 mL/mx				
	Ammonium sulfate	21 % N	SG		3 LB/A		3 LB/A	LAPOCR D				52.72 g/mx				

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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 Type	Form Rate	Form Unit	Form Type	Rate Unit	Other Rate	Other Rate	Appl Unit	Appl Timing	Appl Code	Comment 1	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
10	HARNESS MAX	3.82	LB/GAL	SE	40	FL	OZ/A				PRE	A	A		45.83	mL/mx	110	208	303	410
	Shieldex	400		SC	1.35	OZ/A					MP	C	C		1.547	mL/mx				
	ATRAZINE	4		L	1	LB	AI/A				MP	C	C		36.66	mL/mx				
	AMS	100		SG	8.5	LB/100	GAL				MP	C	C		22.41	g/mx				
	COC			L	1	%	V/V				MP	C	C		22.0	mL/mx				
11	Restraint	6.5		EC	36	OZ/A					PRE	A	A		41.25	mL/mx	111	206	309	403
	ATRAZINE	4		L	1	LB	AI/A				PRE	A	A		36.66	mL/mx				
	COC			L	1	%	V/V				PRE	A	A		22.0	mL/mx				
	Shieldex	400		SC	1.35	OZ/A					MP	C	C		1.547	mL/mx				
	ATRAZINE	4		L	1	LB	AI/A				MP	C	C		36.66	mL/mx				
	AMS	100		SG	8.5	LB/100	GAL				MP	C	C		22.41	g/mx				
	COC			L	1	%	V/V				MP	C	C		22.0	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
137.831	mL	Impact Core	7.15	LB/GAL	EC	
274.970	mL	Atrazine	4	LBA/GAL	F	
153.983	mL	MSO	100	%	L	
421.787	g	Ammonium sulfate	21	% N	SG	
3.441	mL	Impact	2.8	LBAE/GAL	SC	
65.178	mL	Roundup PowerMax	4.5	LBAE/GAL	SL	
3.284	g	Hornet	68.5	%AW/W	WG	
59.345	mL	Sinate	2.57	LBA/GAL	SL	
134.174	mL	Dual II Magnum	7.64	LB/GAL	EC	
45.833	mL	HARNESS MAX	3.82	LB/GAL	SE	
3.094	mL	Shieldex	400		SC	
109.988	mL	ATRAZINE	4		L	
44.815	g	AMS	100		SG	
65.993	mL	COC			L	
41.250	mL	Restraint	6.5		EC	

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

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

General Trial Information

Study Director: Joe Bruce **Title:** Technical Service Manager
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

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

Usage/Type: DEV Development/Registration

ARM Trial Created On: 4-11-2022

Initiation Date: 5-11-2022 **Planned Completion Date:** 9-15-2022

Completion Date: 10-10-2022

Trial Location

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

Latitude of LL Corner °: 38.118458 N
Longitude of LL Corner °: -84.49384 W
GPS Accuracy of LL Corner: 6.6 FT
Altitude of LL Corner: 808.10 FT

Conducted Under GLP: No
Conducted Under GEP: No

Objectives:

Include AMVAC corn herbicide programs in academic trials that showcase industry treatments.

Select treatments appropriate for the geography. Treatment use rates can be adjusted, up or down, to fit typical area practices. Group 15 solo herbicides and premixes with atrazine, such as Harness Xtra, may be used in place of Dual II Magnum where appropriate.

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Contacts

Role: STYDIR study director
Study Director: Joe Bruce **Title:** Technical Service Manager
Organization: AMVAC Chemical Corporation
Address 1: 44 Waterford Ln **Mobile No.:** 224-319-2000
Country: USA United States **E-mail:** joeb@amvac.com
City: Glen Carbon **State/Prov:** IL
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 **State/Prov:** KY **Postal Code:** 40546-0312

Crop Description

Crop 1: C ZEAMX Zea mays **Corn** **BBCH Scale:** BCOR
Variety: NK 1349
Attributes: RR/LL double stack trait required
Planting Date: 5-11-2022 **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: 68 F **Soil Moisture:** WET wet
Emergence Date: 5-17-2022

Pest Description

Pest 1 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail **Stage Scale:** BBCH
Crop: 1 ZEAMX

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

Pest 3 Type: W **Code:** IPOSS *Ipomoea sp.*
Common Name: Morning glory **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 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Treatments:** 11 **Plots:** 44 **Study Design:** RACOB� Randomized Complete Block (RCB)

Field Prep./Maintenance:

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

Application Description

	A	B	C	D
Application Date	5-13-2022	6-1-2022	6-15-2022	6-15-2022
Appl. Start Time	3:45 PM	7:00 PM	10:30 AM	10:50 AM
Appl. Stop Time	4:15 PM	7:20 PM	10:50 AM	10:55 AM
Interval to Prev. Appl.		19 DAYS	14 DAYS	
Application Method	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing	PREPRE	EAPOCR	POSPOS	LAPOCR
Application Placement	BROSOI	BROFOL	BROFOL	BROFOL
Applied By	SARA	SARA	SARA	SARA
Air Temperature Start, Stop	83, - F	86, - F	88, - F	88, - F
% Relative Humidity Start, Stop	41, -	98, -	42, -	42, -
Wind Velocity+Dir. Start	4 MPH, SW	5 MPH, W	6 MPH, W	6 MPH, W
Soil Temperature	67 F	72 F	78 F	78 F
Soil Moisture	GOOD	SLIWET	GOOD	GOOD
Soil Surface Condition	SMOOTH	SMOOTH	SMOOTH	SMOOTH
% Cloud Cover	40	10	5	5
Next Moisture Occurred On	5-14-2022	6-2-2022	6-17-2022	6-17-2022

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Protocol Application Directions:

Water Volume and Source: Apply at 15 GPA. If water is known to have mineral content, report water hardness.

Application Timing: Make applications as follows:

Applic Code A: PREPRE - apply after crop planting and before crop emergence

Applic Code B: EAPOCR - apply to corn V1-V3 or 3" maximum weed height

Applic Code C: POSPOS - apply to corn 8-12" height

Applic Code D: LAPOCR - apply to corn 12" height or larger

Please record the following information in **SITE DESCRIPTION** sections:

Crop/Weed Information: crop and weed growth stage; average, minimum and maximum crop and weed height, approximate weed densities for each species at application.

Application details: Date, time, sprayer type, GPA, PSI, nozzle type and orifice size.

Use a spray nozzle which produces medium to coarse size droplets (approximate VMD range of 250 to 400 microns). **Do not use TeeJet AI, AIXR, TTI spray tips or any tips that produce very coarse (VC), extremely coarse (XC), or ultra coarse (UC) spray droplets.**

Environmental Conditions: Air temp, wind speed & direction, humidity, & percent cloud cover at application.

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR
Days after Emergence	-4	15	29	29
Stage Majority, Percent	00, -	10, -	13, -	
Stage Maximum, Percent	05, -	12, -	14, -	
Height Average		4 IN	12 IN	12 IN
Height Minimum, Maximum	0, 0	1, 4	8, 12	8, 12

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH
Height Average		2 IN	4 IN	4 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX	-, ZEAMX	-, ZEAMX
Pest 2 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		3 IN	6 IN	6 IN
Pest 3 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH	IPOSS, W, BBCH	IPOSS, W, BBCH
Height Average		1 IN	2 IN	2 IN

Application Equipment

	A	B	C	D
Appl. Equipment	BACKPACK	BACKPACK	BACKPACK	BACKPACK
Equipment Type	BELSPR	BELSPR	BELSPR	BELSPR
Operation Pressure	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Model	8002 DG	8002 DG	8002 DG	8002 DG
Nozzle Type	FLAT FAN	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Spacing	20 IN	20 IN	20.0 IN	20.0 IN
Boom Length	10 FT	10 FT	10.0 FT	10.0 FT
Boom Height	30 IN	30 IN	30.0 IN	30.0 IN
Boom Flow Rate	- IN	- IN	- IN	- IN
Ground Speed	4 MPH	4 MPH	4 MPH	4 MPH
Carrier	WATER	WATER	WATER	WATER
Application Amount	15 GPA	15 GPA	15 GPA	15 GPA
Mix Size	2.2 liters	2.2 liters	2.2 liters	2.2 liters
Propellant	CO2	CO2	CO2	CO2

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SE Definitions

	1.	2.	3.
SE Name	ZUSX001	ZUSW001	
SE Description	%Phyto- General	%Control	
Part Rated	PLANT, -	PLANT, -	
Rating Type	PHYGEN	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	
Sample Size	1 PLOT	1 PLOT	
Collection Basis	1 PLOT	1 PLOT	
Reporting Basis	1 PLOT	1 PLOT	
Calculation	NC	NC	

Instructions:

ADDITIONAL DETAILS AND COMMENTS:

Record the following information in Protocol Description tabs/sections:

- Soil Characteristics: Soil type/texture, pH, CEC, OM, etc.
- Deviations: Please describe deviations, errors and variables that may influence crop tolerance or weed control. Inform AMVAC PD manager of deviations when they occur and not late in the season.

Running checks between plots are preferred in this trial to gauge weed pressure across the trial.

AMVAC will provide samples of Hornet, Impact Core, Impact or Sinate. Cooperator will provide Dual II Magnum or HG15 +/- atrazine residual herbicide products and adjuvants. A liquid AMS such as N-Pak liquid AMS which provides 3.4 lb/gal of AMS may be used instead of a dry AMS product. **Avoid use of water conditioner adjuvants touted as AMS alternatives.**

Geographic Area/Environmental Considerations:

Select a site with a mix of annual grass and broadleaf weeds

Cropping Considerations:

Plant a corn hybrid having RR/LL double stack herbicide tolerance that is well suited for the geography.

Data to Collect:

Assess general percent crop injury (PHYGEN) using 0 to 100% scale at typical 7 and 14 days after treatment timings or appropriate for the trial.

Evaluate percent weed control for each individual species at 14, 28 and 42 days after application or appropriate for the trial.

Assess control of each individual weed species. Avoid pooled annual grass or annual broadleaf assessments

Crop yield is not requested

Final data should be submitted to AMVAC no later than September 15, 2022

Statistical Analysis:

Not requested.

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, ZEAMX				C, ZEAMX
BBCH Scale	BCOR				BCOR
Crop Scientific Name	Zea mays				Zea mays
Crop Name	Corn				Corn
Description	CROP INJURY WEED CONTROL				CROP INJURY
Rating Date	6-6-2022	6-6-2022	6-6-2022	6-6-2022	6-14-2022
SE Name	CROP INJURY WEED CONTROL				CROP INJURY
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Sample Size	2 ROW	2 ROW			2 ROW
Collection Basis	1 PLOT	1 PLOT			1 PLOT
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	24, 5	24, 5	24, 5	24, 5	32, 13
Trt-Eval Interval					
Plant-Eval Interval	26 DP-1	26 DP-1	26 DP-1	26 DP-1	34 DP-1
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	20 DE-1	28 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Unit	Appl	Code	Plot	1	2	3	4	5
1	Impact Core	1.68 LB	AI/A	B	101		2.0	80.0	85.0	50.0	0.0
	Atrazine	1.5 LB	AI/A	B	210		3.0	75.0	85.0	45.0	0.0
	MSO	0.5 %	V/V	B	311		2.0	80.0	90.0	50.0	0.0
	Ammonium sulfate	2.5 LB/A		B	402		2.0	75.0	85.0	50.0	0.0
					Mean =		2.3	77.5	86.3	48.8	0.0
2	Impact Core	1.12 LB	AI/A	B	102		1.0	65.0	85.0	50.0	0.0
	Impact	0.0109 LB	AE/A	B	204		1.0	65.0	85.0	45.0	0.0
	Atrazine	1.5 LB	AI/A	B	310		1.0	65.0	85.0	45.0	0.0
	MSO	1 %	V/V	B	411		1.0	65.0	90.0	50.0	0.0
	Ammonium sulfate	2.5 LB/A		B							
					Mean =		1.0	65.0	86.3	47.5	0.0
3	Impact Core	1.12 LB	AI/A	B	103		2.0	85.0	95.0	70.0	0.0
	Atrazine	1.5 LB	AI/A	B	211		2.0	85.0	98.0	75.0	0.0
	Roundup PowerMax	1 LB	AE/A	B	301		2.0	90.0	95.0	75.0	0.0
	MSO	0.5 %	V/V	B	404		2.0	90.0	95.0	70.0	0.0
	Ammonium sulfate	2.5 LB/A		B							
					Mean =		2.0	87.5	95.8	72.5	0.0
4	Impact Core	1.68 LB	AI/A	B	104		3.0	65.0	75.0	65.0	0.0
	Hornet	0.128 LB	AI/A	B	207		2.0	70.0	75.0	65.0	0.0
	Roundup PowerMax	1 LB	AE/A	B	306		3.0	70.0	75.0	65.0	0.0
	MSO	0.5 %	V/V	B	409		3.0	70.0	75.0	70.0	0.0
	Ammonium sulfate	2.5 LB/A		B							
					Mean =		2.8	68.8	75.0	66.3	0.0
5	Sinate	0.56 LB	AI/A	B	105		3.0	90.0	95.0	25.0	0.0
	Atrazine	1.5 LB	AI/A	B	209		3.0	95.0	95.0	30.0	0.0
	Dual II Magnum	1.27 LB	AI/A	B	307		3.0	95.0	95.0	25.0	0.0
	MSO	1 %	V/V	B	406		3.0	95.0	95.0	25.0	0.0
	Ammonium sulfate	3 LB/A		B							
					Mean =		3.0	93.8	95.0	26.3	0.0
6	Dual II Magnum	1.43 LB	AI/A	A	106		0.0	40.0	50.0	98.0	0.0
	Impact Core	1.12 LB	AI/A	C	201		0.0	35.0	45.0	95.0	0.0
	Atrazine	0.5 LB	AI/A	C	302		0.0	40.0	50.0	98.0	0.0
	MSO	0.5 %	V/V	C	408		0.0	45.0	50.0	98.0	0.0
	Ammonium sulfate	2.5 LB/A		C							
					Mean =		0.0	40.0	48.8	97.3	0.0
7	Dual II Magnum	1.43 LB	AI/A	A	107		0.0	25.0	25.0	95.0	0.0
	Impact	0.022 LB	AE/A	C	202		0.0	35.0	35.0	95.0	0.0
	Atrazine	0.5 LB	AI/A	C	305		0.0	30.0	35.0	95.0	0.0
	MSO	1 %	V/V	C	407		0.0	25.0	25.0	95.0	0.0
	Ammonium sulfate	2.5 LB/A		C							
					Mean =		0.0	28.8	30.0	95.0	0.0

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, ZEAMX				C, ZEAMX
BBCH Scale	BCOR				BCOR
Crop Scientific Name	Zea mays				Zea mays
Crop Name	Corn				Corn
Description	CROP INJURY WEED CONTROL				CROP INJURY
Rating Date	6-6-2022	6-6-2022	6-6-2022	6-6-2022	6-14-2022
SE Name	CROP INJURY WEED CONTROL				CROP INJURY
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Sample Size	2 ROW	2 ROW			2 ROW
Collection Basis	1 PLOT	1 PLOT			1 PLOT
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	24, 5	24, 5	24, 5	24, 5	32, 13
Trt-Eval Interval					
Plant-Eval Interval	26 DP-1	26 DP-1	26 DP-1	26 DP-1	34 DP-1
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	20 DE-1	28 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	1	2	3	4	5
8	Dual II Magnum	1.43 LB AI/A	A 108	0.0	15.0	35.0	90.0	0.0
	Sinate	0.48 LB AI/A	C 205	0.0	25.0	40.0	95.0	0.0
	Atrazine	0.5 LB AI/A	C 304	0.0	25.0	35.0	90.0	0.0
	MSO	1 % V/V	C 401	0.0	25.0	35.0	90.0	0.0
	Ammonium sulfate	3 LB/A	C					
	Mean =			0.0	22.5	36.3	91.3	0.0
9	Dual II Magnum	1.43 LB AI/A	A 109	0.0	40.0	35.0	95.0	0.0
	Impact	0.0328 LB AE/A	D 203	0.0	50.0	40.0	95.0	0.0
	MSO	1 % V/V	D 308	0.0	50.0	40.0	95.0	0.0
	Ammonium sulfate	3 LB/A	D 405	0.0	50.0	35.0	90.0	0.0
		Mean =			0.0	47.5	37.5	93.8	0.0
10	HARNES MAX	40 FL OZ/A	A 110	0.0	95.0	95.0	100.0	0.0
	Shieldex	1.35 OZ/A	C 208	0.0	95.0	98.0	95.0	0.0
	ATRAZINE	1 LB AI/A	C 303	0.0	95.0	95.0	98.0	0.0
	AMS	8.5 LB/100 GAL	C 410	0.0	95.0	98.0	100.0	0.0
	COC	1 % V/V	C					
	Mean =			0.0	95.0	96.5	98.3	0.0
11	Restraint	36 OZ/A	A 111	0.0	95.0	95.0	100.0	0.0
	ATRAZINE	1 LB AI/A	A 206	0.0	95.0	95.0	100.0	0.0
	COC	1 % V/V	A 309	0.0	95.0	95.0	100.0	0.0
	Shieldex	1.35 OZ/A	C 403	0.0	95.0	95.0	100.0	0.0
	ATRAZINE	1 LB AI/A	C					
	AMS	8.5 LB/100 GAL	C					
	Mean =			0.0	95.0	95.0	100.0	0.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA	AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Ambrosia trifida
Pest Name	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed
Crop Type, Code				C, ZEAMX
BBCH Scale				BCOR
Crop Scientific Name				Zea mays
Crop Name				Corn
Description	WEED CONTROL			CROP INJURY WEED CONTROL
Rating Date	6-14-2022	6-14-2022	6-14-2022	6-22-2022 6-22-2022
SE Name	WEED CONTROL			CROP INJURY WEED CONTROL
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10
Sample Size	2 ROW			2 ROW
Collection Basis	1 PLOT			1 PLOT
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	32, 13	32, 13	32, 13	40, 7
Trt-Eval Interval				
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	42 DP-1
Days After Emergence	28 DE-1	28 DE-1	28 DE-1	36 DE-1
ARM Action Codes				
Number of Decimals				

Trt Treatment	Rate	Appl		6	7	8	9	10
No. Name	Rate Unit	Code Plot						
1 Impact Core	1.68 LB AI/A	B 101		95.0	100.0	85.0	0.0	90.0
Atrazine	1.5 LB AI/A	B 210		95.0	98.0	95.0	0.0	95.0
MSO	0.5 % V/V	B 311		95.0	98.0	85.0	0.0	90.0
Ammonium sulfate	2.5 LB/A	B 402		95.0	98.0	85.0	0.0	95.0
		Mean =		95.0	98.5	87.5	0.0	92.5
2 Impact Core	1.12 LB AI/A	B 102		95.0	98.0	65.0	0.0	90.0
Impact	0.0109 LB AE/A	B 204		95.0	95.0	75.0	0.0	95.0
Atrazine	1.5 LB AI/A	B 310		95.0	98.0	75.0	0.0	95.0
MSO	1 % V/V	B 411		95.0	98.0	70.0	0.0	90.0
Ammonium sulfate	2.5 LB/A	B						
		Mean =		95.0	97.3	71.3	0.0	92.5
3 Impact Core	1.12 LB AI/A	B 103		95.0	100.0	95.0	0.0	90.0
Atrazine	1.5 LB AI/A	B 211		95.0	100.0	95.0	0.0	95.0
Roundup PowerMax	1 LB AE/A	B 301		95.0	100.0	100.0	0.0	90.0
MSO	0.5 % V/V	B 404		95.0	100.0	100.0	0.0	95.0
Ammonium sulfate	2.5 LB/A	B						
		Mean =		95.0	100.0	97.5	0.0	92.5
4 Impact Core	1.68 LB AI/A	B 104		95.0	100.0	100.0	0.0	95.0
Hornet	0.128 LB AI/A	B 207		95.0	100.0	100.0	0.0	90.0
Roundup PowerMax	1 LB AE/A	B 306		95.0	100.0	100.0	0.0	90.0
MSO	0.5 % V/V	B 409		95.0	100.0	100.0	0.0	90.0
Ammonium sulfate	2.5 LB/A	B						
		Mean =		95.0	100.0	100.0	0.0	91.3
5 Sinate	0.56 LB AI/A	B 105		95.0	95.0	30.0	0.0	95.0
Atrazine	1.5 LB AI/A	B 209		98.0	90.0	30.0	0.0	95.0
Dual II Magnum	1.27 LB AI/A	B 307		98.0	95.0	30.0	0.0	95.0
MSO	1 % V/V	B 406		98.0	90.0	30.0	0.0	95.0
Ammonium sulfate	3 LB/A	B						
		Mean =		97.3	92.5	30.0	0.0	95.0
6 Dual II Magnum	1.43 LB AI/A	A 106		30.0	55.0	90.0	0.0	65.0
Impact Core	1.12 LB AI/A	C 201		35.0	40.0	90.0	0.0	75.0
Atrazine	0.5 LB AI/A	C 302		35.0	45.0	90.0	0.0	75.0
MSO	0.5 % V/V	C 408		35.0	40.0	90.0	0.0	75.0
Ammonium sulfate	2.5 LB/A	C						
		Mean =		33.8	45.0	90.0	0.0	72.5
7 Dual II Magnum	1.43 LB AI/A	A 107		25.0	25.0	90.0	0.0	75.0
Impact	0.022 LB AE/A	C 202		25.0	25.0	90.0	0.0	80.0
Atrazine	0.5 LB AI/A	C 305		35.0	25.0	90.0	0.0	85.0
MSO	1 % V/V	C 407		25.0	25.0	90.0	0.0	80.0
Ammonium sulfate	2.5 LB/A	C						
		Mean =		27.5	25.0	90.0	0.0	80.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA	AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Ambrosia trifida
Pest Name	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed
Crop Type, Code				C, ZEAMX
BBCH Scale				BCOR
Crop Scientific Name				Zea mays
Crop Name				Corn
Description	WEED CONTROL			CROP INJURY WEED CONTROL
Rating Date	6-14-2022	6-14-2022	6-14-2022	6-22-2022 6-22-2022
SE Name	WEED CONTROL			CROP INJURY WEED CONTROL
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10 % , 0, 100
Sample Size	2 ROW			2 ROW 2 ROW
Collection Basis	1 PLOT			1 PLOT 1 PLOT
Number of Subsamples	1	1	1	1 1
EDC App				
Rating Timing				
Days After First/Last Applic.	32, 13	32, 13	32, 13	40, 7 40, 7
Trt-Eval Interval				
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	42 DP-1 42 DP-1
Days After Emergence	28 DE-1	28 DE-1	28 DE-1	36 DE-1 36 DE-1
ARM Action Codes				
Number of Decimals				

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	6	7	8	9	10	
8	Dual II Magnum	1.43 LB AI/A	A 108	25.0	25.0	80.0	0.0	85.0	
	Sinate	0.48 LB AI/A	C 205	20.0	30.0	85.0	0.0	75.0	
	Atrazine	0.5 LB AI/A	C 304	20.0	30.0	80.0	0.0	80.0	
	MSO	1 % V/V	C 401	20.0	30.0	80.0	0.0	85.0	
	Ammonium sulfate	3 LB/A	C						
		Mean =			21.3	28.8	81.3	0.0	81.3
9	Dual II Magnum	1.43 LB AI/A	A 109	30.0	30.0	85.0	0.0	75.0	
	Impact	0.0328 LB AE/A	D 203	35.0	35.0	90.0	0.0	85.0	
	MSO	1 % V/V	D 308	30.0	30.0	85.0	0.0	85.0	
	Ammonium sulfate	3 LB/A	D 405	30.0	30.0	85.0	0.0	85.0	
		Mean =			31.3	31.3	86.3	0.0	82.5
10	HARNES MAX	40 FL OZ/A	A 110	80.0	35.0	95.0	0.0	95.0	
	Shieldex	1.35 OZ/A	C 208	85.0	95.0	95.0	0.0	95.0	
	ATRAZINE	1 LB AI/A	C 303	80.0	98.0	95.0	0.0	95.0	
	AMS	8.5 LB/100 GAL	C 410	85.0	95.0	95.0	0.0	90.0	
	COC	1 % V/V	C						
		Mean =			82.5	80.8	95.0	0.0	93.8
11	Restraint	36 OZ/A	A 111	80.0	95.0	95.0	0.0	90.0	
	ATRAZINE	1 LB AI/A	A 206	80.0	95.0	95.0	0.0	90.0	
	COC	1 % V/V	A 309	80.0	98.0	95.0	0.0	95.0	
	Shieldex	1.35 OZ/A	C 403	80.0	95.0	95.0	0.0	90.0	
	ATRAZINE	1 LB AI/A	C						
	AMS	8.5 LB/100 GAL	C						
	COC	1 % V/V	C						
	Mean =			80.0	95.8	95.0	0.0	91.3	

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSS	SETFA	AMBTR	IPOSS	SETFA
Pest Scientific Name	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi
Pest Name	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail
Crop Type, Code			C, ZEAMX		
BBCH Scale			BCOR		
Crop Scientific Name			Zea mays		
Crop Name			Corn		
Description			CROP INJURY WEED CONTROL		
Rating Date	6-22-2022	6-22-2022	7-6-2022	7-6-2022	7-6-2022
SE Name			CROP INJURY WEED CONTROL		
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100	% , 0, 100
Sample Size			2 ROW	2 ROW	
Collection Basis			1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	40, 7	40, 7	54, 21	54, 21	54, 21
Trt-Eval Interval					
Plant-Eval Interval	42 DP-1	42 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	36 DE-1	36 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	11	12	13	14	15	16
1	Impact Core	1.68 LB AI/A	B 101	95.0	95.0	0.0	85.0	70.0	85.0
	Atrazine	1.5 LB AI/A	B 210	95.0	90.0	0.0	80.0	75.0	85.0
	MSO	0.5 % V/V	B 311	95.0	95.0	0.0	85.0	70.0	85.0
	Ammonium sulfate	2.5 LB/A	B 402	95.0	95.0	0.0	85.0	65.0	85.0
		Mean =			95.0	93.8	0.0	83.8	70.0	85.0
2	Impact Core	1.12 LB AI/A	B 102	95.0	95.0	0.0	90.0	50.0	75.0
	Impact	0.0109 LB AE/A	B 204	90.0	95.0	0.0	95.0	65.0	80.0
	Atrazine	1.5 LB AI/A	B 310	95.0	95.0	0.0	90.0	60.0	75.0
	MSO	1 % V/V	B 411	95.0	95.0	0.0	90.0	65.0	75.0
	Ammonium sulfate	2.5 LB/A	B						
	Mean =			93.8	95.0	0.0	91.3	60.0	76.3
3	Impact Core	1.12 LB AI/A	B 103	95.0	95.0	0.0	95.0	85.0	95.0
	Atrazine	1.5 LB AI/A	B 211	95.0	95.0	0.0	95.0	90.0	95.0
	Roundup PowerMax	1 LB AE/A	B 301	95.0	95.0	0.0	95.0	90.0	95.0
	MSO	0.5 % V/V	B 404	95.0	95.0	0.0	95.0	90.0	95.0
	Ammonium sulfate	2.5 LB/A	B						
	Mean =			95.0	95.0	0.0	95.0	88.8	95.0
4	Impact Core	1.68 LB AI/A	B 104	95.0	95.0	0.0	75.0	60.0	95.0
	Hornet	0.128 LB AI/A	B 207	95.0	95.0	0.0	70.0	75.0	95.0
	Roundup PowerMax	1 LB AE/A	B 306	95.0	95.0	0.0	75.0	75.0	95.0
	MSO	0.5 % V/V	B 409	95.0	95.0	0.0	70.0	75.0	95.0
	Ammonium sulfate	2.5 LB/A	B						
	Mean =			95.0	95.0	0.0	72.5	71.3	95.0
5	Sinate	0.56 LB AI/A	B 105	90.0	95.0	0.0	85.0	85.0	70.0
	Atrazine	1.5 LB AI/A	B 209	85.0	95.0	0.0	90.0	90.0	75.0
	Dual II Magnum	1.27 LB AI/A	B 307	85.0	95.0	0.0	90.0	90.0	75.0
	MSO	1 % V/V	B 406	90.0	95.0	0.0	90.0	85.0	75.0
	Ammonium sulfate	3 LB/A	B						
	Mean =			87.5	95.0	0.0	88.8	87.5	73.8
6	Dual II Magnum	1.43 LB AI/A	A 106	80.0	95.0	0.0	40.0	10.0	85.0
	Impact Core	1.12 LB AI/A	C 201	85.0	95.0	0.0	50.0	15.0	85.0
	Atrazine	0.5 LB AI/A	C 302	80.0	95.0	0.0	55.0	25.0	85.0
	MSO	0.5 % V/V	C 408	85.0	95.0	0.0	45.0	15.0	85.0
	Ammonium sulfate	2.5 LB/A	C						
	Mean =			82.5	95.0	0.0	47.5	16.3	85.0
7	Dual II Magnum	1.43 LB AI/A	A 107	80.0	95.0	0.0	65.0	85.0	90.0
	Impact	0.022 LB AE/A	C 202	85.0	95.0	0.0	75.0	85.0	95.0
	Atrazine	0.5 LB AI/A	C 305	85.0	95.0	0.0	75.0	85.0	90.0
	MSO	1 % V/V	C 407	85.0	95.0	0.0	75.0	85.0	90.0
	Ammonium sulfate	2.5 LB/A	C						
	Mean =			83.8	95.0	0.0	72.5	85.0	91.3

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSS	SETFA	AMBTR	IPOSS	SETFA
Pest Scientific Name	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi
Pest Name	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail
Crop Type, Code			C, ZEAMX		
BBCH Scale			BCOR		
Crop Scientific Name			Zea mays		
Crop Name			Corn		
Description			CROP INJURY WEED CONTROL		
Rating Date	6-22-2022	6-22-2022	7-6-2022	7-6-2022	7-6-2022
SE Name			CROP INJURY WEED CONTROL		
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Sample Size			2 ROW	2 ROW	
Collection Basis			1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	40, 7	40, 7	54, 21	54, 21	54, 21
Trt-Eval Interval					
Plant-Eval Interval	42 DP-1	42 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	36 DE-1	36 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	11	12	13	14	15	16				
8 Dual II Magnum	1.43 LB AI/A	A 108	90.0	95.0	0.0	65.0	85.0	85.0	85.0			
Sinate	0.48 LB AI/A	C 205	85.0	95.0	0.0	65.0	85.0	80.0				
Atrazine	0.5 LB AI/A	C 304	90.0	95.0	0.0	65.0	85.0	80.0				
MSO	1 % V/V	C 401	85.0	95.0	0.0	65.0	85.0	80.0				
Ammonium sulfate	3 LB/A	C										
	Mean =		87.5	95.0	0.0	65.0	85.0	81.3				
9 Dual II Magnum	1.43 LB AI/A	A 109	85.0	95.0	0.0	55.0	85.0	75.0				
Impact	0.0328 LB AE/A	D 203	90.0	95.0	0.0	65.0	85.0	70.0				
MSO	1 % V/V	D 308	90.0	95.0	0.0	75.0	85.0	75.0				
Ammonium sulfate	3 LB/A	D 405	90.0	95.0	0.0	65.0	85.0	75.0				
	Mean =		88.8	95.0	0.0	65.0	85.0	73.8				
10 HARNESS MAX	40 FL OZ/A	A 110	90.0	95.0	0.0	95.0	90.0	95.0				
Shieldex	1.35 OZ/A	C 208	90.0	95.0	0.0	95.0	90.0	95.0				
ATRAZINE	1 LB AI/A	C 303	90.0	95.0	0.0	95.0	90.0	95.0				
AMS	8.5 LB/100 GAL	C 410	90.0	95.0	0.0	95.0	90.0	90.0				
COC	1 % V/V	C										
	Mean =		90.0	95.0	0.0	95.0	90.0	93.8				
11 Restraint	36 OZ/A	A 111	95.0	95.0	0.0	100.0	95.0	95.0				
ATRAZINE	1 LB AI/A	A 206	90.0	95.0	0.0	100.0	95.0	95.0				
COC	1 % V/V	A 309	90.0	95.0	0.0	100.0	98.0	95.0				
Shieldex	1.35 OZ/A	C 403	95.0	95.0	0.0	100.0	95.0	95.0				
ATRAZINE	1 LB AI/A	C										
AMS	8.5 LB/100 GAL	C										
COC	1 % V/V	C										
	Mean =		92.5	95.0	0.0	100.0	95.8	95.0				

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AMVAC corn herbicide weed control treatments for academic trials.

Trial ID: 22-20
 Protocol ID: 22C04H049 Location: LEXINGTON, KY
 Project ID: 049 Project ID 2: Project ID 3:
 Study Director: Joe Bruce Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:
 Trial Year: 2022

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

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

Plant-Eval Interval

26 DP-1 = 1 ZEAMX 5-11-2022
 34 DP-1 = 1 ZEAMX 5-11-2022
 42 DP-1 = 1 ZEAMX 5-11-2022
 56 DP-1 = 1 ZEAMX 5-11-2022

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Description

Rating Date

SE Name

Part Rated

Rating Type

Rating Unit/Min/Max

Sample Size

Collection Basis

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

W, Weed W, Weed W, Weed
 AMBTR IPOSS SETFA
 Ambrosia trifida Ipomoea sp. Setaria faberi
 Giant ragweed Morning glory Giant foxtail

	C, ZEAMX				C, ZEAMX
	BCOR				BCOR
	Zea mays				Zea mays
	Corn				Corn
Description	CROP INJURY WEED CONTROL				CROP INJURY
Rating Date	6-6-2022	6-6-2022	6-6-2022	6-6-2022	6-14-2022
SE Name	CROP INJURY WEED CONTROL				CROP INJURY
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Sample Size	2 ROW	2 ROW			2 ROW
Collection Basis	1 PLOT	1 PLOT			1 PLOT
Number of Subsamples	1	1	1	1	1
Rating Timing					
Days After First/Last Applic.	24, 5	24, 5	24, 5	24, 5	32, 13
Trt-Eval Interval					
Plant-Eval Interval	26 DP-1	26 DP-1	26 DP-1	26 DP-1	34 DP-1
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	20 DE-1	28 DE-1
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4	5
1	Impact Core	1.68 LB AI/A	B		2.3 b	77.5 c	86.3 b	48.8 f	0.0 a
	Atrazine	1.5 LB AI/A	B						
	MSO	0.5 % V/V	B						
	Ammonium sulfate	2.5 LB/A	B						
2	Impact Core	1.12 LB AI/A	B		1.0 c	65.0 d	86.3 b	47.5 f	0.0 a
	Impact	0.0109 LB AE/A	B						
	Atrazine	1.5 LB AI/A	B						
	MSO	1 % V/V	B						
3	Ammonium sulfate	2.5 LB/A	B						
	Impact Core	1.12 LB AI/A	B		2.0 b	87.5 b	95.8 a	72.5 d	0.0 a
	Atrazine	1.5 LB AI/A	B						
	Roundup PowerMax	1 LB AE/A	B						
	MSO	0.5 % V/V	B						
	Ammonium sulfate	2.5 LB/A	B						

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Pest Type	W, Weed	W, Weed	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 Type, Code	C, ZEAMX			C, ZEAMX
BBCH Scale	BCOR			BCOR
Crop Scientific Name	Zea mays			Zea mays
Crop Name	Corn			Corn
Description	CROP INJURY WEED CONTROL			CROP INJURY
Rating Date	6-6-2022	6-6-2022	6-6-2022	6-6-2022
SE Name	CROP INJURY WEED CONTROL			CROP INJURY
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 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	1
EDC App				
Rating Timing				
Days After First/Last Applic.	24, 5	24, 5	24, 5	24, 5
Trt-Eval Interval				32, 13
Plant-Eval Interval	26 DP-1	26 DP-1	26 DP-1	26 DP-1
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	20 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4	5
4	Impact Core	1.68	LB AI/A	B	2.8 a	68.8 d	75.0 c	66.3 e	0.0 a
	Hornet	0.128	LB AI/A	B					
	Roundup PowerMax	1	LB AE/A	B					
	MSO	0.5	% V/V	B					
	Ammonium sulfate	2.5	LB/A	B					
5	Sinate	0.56	LB AI/A	B	3.0 a	93.8 a	95.0 a	26.3 g	0.0 a
	Atrazine	1.5	LB AI/A	B					
	Dual II Magnum	1.27	LB AI/A	B					
	MSO	1	% V/V	B					
	Ammonium sulfate	3	LB/A	B					
6	Dual II Magnum	1.43	LB AI/A	A	0.0 d	40.0 f	48.8 d	97.3 ab	0.0 a
	Impact Core	1.12	LB AI/A	C					
	Atrazine	0.5	LB AI/A	C					
	MSO	0.5	% V/V	C					
	Ammonium sulfate	2.5	LB/A	C					
7	Dual II Magnum	1.43	LB AI/A	A	0.0 d	28.8 g	30.0 f	95.0 bc	0.0 a
	Impact	0.022	LB AE/A	C					
	Atrazine	0.5	LB AI/A	C					
	MSO	1	% V/V	C					
	Ammonium sulfate	2.5	LB/A	C					
8	Dual II Magnum	1.43	LB AI/A	A	0.0 d	22.5 h	36.3 e	91.3 c	0.0 a
	Sinate	0.48	LB AI/A	C					
	Atrazine	0.5	LB AI/A	C					
	MSO	1	% V/V	C					
	Ammonium sulfate	3	LB/A	C					
9	Dual II Magnum	1.43	LB AI/A	A	0.0 d	47.5 e	37.5 e	93.8 bc	0.0 a
	Impact	0.0328	LB AE/A	D					
	MSO	1	% V/V	D					
	Ammonium sulfate	3	LB/A	D					
10	HARNESS MAX	40	FL OZ/A	A	0.0 d	95.0 a	96.5 a	98.3 ab	0.0 a
	Shieldex	1.35	OZ/A	C					
	ATRAZINE	1	LB AI/A	C					
	AMS	8.5	LB/100 GAL	C					
	COC	1	% V/V	C					

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Pest Type		W, Weed	W, Weed	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 Type, Code	C, ZEAMX				C, ZEAMX
BBCH Scale	BCOR				BCOR
Crop Scientific Name	Zea mays				Zea mays
Crop Name	Corn				Corn
Description	CROP INJURY WEED CONTROL				CROP INJURY
Rating Date	6-6-2022	6-6-2022	6-6-2022	6-6-2022	6-14-2022
SE Name	CROP INJURY WEED CONTROL				CROP INJURY
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10
Sample Size	2 ROW	2 ROW			2 ROW
Collection Basis	1 PLOT	1 PLOT			1 PLOT
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	24, 5	24, 5	24, 5	24, 5	32, 13
Trt-Eval Interval					
Plant-Eval Interval	26 DP-1	26 DP-1	26 DP-1	26 DP-1	34 DP-1
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	20 DE-1	28 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment No. Name	Rate	Rate Unit	Appl Code	1	2	3	4	5
11	Restraint	36 OZ/A	A	A	0.0 d	95.0 a	95.0 a	100.0 a	0.0 a
	ATRAZINE	1 LB AI/A	A	A					
	COC	1 % V/V	A	A					
	Shieldex	1.35 OZ/A	C	C					
	ATRAZINE	1 LB AI/A	C	C					
	AMS	8.5 LB/100 GAL	C	C					
	COC	1 % V/V	C	C					
	LSD P=.05				0.32	4.32	3.62	3.40	.
	Standard Deviation				0.22	2.99	2.50	2.36	0.00
	CV				22.36	4.56	3.52	3.1	0.0
	Levene's F^				0.90	1.004	2.674*	0.801	.
	Levene's Prob(F)				0.544	0.461	0.016*	0.629	.
	Shapiro-Wilk^				0.5535*	0.9677	0.9747	0.9788	.
	P(Shapiro-Wilk)^				0.0*	0.2511	0.4383	0.5855	.
	Skewness^				0.0	-0.1818	0.0231	0.0881	.
	P(Skewness)^				1.0	0.6253	0.9505	0.8127	.
	Kurtosis^				11.1995*	0.3461	0.1546	-0.5278	.
	P(Kurtosis)^				0.0*	0.6356	0.8322	0.4708	.
	Replicate F				0.000	3.284	1.473	0.037	0.000
	Replicate Prob(F)				1.0000	0.0342	0.2417	0.9903	1.0000
	Treatment F				125.000	328.932	472.333	473.010	0.000
	Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	1.0000

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	6	7	8	9	10
1	Impact Core	1.68	LB AI/A	B	95.0 a	98.5 a	87.5 c	0.0 a	92.5 a
	Atrazine	1.5	LB AI/A	B					
	MSO	0.5	% V/V	B					
	Ammonium sulfate	2.5	LB/A	B					
2	Impact Core	1.12	LB AI/A	B	95.0 a	97.3 a	71.3 e	0.0 a	92.5 a
	Impact	0.0109	LB AE/A	B					
	Atrazine	1.5	LB AI/A	B					
	MSO	1	% V/V	B					
	Ammonium sulfate	2.5	LB/A	B					
3	Impact Core	1.12	LB AI/A	B	95.0 a	100.0 a	97.5 ab	0.0 a	92.5 a
	Atrazine	1.5	LB AI/A	B					
	Roundup PowerMax	1	LB AE/A	B					
	MSO	0.5	% V/V	B					
	Ammonium sulfate	2.5	LB/A	B					

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA	AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Ambrosia trifida
Pest Name	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed
Crop Type, Code				C, ZEAMX
BBCH Scale				BCOR
Crop Scientific Name				Zea mays
Crop Name				Corn
Description	WEED CONTROL			CROP INJURY WEED CONTROL
Rating Date	6-14-2022	6-14-2022	6-14-2022	6-22-2022
SE Name	WEED CONTROL			CROP INJURY WEED CONTROL
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Sample Size	2 ROW			2 ROW
Collection Basis	1 PLOT			1 PLOT
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	32, 13	32, 13	32, 13	40, 7
Trt-Eval Interval				
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	42 DP-1
Days After Emergence	28 DE-1	28 DE-1	28 DE-1	36 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	6	7	8	9	10
4	Impact Core	1.68	LB AI/A	B	95.0 a	100.0 a	100.0 a	0.0 a	91.3 a
	Hornet	0.128	LB AI/A	B					
	Roundup PowerMax	1	LB AE/A	B					
	MSO	0.5	% V/V	B					
	Ammonium sulfate	2.5	LB/A	B					
5	Sinate	0.56	LB AI/A	B	97.3 a	92.5 a	30.0 f	0.0 a	95.0 a
	Atrazine	1.5	LB AI/A	B					
	Dual II Magnum	1.27	LB AI/A	B					
	MSO	1	% V/V	B					
	Ammonium sulfate	3	LB/A	B					
6	Dual II Magnum	1.43	LB AI/A	A	33.8 c	45.0 b	90.0 c	0.0 a	72.5 c
	Impact Core	1.12	LB AI/A	C					
	Atrazine	0.5	LB AI/A	C					
	MSO	0.5	% V/V	C					
	Ammonium sulfate	2.5	LB/A	C					
7	Dual II Magnum	1.43	LB AI/A	A	27.5 d	25.0 c	90.0 c	0.0 a	80.0 b
	Impact	0.022	LB AE/A	C					
	Atrazine	0.5	LB AI/A	C					
	MSO	1	% V/V	C					
	Ammonium sulfate	2.5	LB/A	C					
8	Dual II Magnum	1.43	LB AI/A	A	21.3 e	28.8 bc	81.3 d	0.0 a	81.3 b
	Sinate	0.48	LB AI/A	C					
	Atrazine	0.5	LB AI/A	C					
	MSO	1	% V/V	C					
	Ammonium sulfate	3	LB/A	C					
9	Dual II Magnum	1.43	LB AI/A	A	31.3 c	31.3 bc	86.3 c	0.0 a	82.5 b
	Impact	0.0328	LB AE/A	D					
	MSO	1	% V/V	D					
	Ammonium sulfate	3	LB/A	D					
10	HARNESS MAX	40	FL OZ/A	A	82.5 b	80.8 a	95.0 b	0.0 a	93.8 a
	Shieldex	1.35	OZ/A	C					
	ATRAZINE	1	LB AI/A	C					
	AMS	8.5	LB/100 GAL	C					
	COC	1	% V/V	C					

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Pest Type	W, Weed	W, Weed	W, Weed		W, Weed
Pest Code	AMBTR	IPOSS	SETFA		AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed
Crop Type, Code				C, ZEAMX	
BBCH Scale				BCOR	
Crop Scientific Name				Zea mays	
Crop Name				Corn	
Description	WEED CONTROL			CROP INJURY	WEED CONTROL
Rating Date	6-14-2022	6-14-2022	6-14-2022	6-22-2022	6-22-2022
SE Name	WEED CONTROL			CROP INJURY	WEED CONTROL
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100
Sample Size	2 ROW			2 ROW	2 ROW
Collection Basis	1 PLOT			1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	32, 13	32, 13	32, 13	40, 7	40, 7
Trt-Eval Interval					
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	42 DP-1	42 DP-1
Days After Emergence	28 DE-1	28 DE-1	28 DE-1	36 DE-1	36 DE-1
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	6	7	8	9	10
11	Restraint	36	OZ/A	A	80.0 b	95.8 a	95.0 b	0.0 a	91.3 a
	ATRAZINE	1	LB AI/A	A					
	COC	1	% V/V	A					
	Shieldex	1.35	OZ/A	C					
	ATRAZINE	1	LB AI/A	C					
	AMS	8.5	LB/100 GAL	C					
	COC	1	% V/V	C					
	LSD P=.05				3.26	14.07	3.37	.	4.93
	Standard Deviation				2.26	9.74	2.34	0.00	3.42
	CV				3.29	13.49	2.78	0.0	3.89
	Levene's F^				0.875	0.80	1.357	.	0.563
	Levene's Prob(F)				0.565	0.629	0.243	.	0.831
	Shapiro-Wilk^				0.8837*	0.6407*	0.9585	.	0.9673
	P(Shapiro-Wilk)^				0.0004*	0.0*	0.114	.	0.243
	Skewness^				1.4424*	-2.9537*	0.3407	.	-0.3406
	P(Skewness)^				0.0003*	0.0*	0.3617	.	0.3619
	Kurtosis^				4.0836*	17.4611*	1.7069*	.	-0.1507
	P(Kurtosis)^				0.0*	0.0*	0.0233*	.	0.8364
	Replicate F				0.673	0.623	2.604	0.000	1.429
	Replicate Prob(F)				0.5756	0.6055	0.0702	1.0000	0.2539
	Treatment F				822.839	43.973	282.750	0.000	18.623
	Treatment Prob(F)				0.0001	0.0001	0.0001	1.0000	0.0001

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed					
Pest Code	IPOSS	SETFA	AMBTR	IPOSS	SETFA					
Pest Scientific Name	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi					
Pest Name	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail					
Crop Type, Code			C, ZEAMX							
BBCH Scale			BCOR							
Crop Scientific Name			Zea mays							
Crop Name			Corn							
Description			CROP INJURY WEED CONTROL							
Rating Date	6-22-2022	6-22-2022	7-6-2022	7-6-2022	7-6-2022					
SE Name			CROP INJURY WEED CONTROL							
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P					
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO					
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100					
Sample Size			2 ROW	2 ROW						
Collection Basis			1 PLOT	1 PLOT						
Number of Subsamples	1	1	1	1	1					
EDC App										
Rating Timing										
Days After First/Last Applic.	40, 7	40, 7	54, 21	54, 21	54, 21					
Trt-Eval Interval										
Plant-Eval Interval	42 DP-1	42 DP-1	56 DP-1	56 DP-1	56 DP-1					
Days After Emergence	36 DE-1	36 DE-1	50 DE-1	50 DE-1	50 DE-1					
ARM Action Codes										
Number of Decimals										
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	11	12	13	14	15	16
1	Impact Core	1.68 LB A/A	B		95.0 a	93.8 a	0.0 a	83.8 c	70.0 c	85.0 b
	Atrazine	1.5 LB A/A	B							
	MSO	0.5 % V/V	B							
	Ammonium sulfate	2.5 LB/A	B							
2	Impact Core	1.12 LB A/A	B		93.8 ab	95.0 a	0.0 a	91.3 b	60.0 d	76.3 d
	Impact	0.0109 LB AE/A	B							
	Atrazine	1.5 LB A/A	B							
	MSO	1 % V/V	B							
	Ammonium sulfate	2.5 LB/A	B							
3	Impact Core	1.12 LB A/A	B		95.0 a	95.0 a	0.0 a	95.0 ab	88.8 b	95.0 a
	Atrazine	1.5 LB A/A	B							
	Roundup PowerMax	1 LB AE/A	B							
	MSO	0.5 % V/V	B							
	Ammonium sulfate	2.5 LB/A	B							

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSS	SETFA	AMBTR	IPOSS	SETFA
Pest Scientific Name	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi
Pest Name	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail
Crop Type, Code			C, ZEAMX		
BBCH Scale			BCOR		
Crop Scientific Name			Zea mays		
Crop Name			Corn		
Description			CROP INJURY WEED CONTROL		
Rating Date	6-22-2022	6-22-2022	7-6-2022	7-6-2022	7-6-2022
SE Name			CROP INJURY WEED CONTROL		
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100	% , 0, 100
Sample Size			2 ROW	2 ROW	
Collection Basis			1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	40, 7	40, 7	54, 21	54, 21	54, 21
Trt-Eval Interval					
Plant-Eval Interval	42 DP-1	42 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	36 DE-1	36 DE-1	50 DE-1	50 DE-1	50 DE-1
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Unit	Appl Code	11	12	13	14	15	16
4	Impact Core	1.68	LB AI/A	B	95.0 a	95.0 a	0.0 a	72.5 d	71.3 c	95.0 a
	Hornet	0.128	LB AI/A	B						
	Roundup PowerMax	1	LB AE/A	B						
	MSO	0.5	% V/V	B						
	Ammonium sulfate	2.5	LB/A	B						
5	Sinate	0.56	LB AI/A	B	87.5 de	95.0 a	0.0 a	88.8 bc	87.5 b	73.8 d
	Atrazine	1.5	LB AI/A	B						
	Dual II Magnum	1.27	LB AI/A	B						
	MSO	1	% V/V	B						
	Ammonium sulfate	3	LB/A	B						
6	Dual II Magnum	1.43	LB AI/A	A	82.5 f	95.0 a	0.0 a	47.5 f	16.3 e	85.0 b
	Impact Core	1.12	LB AI/A	C						
	Atrazine	0.5	LB AI/A	C						
	MSO	0.5	% V/V	C						
	Ammonium sulfate	2.5	LB/A	C						
7	Dual II Magnum	1.43	LB AI/A	A	83.8 ef	95.0 a	0.0 a	72.5 d	85.0 b	91.3 a
	Impact	0.022	LB AE/A	C						
	Atrazine	0.5	LB AI/A	C						
	MSO	1	% V/V	C						
	Ammonium sulfate	2.5	LB/A	C						
8	Dual II Magnum	1.43	LB AI/A	A	87.5 de	95.0 a	0.0 a	65.0 e	85.0 b	81.3 c
	Sinate	0.48	LB AI/A	C						
	Atrazine	0.5	LB AI/A	C						
	MSO	1	% V/V	C						
	Ammonium sulfate	3	LB/A	C						
9	Dual II Magnum	1.43	LB AI/A	A	88.8 cd	95.0 a	0.0 a	65.0 e	85.0 b	73.8 d
	Impact	0.0328	LB AE/A	D						
	MSO	1	% V/V	D						
	Ammonium sulfate	3	LB/A	D						
10	HARNESS MAX	40	FL OZ/A	A	90.0 bcd	95.0 a	0.0 a	95.0 ab	90.0 b	93.8 a
	Shieldex	1.35	OZ/A	C						
	ATRAZINE	1	LB AI/A	C						
	AMS	8.5	LB/100 GAL	C						
	COC	1	% V/V	C						

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	IPOSS	SETFA		AMBTR	IPOSS	SETFA			
Pest Scientific Name	Ipomoea sp. Setaria faberi			Ambrosia trifida Ipomoea sp. Setaria faberi					
Pest Name	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail			
Crop Type, Code				C, ZEAMX					
BBCH Scale				BCOR					
Crop Scientific Name				Zea mays					
Crop Name				Corn					
Description				CROP INJURY WEED CONTROL					
Rating Date	6-22-2022	6-22-2022		7-6-2022	7-6-2022	7-6-2022			
SE Name				CROP INJURY WEED CONTROL					
Part Rated	PLANT, P	PLANT, P		PLANT, C	PLANT, P	PLANT, P			
Rating Type	CONTRO	CONTRO		PHYGEN	CONTRO	CONTRO			
Rating Unit/Min/Max	% , 0, 100	% , 0, 100		% , 0, 10	% , 0, 100	% , 0, 100			
Sample Size				2 ROW	2 ROW				
Collection Basis				1 PLOT	1 PLOT				
Number of Subsamples	1	1		1	1	1			
EDC App									
Rating Timing									
Days After First/Last Applic.	40, 7	40, 7		54, 21	54, 21	54, 21			
Trt-Eval Interval									
Plant-Eval Interval	42 DP-1	42 DP-1		56 DP-1	56 DP-1	56 DP-1			
Days After Emergence	36 DE-1	36 DE-1		50 DE-1	50 DE-1	50 DE-1			
ARM Action Codes									
Number of Decimals									
Trt Treatment No. Name	Rate	Rate Unit	Appl Code	11	12	13	14	15	16
11 Restraint	36 OZ/A	A	A	92.5 abc	95.0 a	0.0 a	100.0 a	95.8 a	95.0 a
ATRAZINE	1 LB AI/A	A	A						
COC	1 % V/V	A	A						
Shieldex	1.35 OZ/A	C	C						
ATRAZINE	1 LB AI/A	C	C						
AMS	8.5 LB/100 GAL	C	C						
COC	1 % V/V	C	C						
LSD P=.05				3.18	1.09	.	5.04	5.12	2.74
Standard Deviation				2.20	0.75	0.00	3.49	3.54	1.90
CV				2.44	0.79	0.0	4.38	4.67	2.21
Levene's F^				2.714*	0.736	.	1.062	0.922	0.533
Levene's Prob(F)				0.015*	0.686	.	0.417	0.525	0.854
Shapiro-Wilk^				0.9441*	0.5098*	.	0.9841	0.9625	0.9401*
P(Shapiro-Wilk)^				0.0333*	0.0*	.	0.7949	0.1618	0.0238*
Skewness^				-0.4066	-3.4035*	.	0.0251	-0.2746	-0.2088
P(Skewness)^				0.2774	0.0*	.	0.9462	0.4614	0.575
Kurtosis^				-0.6972	20.6385*	.	0.8663	0.8403	1.5049*
P(Kurtosis)^				0.3418	0.0*	.	0.2389	0.2531	0.044*
Replicate F				0.742	1.000	0.000	3.152	4.277	0.421
Replicate Prob(F)				0.5353	0.4064	1.0000	0.0393	0.0125	0.7392
Treatment F				16.875	1.000	0.000	88.043	159.492	83.400
Treatment Prob(F)				0.0001	0.4654	1.0000	0.0001	0.0001	0.0001

University of Kentucky

AMVAC corn herbicide weed control treatments for academic trials.

Trial ID: 22-20
 Protocol ID: 22C04H049 Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: 049 Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: Joe Bruce Sponsor Contact:
 Investigator (Creator): Sara Carter

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

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

Plant-Eval Interval

26 DP-1 = 1 ZEAMX 5-11-2022

34 DP-1 = 1 ZEAMX 5-11-2022

42 DP-1 = 1 ZEAMX 5-11-2022

56 DP-1 = 1 ZEAMX 5-11-2022

University of Kentucky

HELM ZONE DEFENSE SB PRE + SYN

Trial ID: 22-21
 Protocol ID: HELM SB1 Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:
 Trial Year: 2022

Reps: 4		Plots: 10 by 33 feet		Mix Size: 2.2 L (total for 4 plots; minimum=1.7206 L)												
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Comment	Amt	Product	Rep			
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Unit	Timing	Code	1	2	3	4		
1	CHECK UNTREATED												101	205	304	405
2	ZONE DEFENSE	75		DG	5 OZ/A				PRE	A	5.492 g/mx		102	204	302	406
3	ZONE DEFENSE HELMET	75 7.8		DG EC	5 OZ/A 1.33 PT/A				PRE PRE	A A	5.492 g/mx 24.38 mL/mx		103	201	307	403
4	ZONE DEFENSE HELMET	75 7.8		DG EC	4 OZ/A 1.33 PT/A				PRE PRE	A A	4.394 g/mx 24.38 mL/mx		104	203	301	407
5	TENDOVO SEQUENCE TAVIUM VOLT EDGE INTACT CLASS ACT RIDION			ZC EW CS L L L	2.1 QT/A 3.5 PT/A 3.53 PT/A 20 OZ/A 0.5 % V/V 1 % V/V				PRE 25 DAA 25 DAA 25DAA 25DAA 25DAA	A B B B B B	77.0 mL/mx 64.17 mL/mx 64.72 mL/mx 22.92 mL/mx 11.0 mL/mx 22.0 mL/mx		105	206	305	401
6	PREFIX DIMETRIC SEQUENCE TAVIUM VOLT EDGE INTACT CLASS ACT RIDION	5.26 3 5.25 406.8		EC SL EW CS L L L	1 QT/A 8 OZ/A 3.5 PT/A 3.53 PT/A 20 OZ/A 0.5 % V/V 1 % V/V				PRE PRE 25 DAA 25 DAA 25DAA 25DAA 25DAA	A A B B B B B	36.67 mL/mx 9.167 mL/mx 64.17 mL/mx 64.72 mL/mx 22.92 mL/mx 11.0 mL/mx 22.0 mL/mx		106	207	303	402
7	BOUNDARY BROADAXE XC TAVIUM ROUNDUP POWERMAX VOLT EDGE INTACT CLASS ACT RIDION	6.5 7 406.8 4.5		E EC CS SL L L L	1 QT/A 25 OZ/A 3.53 PT/A 32 FL OZ/A 20 OZ/A 0.5 % V/V 1 % V/V				PRE PRE 25DAA 25DAA 25DAA 25DAA 25DAA	A A B B B B B	36.67 mL/mx 28.65 mL/mx 64.72 mL/mx 36.67 mL/mx 22.92 mL/mx 11.0 mL/mx 22.0 mL/mx		107	202	306	404

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
15.378 g		ZONE DEFENSE	75					DG		
48.767 mL		HELMET	7.8					EC		
77.000 mL		TENDOVO						ZC		
128.333 mL		SEQUENCE	5.25					EW		
194.150 mL		TAVIUM	406.8		GAE/L			CS		
68.750 mL		VOLT EDGE						L		
32.996 mL		INTACT						L		
65.993 mL		CLASS ACT RIDION						L		
36.667 mL		PREFIX	5.26					EC		
9.167 mL		DIMETRIC	3					SL		
36.667 mL		BOUNDARY	6.5					E		
28.646 mL		BROADAXE XC	7					EC		
36.667 mL		ROUNDUP POWERMAX	4.5					SL		

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

University of Kentucky

HELM ZONE DEFENSE SB PRE + SYN

Trial ID: 22-21
 Protocol ID: HELM SB1 Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:
 Trial Year: 2022

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

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

ARM Trial Created On: 5-6-2022
Initiation Date: 5-17-2022 **Planned Completion Date:** 10-15-2022

Trial Location

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

Latitude of LL Corner °: 38.1130175 N
Longitude of LL Corner °: -84.48412366 W
GPS Accuracy of LL Corner: 6.6 FT
Altitude of LL Corner: 782.50 FT

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 **E-mail:** travis.legleiter@uky.edu
City: PRINCETON **State/Prov:** KY **Postal Code:** 42445
Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
Country: USA United States **E-mail:** sara.carter@uky.edu
City: LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312

Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Stage Scale: BBCH
Variety: AG37XF2
Attributes: Xtend Flex
Planting Date: 5-17-2022 **Planting Rate:** 150000 S/A
Depth: 1.25 IN
Rows per Plot: 6 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** FE field equipment
Seed Bed: MEDIUM medium
Soil Temperature: 68 F **Soil Moisture:** WET wet
Emergence Date: 5-23-2022

Pest Description

Pest 1 Type: W **Code:** BROSE Bromus secalinus
Common Name: Cheat grass **Stage Scale:** BBCH
Crop: 1 GLXMA
Pest 2 Type: W **Code:** TAROF Taraxacum officinale
Common Name: dandelion **Stage Scale:** BBCH
Crop: 1 GLXMA
Pest 3 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed **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 **Tillage Type:** NOTILL no-till
Replications: 4 **Treatments:** 7 **Plots:** 28 **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 **Soil Name:** MAURY SILT LOAM
% Clay: 32 **Fert. Level:** E excellent
pH: 6.4 **CEC:** 18

Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEDRWE wet-dry-wet
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

Application Description

	A	B
Application Date	5-18-2022	6-17-2022
Appl. Start Time	5:00 PM	7:45 AM
Appl. Stop Time	5:30 PM	8:00 AM
Interval to Prev. Appl.		30 DAYS
Application Method	SPRAY	SPRAY
Application Timing	pre	25daa
Application Placement	BROFOL	BROFOL
Applied By	SARA	SARA
Air Temperature Start, Stop	77, - F	79, - F
% Relative Humidity Start, Stop	60, -	64, -
Wind Velocity+Dir. Start	4 MPH, SW	6 MPH, W
Wet Leaves (Y/N)	N, no	N, no
Soil Temperature	67 F	78 F
Soil Moisture	WET	GOOD
Soil Surface Condition	MEDIUM	MEDIUM
% Cloud Cover	35	40
Next Moisture Occurred On	5-19-2022	6-22-2022

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-5	25
Stage Majority, Percent		V2, 95
Height Average		5 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	BROSE, W, BBCH	BROSE, W, BBCH
Height Average	4 IN	6 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 2 Code, Type, Scale	TAROF, W, BBCH	TAROF, W, BBCH
Height Average	4 IN	6 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA
Pest 3 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average	2 IN	6 IN

Application Equipment

	A	B
Appl. Equipment	BACKPACK	BACKPACK
Equipment Type	BELSPR	BELSPR
Operation Pressure	30 PSI	30 PSI
Nozzle Model	8002 DG	11002
Nozzle Type	FLAT FAN	TTI
Nozzle TradeName	Teejet	Teejet
Nozzle Tip Size, Color	-, yellow	-, yellow
Nozzle Spacing	20 IN	20 IN
Boom Length	10 FT	10 FT
Boom Height	30 IN	30 IN
Boom Flow Rate	- IN	- IN
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	15 GPA
Mix Size	2.2 liters	2.2 liters
Propellant	CO2	CO2

University of Kentucky

HELM ZONE DEFENSE SB PRE + SYN

Trial ID: 22-21
 Protocol ID: HELM SB1 Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:
 Trial Year: 2022

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	BROTE	TAROF	AMBTR	BROTE
Pest Scientific Name	Bromus tectorum	Taraxacum offic>	Ambrosia trifida	Bromus tectorum
Pest Name	Cheatgrass	dandelion	Giant ragweed	Cheatgrass
Crop Type, Code				C, GLXMA
BBCH Scale				BSOY
Crop Scientific Name				Glycine max
Crop Name				Soybean
Rating Date	6-1-2022	6-1-2022	6-1-2022	6-17-2022
Part Rated				
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	14, 14	14, 14	14, 14	30, 30
Trt-Eval Interval				
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	31 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	25 DE-1
ARM Action Codes				
Number of Decimals				

Trt	Treatment	Rate	Appl	1	2	3	4	5
No.	Name	Rate Unit	Code Plot					
1	CHECK UNTREATED		101	0.0	0.0	0.0	0.0	0.0
			205	0.0	0.0	0.0	0.0	0.0
			304	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	ZONE DEFENSE	5 OZ/A	A 102	40.0	45.0	55.0	0.0	60.0
			204	50.0	25.0	65.0	0.0	65.0
			302	35.0	50.0	60.0	0.0	45.0
			406	30.0	50.0	65.0	0.0	55.0
			Mean =	38.8	42.5	61.3	0.0	56.3
3	ZONE DEFENSE	5 OZ/A	A 103	50.0	75.0	55.0	0.0	50.0
	HELMET	1.33 PT/A	A 201	95.0	50.0	45.0	0.0	45.0
			307	25.0	65.0	45.0	0.0	95.0
			403	45.0	60.0	50.0	0.0	55.0
			Mean =	53.8	62.5	48.8	0.0	61.3
4	ZONE DEFENSE	4 OZ/A	A 104	35.0	15.0	35.0	0.0	55.0
	HELMET	1.33 PT/A	A 203	25.0	25.0	25.0	0.0	65.0
			301	30.0	25.0	35.0	0.0	55.0
			407	25.0	40.0	35.0	0.0	45.0
			Mean =	28.8	26.3	32.5	0.0	55.0
5	TENDOVO	2.1 QT/A	A 105	80.0	65.0	60.0	0.0	50.0
	SEQUENCE	3.5 PT/A	B 206	60.0	60.0	65.0	0.0	55.0
	TAVIUM	3.53 PT/A	B 305	70.0	55.0	60.0	0.0	45.0
	VOLT EDGE	20 OZ/A	B 401	55.0	75.0	50.0	0.0	50.0
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
			Mean =	66.3	63.8	58.8	0.0	50.0
6	PREFIX	1 QT/A	A 106	60.0	55.0	55.0	0.0	65.0
	DIMETRIC	8 OZ/A	A 207	85.0	45.0	45.0	0.0	60.0
	SEQUENCE	3.5 PT/A	B 303	60.0	60.0	65.0	0.0	65.0
	TAVIUM	3.53 PT/A	B 402	65.0	65.0	60.0	0.0	45.0
	VOLT EDGE	20 OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
			Mean =	67.5	56.3	56.3	0.0	58.8
7	BOUNDARY	1 QT/A	A 107	25.0	25.0	55.0	0.0	45.0
	BROADAXE XC	25 OZ/A	A 202	20.0	35.0	55.0	0.0	50.0
	TAVIUM	3.53 PT/A	B 306	15.0	35.0	65.0	0.0	45.0
	ROUNDUP POWERMAX	32 FL OZ/A	B 404	15.0	40.0	55.0	0.0	65.0
	VOLT EDGE	20 OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
			Mean =	18.8	33.8	57.5	0.0	51.3

University of Kentucky

Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	TAROF	AMBTR		BROTE	TAROF
Pest Scientific Name	Taraxacum offic->	Ambrosia trifida		Bromus tectorum	Taraxacum offic->
Pest Name	dandelion	Giant ragweed		Cheatgrass	dandelion
Crop Type, Code			C, GLXMA		
BBCH Scale			BSOY		
Crop Scientific Name			Glycine max		
Crop Name			Soybean		
Rating Date	6-17-2022	6-17-2022	7-1-2022	7-1-2022	7-1-2022
Part Rated					
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	30, 30	30, 30	44, 14	44, 14	44, 14
Trt-Eval Interval					
Plant-Eval Interval	31 DP-1	31 DP-1	45 DP-1	45 DP-1	45 DP-1
Days After Emergence	25 DE-1	25 DE-1	39 DE-1	39 DE-1	39 DE-1
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Appl Code	Plot	6	7	8	9	10
1	CHECK UNTREATED			101	0.0	0.0	0.0	0.0	0.0
				205	0.0	0.0	0.0	0.0	0.0
				304	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	ZONE DEFENSE	5 OZ/A	A	102	50.0	60.0	0.0	55.0	45.0
				204	65.0	75.0	0.0	45.0	45.0
				302	60.0	75.0	0.0	45.0	65.0
				406	60.0	85.0	0.0	40.0	65.0
				Mean =	58.8	73.8	0.0	46.3	55.0
3	ZONE DEFENSE	5 OZ/A	A	103	65.0	75.0	0.0	40.0	60.0
	HELMET	1.33 PT/A	A	201	65.0	65.0	0.0	55.0	65.0
				307	65.0	75.0	0.0	55.0	60.0
				403	55.0	70.0	0.0	65.0	45.0
				Mean =	62.5	71.3	0.0	53.8	57.5
4	ZONE DEFENSE	4 OZ/A	A	104	55.0	85.0	0.0	65.0	75.0
	HELMET	1.33 PT/A	A	203	65.0	85.0	0.0	60.0	75.0
				301	65.0	70.0	0.0	55.0	85.0
				407	65.0	85.0	0.0	45.0	65.0
				Mean =	62.5	81.3	0.0	56.3	75.0
5	TENDOVO	2.1 QT/A	A	105	75.0	85.0	0.0	100.0	100.0
	SEQUENCE	3.5 PT/A	B	206	80.0	70.0	0.0	100.0	100.0
	TAVIUM	3.53 PT/A	B	305	85.0	85.0	0.0	100.0	100.0
	VOLT EDGE	20 OZ/A	B	401	65.0	65.0	0.0	100.0	100.0
	INTACT	0.5 % V/V	B						
	CLASS ACT RIDION	1 % V/V	B						
				Mean =	76.3	76.3	0.0	100.0	100.0
6	PREFIX	1 QT/A	A	106	85.0	75.0	0.0	100.0	100.0
	DIMETRIC	8 OZ/A	A	207	75.0	75.0	0.0	100.0	100.0
	SEQUENCE	3.5 PT/A	B	303	75.0	80.0	0.0	100.0	100.0
	TAVIUM	3.53 PT/A	B	402	65.0	75.0	0.0	100.0	100.0
	VOLT EDGE	20 OZ/A	B						
	INTACT	0.5 % V/V	B						
	CLASS ACT RIDION	1 % V/V	B						
				Mean =	75.0	76.3	0.0	100.0	100.0
7	BOUNDARY	1 QT/A	A	107	80.0	75.0	0.0	100.0	100.0
	BROADAXE XC	25 OZ/A	A	202	80.0	80.0	0.0	100.0	100.0
	TAVIUM	3.53 PT/A	B	306	75.0	85.0	0.0	100.0	100.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	404	70.0	85.0	0.0	100.0	100.0
	VOLT EDGE	20 OZ/A	B						
	INTACT	0.5 % V/V	B						
	CLASS ACT RIDION	1 % V/V	B						
				Mean =	76.3	81.3	0.0	100.0	100.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	BROTE	TAROF	AMBTR
Pest Scientific Name	Ambrosia trifida	Bromus tectorum	Taraxacum offic>	Ambrosia trifida
Pest Name	Giant ragweed	Cheatgrass	dandelion	Giant ragweed
Crop Type, Code		C, GLXMA		
BBCH Scale		BSOY		
Crop Scientific Name		Glycine max		
Crop Name		Soybean		
Rating Date	7-1-2022	7-13-2022	7-13-2022	7-13-2022
Part Rated				
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	44, 14	56, 26	56, 26	56, 26
Trt-Eval Interval				
Plant-Eval Interval	45 DP-1	57 DP-1	57 DP-1	57 DP-1
Days After Emergence	39 DE-1	51 DE-1	51 DE-1	51 DE-1
ARM Action Codes				
Number of Decimals				

Trt	Treatment	Rate	Appl	11	12	13	14	15
No.	Name	Rate Unit	Code Plot					
1	CHECK UNTREATED		101	0.0	0.0	0.0	0.0	0.0
			205	0.0	0.0	0.0	0.0	0.0
			304	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	ZONE DEFENSE	5 OZ/A	A 102	55.0	0.0	50.0	75.0	30.0
			204	50.0	0.0	45.0	65.0	45.0
			302	45.0	0.0	45.0	75.0	45.0
			406	55.0	0.0	45.0	75.0	40.0
			Mean =	51.3	0.0	46.3	72.5	40.0
3	ZONE DEFENSE	5 OZ/A	A 103	55.0	0.0	60.0	65.0	75.0
	HELMET	1.33 PT/A	A 201	50.0	0.0	65.0	65.0	85.0
			307	75.0	0.0	55.0	75.0	85.0
			403	75.0	0.0	45.0	80.0	75.0
			Mean =	63.8	0.0	56.3	71.3	80.0
4	ZONE DEFENSE	4 OZ/A	A 104	65.0	0.0	50.0	75.0	75.0
	HELMET	1.33 PT/A	A 203	50.0	0.0	50.0	65.0	85.0
			301	55.0	0.0	50.0	80.0	80.0
			407	75.0	0.0	65.0	80.0	75.0
			Mean =	61.3	0.0	53.8	75.0	78.8
5	TENDOVO	2.1 QT/A	A 105	100.0	0.0	90.0	95.0	90.0
	SEQUENCE	3.5 PT/A	B 206	100.0	0.0	95.0	90.0	95.0
	TAVIUM	3.53 PT/A	B 305	100.0	0.0	95.0	95.0	95.0
	VOLT EDGE	20 OZ/A	B 401	100.0	0.0	90.0	95.0	90.0
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
			Mean =	100.0	0.0	92.5	93.8	92.5
6	PREFIX	1 QT/A	A 106	100.0	0.0	95.0	90.0	95.0
	DIMETRIC	8 OZ/A	A 207	100.0	0.0	95.0	95.0	85.0
	SEQUENCE	3.5 PT/A	B 303	100.0	0.0	95.0	90.0	85.0
	TAVIUM	3.53 PT/A	B 402	100.0	0.0	95.0	95.0	95.0
	VOLT EDGE	20 OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
			Mean =	100.0	0.0	95.0	92.5	90.0
7	BOUNDARY	1 QT/A	A 107	100.0	0.0	75.0	95.0	90.0
	BROADAXE XC	25 OZ/A	A 202	100.0	0.0	85.0	95.0	95.0
	TAVIUM	3.53 PT/A	B 306	100.0	0.0	75.0	90.0	90.0
	ROUNDUP POWERMAX	32 FL OZ/A	B 404	100.0	0.0	85.0	95.0	90.0
	VOLT EDGE	20 OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
			Mean =	100.0	0.0	80.0	93.8	91.3

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HELM ZONE DEFENSE SB PRE + SYN

Trial ID: 22-21
 Protocol ID: HELM SB1 Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:

Trial Year: 2022

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

BROTE, Bromus tectorum, Cheatgrass = US
 TAROF, Taraxacum officinale, dandelion = US
 AMBTR, Ambrosia trifida, Giant ragweed = US

Crop Type, Code

C = EPPO species (Bayer) codes
 GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

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

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

15 DP-1 = 1 GLXMA 5-17-2022
 31 DP-1 = 1 GLXMA 5-17-2022
 45 DP-1 = 1 GLXMA 5-17-2022
 57 DP-1 = 1 GLXMA 5-17-2022

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Rating Date

Part Rated

Rating Type

Rating Unit/Min/Max

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

Trt Treatment

No. Name

Rate
Rate Unit
Appl
Code

	W, Weed BROTE Bromus tectorum Cheatgrass	W, Weed TAROF Taraxacum officinale dandelion	W, Weed AMBTR Ambrosia trifida Giant ragweed	W, Weed BROTE Bromus tectorum Cheatgrass
			C, GLXMA BSOY Glycine max Soybean	
Rating Date	6-1-2022	6-1-2022	6-1-2022	6-17-2022
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Number of Subsamples	1	1	1	1
Rating Timing	14, 14	14, 14	14, 14	30, 30
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	31 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	25 DE-1

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5
1	CHECK UNTREATED				0.0 d	0.0 d	0.0 d	0.0 a	0.0 b
2	ZONE DEFENSE	5 OZ/A	A		38.8 bc	42.5 b	61.3 a	0.0 a	56.3 a
3	ZONE DEFENSE HELMET	5 OZ/A 1.33 PT/A	A A		53.8 ab	62.5 a	48.8 b	0.0 a	61.3 a
4	ZONE DEFENSE HELMET	4 OZ/A 1.33 PT/A	A A		28.8 c	26.3 c	32.5 c	0.0 a	55.0 a
5	TENDOVO SEQUENCE TAVIUM VOLT EDGE INTACT	2.1 QT/A 3.5 PT/A 3.53 PT/A 20 OZ/A 0.5 % V/V	A B B B B		66.3 a	63.8 a	58.8 ab	0.0 a	50.0 a
6	CLASS ACT RIDION PREFIX DIMETRIC SEQUENCE TAVIUM VOLT EDGE INTACT CLASS ACT RIDION	1 % V/V 1 QT/A 8 OZ/A 3.5 PT/A 3.53 PT/A 20 OZ/A 0.5 % V/V 1 % V/V	B A A B B B B B		67.5 a	56.3 a	56.3 ab	0.0 a	58.8 a

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Pest Type	W, Weed	W, Weed	W, Weed		W, Weed
Pest Code	BROTE	TAROF	AMBTR		BROTE
Pest Scientific Name	Bromus tectorum	Taraxacum offic>	Ambrosia trifida		Bromus tectorum
Pest Name	Cheatgrass	dandelion	Giant ragweed		Cheatgrass
Crop Type, Code				C, GLXMA	
BBCH Scale				BSOY	
Crop Scientific Name				Glycine max	
Crop Name				Soybean	
Rating Date	6-1-2022	6-1-2022	6-1-2022	6-17-2022	6-17-2022
Part Rated					
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	14, 14	14, 14	14, 14	30, 30	30, 30
Trt-Eval Interval					
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	31 DP-1	31 DP-1
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	25 DE-1	25 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl	1	2	3	4	5
No.	Name	Rate Unit	Code					
7	BOUNDARY	1 QT/A	A	18.8 c	33.8 bc	57.5 ab	0.0 a	51.3 a
	BROADAXE XC	25 OZ/A	A					
	TAVIUM	3.53 PT/A	B					
	ROUNDUP POWERMAX	32 FL OZ/A	B					
	VOLT EDGE	20 OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
	LSD P=.05			18.42	11.29	8.29	.	17.41
	Standard Deviation			12.40	7.60	5.58	0.00	11.72
	CV			31.7	18.66	12.4	0.0	24.67
	Levene's F^			1.342	0.556	1.112	.	0.874
	Levene's Prob(F)			0.283	0.76	0.389	.	0.53
	Shapiro-Wilk^			0.9307	0.9604	0.9798	.	0.9254*
	P(Shapiro-Wilk)^			0.0642	0.3555	0.8465	.	0.0473*
	Skewness^			0.683	-0.1879	-0.2032	.	1.1205*
	P(Skewness)^			0.1524	0.6886	0.6648	.	0.0227*
	Kurtosis^			3.4116*	-0.4997	-0.4186	.	3.278*
	P(Kurtosis)^			0.0008*	0.5848	0.6469	.	0.0012*
	Replicate F			2.175	3.381	0.688	0.000	0.251
	Replicate Prob(F)			0.1263	0.0410	0.5711	1.0000	0.8593
	Treatment F			16.522	36.546	62.732	0.000	13.231
	Treatment Prob(F)			0.0001	0.0001	0.0001	1.0000	0.0001

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	TAROF	AMBTR	BROTE	TAROF			
Pest Scientific Name	Taraxacum offic>	Ambrosia trifida	Bromus tectorum	Taraxacum offic>			
Pest Name	dandelion	Giant ragweed	Cheatgrass	dandelion			
Crop Type, Code			C, GLXMA				
BBCH Scale			BSOY				
Crop Scientific Name			Glycine max				
Crop Name			Soybean				
Rating Date	6-17-2022	6-17-2022	7-1-2022	7-1-2022			
Part Rated							
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100			
Number of Subsamples	1	1	1	1			
EDC App							
Rating Timing							
Days After First/Last Applic.	30, 30	30, 30	44, 14	44, 14			
Trt-Eval Interval							
Plant-Eval Interval	31 DP-1	31 DP-1	45 DP-1	45 DP-1			
Days After Emergence	25 DE-1	25 DE-1	39 DE-1	39 DE-1			
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl	6	7	8	9	10
No. Name	Rate Unit	Code					
1 CHECK UNTREATED			0.0 c	0.0 b	0.0 a	0.0 c	0.0 d
2 ZONE DEFENSE	5 OZ/A	A	58.8 b	73.8 a	0.0 a	46.3 b	55.0 c
3 ZONE DEFENSE	5 OZ/A	A	62.5 b	71.3 a	0.0 a	53.8 b	57.5 c
HELMET	1.33 PT/A	A					
4 ZONE DEFENSE	4 OZ/A	A	62.5 b	81.3 a	0.0 a	56.3 b	75.0 b
HELMET	1.33 PT/A	A					
5 TENDOVO	2.1 QT/A	A	76.3 a	76.3 a	0.0 a	100.0 a	100.0 a
SEQUENCE	3.5 PT/A	B					
TAVIUM	3.53 PT/A	B					
VOLT EDGE	20 OZ/A	B					
INTACT	0.5 % V/V	B					
CLASS ACT RIDION	1 % V/V	B					
6 PREFIX	1 QT/A	A	75.0 a	76.3 a	0.0 a	100.0 a	100.0 a
DIMETRIC	8 OZ/A	A					
SEQUENCE	3.5 PT/A	B					
TAVIUM	3.53 PT/A	B					
VOLT EDGE	20 OZ/A	B					
INTACT	0.5 % V/V	B					
CLASS ACT RIDION	1 % V/V	B					

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	TAROF	AMBTR	BROTE	TAROF			
Pest Scientific Name	Taraxacum offic>	Ambrosia trifida	Bromus tectorum	Taraxacum offic>			
Pest Name	dandelion	Giant ragweed	Cheatgrass	dandelion			
Crop Type, Code			C, GLXMA				
BBCH Scale			BSOY				
Crop Scientific Name			Glycine max				
Crop Name			Soybean				
Rating Date	6-17-2022	6-17-2022	7-1-2022	7-1-2022			
Part Rated							
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO			
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100			
Number of Subsamples	1	1	1	1			
EDC App							
Rating Timing							
Days After First/Last Applic.	30, 30	30, 30	44, 14	44, 14			
Trt-Eval Interval							
Plant-Eval Interval	31 DP-1	31 DP-1	45 DP-1	45 DP-1			
Days After Emergence	25 DE-1	25 DE-1	39 DE-1	39 DE-1			
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl	6	7	8	9	10
No. Name	Rate Unit	Code					
7 BOUNDARY	1 QT/A	A	76.3 a	81.3 a	0.0 a	100.0 a	100.0 a
BROADAXE XC	25 OZ/A	A					
TAVIUM	3.53 PT/A	B					
ROUNDUP POWERMAX	32 FL OZ/A	B					
VOLT EDGE	20 OZ/A	B					
INTACT	0.5 % V/V	B					
CLASS ACT RIDION	1 % V/V	B					
LSD P=.05			8.13	10.66	.	8.90	9.40
Standard Deviation			5.47	7.18	0.00	5.99	6.33
CV			9.32	10.92	0.0	9.19	9.09
Levene's F^			0.43	1.717	.	2.154	4.471*
Levene's Prob(F)			0.851	0.166	.	0.09	0.005*
Shapiro-Wilk^			0.9814	0.9343	.	0.8114*	0.9276
P(Shapiro-Wilk)^			0.8822	0.079	.	0.0002*	0.0537
Skewness^			0.2154	-0.7013	.	-0.426	-0.2033
P(Skewness)^			0.646	0.1421	.	0.3664	0.6646
Kurtosis^			-0.0255	0.6527	.	3.4926*	0.5701
P(Kurtosis)^			0.9777	0.4763	.	0.0006*	0.5334
Replicate F			2.414	0.231	0.000	0.091	0.861
Replicate Prob(F)			0.1002	0.8734	1.0000	0.9640	0.4790
Treatment F			96.934	66.272	0.000	156.945	133.158
Treatment Prob(F)			0.0001	0.0001	1.0000	0.0001	0.0001

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Pest Type			W, Weed		W, Weed		W, Weed		W, Weed
Pest Code			AMBTR		BROTE		TAROF		AMBTR
Pest Scientific Name			Ambrosia trifida		Bromus tectorum		Taraxacum offic>		Ambrosia trifida
Pest Name			Giant ragweed		Cheatgrass		dandelion		Giant ragweed
Crop Type, Code				C, GLXMA					
BBCH Scale				BSOY					
Crop Scientific Name				Glycine max					
Crop Name				Soybean					
Rating Date			7-1-2022	7-13-2022	7-13-2022	7-13-2022	7-13-2022	7-13-2022	7-13-2022
Part Rated									
Rating Type			CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max			%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples			1	1	1	1	1	1	1
EDC App									
Rating Timing									
Days After First/Last Applic.			44, 14	56, 26	56, 26	56, 26	56, 26	56, 26	56, 26
Trt-Eval Interval									
Plant-Eval Interval			45 DP-1	57 DP-1	57 DP-1	57 DP-1	57 DP-1	57 DP-1	57 DP-1
Days After Emergence			39 DE-1	51 DE-1	51 DE-1	51 DE-1	51 DE-1	51 DE-1	51 DE-1
ARM Action Codes									
Number of Decimals									
Trt Treatment	Rate	Appl	11	12	13	14	15		
No. Name	Rate Unit	Code							
1	CHECK UNTREATED		0.0 d	0.0 a	0.0 e	0.0 c	0.0 d		
2	ZONE DEFENSE	5 OZ/A A	51.3 c	0.0 a	46.3 d	72.5 b	40.0 c		
3	ZONE DEFENSE	5 OZ/A A	63.8 b	0.0 a	56.3 c	71.3 b	80.0 b		
	HELMET	1.33 PT/A A							
4	ZONE DEFENSE	4 OZ/A A	61.3 b	0.0 a	53.8 cd	75.0 b	78.8 b		
	HELMET	1.33 PT/A A							
5	TENDOVO	2.1 QT/A A	100.0 a	0.0 a	92.5 a	93.8 a	92.5 a		
	SEQUENCE	3.5 PT/A B							
	TAVIUM	3.53 PT/A B							
	VOLT EDGE	20 OZ/A B							
	INTACT	0.5 % V/V B							
	CLASS ACT RIDION	1 % V/V B							
6	PREFIX	1 QT/A A	100.0 a	0.0 a	95.0 a	92.5 a	90.0 a		
	DIMETRIC	8 OZ/A A							
	SEQUENCE	3.5 PT/A B							
	TAVIUM	3.53 PT/A B							
	VOLT EDGE	20 OZ/A B							
	INTACT	0.5 % V/V B							
	CLASS ACT RIDION	1 % V/V B							

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	AMBTR	BROTE	TAROF	AMBTR			
Pest Scientific Name	Ambrosia trifida	Bromus tectorum	Taraxacum offic>	Ambrosia trifida			
Pest Name	Giant ragweed	Cheatgrass	dandelion	Giant ragweed			
Crop Type, Code		C, GLXMA					
BBCH Scale		BSOY					
Crop Scientific Name		Glycine max					
Crop Name		Soybean					
Rating Date	7-1-2022	7-13-2022	7-13-2022	7-13-2022			
Part Rated							
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1			
EDC App							
Rating Timing							
Days After First/Last Applic.	44, 14	56, 26	56, 26	56, 26			
Trt-Eval Interval							
Plant-Eval Interval	45 DP-1	57 DP-1	57 DP-1	57 DP-1			
Days After Emergence	39 DE-1	51 DE-1	51 DE-1	51 DE-1			
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl	11	12	13	14	15
No. Name	Rate Unit	Code					
7 BOUNDARY	1 QT/A	A	100.0 a	0.0 a	80.0 b	93.8 a	91.3 a
BROADAXE XC	25 OZ/A	A					
TAVIUM	3.53 PT/A	B					
ROUNDUP POWERMAX	32 FL OZ/A	B					
VOLT EDGE	20 OZ/A	B					
INTACT	0.5 % V/V	B					
CLASS ACT RIDION	1 % V/V	B					
LSD P=.05			9.52	.	7.83	6.10	6.63
Standard Deviation			6.41	0.00	5.27	4.11	4.47
CV			9.42	0.0	8.71	5.76	6.62
Levene's F^			6.217*	.	1.198	0.912	4.883*
Levene's Prob(F)			0.001*	.	0.346	0.506	0.003*
Shapiro-Wilk^			0.9612	.	0.963	0.9831	0.9744
P(Shapiro-Wilk)^			0.3725	.	0.4089	0.9165	0.7018
Skewness^			0.0905	.	0.0948	-0.085	-0.2645
P(Skewness)^			0.8467	.	0.8396	0.8559	0.5732
Kurtosis^			-0.1535	.	1.756	-0.6603	0.1483
P(Kurtosis)^			0.8664	.	0.0625	0.4712	0.8709
Replicate F			1.761	0.000	0.375	3.018	1.731
Replicate Prob(F)			0.1906	1.0000	0.7721	0.0569	0.1964
Treatment F			130.507	0.000	156.514	259.165	243.746
Treatment Prob(F)			0.0001	1.0000	0.0001	0.0001	0.0001

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HELM ZONE DEFENSE SB PRE + SYN

Trial ID: 22-21
 Protocol ID: HELM SB1 Location: LEXINGTON, KY Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

BROTE, Bromus tectorum, Cheatgrass = US
 TAROF, Taraxacum officinale, dandelion = US
 AMBTR, Ambrosia trifida, Giant ragweed = US

Crop Type, Code

C = EPPO species (Bayer) codes
 GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

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

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

15 DP-1 = 1 GLXMA 5-17-2022
 31 DP-1 = 1 GLXMA 5-17-2022
 45 DP-1 = 1 GLXMA 5-17-2022
 57 DP-1 = 1 GLXMA 5-17-2022

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Primary/Core PRE soil residual trial - 2 trt

Trial ID: 22-22
 Protocol ID: VUSA2022V10494MD68.02 Location: Cooperator Trial ID:
 Project ID: 201510 Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

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	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code 1	Comment	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	MAVERICK	2.04 LBA/GAL	SC		1 QT/A	1 QT/A		PREPRE A			36.67 mL/mx	101	207	301	405	
	ROUNDUP POWER MAX 3(SALT)	5.88 LBA/GAL	SL		1 LB AI/A	1 LB AI/A		POSPOS C			24.94 mL/mx					
	INDUCE	100 %W/W	SF		0.25 % V/V	0.25 % V/V		POSPOS C			5.499 g/mx					
	DRY AMMONIUM SULFATE	100 %W/W	SG		3 LB/A	3 LB/A		POSPOS C			52.72 g/mx					
2	MAVERICK	2.04 LBA/GAL	SC		1 PT/A	1 PT/A		PREPRE A			18.33 mL/mx	102	201	305	408	
	AATREX	4 LBA/GAL	SC		0.75 LB AI/A	0.75 LB AI/A		PREPRE A			27.5 mL/mx					
	ROUNDUP POWER MAX 3(SALT)	5.88 LBA/GAL	SL		1 LB AI/A	1 LB AI/A		POSPOS C			24.94 mL/mx					
	INDUCE	100 %W/W	SF		0.25 % V/V	0.25 % V/V		POSPOS C			5.499 g/mx					
3	MAVERICK	2.04 LBA/GAL	SC		1.5 PT/A	1.5 PT/A		PREPRE A			27.5 mL/mx	103	209	306	404	
	AATREX	4 LBA/GAL	SC		0.75 LB AI/A	0.75 LB AI/A		PREPRE A			27.5 mL/mx					
	ROUNDUP POWER MAX 3(SALT)	5.88 LBA/GAL	SL		1 LB AI/A	1 LB AI/A		POSPOS C			24.94 mL/mx					
	INDUCE	100 %W/W	SF		0.25 % V/V	0.25 % V/V		POSPOS C			5.499 g/mx					
4	MAVERICK	2.04 LBA/GAL	SC		1 QT/A	1 QT/A		PREPRE A			36.67 mL/mx	104	205	302	407	
	AATREX	4 LBA/GAL	SC		0.75 LB AI/A	0.75 LB AI/A		PREPRE A			27.5 mL/mx					
	ROUNDUP POWER MAX 3(SALT)	5.88 LBA/GAL	SL		1 LB AI/A	1 LB AI/A		POSPOS C			24.94 mL/mx					
	INDUCE	100 %W/W	SF		0.25 % V/V	0.25 % V/V		POSPOS C			5.499 g/mx					
5	UNTREATED CHECK	0		XX									105	203	309	406
	ACURON PRINCEP	3.44		ZC F	3 QT/A	1 LB AI/A		PREPRE A PRE A			110.0 mL/mx	106	202	304	409	
7	ACURON	3.44		ZC	1.5 QT/A			PRE A			55.0 mL/mx	107	206	307	403	
	ACURON	3.44		ZC	1.5 QT/A			V4 B			55.0 mL/mx					
	ROUNDUP POWERMAX 3			SL	32 FL OZ/A			V4 B			36.67 mL/mx					
8	BICEP II MAGNUM	5.5		L	1.5 QT/A			PRE A			55.0 mL/mx	108	204	308	402	
	ACURON GT	514.35 gA/L		ZC	3.75 QT/A			V4 B			137.5 mL/mx					
	NIS			L	0.25 % V/V			V4 B			5.499 mL/mx					
	AMS			L	2.5 % V/V			V4 B			54.99 mL/mx					
9	LEXAR EZ	3.7		ZC	1.8 QT/A			PRE A			66.0 mL/mx	109	208	303	401	
	ACURON GT	514.35 gA/L		ZC	3.75 QT/A			V4 B			137.5 mL/mx					
	NIS			L	0.25 % V/V			V4 B			5.499 mL/mx					
	AMS			L	2.5 % V/V			V4 B			54.99 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
119.166 mL		MAVERICK	2.04	LBA/GAL	SC	
99.762 mL		ROUNDUP POWER MAX 3(SALT)	5.88	LBA/GAL	SL	
21.998 g		INDUCE	100	%W/W	SF	
210.893 g		DRY AMMONIUM SULFATE	100	%W/W	SG	
82.491 mL		AATREX	4	LBA/GAL	SC	
219.999 mL		ACURON	3.44		ZC	
36.663 mL		PRINCEP	4		F	
36.667 mL		ROUNDUP POWERMAX 3			SL	
55.000 mL		BICEP II MAGNUM	5.5		L	
274.999 mL		ACURON GT	514.35	gA/L	ZC	
10.999 mL		NIS			L	
109.988 mL		AMS			L	
66.000 mL		LEXAR EZ	3.7		ZC	

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

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

Status: E established
ARM Trial Created On: 4-11-2022 **Reliability:** GOOD good quality
Initiation Date: 5-11-2022 **Planned Completion Date:** 10-31-2022
Completion Date: 10-6-2022
Interim Report Due: 10-1-2022 **Final Report Due:** 1-1-2023

Trial Location

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

Latitude of LL Corner °: 38.11862516 N
Longitude of LL Corner °: -84.49374616 W
GPS Accuracy of LL Corner: 9.8 FT
Altitude of LL Corner: 813.60 FT

Conducted Under GLP: No
Conducted Under GEP: No **Study Rules:** Default

No.	Guideline Discipline	Description
1.	ADM-C-PUB CO	Confidentiality - Public Trial - No Secrecy Agreement Required

Objectives:

To evaluate the premix concept of clopyralid plus mesotrione plus pyroxasulfone for use in field corn for pree weed control. Treatments will be applied alone and with atrazine (840 g ai/ha). Measure of success is getting Maverick in as many university trials as possible.

Contacts

Role: STYDIR	study director	Title: EXTENSION SPECIALIST
Study Director: TRAVIS LEGLEITER		
Organization: UNIVERSITY OF KENTUCKY		
Address 1: 348 UNIVERSITY DRIVE	Phone No.: 8595621323	
Address 2: PO BOX 469		
Country: USA	United States	E-mail: travis.legleiter@uky.edu
City: PRINCETON		State/Prov: KY Postal Code: 42445
Role: INVEST	investigator	Title: RESEARCH SPECIALIST
Investigator: Sara Carter		
Organization: UNIVERSITY OF KENTUCKY	Org. Type: UNIVERSITY	
Address 1: 105 PLANT SCIENCE BUILDING	Phone No.: 859-259-1914	Mobile No.: 859-559-6710
Country: USA	United States	E-mail: sara.carter@uky.edu
City: LEXINGTON	State/Prov: KY	Postal Code: 40546-0312

Crop Description

Crop 1: C	ZEAMX Zea mays	Corn	Stage Scale: BBCH	BBCH Scale: BCOR
Variety: NK 1349				
Attributes: RR/LL				
Planting Date: 5-11-2022	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: 67 F	Soil Moisture: GOOD	good		
Emergence Date: 5-18-2022				
Harvest Date: 10-6-2022	Harvest Equipment: MASSEY FERGUSON 8XP			
Moisture Meter: HarvestMaster	Harvested Width: 5 FT			
% Standard Moisture: 15.5	Harvested Length: 28 FT			
Weighing Equipment: HarvestMaster				

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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:** 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 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Treatments:** 9 **Plots:** 36 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

Application Description

	A	B	C
Application Date	5-13-2022	6-15-2022	7-5-2022
Appl. Start Time	12:00 PM	10:45 AM	5:00 PM
Appl. Stop Time	12:45 PM	10:55 AM	5:15 PM
Interval to Prev. Appl.		33 DAYS	20 DAYS
Application Method	SPRAY	SPRAY	SPRAY
Application Timing	PREPRE	V4	POSPOS
Application Placement	BROSOI	BROFOL	BROFOL
Applied By	SARA	SARA	SARA
Air Temperature Start, Stop	81, - F	88, - F	91, - F
% Relative Humidity Start, Stop	65, -	42, -	65, -
Wind Velocity+Dir. Start	6 MPH, SW	4 MPH, W	8 MPH, W
Soil Temperature	68 F	78 F	78 F
Soil Moisture	GOOD	GOOD	WET
Soil Surface Condition	SMOOTH	SMOOTH	SMOOTH
% Cloud Cover	10	5	50
Next Moisture Occurred On	5-14-2022	6-17-2022	7-6-2022

Protocol Application Directions:

Two application per plot/Two application timings - preemergence and postemergence

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR
Days after Emergence	-5	28	48
Height Average		10 IN	18 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		4 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		3 IN	3 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX	-, ZEAMX
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH
Height Average		3 IN	4 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
Boom Flow Rate	- IN	- IN	- IN
Ground Speed	4 MPH	4 MPH	4 MPH
Carrier	WATER	WATER	WATER
Application Amount	15 GPA	15 GPA	15 GPA
Mix Size	2.2 liters	2.2 liters	2.2 liters
Propellant	CO2	CO2	CO2

Instructions:

1. Make postemergence applications 42 days after PREE application.

Cropping Considerations:

Place trial in area of moderate weed pressure.

Data to Collect:

Efficacy: 28, 42 and 56 DAT Crop Tolerance: 14, 28, and 42 DAT. Trial will go to yield.

Pest Type			W, Weed	W, Weed	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 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	5-27-2022	6-10-2022	6-10-2022	6-10-2022	6-10-2022	6-30-2022
Part Rated						
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Sample Size						
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	14, 14	28, 28	28, 28	28, 28	28, 28	48, 15
Trt-Eval Interval	14 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	48 DA-A
Plant-Eval Interval	16 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1	50 DP-1
Days After Emergence	9 DE-1	23 DE-1	23 DE-1	23 DE-1	23 DE-1	43 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6
1	MAVERICK	1 QT/A	A 101	0.0	0.0	100.0	100.0	100.0	0.0
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C 207	0.0	0.0	100.0	100.0	100.0	0.0
	INDUCE	0.25 % V/V	C 301	0.0	0.0	100.0	100.0	100.0	0.0
	DRY AMMONIUM SULFATE	3 LB/A	C 405	0.0	0.0	100.0	100.0	100.0	0.0
			Mean =		0.0	0.0	100.0	100.0	100.0	0.0
2	MAVERICK	1 PT/A	A 102	0.0	0.0	100.0	95.0	75.0	0.0
	AATREX	0.75 LB AI/A	A 201	0.0	0.0	100.0	98.0	85.0	0.0
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C 305	0.0	0.0	100.0	95.0	85.0	0.0
	INDUCE	0.25 % V/V	C 408	0.0	0.0	100.0	95.0	85.0	0.0
	DRY AMMONIUM SULFATE	3 LB/A	C						
		Mean =		0.0	0.0	100.0	95.8	82.5	0.0

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Pest Type			W, Weed	W, Weed	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 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	5-27-2022	6-10-2022	6-10-2022	6-10-2022	6-10-2022	6-30-2022
Part Rated						
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Sample Size						
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	14, 14	28, 28	28, 28	28, 28	28, 28	48, 15
Trt-Eval Interval	14 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	48 DA-A
Plant-Eval Interval	16 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1	50 DP-1
Days After Emergence	9 DE-1	23 DE-1	23 DE-1	23 DE-1	23 DE-1	43 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	1	2	3	4	5	6
3	MAVERICK	1.5 PT/A	A 103	0.0	0.0	95.0	85.0	75.0	0.0
	AATREX	0.75 LB AI/A	A 209	0.0	0.0	95.0	90.0	75.0	0.0
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C 306	0.0	0.0	90.0	90.0	80.0	0.0
	INDUCE	0.25 % V/V	C 404	0.0	0.0	95.0	85.0	75.0	0.0
	DRY AMMONIUM SULFATE	3 LB/A	C						
	Mean =			0.0	0.0	93.8	87.5	76.3	0.0
4	MAVERICK	1 QT/A	A 104	0.0	0.0	100.0	95.0	90.0	0.0
	AATREX	0.75 LB AI/A	A 205	0.0	0.0	100.0	95.0	95.0	0.0
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C 302	0.0	0.0	100.0	98.0	95.0	0.0
	INDUCE	0.25 % V/V	C 407	0.0	0.0	100.0	95.0	95.0	0.0
	DRY AMMONIUM SULFATE	3 LB/A	C						
	Mean =			0.0	0.0	100.0	95.8	93.8	0.0
5	UNTREATED CHECK		105	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
			309	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
		Mean =			0.0	0.0	0.0	0.0	0.0
6	ACURON	3 QT/A	A 106	0.0	0.0	100.0	100.0	100.0	0.0
	PRINCEP	1 LB AI/A	A 202	0.0	0.0	100.0	100.0	100.0	0.0
			304	0.0	0.0	100.0	100.0	100.0	0.0
			409	0.0	0.0	100.0	100.0	100.0	0.0
		Mean =			0.0	0.0	100.0	100.0	100.0
7	ACURON	1.5 QT/A	A 107	0.0	0.0	90.0	75.0	85.0	0.0
	ACURON	1.5 QT/A	B 206	0.0	0.0	95.0	85.0	85.0	0.0
	ROUNDUP POWERMAX 3	32 FL OZ/A	B 307	0.0	0.0	90.0	85.0	90.0	0.0
			403	0.0	0.0	95.0	85.0	85.0	0.0
		Mean =			0.0	0.0	92.5	82.5	86.3
8	BICEP II MAGNUM	1.5 QT/A	A 108	0.0	0.0	80.0	85.0	95.0	0.0
	ACURON GT	3.75 QT/A	B 204	0.0	0.0	85.0	90.0	95.0	0.0
	NIS	0.25 % V/V	B 308	0.0	0.0	80.0	85.0	95.0	0.0
	AMS	2.5 % V/V	B 402	0.0	0.0	80.0	85.0	90.0	0.0
		Mean =			0.0	0.0	81.3	86.3	93.8
9	LEXAR EZ	1.8 QT/A	A 109	0.0	0.0	80.0	85.0	100.0	0.0
	ACURON GT	3.75 QT/A	B 208	0.0	0.0	80.0	90.0	100.0	0.0
	NIS	0.25 % V/V	B 303	0.0	0.0	75.0	90.0	100.0	0.0
	AMS	2.5 % V/V	B 401	0.0	0.0	80.0	90.0	100.0	0.0
		Mean =			0.0	0.0	78.8	88.8	100.0

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA	AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed	Morning glory
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	6-30-2022	6-30-2022	6-30-2022	7-13-2022	7-13-2022
Part Rated					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size					
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	48, 15	48, 15	48, 15	61, 8	61, 8
Trt-Eval Interval	48 DA-A	48 DA-A	48 DA-A	61 DA-A	61 DA-A
Plant-Eval Interval	50 DP-1	50 DP-1	50 DP-1	63 DP-1	63 DP-1
Days After Emergence	43 DE-1	43 DE-1	43 DE-1	56 DE-1	56 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	7	8	9	10	11
1	MAVERICK	1 QT/A	A 101	95.0	95.0	95.0	100.0	95.0
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C 207	95.0	90.0	95.0	100.0	95.0
	INDUCE	0.25 % V/V	C 301	95.0	95.0	95.0	100.0	95.0
	DRY AMMONIUM SULFATE	3 LB/A	C 405	95.0	95.0	95.0	100.0	95.0
				Mean =	95.0	93.8	95.0	100.0	95.0
2	MAVERICK	1 PT/A	A 102	95.0	95.0	75.0	98.0	90.0
	AATREX	0.75 LB AI/A	A 201	95.0	95.0	75.0	98.0	90.0
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C 305	95.0	95.0	75.0	95.0	95.0
	INDUCE	0.25 % V/V	C 408	95.0	95.0	75.0	95.0	95.0
	DRY AMMONIUM SULFATE	3 LB/A	C					
			Mean =	95.0	95.0	75.0	96.5	92.5

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA	AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed	Morning glory
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	6-30-2022	6-30-2022	6-30-2022	7-13-2022	7-13-2022
Part Rated					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size					
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	48, 15	48, 15	48, 15	61, 8	61, 8
Trt-Eval Interval	48 DA-A	48 DA-A	48 DA-A	61 DA-A	61 DA-A
Plant-Eval Interval	50 DP-1	50 DP-1	50 DP-1	63 DP-1	63 DP-1
Days After Emergence	43 DE-1	43 DE-1	43 DE-1	56 DE-1	56 DE-1
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Appl Code	Plot	7	8	9	10	11
3	MAVERICK	1.5 PT/A	A	103	90.0	90.0	75.0	85.0	65.0
	AATREX	0.75 LB AI/A	A	209	85.0	90.0	75.0	85.0	65.0
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C	306	85.0	90.0	75.0	85.0	65.0
	INDUCE	0.25 % V/V	C	404	90.0	90.0	75.0	85.0	65.0
	DRY AMMONIUM SULFATE	3 LB/A	C						
				Mean =	87.5	90.0	75.0	85.0	65.0
4	MAVERICK	1 QT/A	A	104	100.0	95.0	85.0	98.0	95.0
	AATREX	0.75 LB AI/A	A	205	100.0	95.0	85.0	100.0	90.0
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C	302	100.0	95.0	85.0	100.0	95.0
	INDUCE	0.25 % V/V	C	407	100.0	95.0	85.0	100.0	95.0
	DRY AMMONIUM SULFATE	3 LB/A	C						
				Mean =	100.0	95.0	85.0	99.5	93.8
5	UNTREATED CHECK			105	0.0	0.0	0.0	0.0	0.0
				203	0.0	0.0	0.0	0.0	0.0
				309	0.0	0.0	0.0	0.0	0.0
				406	0.0	0.0	0.0	0.0	0.0
				Mean =	0.0	0.0	0.0	0.0	0.0
6	ACURON	3 QT/A	A	106	100.0	100.0	100.0	100.0	100.0
	PRINCEP	1 LB AI/A	A	202	100.0	100.0	100.0	100.0	100.0
				304	100.0	100.0	100.0	100.0	100.0
				409	100.0	100.0	100.0	100.0	100.0
				Mean =	100.0	100.0	100.0	100.0	100.0
7	ACURON	1.5 QT/A	A	107	85.0	75.0	80.0	90.0	85.0
	ACURON	1.5 QT/A	B	206	85.0	75.0	80.0	90.0	85.0
	ROUNDUP POWERMAX 3	32 FL OZ/A	B	307	85.0	75.0	80.0	90.0	90.0
				403	85.0	75.0	80.0	90.0	85.0
			Mean =	85.0	75.0	80.0	90.0	86.3	
8	BICEP II MAGNUM	1.5 QT/A	A	108	75.0	75.0	95.0	75.0	75.0
	ACURON GT	3.75 QT/A	B	204	80.0	75.0	95.0	75.0	75.0
	NIS	0.25 % V/V	B	308	80.0	75.0	95.0	75.0	75.0
	AMS	2.5 % V/V	B	402	80.0	75.0	95.0	75.0	75.0
				Mean =	78.8	75.0	95.0	75.0	75.0
9	LEXAR EZ	1.8 QT/A	A	109	75.0	75.0	100.0	100.0	100.0
	ACURON GT	3.75 QT/A	B	208	75.0	75.0	100.0	100.0	100.0
	NIS	0.25 % V/V	B	303	75.0	75.0	100.0	100.0	100.0
	AMS	2.5 % V/V	B	401	75.0	75.0	100.0	100.0	100.0
				Mean =	75.0	75.0	100.0	100.0	100.0

University of Kentucky

Pest Type	W, Weed
Pest Code	SETFA
Pest Scientific Name	Setaria faberi
Pest Name	Giant foxtail
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	7-13-2022 10-6-2022 10-6-2022 10-6-2022
Part Rated	
Rating Type	CONTRO YIELD MOICON YIELD
Rating Unit/Min/Max	% , 0, 100 lb/plot, -, - % , 0, 100 BU, -, -
Sample Size	1 PLOT 1 1 1
Number of Subsamples	1 1 1 1
EDC App	
Rating Timing	
Days After First/Last Applic.	61, 8 146, 93 146, 93 146, 93
Trt-Eval Interval	61 DA-A 146 DA-A 146 DA-A 146 DA-A
Plant-Eval Interval	63 DP-1 148 DP-1 148 DP-1 148 DP-1
Days After Emergence	56 DE-1 141 DE-1 141 DE-1 141 DE-1
ARM Action Codes	
Number of Decimals	TY1 1

Trt	Treatment	Rate	Appl	12	13	14	15	16
No.	Name	Rate Unit	Code Plot					
1	MAVERICK	1 QT/A	A 101	100.0		24.340	14.400	137.0
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C 207	100.0		28.130	17.600	152.4
	INDUCE	0.25 % V/V	C 301	100.0		31.150	15.700	172.7
	DRY AMMONIUM SULFATE	3 LB/A	C 405	100.0		27.320	13.400	155.6
			Mean =	100.0		27.735	15.275	154.4
2	MAVERICK	1 PT/A	A 102	60.0		27.960	16.700	153.1
	AATREX	0.75 LB AI/A	A 201	65.0		25.790	17.600	139.7
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C 305	65.0		22.600	13.400	128.7
	INDUCE	0.25 % V/V	C 408	70.0		26.330	14.400	148.2
	DRY AMMONIUM SULFATE	3 LB/A	C					
			Mean =	65.0		25.670	15.525	142.4

University of Kentucky

Pest Type	W, Weed			
Pest Code	SETFA			
Pest Scientific Name	Setaria faberi			
Pest Name	Giant foxtail			
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	7-13-2022 10-6-2022 10-6-2022 10-6-2022			
Part Rated				
Rating Type	CONTRO YIELD MOICON YIELD			
Rating Unit/Min/Max	% , 0, 100 lb/plot, -, - % , 0, 100 BU, -, -			
Sample Size	1 PLOT			1 A
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	61, 8	146, 93	146, 93	146, 93
Trt-Eval Interval	61 DA-A	146 DA-A	146 DA-A	146 DA-A
Plant-Eval Interval	63 DP-1	148 DP-1	148 DP-1	148 DP-1
Days After Emergence	56 DE-1	141 DE-1	141 DE-1	141 DE-1
ARM Action Codes				TY1
Number of Decimals				1

Trt No.	Treatment Name	Rate	Appl Code	Plot	12	13	14	15	16
3	MAVERICK	1.5 PT/A	A	103	75.0		28.980	14.200	163.5
	AATREX	0.75 LB AI/A	A	209	80.0		28.850	16.100	159.2
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C	306	80.0		35.520	17.400	192.9
	INDUCE	0.25 % V/V	C	404	75.0		27.570	14.800	154.5
	DRY AMMONIUM SULFATE	3 LB/A	C						
			Mean =		77.5		30.230	15.625	167.5
4	MAVERICK	1 QT/A	A	104	90.0		26.840	14.600	150.7
	AATREX	0.75 LB AI/A	A	205	95.0		29.570	14.900	165.5
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C	302	95.0		33.200	17.900	179.2
	INDUCE	0.25 % V/V	C	407	90.0		27.450	13.900	155.4
	DRY AMMONIUM SULFATE	3 LB/A	C						
			Mean =		92.5		29.265	15.325	162.7
5	UNTREATED CHECK			105	0.0		0.990	0.970	6.4
				203	0.0		4.280	9.160	25.6
				309	0.0		0.800	0.500	5.2
				406	0.0		13.910	13.500	79.1
				Mean =		0.0	4.995	6.033	29.1
6	ACURON	3 QT/A	A	106	100.0		28.090	17.100	153.1
	PRINCEP	1 LB AI/A	A	202	100.0		30.490	17.400	165.6
				304	100.0		34.810	15.400	193.6
				409	100.0		24.270	13.500	138.0
				Mean =		100.0	29.415	15.850	162.6
7	ACURON	1.5 QT/A	A	107	90.0		36.310	17.100	197.9
	ACURON	1.5 QT/A	B	206	85.0		29.130	16.500	159.9
	ROUNDUP POWERMAX 3	32 FL OZ/A	B	307	90.0		40.060	17.200	218.1
				403	90.0		34.220	14.500	192.4
				Mean =		88.8	34.930	16.325	192.1
8	BICEP II MAGNUM	1.5 QT/A	A	108	90.0		31.690	15.100	176.9
	ACURON GT	3.75 QT/A	B	204	95.0		30.460	14.100	172.0
	NIS	0.25 % V/V	B	308	95.0		36.980	15.700	205.0
	AMS	2.5 % V/V	B	402	90.0		35.660	17.200	194.1
				Mean =		92.5	33.698	15.525	187.0
9	LEXAR EZ	1.8 QT/A	A	109	100.0		33.450	16.500	183.7
	ACURON GT	3.75 QT/A	B	208	100.0		34.410	14.800	192.8
	NIS	0.25 % V/V	B	303	100.0		36.470	16.600	200.0
	AMS	2.5 % V/V	B	401	100.0		35.500	14.200	200.3
				Mean =		100.0	34.958	15.525	194.2

University of Kentucky

Primary/Core PRE soil residual trial - 2 trt

Trial ID: 22-22
Protocol ID: VUSA2022V10494MD68.02 Location: Cooperator Trial ID:
Project ID: 201510 Project ID 2: Project ID 3: Trial Year: 2022
Study Director: TRAVIS LEGLEITER Sponsor Contact:
Investigator (Creator): Sara Carter

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

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

PLOT = total plot

A = acre

Plant-Eval Interval

16 DP-1 = 1 ZEAMX 5-11-2022
30 DP-1 = 1 ZEAMX 5-11-2022
50 DP-1 = 1 ZEAMX 5-11-2022
63 DP-1 = 1 ZEAMX 5-11-2022
148 DP-1 = 1 ZEAMX 5-11-2022

ARM Action Codes

TY1 = 5.55612245*[14]*(100-[15])/84.5

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Rating Date

Part Rated

Rating Type

Rating Unit/Min/Max

Sample Size

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

	W, Weed AMBTR Ambrosia trifida Giant ragweed	W, Weed IPOSS Ipomoea sp. Morning glory	W, Weed SETFA Setaria faberi Giant foxtail		
C, ZEAMX	C, ZEAMX			C, ZEAMX	
BCOR	BCOR			BCOR	
Zea mays	Zea mays			Zea mays	
Corn	Corn			Corn	
5-27-2022	6-10-2022	6-10-2022	6-10-2022	6-30-2022	
PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
	1	1	1	1	1
14, 14	28, 28	28, 28	28, 28	28, 28	48, 15
14 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	48 DA-A
16 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1	50 DP-1
9 DE-1	23 DE-1	23 DE-1	23 DE-1	23 DE-1	43 DE-1

Trt	Treatment	Rate	Appl	1	2	3	4	5	6
No.	Name	Rate Unit	Code						
1	MAVERICK	1 QT/A	A	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	0.0 a
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C						
	INDUCE	0.25 % V/V	C						
	DRY AMMONIUM SULFATE	3 LB/A	C						
2	MAVERICK	1 PT/A	A	0.0 a	0.0 a	100.0 a	95.8 b	82.5 d	0.0 a
	AATREX	0.75 LB AI/A	A						
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C						
	INDUCE	0.25 % V/V	C						
	DRY AMMONIUM SULFATE	3 LB/A	C						
3	MAVERICK	1.5 PT/A	A	0.0 a	0.0 a	93.8 b	87.5 c	76.3 e	0.0 a
	AATREX	0.75 LB AI/A	A						
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C						
	INDUCE	0.25 % V/V	C						
	DRY AMMONIUM SULFATE	3 LB/A	C						

University of Kentucky

Pest Type			W, Weed	W, Weed	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 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	5-27-2022	6-10-2022	6-10-2022	6-10-2022	6-10-2022	6-30-2022
Part Rated						
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Sample Size						
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	14, 14	28, 28	28, 28	28, 28	28, 28	48, 15
Trt-Eval Interval	14 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	48 DA-A
Plant-Eval Interval	16 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1	50 DP-1
Days After Emergence	9 DE-1	23 DE-1	23 DE-1	23 DE-1	23 DE-1	43 DE-1
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
		Rate Unit							
4	MAVERICK	1 QT/A	A	0.0 a	0.0 a	100.0 a	95.8 b	93.8 b	0.0 a
	AATREX	0.75 LB AI/A	A						
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	A						
	INDUCE	0.25 % V/V	C						
	DRY AMMONIUM SULFATE	3 LB/A	C						
5	UNTREATED CHECK			0.0 a	0.0 a	0.0 e	0.0 e	0.0 f	0.0 a
6	ACURON	3 QT/A	A	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	0.0 a
	PRINCEP	1 LB AI/A	A						
7	ACURON	1.5 QT/A	A	0.0 a	0.0 a	92.5 b	82.5 d	86.3 c	0.0 a
	ACURON	1.5 QT/A	B						
	ROUNDUP POWERMAX 3	32 FL OZ/A	B						
8	BICEP II MAGNUM	1.5 QT/A	A	0.0 a	0.0 a	81.3 c	86.3 c	93.8 b	0.0 a
	ACURON GT	3.75 QT/A	B						
	NIS	0.25 % V/V	B						
	AMS	2.5 % V/V	B						
9	LEXAR EZ	1.8 QT/A	A	0.0 a	0.0 a	78.8 d	88.8 c	100.0 a	0.0 a
	ACURON GT	3.75 QT/A	B						
	NIS	0.25 % V/V	B						
	AMS	2.5 % V/V	B						
	LSD P=.05			.	.	2.25	3.00	3.18	.
	Standard Deviation			0.00	0.00	1.54	2.05	2.18	0.00
	CV			0.0	0.0	1.86	2.51	2.68	0.0
	Levene's F^			.	.	0.836	0.397	0.578	.
	Levene's Prob(F)			.	.	0.579	0.912	0.787	.
	Shapiro-Wilk^			.	.	0.9701	0.9316*	0.9271*	.
	P(Shapiro-Wilk)^			.	.	0.4274	0.0279*	0.0205*	.
	Skewness^			.	.	-0.1012	-0.9401*	-1.0737*	.
	P(Skewness)^			.	.	0.8058	0.0275*	0.0127*	.
	Kurtosis^			.	.	-0.3288	1.9317*	2.5452*	.
	P(Kurtosis)^			.	.	0.6834	0.0211*	0.0031*	.
	Replicate F			0.000	0.000	3.415	3.947	2.537	0.000
	Replicate Prob(F)			1.0000	1.0000	0.0336	0.0202	0.0806	1.0000
	Treatment F			0.000	0.000	1743.147	930.936	845.049	0.000
	Treatment Prob(F)			1.0000	1.0000	0.0001	0.0001	0.0001	1.0000

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	AMBTR	IPOSS	SETFA	AMBTR	IPOSS			
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.			
Pest Name	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed	Morning glory			
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Rating Date	6-30-2022	6-30-2022	6-30-2022	7-13-2022	7-13-2022			
Part Rated								
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Sample Size								
Number of Subsamples	1	1	1	1	1			
EDC App								
Rating Timing								
Days After First/Last Applic.	48, 15	48, 15	48, 15	61, 8	61, 8			
Trt-Eval Interval	48 DA-A	48 DA-A	48 DA-A	61 DA-A	61 DA-A			
Plant-Eval Interval	50 DP-1	50 DP-1	50 DP-1	63 DP-1	63 DP-1			
Days After Emergence	43 DE-1	43 DE-1	43 DE-1	56 DE-1	56 DE-1			
ARM Action Codes								
Number of Decimals								
Trt No.	Treatment Name	Rate	Appl Code	7	8	9	10	11
		Rate Unit						
1	MAVERICK	1 QT/A	A	95.0 b	93.8 b	95.0 b	100.0 a	95.0 b
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C					
	INDUCE	0.25 % V/V	C					
	DRY AMMONIUM SULFATE	3 LB/A	C					
2	MAVERICK	1 PT/A	A	95.0 b	95.0 b	75.0 e	96.5 b	92.5 b
	AATREX	0.75 LB AI/A	A					
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C					
	INDUCE	0.25 % V/V	C					
	DRY AMMONIUM SULFATE	3 LB/A	C					
3	MAVERICK	1.5 PT/A	A	87.5 c	90.0 c	75.0 e	85.0 d	65.0 e
	AATREX	0.75 LB AI/A	A					
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C					
	INDUCE	0.25 % V/V	C					
	DRY AMMONIUM SULFATE	3 LB/A	C					

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA	AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail	Giant ragweed	Morning glory
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	6-30-2022	6-30-2022	6-30-2022	7-13-2022	7-13-2022
Part Rated					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size					
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	48, 15	48, 15	48, 15	61, 8	61, 8
Trt-Eval Interval	48 DA-A	48 DA-A	48 DA-A	61 DA-A	61 DA-A
Plant-Eval Interval	50 DP-1	50 DP-1	50 DP-1	63 DP-1	63 DP-1
Days After Emergence	43 DE-1	43 DE-1	43 DE-1	56 DE-1	56 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl	7	8	9	10	11
No.	Name	Rate Unit	Code					
4	MAVERICK	1 QT/A	A	100.0 a	95.0 b	85.0 c	99.5 a	93.8 b
	AATREX	0.75 LB AI/A	A					
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C					
	INDUCE	0.25 % V/V	C					
	DRY AMMONIUM SULFATE	3 LB/A	C					
5	UNTREATED CHECK			0.0 g	0.0 e	0.0 f	0.0 f	0.0 f
6	ACURON	3 QT/A	A	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	PRINCEP	1 LB AI/A	A					
7	ACURON	1.5 QT/A	A	85.0 d	75.0 d	80.0 d	90.0 c	86.3 c
	ACURON	1.5 QT/A	B					
	ROUNDUP POWERMAX 3	32 FL OZ/A	B					
8	BICEP II MAGNUM	1.5 QT/A	A	78.8 e	75.0 d	95.0 b	75.0 e	75.0 d
	ACURON GT	3.75 QT/A	B					
	NIS	0.25 % V/V	B					
	AMS	2.5 % V/V	B					
9	LEXAR EZ	1.8 QT/A	A	75.0 f	75.0 d	100.0 a	100.0 a	100.0 a
	ACURON GT	3.75 QT/A	B					
	NIS	0.25 % V/V	B					
	AMS	2.5 % V/V	B					
LSD P=.05				1.92	1.22	.	1.00	2.08
Standard Deviation				1.32	0.83	0.00	0.69	1.42
CV				1.66	1.07	0.0	0.83	1.81
Levene's F^				4.181*	0.681	.	7.753*	1.576
Levene's Prob(F)				0.002*	0.704	.	0.00*	0.179
Shapiro-Wilk^				0.7685*	0.5639*	.	0.7836*	0.976
P(Shapiro-Wilk)^				0.0*	0.0*	.	0.0*	0.6083
Skewness^				-0.9435*	-2.9835*	.	-0.4682	0.0
P(Skewness)^				0.027*	0.0*	.	0.2597	1.0
Kurtosis^				4.0883*	15.913*	.	3.3682*	0.7256
P(Kurtosis)^				0.0*	0.0*	.	0.0002*	0.3704
Replicate F				0.400	1.000	0.000	0.471	2.286
Replicate Prob(F)				0.7542	0.4098	1.0000	0.7056	0.1044
Treatment F				2233.800	5446.001	0.000	8817.236	1985.229
Treatment Prob(F)				0.0001	0.0001	1.0000	0.0001	0.0001

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Trt No.	Treatment Name	Rate	Unit	Appl Code	12	13	14	15	16
1	MAVERICK	1	QT/A	A	100.0 a				
	ROUNDUP POWER MAX 3(SALT)	1	LB AI/A	C			27.735 ab	15.275 a	154.4 ab
	INDUCE	0.25	% V/V	C					
	DRY AMMONIUM SULFATE	3	LB/A	C					
2	MAVERICK	1	PT/A	A	65.0 d				
	AATREX	0.75	LB AI/A	A			25.670 b	15.525 a	142.4 b
	ROUNDUP POWER MAX 3(SALT)	1	LB AI/A	C					
	INDUCE	0.25	% V/V	C					
	DRY AMMONIUM SULFATE	3	LB/A	C					
3	MAVERICK	1.5	PT/A	A	77.5 c				
	AATREX	0.75	LB AI/A	A			30.230 ab	15.625 a	167.5 ab
	ROUNDUP POWER MAX 3(SALT)	1	LB AI/A	C					
	INDUCE	0.25	% V/V	C					
	DRY AMMONIUM SULFATE	3	LB/A	C					

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Pest Type	W, Weed			
Pest Code	SETFA			
Pest Scientific Name	Setaria faberi			
Pest Name	Giant foxtail			
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	7-13-2022	10-6-2022	10-6-2022	10-6-2022
Part Rated				
Rating Type	CONTRO	YIELD	MOICON	YIELD
Rating Unit/Min/Max	%, 0, 100	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size		1 PLOT		1 A
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	61, 8	146, 93	146, 93	146, 93
Trt-Eval Interval	61 DA-A	146 DA-A	146 DA-A	146 DA-A
Plant-Eval Interval	63 DP-1	148 DP-1	148 DP-1	148 DP-1
Days After Emergence	56 DE-1	141 DE-1	141 DE-1	141 DE-1
ARM Action Codes				TY1
Number of Decimals				1

Trt No.	Treatment Name	Rate	Appl Code	12	13	14	15	16
		Rate Unit						
4	MAVERICK	1 QT/A	A	92.5 b		29.265 ab	15.325 a	162.7 ab
	AATREX	0.75 LB AI/A	A					
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	C					
	INDUCE	0.25 % V/V	C					
	DRY AMMONIUM SULFATE	3 LB/A	C					
5	UNTREATED CHECK			0.0 e		4.995 c	6.033 b	29.1 c
6	ACURON	3 QT/A	A	100.0 a		29.415 ab	15.850 a	162.6 ab
	PRINCEP	1 LB AI/A	A					
7	ACURON	1.5 QT/A	A	88.8 b		34.930 a	16.325 a	192.1 a
	ACURON	1.5 QT/A	B					
	ROUNDUP POWERMAX 3	32 FL OZ/A	B					
8	BICEP II MAGNUM	1.5 QT/A	A	92.5 b		33.698 a	15.525 a	187.0 a
	ACURON GT	3.75 QT/A	B					
	NIS	0.25 % V/V	B					
	AMS	2.5 % V/V	B					
9	LEXAR EZ	1.8 QT/A	A	100.0 a		34.958 a	15.525 a	194.2 a
	ACURON GT	3.75 QT/A	B					
	NIS	0.25 % V/V	B					
	AMS	2.5 % V/V	B					
LSD P=.05				3.26	.	5.1218	3.9318	26.75
Standard Deviation				2.23	.	3.5095	2.6941	18.33
CV				2.8	.	12.59	18.51	11.85
Levene's F^				1.237	.	1.365	4.638*	1.58
Levene's Prob(F)				0.316	.	0.256	0.001*	0.177
Shapiro-Wilk^				0.9666	.	0.9535	0.9256*	0.9434
P(Shapiro-Wilk)^				0.3391	.	0.1345	0.0184*	0.0647
Skewness^				0.1166	.	0.1256	0.5828	0.1928
P(Skewness)^				0.777	.	0.7604	0.1627	0.64
Kurtosis^				0.881	.	1.7105*	3.4924*	2.125*
P(Kurtosis)^				0.2781	.	0.0395*	0.0001*	0.0118*
Replicate F				1.628		2.032	0.378	2.173
Replicate Prob(F)				0.2092		0.1362	0.7699	0.1174
Treatment F				825.698		27.282	5.685	30.084
Treatment Prob(F)				0.0001		0.0001	0.0004	0.0001

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Primary/Core PRE soil residual trial - 2 trt

Trial ID: 22-22
Protocol ID: VUSA2022V10494MD68.02 Location: Cooperator Trial ID:
Project ID: 201510 Project ID 2: Project ID 3: Trial Year: 2022
Study Director: TRAVIS LEGLEITER Sponsor Contact:
Investigator (Creator): Sara Carter

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

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

PLOT = total plot

A = acre

Plant-Eval Interval

16 DP-1 = 1 ZEAMX 5-11-2022

30 DP-1 = 1 ZEAMX 5-11-2022

50 DP-1 = 1 ZEAMX 5-11-2022

63 DP-1 = 1 ZEAMX 5-11-2022

148 DP-1 = 1 ZEAMX 5-11-2022

ARM Action Codes

TY1 = 5.55612245*[14]*(100-[15])/84.5

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Valent Actives in a Liberty Link System

Trial ID: 22-23
 Protocol ID: VUSA2022FIERCCEMD64.01 Location: Cooperator Trial ID:
 Project ID: 202042 Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact: John Cranmer
 Investigator (Creator): Sara Carter

Reps: 3		Plots: 10 by 44 feet		Mix Size: 2.2 L (total for 3 plots; minimum=1.7206 L)										
Trt	Treatment	Form	Form	Rate	Other	Other	Appl	Appl	Comment	Amt	Product	Rep		
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Timing	Code	1	2	3
1	FIERCE EZ (2065)	3.04	LBA/GAL	SC	6 FL	OZ/A	6 FL	OZ/A	PREPRE	A		6.875	mL/mx	101 202 305
	SCOUT (GLUFOSINATE)	2.34	LBA/GAL	SL	32 FL	OZ/A	32 FL	OZ/A	LAPLAP	B		36.67	mL/mx	
	PERPETUO	2.3	LBA/GAL	SC	6 FL	OZ/A	6 FL	OZ/A	LAPLAP	B		6.875	mL/mx	
	SELECT MAX	1	LBA/GAL	EC	9 FL	OZ/A	9 FL	OZ/A	LAPLAP	B		10.31	mL/mx	
	INDUCE	100	%W/W	SF	0.25 %	V/V	0.25 %	V/V	LAPLAP	B		5.499	g/mx	
	DRY AMMONIUM SULFATE	100	%W/W	SG	3 LB/A		3 LB/A		LAPLAP	B		52.72	g/mx	
2	FIERCE MTZ SC (2030)	2.64	LBA/GAL	SC	16 FL	OZ/A	16 FL	OZ/A	PREPRE	A		18.33	mL/mx	102 204 302
	SCOUT (GLUFOSINATE)	2.34	LBA/GAL	SL	32 FL	OZ/A	32 FL	OZ/A	LAPLAP	B		36.67	mL/mx	
	PERPETUO	2.3	LBA/GAL	SC	6 FL	OZ/A	6 FL	OZ/A	LAPLAP	B		6.875	mL/mx	
	SELECT MAX	1	LBA/GAL	EC	9 FL	OZ/A	9 FL	OZ/A	LAPLAP	B		10.31	mL/mx	
	INDUCE	100	%W/W	SF	0.25 %	V/V	0.25 %	V/V	LAPLAP	B		5.499	g/mx	
	DRY AMMONIUM SULFATE	100	%W/W	SG	3 LB/A		3 LB/A		LAPLAP	B		52.72	g/mx	
3	KYBER	2.64		SC	1 PT/A		1 PT/A		PRE	A		18.33	mL/mx	103 207 303
	ENLIST ONE	3.8		L	2 PT/A		2 PT/A		LP	B		36.67	mL/mx	
	LIBERTY 280	2.34		SL	2 PT/A		2 PT/A		LP	B		36.67	mL/mx	
	AMS			L	2.5 %	V/V	2.5 %	V/V	LP	B		54.99	mL/mx	
4	TRIVENCE	61.3	%AW/W	WG	8 OZ/A		8 OZ/A		PRE	A		8.787	g/mx	104 201 304
	ENLIST ONE	3.8		L	2 PT/A		2 PT/A		LP	A		36.67	mL/mx	
	LIBERTY 280	2.34		SL	2 PT/A		2 PT/A		LP	B		36.67	mL/mx	
	AMS			L	2.5 %	V/V	2.5 %	V/V	LP	B		54.99	mL/mx	
5	ZIDUA PRO	4.09	LB/GAL	SC	6 OZ/A		6 OZ/A		PRE	A		6.875	mL/mx	105 206 301
	ENLIST ONE	3.8		L	2 PT/A		2 PT/A		LP	A		36.67	mL/mx	
	LIBERTY 280	2.34		SL	2 PT/A		2 PT/A		LP	B		36.67	mL/mx	
	AMS			L	2.5 %	V/V	2.5 %	V/V	LP	B		54.99	mL/mx	
6	AUTHORITY EDGE	4.25		SC	6.4 FL	OZ/A	6.4 FL	OZ/A	PRE	A		7.333	mL/mx	106 203 306
	ENLIST ONE	3.8		L	2 PT/A		2 PT/A		LP	A		36.67	mL/mx	
	LIBERTY 280	2.34		SL	2 PT/A		2 PT/A		LP	B		36.67	mL/mx	
	AMS			L	2.5 %	V/V	2.5 %	V/V	LP	B		54.99	mL/mx	
7	BOUNDARY	6.5		E	2 PT/A		2 PT/A		PRE	A		36.67	mL/mx	107 205 307
	ENLIST ONE	3.8		L	2 PT/A		2 PT/A		LP	A		36.67	mL/mx	
	LIBERTY 280	2.34		SL	2 PT/A		2 PT/A		LP	B		36.67	mL/mx	
	AMS			L	2.5 %	V/V	2.5 %	V/V	LP	B		54.99	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
6.875	mL	FIERCE EZ (2065)	3.04		LBA/GAL	SC			
73.333	mL	SCOUT (GLUFOSINATE)	2.34		LBA/GAL	SL			
13.750	mL	PERPETUO	2.3		LBA/GAL	SC			
20.625	mL	SELECT MAX	1		LBA/GAL	EC			
10.999	g	INDUCE	100		%W/W	SF			
105.447	g	DRY AMMONIUM SULFATE	100		%W/W	SG			
18.333	mL	FIERCE MTZ SC (2030)	2.64		LBA/GAL	SC			
18.333	mL	KYBER	2.64			SC			
183.333	mL	ENLIST ONE	3.8			L			
183.333	mL	LIBERTY 280	2.34			SL			
274.970	mL	AMS				L			
8.787	g	TRIVENCE	61.3		%AW/W	WG			
6.875	mL	ZIDUA PRO	4.09		LB/GAL	SC			
7.333	mL	AUTHORITY EDGE	4.25			SC			
36.667	mL	BOUNDARY	6.5			E			

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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= 2.2 L (mix size basis).

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

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

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

ARM Trial Created On: 4-11-2022 **Reliability:** 1 usable data
Initiation Date: 5-24-2022 **Planned Completion Date:** 10-1-2022
Interim Report Due: 11-1-2022 **Final Report Due:** 12-1-2022

Trial Location

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

Latitude of LL Corner °: 38.115135 N
Longitude of LL Corner °: -84.48411983 W
GPS Accuracy of LL Corner: 3.3 FT
Altitude of LL Corner: 782.80 FT

Conducted Under GLP: No
Conducted Under GEP: No **Study Rules:** Default

No.	Guideline	Discipline	Description
1.	ADM-C-PUB CO		Confidentiality - Public Trial - No Secrecy Agreement Required

Objectives:

To compare Valent PREE and POST actives in a program approach in a Liberty crop ping system. Fierce EZ (6 fl oz/A) and Fierce MTZ (1 pt/A) will be compared to university standards. Measures of success is weed control at 21, 42 & 56 DAP with acceptable crop response.

Contacts

Role: STYDIR study director
Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
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Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
Country: USA United States **E-mail:** sara.carter@uky.edu
City: LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312
Role: SPONSOR sponsor
Sponsor: John Cranmer

Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Stage Scale: BBCH
Variety: DYNAGRO 39EN19
Attributes: ENLIST
Planting Date: 5-24-2022 **Planting Rate:** 150000 S/A
Depth: 1.25 IN
Rows per Plot: 6 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** FE field equipment
Seed Bed: MEDTRA medium/trashy
Soil Temperature: 66 F **Soil Moisture:** WET wet
Emergence Date: 5-31-2022

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

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 44 FT
Treated Plot Area: 440.0 FT² **Tillage Type:** NOTILL no-till
Replications: 3 **Treatments:** 7 **Plots:** 21 **Study Design:** RACOB L Randomized Complete Block (RCB)

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Soil Description

Description Name: LANTON
% Sand: 7 **% OM:** 4 **Texture:** SIL silt loam
% Silt: 63 **Soil Name:** LANTON SILT LOAM
% Clay: 30 **Fert. Level:** E excellent
pH: 6.5 **CEC:** 22
Soil Drainage: E excellent

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

Application Description

	A	B
Application Date	5-25-2022	6-17-2022
Appl. Start Time	10:00 AM	6:00 PM
Appl. Stop Time	10:30 AM	6:30 PM
Interval to Prev. Appl.		23 DAYS
Application Method	SPRAY	SPRAY
Application Timing	PREPRE	2"W-LAPLAP
Application Placement	BROFOL	BROFOL
Applied By	SARA	SARA
Air Temperature Start, Stop	70, - F	79, - F
% Relative Humidity Start, Stop	70, -	60, -
Wind Velocity+Dir. Start	4 MPH, SW	6 MPH, W
Soil Temperature	66 F	78 F
Soil Moisture	WET	GOOD
Soil Surface Condition	MEDTRA	MEDTRA
% Cloud Cover	30	50
Next Moisture Occurred On	5-26-2022	6-17-2022

Comment:

It rained within 10 minutes of the post application resulting in lower than expected weed control.

Protocol Application Directions:

One preemergence application fb one postemergence application, except for Scout fb Scout treatment, which is two postemergence applications.

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-6	17
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	IPOSS, W, BBCH	IPOSS, W, BBCH
Height Average	1 IN	2 IN
Crop Part Attacked, Code	-, GLXMA	-, GLXMA

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
Boom Flow Rate	- IN	- IN
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	15 GPA
Mix Size	2.2 liters	2.2 liters
Propellant	CO2	CO2

Instructions:

1. Please include all treatments in test, even if they do not fit the area in which the test is conducted.
2. Soybean row spacing should be 30".
3. Use 20 GPA for all Scout applications.
4. Select Max plus Induce does not need to be applied if v. corn is not in test

area.
 B = 2 inch weeds

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Cropping Considerations:

21 day rating should occur prior to Scout application.

Data to Collect:

Efficacy: 21, 42 and 56 days after pree application. Crop tolerance: 21, 42 and 56 days after pree application. Trial will go to yield.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	AMBTR	AMBTR	AMBTR	IPOSS	IPOSS
Pest Scientific Name	Ambrosia trifida	Ambrosia trifida	Ambrosia trifida	Ambrosia trifida	Ipomoea sp.	Ipomoea sp.
Pest Name	Giant ragweed	Giant ragweed	Giant ragweed	Giant ragweed	Morning glory	Morning glory
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, 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
Rating Date	6-15-2022	6-15-2022	7-6-2022	7-6-2022	7-6-2022	7-20-2022
Part Rated						
Rating Type	PHYGEN	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 10	% , 0, 100	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 10
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	21, 21	21, 21	42, 19	42, 19	42, 19	56, 33
Trt-Eval Interval	21 DA-A	21 DA-A				
Plant-Eval Interval	22 DP-1	22 DP-1	43 DP-1	43 DP-1	43 DP-1	57 DP-1
Days After Emergence	15 DE-1	15 DE-1	36 DE-1	36 DE-1	36 DE-1	50 DE-1
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl	1	2	3	4	5	6
No.	Name	Rate Unit	Code Plot						
1	FIERCE EZ (2065)	6 FL OZ/A	A 101	0.0	95.0	0.0	15.0	40.0	0.0
	SCOUT (GLUFOSINATE)	32 FL OZ/A	B 202	0.0	95.0	0.0	20.0	40.0	0.0
	PERPETUO	6 FL OZ/A	B 305	0.0	95.0	0.0	20.0	40.0	0.0
	SELECT MAX	9 FL OZ/A	B						
	INDUCE	0.25 % V/V	B						
	DRY AMMONIUM SULFATE	3 LB/A	B						
			Mean =	0.0	95.0	0.0	18.3	40.0	0.0
2	FIERCE MTZ SC (2030)	16 FL OZ/A	A 102	0.0	95.0	0.0	5.0	40.0	0.0
	SCOUT (GLUFOSINATE)	32 FL OZ/A	B 204	0.0	95.0	0.0	10.0	40.0	0.0
	PERPETUO	6 FL OZ/A	B 302	0.0	95.0	0.0	10.0	40.0	0.0
	SELECT MAX	9 FL OZ/A	B						
	INDUCE	0.25 % V/V	B						
	DRY AMMONIUM SULFATE	3 LB/A	B						
			Mean =	0.0	95.0	0.0	8.3	40.0	0.0
3	KYBER	1 PT/A	A 103	0.0	90.0	0.0	10.0	25.0	0.0
	ENLIST ONE	2 PT/A	B 207	0.0	90.0	0.0	10.0	30.0	0.0
	LIBERTY 280	2 PT/A	B 303	0.0	90.0	0.0	10.0	30.0	0.0
	AMS	2.5 % V/V	B						
			Mean =	0.0	90.0	0.0	10.0	28.3	0.0
4	TRIVENCE	8 OZ/A	A 104	0.0	100.0	0.0	65.0	5.0	0.0
	ENLIST ONE	2 PT/A	A 201	0.0	100.0	0.0	55.0	10.0	0.0
	LIBERTY 280	2 PT/A	B 304	0.0	100.0	0.0	55.0	5.0	0.0
	AMS	2.5 % V/V	B						
			Mean =	0.0	100.0	0.0	58.3	6.7	0.0
5	ZIDUA PRO	6 OZ/A	A 105	0.0	100.0	0.0	30.0	5.0	0.0
	ENLIST ONE	2 PT/A	A 206	0.0	95.0	0.0	35.0	10.0	0.0
	LIBERTY 280	2 PT/A	B 301	0.0	95.0	0.0	30.0	10.0	0.0
	AMS	2.5 % V/V	B						
			Mean =	0.0	96.7	0.0	31.7	8.3	0.0
6	AUTHORITY EDGE	6.4 FL OZ/A	A 106	0.0	95.0	0.0	65.0	0.0	0.0
	ENLIST ONE	2 PT/A	A 203	0.0	95.0	0.0	60.0	0.0	0.0
	LIBERTY 280	2 PT/A	B 306	0.0	75.0	0.0	65.0	0.0	0.0
	AMS	2.5 % V/V	B						
			Mean =	0.0	88.3	0.0	63.3	0.0	0.0
7	BOUNDARY	2 PT/A	A 107	0.0	75.0	0.0	45.0	0.0	0.0
	ENLIST ONE	2 PT/A	A 205	0.0	75.0	0.0	45.0	0.0	0.0
	LIBERTY 280	2 PT/A	B 307	0.0	75.0	0.0	45.0	0.0	0.0
	AMS	2.5 % V/V	B						
			Mean =	0.0	75.0	0.0	45.0	0.0	0.0

University of Kentucky

Pest Type	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	7-20-2022	7-20-2022
Part Rated		
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
EDC App		
Rating Timing		
Days After First/Last Applic.	56, 33	56, 33
Trt-Eval Interval		
Plant-Eval Interval	57 DP-1	57 DP-1
Days After Emergence	50 DE-1	50 DE-1
ARM Action Codes		
Number of Decimals		

Trt	Treatment	Rate	Appl		
No.	Name	Rate Unit	Code Plot	7	8
1	FIERCE EZ (2065)	6 FL OZ/A	A 101	10.0	25.0
	SCOUT (GLUFOSINATE)	32 FL OZ/A	B 202	15.0	25.0
	PERPETUO	6 FL OZ/A	B 305	15.0	25.0
	SELECT MAX	9 FL OZ/A	B		
	INDUCE	0.25 % V/V	B		
	DRY AMMONIUM SULFATE	3 LB/A	B		
			Mean =	13.3	25.0
2	FIERCE MTZ SC (2030)	16 FL OZ/A	A 102	5.0	25.0
	SCOUT (GLUFOSINATE)	32 FL OZ/A	B 204	5.0	25.0
	PERPETUO	6 FL OZ/A	B 302	5.0	25.0
	SELECT MAX	9 FL OZ/A	B		
	INDUCE	0.25 % V/V	B		
	DRY AMMONIUM SULFATE	3 LB/A	B		
			Mean =	5.0	25.0
3	KYBER	1 PT/A	A 103	5.0	25.0
	ENLIST ONE	2 PT/A	B 207	5.0	25.0
	LIBERTY 280	2 PT/A	B 303	5.0	25.0
	AMS	2.5 % V/V	B		
			Mean =	5.0	25.0
4	TRIVENCE	8 OZ/A	A 104	25.0	5.0
	ENLIST ONE	2 PT/A	A 201	35.0	5.0
	LIBERTY 280	2 PT/A	B 304	25.0	5.0
	AMS	2.5 % V/V	B		
			Mean =	28.3	5.0
5	ZIDUA PRO	6 OZ/A	A 105	15.0	5.0
	ENLIST ONE	2 PT/A	A 206	15.0	5.0
	LIBERTY 280	2 PT/A	B 301	15.0	5.0
	AMS	2.5 % V/V	B		
			Mean =	15.0	5.0
6	AUTHORITY EDGE	6.4 FL OZ/A	A 106	50.0	0.0
	ENLIST ONE	2 PT/A	A 203	50.0	0.0
	LIBERTY 280	2 PT/A	B 306	50.0	0.0
	AMS	2.5 % V/V	B		
			Mean =	50.0	0.0
7	BOUNDARY	2 PT/A	A 107	25.0	0.0
	ENLIST ONE	2 PT/A	A 205	25.0	0.0
	LIBERTY 280	2 PT/A	B 307	25.0	0.0
	AMS	2.5 % V/V	B		
			Mean =	25.0	0.0

University of Kentucky

Valent Actives in a Liberty Link System

Trial ID: 22-23
 Protocol ID: VUSA2022FIERCEMD64.01 Location: Cooperator Trial ID:
 Project ID: 202042 Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact: John Cranmer
 Investigator (Creator): Sara Carter

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

IPOSS, Ipomoea sp., Morning glory = 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

Plant-Eval Interval

22 DP-1 = 1 GLXMA 5-24-2022

43 DP-1 = 1 GLXMA 5-24-2022

57 DP-1 = 1 GLXMA 5-24-2022

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Rating Date

Part Rated

Rating Type

Rating Unit/Min/Max

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
1	FIERCE EZ (2065)	6 FL OZ/A	A	0.0 a	95.0 a	0.0 a	18.3 d	40.0 a	0.0 a
	SCOUT (GLUFOSINATE)	32 FL OZ/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	INDUCE	0.25 % V/V	B						
	DRY AMMONIUM SULFATE	3 LB/A	B						
2	FIERCE MTZ SC (2030)	16 FL OZ/A	A	0.0 a	95.0 a	0.0 a	8.3 e	40.0 a	0.0 a
	SCOUT (GLUFOSINATE)	32 FL OZ/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	INDUCE	0.25 % V/V	B						
	DRY AMMONIUM SULFATE	3 LB/A	B						
3	KYBER	1 PT/A	A	0.0 a	90.0 a	0.0 a	10.0 e	28.3 b	0.0 a
	ENLIST ONE	2 PT/A	B						
	LIBERTY 280	2 PT/A	B						
	AMS	2.5 % V/V	B						
4	TRIVENCE	8 OZ/A	A	0.0 a	100.0 a	0.0 a	58.3 a	6.7 c	0.0 a
	ENLIST ONE	2 PT/A	A						
	LIBERTY 280	2 PT/A	B						
	AMS	2.5 % V/V	B						
5	ZIDUA PRO	6 OZ/A	A	0.0 a	96.7 a	0.0 a	31.7 c	8.3 c	0.0 a
	ENLIST ONE	2 PT/A	A						
	LIBERTY 280	2 PT/A	B						
	AMS	2.5 % V/V	B						
6	AUTHORITY EDGE	6.4 FL OZ/A	A	0.0 a	88.3 a	0.0 a	63.3 a	0.0 d	0.0 a
	ENLIST ONE	2 PT/A	A						
	LIBERTY 280	2 PT/A	B						
	AMS	2.5 % V/V	B						

University of Kentucky

Pest Type	W, Weed		W, Weed		W, Weed				
Pest Code	AMBTR		AMBTR		IPOSS				
Pest Scientific Name	Ambrosia trifida		Ambrosia trifida		Ipomoea sp.				
Pest Name	Giant ragweed		Giant ragweed		Morning glory				
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, 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			
Rating Date	6-15-2022	6-15-2022	7-6-2022	7-6-2022	7-6-2022	7-20-2022			
Part Rated									
Rating Type	PHYGEN	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN			
Rating Unit/Min/Max	% , 0, 10	% , 0, 100	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 10			
Number of Subsamples	1	1	1	1	1	1			
EDC App									
Rating Timing									
Days After First/Last Applic.	21, 21	21, 21	42, 19	42, 19	42, 19	56, 33			
Trt-Eval Interval	21 DA-A	21 DA-A							
Plant-Eval Interval	22 DP-1	22 DP-1	43 DP-1	43 DP-1	43 DP-1	57 DP-1			
Days After Emergence	15 DE-1	15 DE-1	36 DE-1	36 DE-1	36 DE-1	50 DE-1			
ARM Action Codes									
Number of Decimals									
Trt No.	Treatment Name	Rate Unit	Appl Code	1	2	3	4	5	6
7	BOUNDARY	2 PT/A	A	0.0 a	75.0 b	0.0 a	45.0 b	0.0 d	0.0 a
	ENLIST ONE	2 PT/A	A						
	LIBERTY 280	2 PT/A	B						
	AMS	2.5 % V/V	B						
	LSD P=.05			.	7.84	.	5.93	2.96	.
	Standard Deviation			0.00	4.41	0.00	3.33	1.67	0.00
	CV			0.0	4.82	0.0	9.93	9.46	0.0
	Levene's F^			.	0.609	.	0.417	0.233	.
	Levene's Prob(F)			.	0.72	.	0.856	0.958	.
	Shapiro-Wilk^			.	0.8241*	.	0.8985*	0.9407	.
	P(Shapiro-Wilk)^			.	0.0016*	.	0.0328*	0.225	.
	Skewness^			.	-1.4151*	.	0.5351	-0.0874	.
	P(Skewness)^			.	0.0158*	.	0.3303	0.8722	.
	Kurtosis^			.	5.3555*	.	0.7127	-0.8897	.
	P(Kurtosis)^			.	0.0*	.	0.501	0.4024	.
	Replicate F			0.000	1.286	0.000	0.000	3.000	0.000
	Replicate Prob(F)			1.0000	0.3119	1.0000	1.0000	0.0878	1.0000
	Treatment F			0.000	10.490	0.000	137.607	349.857	0.000
	Treatment Prob(F)			1.0000	0.0004	1.0000	0.0001	0.0001	1.0000

University of Kentucky

Pest Type	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	7-20-2022	7-20-2022
Part Rated		
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
EDC App		
Rating Timing		
Days After First/Last Applic.	56, 33	56, 33
Trt-Eval Interval		
Plant-Eval Interval	57 DP-1	57 DP-1
Days After Emergence	50 DE-1	50 DE-1
ARM Action Codes		
Number of Decimals		

Trt No.	Treatment Name	Rate	Appl Code	7	8
		Rate Unit			
1	FIERCE EZ (2065)	6 FL OZ/A	A	13.3 c	25.0 a
	SCOUT (GLUFOSINATE)	32 FL OZ/A	B		
	PERPETUO	6 FL OZ/A	B		
	SELECT MAX	9 FL OZ/A	B		
	INDUCE	0.25 % V/V	B		
	DRY AMMONIUM SULFATE	3 LB/A	B		
2	FIERCE MTZ SC (2030)	16 FL OZ/A	A	5.0 d	25.0 a
	SCOUT (GLUFOSINATE)	32 FL OZ/A	B		
	PERPETUO	6 FL OZ/A	B		
	SELECT MAX	9 FL OZ/A	B		
	INDUCE	0.25 % V/V	B		
	DRY AMMONIUM SULFATE	3 LB/A	B		
3	KYBER	1 PT/A	A	5.0 d	25.0 a
	ENLIST ONE	2 PT/A	B		
	LIBERTY 280	2 PT/A	B		
	AMS	2.5 % V/V	B		
4	TRIVENCE	8 OZ/A	A	28.3 b	5.0 b
	ENLIST ONE	2 PT/A	A		
	LIBERTY 280	2 PT/A	B		
	AMS	2.5 % V/V	B		
5	ZIDUA PRO	6 OZ/A	A	15.0 c	5.0 b
	ENLIST ONE	2 PT/A	A		
	LIBERTY 280	2 PT/A	B		
	AMS	2.5 % V/V	B		
6	AUTHORITY EDGE	6.4 FL OZ/A	A	50.0 a	0.0 c
	ENLIST ONE	2 PT/A	A		
	LIBERTY 280	2 PT/A	B		
	AMS	2.5 % V/V	B		

University of Kentucky

Pest Type	W, Weed	W, Weed
Pest Code	AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Rating Date	7-20-2022	7-20-2022
Part Rated		
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
EDC App		
Rating Timing		
Days After First/Last Applic.	56, 33	56, 33
Trt-Eval Interval		
Plant-Eval Interval	57 DP-1	57 DP-1
Days After Emergence	50 DE-1	50 DE-1
ARM Action Codes		
Number of Decimals		

Trt No.	Treatment Name	Rate	Unit	Appl Code	7	8
7	BOUNDARY	2	PT/A	A	25.0 b	0.0 c
	ENLIST ONE	2	PT/A	A		
	LIBERTY 280	2	PT/A	B		
	AMS	2.5	% V/V	B		
	LSD P=.05				4.19	.
	Standard Deviation				2.36	0.00
	CV				11.65	0.0
	Levene's F^				0.587	.
	Levene's Prob(F)				0.736	.
	Shapiro-Wilk^				0.8902*	.
	P(Shapiro-Wilk)^				0.0227*	.
	Skewness^				1.0038	.
	P(Skewness)^				0.0759	.
	Kurtosis^				3.0733*	.
	P(Kurtosis)^				0.0078*	.
	Replicate F				1.500	0.000
	Replicate Prob(F)				0.2621	1.0000
	Treatment F				136.214	0.000
	Treatment Prob(F)				0.0001	1.0000

University of Kentucky

Valent Actives in a Liberty Link System

Trial ID: 22-23
 Protocol ID: VUSA2022FIERCMD64.01 Location: Cooperator Trial ID:
 Project ID: 202042 Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: TRAVIS LEGLEITER Sponsor Contact: John Cranmer
 Investigator (Creator): Sara Carter

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

IPOSS, Ipomoea sp., Morning glory = 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

Plant-Eval Interval

22 DP-1 = 1 GLXMA 5-24-2022

43 DP-1 = 1 GLXMA 5-24-2022

57 DP-1 = 1 GLXMA 5-24-2022

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

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	Other Rate	Other Rate	Appl Timing	Appl Code	Amt Product to Measure	Rep 1	2	3	4
1	CHECK										101	205	308	409
2	ENGENIA	600.0 GA/L	SL	SL	12.8 fl oz/a	560.0 g ai/ha	VA	A		13.33 mL/mx	102	203	306	404
	SENTRIS	703.0 GA/L	SL	SL	8.0 fl oz/a	410.0 g ai/ha	VA	A		8.333 mL/mx				
3	ZIDUA SC	500.0 GA/L	SC	SC	3.25 fl oz/a	119.0 g ai/ha	VA	A		3.385 mL/mx	103	202	305	403
4	ENGENIA	600.0 GA/L	SL	SL	12.8 fl oz/a	560.0 g ai/ha	VA	A		13.33 mL/mx	104	209	304	402
	ZIDUA SC	500.0 GA/L	SC	SC	3.25 fl oz/a	119.0 g ai/ha	VA	A		3.385 mL/mx				
	SENTRIS	703.0 GA/L	SL	SL	8.0 fl oz/a	410.0 g ai/ha	VA	A		8.333 mL/mx				
5	ZIDUA PRO	490.0 GA/L	SC	SC	6.0 fl oz/a	215.0 g ai/ha	VA	A		6.25 mL/mx	105	208	302	408
6	ENGENIA	600.0 GA/L	SL	SL	12.8 fl oz/a	560.0 g ai/ha	VA	A		13.33 mL/mx	106	201	309	407
	ZIDUA PRO	490.0 GA/L	SC	SC	6.0 fl oz/a	215.0 g ai/ha	VA	A		6.25 mL/mx				
	SENTRIS	703.0 GA/L	SL	SL	8.0 fl oz/a	410.0 g ai/ha	VA	A		8.333 mL/mx				
7	WARRANT ULTRA	3.49 LBA/GAL	CS	CS	50 fl oz/a	1530 g ai/ha	VA	A		52.08 mL/mx	107	206	301	406
8	ENGENIA	600.0 GA/L	SL	SL	12.8 fl oz/a	560.0 g ai/ha	VA	A		13.33 mL/mx	108	204	307	405
	WARRANT ULTRA	3.49 LBA/GAL	CS	CS	50 fl oz/a	1530 g ai/ha	VA	A		52.08 mL/mx				
	SENTRIS	703.0 GA/L	SL	SL	8.0 fl oz/a	410.0 g ai/ha	VA	A		8.333 mL/mx				
9	ENGENIA PRIME	627.9 GA/L	SC	SC	16.0 fl oz/a	734.0 g ai/ha	VA	A		16.67 mL/mx	109	207	303	401

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
66.667	mL	ENGENIA	600.0	GA/L	SL	
41.667	mL	SENTRIS	703.0	GA/L	SL	
8.464	mL	ZIDUA SC	500.0	GA/L	SC	
15.625	mL	ZIDUA PRO	490.0	GA/L	SC	
130.208	mL	WARRANT ULTRA	3.49	LBA/GAL	CS	
20.833	mL	ENGENIA PRIME	627.9	GA/L	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.

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Cooperator Trial ID:

Trial Year: 30

General Trial Information

Investigator: INMAN MATT

Status: E established Usage/Type: 9

ARM Trial Created On: Apr-5-2022

Trial Location

City: Princeton

State/Prov.: Kentucky

Postal Code: 42445

Conducted Under GLP: No

Conducted Under GEP: No

Objectives:

Compare Amaranthus spp. (and other broadleaves) control in soybean with recommended PRE products alone and in combination with Engenia

Role: INVEST investigator

Investigator: INMAN MATT

Role: COOPER cooperator

Cooperator: Traivs Legleiter

Title: UNVCOP

Organization: University of Kentucky

Address 1: 1205 Hopkinsville Street Phone No.: 859-562-1323

City: Princeton

State/Prov: KY

Postal Code: 42445

Crop Description

Crop 1: C GLXMA Glycine max Soybean

Entry Date: Oct-12-2022

Stage Scale: BBCH

Variety: AG38XF1

Attributes: Xtendflex

Planting Date: May-17-2022

Planting Rate: 140000 S/A

Planting Method: PLANTD planted

Row Spacing: 15 IN

Planting Equipment: VP vacuum planter

Soil Temperature: 65 F

Harvested Width: 5 FT

% Standard Moisture: 13.5

Site and Design

Treated Plot Width: 10 FT

Treated Plot Length: 30 FT

Treated Plot Area: 300.0 FT²

Replications: 4

Treatments: 9 Plots: 36

Site Type: FIELD field

Experimental Unit: 1 PLOT plot

Tillage Type: NOTILL no-till

Study Design: RACOB L Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix
1.	Apr-29-2022	HERB	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30	fl oz/a	yes
2.	Apr-29-2022	HERB	2,4-D LV4	4.0	lbae/gal	SL	1	pt/1	yes
3.	May-17-2022	HERB	Gramoxone	3.0	lba/gal	L	3	pt/a	no

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Soil Description

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

Application Description

	A
Application Date	May-17-2022
Appl. Start Time	11:31 AM
Appl. Stop Time	11:58 AM
Application Method	SPRAY
Application Timing	VA
Application Placement	SOIL
Applied By	JLG
Appl. Entry Date	Sep-27-2022
Air Temperature Start, Stop	84, - F
% Relative Humidity Start, Stop	65, -
Wind Velocity+Dir. Start	3 MPH, W
Wind Velocity+Dir. Stop	3 MPH, W
Wind Velocity+Dir. Max	11.4 MPH, W
Wet Leaves (Y/N)	N, no
Soil Temperature	68 F
Soil Moisture	DRY
% Cloud Cover	2

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	GLXMA, BSOY

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Cooperator Trial ID:

Trial Year: 30

Application Equipment

	A
Equipment Type	BACCAI
Operation Pressure	50 PSI
Nozzle Model	TTI 110015
Nozzle Type	TEEJAI
Nozzle TradeName	TEEJET
Nozzle Tip Size, Color	015, Green
Nozzle Spacing	20.0 IN
Boom ID	BLUE
Boom Length	10.0 FT
Boom Height	18.0 IN
Ground Speed	3 MPH
Application Amount	15 GAL/AC
Mix Overage	436.0 mL
Mix Size	2.0 L

Notes

Context	Date	By	Notes
STATUS	Apr-5-2022	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Sep-27-2022	Travis Legleiter	Automatically added by ARM: Trial Status changed to: E: changed by (EKYLET).
STATUS	Sep-27-2022	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.
	Oct-13-2022	Travis Legleiter	The May 26, 2022 rating (7 DAT) for Palmer amaranth was not taken due to a lack of overall emergenc of Palmer in all plots including the untreated check.

SE Definitions

	1.	2.	3.
SE Description	% CONTR OL OF UNTREA TED CHECK	% CONTRO L OF UNTREAT ED CHECK	
Pest Type, Code	-, BBBBB	-, GGGGG	

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ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Pest Type		W, Weed	W, Weed	W, Weed	
Pest Code		AMAPA	AMAPA	AMAPA	
Pest Name		Palmer amaranth	Palmer amaranth	Palmer amaranth	
Crop Type, Code					C, GLXMA
Crop Name					Soybean
Description		control	control	control	plot length
Rating Date		Jun-1-2022	Jun-16-2022	Jul-1-2022	Oct-4-2022
SE Group No.		2	3	4	5
Part Rated		PLANT, P	PLANT, P	PLANT, P	PLOT, C
Rating Type		CONTROL	CONTROL	CONTROL	LENGTH
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	FT, -, -
Reporting Basis					1 PLOT
Number of Subsamples		1	1	1	1
Data Entry Date		Sep-27-2022	Sep-27-2022	Sep-27-2022	Nov-8-2022
Days After First/Last Applic.		15, 15	30, 30	45, 45	140, 140
Trt-Eval Interval		15 DA-A	30 DA-A	45 DA-A	140 DA-A
Plant-Eval Interval		15 DP-1	30 DP-1	45 DP-1	140 DP-1
ARM Action Codes		AA			
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	2	3	4
1	CHECK				
		101	0.0	0.0	0.0
		205	0.0	0.0	0.0
		308	0.0	0.0	0.0
		409	0.0	0.0	0.0
		Mean =	0.0d	0.0	0.0
2	ENGENIA	12.8 fl oz/a A	102	97.0	0.0
	SENTRIS	8.0 fl oz/a A	203	90.0	40.0
			306	100.0	20.0
			404	90.0	10.0
		Mean =	95.9d	17.5	2.5
3	ZIDUA SC	3.25 fl oz/a A	103	95.0	70.0
			202	100.0	70.0
			305	95.0	80.0
			403	90.0	70.0
		Mean =	96.3d	72.5	66.3
4	ENGENIA	12.8 fl oz/a A	104	100.0	90.0
	ZIDUA SC	3.25 fl oz/a A	209	100.0	60.0
	SENTRIS	8.0 fl oz/a A	304	97.0	95.0
			402	97.0	80.0
		Mean =	99.2d	81.3	67.5
5	ZIDUA PRO	6.0 fl oz/a A	105	100.0	97.0
			208	97.0	100.0
			302	95.0	95.0
			408	100.0	100.0
		Mean =	99.0d	98.0	94.3
6	ENGENIA	12.8 fl oz/a A	106	100.0	100.0
	ZIDUA PRO	6.0 fl oz/a A	201	100.0	95.0
	SENTRIS	8.0 fl oz/a A	309	100.0	100.0
			407	95.0	95.0
		Mean =	99.7d	97.5	96.0

d=Means are reported in de-transformed data units

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Pest Type	W, Weed	W, Weed	W, Weed				
Pest Code	AMAPA	AMAPA	AMAPA				
Pest Name	Palmer amaranth	Palmer amaranth	Palmer amaranth				
Crop Type, Code				C, GLXMA			
Crop Name				Soybean			
Description	control	control	control	plot length			
Rating Date	Jun-1-2022	Jun-16-2022	Jul-1-2022	Oct-4-2022			
SE Group No.	2	3	4	5			
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLOT, C			
Rating Type	CONTROL	CONTROL	CONTROL	LENGTH			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	FT, -, -			
Reporting Basis				1 PLOT			
Number of Subsamples	1	1	1	1			
Data Entry Date	Sep-27-2022	Sep-27-2022	Sep-27-2022	Nov-8-2022			
Days After First/Last Applic.	15, 15	30, 30	45, 45	140, 140			
Trt-Eval Interval	15 DA-A	30 DA-A	45 DA-A	140 DA-A			
Plant-Eval Interval	15 DP-1	30 DP-1	45 DP-1	140 DP-1			
ARM Action Codes	AA						
Number of Decimals							
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	2	3			
			4	5			
7	WARRANT ULTRA	50 fl oz/a A	107	100.0	100.0	97.0	27.30
			206	97.0	80.0	70.0	27.30
			301	100.0	100.0	97.0	25.70
			406	100.0	100.0	85.0	26.90
			Mean =	99.8d	95.0	87.3	26.80
8	ENGENIA	12.8 fl oz/a A	108	95.0	90.0	80.0	27.20
	WARRANT ULTRA	50 fl oz/a A	204	100.0	85.0	90.0	27.30
	SENTRIS	8.0 fl oz/a A	307	100.0	85.0	80.0	26.20
			405	95.0	95.0	90.0	27.00
			Mean =	98.7d	88.8	85.0	26.93
9	ENGENIA PRIME	16.0 fl oz/a A	109	100.0	100.0	95.0	26.90
			207	100.0	100.0	97.0	27.50
			303	100.0	97.0	90.0	27.30
			401	100.0	95.0	95.0	28.20
			Mean =	100.0d	98.0	94.3	27.48

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University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Pest Type				
Pest Code				
Pest Name				
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean
Description	WEIGHT	moisture content	TEST WEIGHT	WEIGHT
Rating Date	Oct-4-2022	Oct-4-2022	Oct-4-2022	Oct-4-2022
SE Group No.	6	7	8	9
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	WEIGHT	MOISCON	WEITES	YIELD
Rating Unit/Min/Max	lb, -, -	%, 0, 100	LB/BU, -, -	BU, -, -
Reporting Basis	1 plot	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1
Data Entry Date	Nov-8-2022	Nov-8-2022	Nov-8-2022	
Days After First/Last Applic.	140, 140	140, 140	140, 140	140, 140
Trt-Eval Interval	140 DA-A	140 DA-A	140 DA-A	140 DA-A
Plant-Eval Interval	140 DP-1	140 DP-1	140 DP-1	140 DP-1
ARM Action Codes				ET4 TY1
Number of Decimals				1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	6	7
1 CHECK		101	7.600	9.560
		205	10.210	9.850
		308	11.120	9.810
		409	10.420	9.720
		Mean =	9.838	9.735
2 ENGENIA	12.8 fl oz/a A	102	8.830	9.820
SENTRIS	8.0 fl oz/a A	203	11.250	10.000
		306	11.740	10.200
		404	11.390	10.200
		Mean =	10.803	10.055
3 ZIDUA SC	3.25 fl oz/a A	103	10.780	10.000
		202	10.900	9.880
		305	11.750	10.400
		403	11.260	10.300
		Mean =	11.173	10.145
4 ENGENIA	12.8 fl oz/a A	104	12.390	10.100
ZIDUA SC	3.25 fl oz/a A	209	11.700	10.100
SENTRIS	8.0 fl oz/a A	304	11.960	10.300
		402	11.750	10.000
		Mean =	11.950	10.125
5 ZIDUA PRO	6.0 fl oz/a A	105	10.620	9.930
		208	11.850	10.100
		302	10.410	10.100
		408	12.990	10.100
		Mean =	11.468	10.058
6 ENGENIA	12.8 fl oz/a A	106	11.700	9.960
ZIDUA PRO	6.0 fl oz/a A	201	10.860	9.670
SENTRIS	8.0 fl oz/a A	309	12.350	10.000
		407	12.180	10.100
		Mean =	11.773	9.933
				53.40
				53.80
				53.70
				53.20
				53.78
				53.60
				53.00
				53.80
				53.48
				54.40
				53.60
				53.80
				53.70
				53.88
				54.00
				53.90
				53.40
				53.70
				54.10
				53.40
				53.60
				53.20
				53.58
				54.40
				54.40
				53.70
				52.90
				53.60
				64.1
				58.2
				69.9
				68.6
				65.2

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University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Pest Type				
Pest Code				
Pest Name				
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean
Description	WEIGHT	moisture content	TEST WEIGHT	WEIGHT
Rating Date	Oct-4-2022	Oct-4-2022	Oct-4-2022	Oct-4-2022
SE Group No.	6	7	8	9
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	WEIGHT	MOISCON	WEITES	YIELD
Rating Unit/Min/Max	lb, -, -	%, 0, 100	LB/BU, -, -	BU, -, -
Reporting Basis	1 plot	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1
Data Entry Date	Nov-8-2022	Nov-8-2022	Nov-8-2022	
Days After First/Last Applic.	140, 140	140, 140	140, 140	140, 140
Trt-Eval Interval	140 DA-A	140 DA-A	140 DA-A	140 DA-A
Plant-Eval Interval	140 DP-1	140 DP-1	140 DP-1	140 DP-1
ARM Action Codes				ET4 TY1
Number of Decimals				1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	6	7
			8	9
7	WARRANT ULTRA	50 fl oz/a A	107	11.500
			206	9.960
			301	10.300
			406	9.730
				55.00
				53.20
			Mean =	75.7
				11.625
				10.300
				10.073
				53.80
				65.3
8	ENGENIA	12.8 fl oz/a A	108	11.180
	WARRANT ULTRA	50 fl oz/a A	204	10.200
	SENTRIS	8.0 fl oz/a A	307	10.400
			405	53.20
				69.5
				70.2
				72.3
			Mean =	68.5
				12.240
				10.275
				53.20
				68.9
9	ENGENIA PRIME	16.0 fl oz/a A	109	12.290
			207	10.200
			303	10.200
			401	10.300
				54.20
				68.1
				64.3
				61.7
			Mean =	65.7
				11.955
				10.078
				54.25

d=Means are reported in de-transformed data units

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMAPA, Amaranthus palmeri, Palmer amaranth = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

PLOT = plot

GRAIN = grain

P = Pest is Part Rated

C = Crop is Part Rated

Rating Type

LENGTH = length

WEIGHT = weight

WEITES = weight - test

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

FT, , = foot

lb, , = pound

BU, , = bushel

PLOT = total plot

Plant-Eval Interval

15 DP-1 = 1 GLXMA May-17-2022

30 DP-1 = 1 GLXMA May-17-2022

45 DP-1 = 1 GLXMA May-17-2022

140 DP-1 = 1 GLXMA May-17-2022

ARM Action Codes

AA = Automatic arcsine square root % transformation

ET4 = Excluded treatment 4

TY1 = $(726/(5*[5]))*[6]*(100-[7])/86.5$

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Pest Type	W, Weed AMAPA	W, Weed AMAPA	W, Weed AMAPA				
Pest Code	Palmer amaranth	Palmer amaranth	Palmer amaranth	C, GLXMA Soybean	C, GLXMA Soybean		
Pest Name				plot length	WEIGHT		
Crop Type, Code				5	6		
Crop Name				PLOT, C	GRAIN, C		
Description	control	control	control	LENGTH	WEIGHT		
Rating Date	Jun-1-2022	Jun-16-2022	Jul-1-2022	FT, -, -	lb, -, -		
SE Group No.	2	3	4	1 PLOT	1 plot		
Part Rated	PLANT, P	PLANT, P	PLANT, P	1	1		
Rating Type	CONTROL	CONTROL	CONTROL	1	1		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	140, 140	140, 140		
Reporting Basis				140 DA-A	140 DA-A		
Number of Subsamples	1	1	1	140 DP-1	140 DP-1		
Data Entry Date	Sep-27-2022	Sep-27-2022	Sep-27-2022	140 DP-1	140 DP-1		
Days After First/Last Applic.	15, 15	30, 30	45, 45				
Trt-Eval Interval	15 DA-A	30 DA-A	45 DA-A				
Plant-Eval Interval	15 DP-1	30 DP-1	45 DP-1				
ARM Action Codes	AA						
Number of Decimals							
Trt Treatment	Rate	Appl	2	3	4	5	6
No. Name	Rate Unit	Code	dAA				
1 CHECK			0.0 b	0.0 d	0.0 c	26.63 a	9.838 a
2 ENGENIA	12.8 fl oz/a A		95.9 a	17.5 c	2.5 c	27.05 a	10.803 a
SENTRIS	8.0 fl oz/a A						
3 ZIDUA SC	3.25 fl oz/a A		96.3 a	72.5 b	66.3 b	27.53 a	11.173 a
4 ENGENIA	12.8 fl oz/a A		99.2 a	81.3 ab	67.5 b	27.38 a	11.950 a
ZIDUA SC	3.25 fl oz/a A						
SENTRIS	8.0 fl oz/a A						
5 ZIDUA PRO	6.0 fl oz/a A		99.0 a	98.0 a	94.3 a	26.75 a	11.468 a
6 ENGENIA	12.8 fl oz/a A		99.7 a	97.5 a	96.0 a	27.35 a	11.773 a
ZIDUA PRO	6.0 fl oz/a A						
SENTRIS	8.0 fl oz/a A						
7 WARRANT ULTRA	50 fl oz/a A		99.8 a	95.0 a	87.3 ab	26.80 a	11.625 a
8 ENGENIA	12.8 fl oz/a A		98.7 a	88.8 a	85.0 ab	26.93 a	12.240 a
WARRANT ULTRA	50 fl oz/a A						
SENTRIS	8.0 fl oz/a A						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Pest Type	W, Weed AMAPA	W, Weed AMAPA	W, Weed AMAPA		
Pest Code	Palmer amaranth	Palmer amaranth	Palmer amaranth		
Pest Name				C, GLXMA	C, GLXMA
Crop Type, Code				Soybean	Soybean
Crop Name				plot length	WEIGHT
Description	control	control	control	Oct-4-2022	Oct-4-2022
Rating Date	Jun-1-2022	Jun-16-2022	Jul-1-2022	5	6
SE Group No.	2	3	4	5	6
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLOT, C	GRAIN, C
Rating Type	CONTROL	CONTROL	CONTROL	LENGTH	WEIGHT
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	FT, -, -	lb, -, -
Reporting Basis				1 PLOT	1 plot
Number of Subsamples	1	1	1	1	1
Data Entry Date	Sep-27-2022	Sep-27-2022	Sep-27-2022	Nov-8-2022	Nov-8-2022
Days After First/Last Applic.	15, 15	30, 30	45, 45	140, 140	140, 140
Trt-Eval Interval	15 DA-A	30 DA-A	45 DA-A	140 DA-A	140 DA-A
Plant-Eval Interval	15 DP-1	30 DP-1	45 DP-1	140 DP-1	140 DP-1
ARM Action Codes	AA				
Number of Decimals					
Trt Treatment	2	3	4	5	6
No. Name	dAA				
9 ENGENIA PRIME	100.0 a	98.0 a	94.3 a	27.48 a	11.955 a
LSD P=.05	2.43 - 3.89	13.31	18.35	0.667	1.4756
Standard Deviation	6.15t	9.12	12.58	0.457	1.0111
CV	8.21t	12.66	19.09	1.69	8.85
Levene's F^	1.155	1.82	1.60	0.886	0.404
Levene's Prob(F)	0.361	0.117	0.171	0.541	0.908
Shapiro-Wilk^	0.9719	0.9078*	0.8938*	0.9554	0.9594
P(Shapiro-Wilk)^	0.479	0.0056*	0.0023*	0.155	0.206
Skewness^	0.1995	0.1712	-1.3082*	-0.6984	-0.7435
P(Skewness)^	0.6284	0.6778	0.0029*	0.0963	0.0774
Kurtosis^	-0.5294	3.4901*	5.0345*	0.1344	0.7473
P(Kurtosis)^	0.5123	0.0001*	0.0*	0.8675	0.3565
Replicate F	0.957	0.405	0.469	7.247	2.285
Replicate Prob(F)	0.4288	0.7511	0.7065	0.0013	0.1045
Treatment F	85.048	66.394	36.980	2.224	2.130
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0621	0.0728

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 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FI-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Pest Type			
Pest Code			
Pest Name			
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA
Crop Name	Soybean	Soybean	Soybean
Description	moisture content	TEST WEIGHT	WEIGHT
Rating Date	Oct-4-2022	Oct-4-2022	Oct-4-2022
SE Group No.	7	8	9
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	MOISCON	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	LB/BU, -, -	BU, -, -
Reporting Basis	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1
Data Entry Date	Nov-8-2022	Nov-8-2022	
Days After First/Last Applic.	140, 140	140, 140	140, 140
Trt-Eval Interval	140 DA-A	140 DA-A	140 DA-A
Plant-Eval Interval	140 DP-1	140 DP-1	140 DP-1
ARM Action Codes			ET4 TY1
Number of Decimals			1
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
1 CHECK			
2 ENGENIA	12.8 fl oz/a A		
SENTRIS	8.0 fl oz/a A		
3 ZIDUA SC	3.25 fl oz/a A		
4 ENGENIA	12.8 fl oz/a A		
ZIDUA SC	3.25 fl oz/a A		
SENTRIS	8.0 fl oz/a A		
5 ZIDUA PRO	6.0 fl oz/a A		
6 ENGENIA	12.8 fl oz/a A		
ZIDUA PRO	6.0 fl oz/a A		
SENTRIS	8.0 fl oz/a A		
7 WARRANT ULTRA	50 fl oz/a A		
8 ENGENIA	12.8 fl oz/a A		
WARRANT ULTRA	50 fl oz/a A		
SENTRIS	8.0 fl oz/a A		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Pest Type			
Pest Code			
Pest Name			
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA
Crop Name	Soybean	Soybean	Soybean
Description	moisture content	TEST WEIGHT	WEIGHT
Rating Date	Oct-4-2022	Oct-4-2022	Oct-4-2022
SE Group No.	7	8	9
Part Rated	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	MOISCON	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	LB/BU, -, -	BU, -, -
Reporting Basis	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1
Data Entry Date	Nov-8-2022	Nov-8-2022	
Days After First/Last Applic.	140, 140	140, 140	140, 140
Trt-Eval Interval	140 DA-A	140 DA-A	140 DA-A
Plant-Eval Interval	140 DP-1	140 DP-1	140 DP-1
ARM Action Codes			ET4 TY1
Number of Decimals			1
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
9 ENGENIA PRIME	16.0 fl oz/a A		
	7	8	9
	10.078 a	54.25 a	65.7 a
LSD P=.05	0.2903	0.672	8.34
Standard Deviation	0.1989	0.461	5.67
CV	1.98	0.86	8.96
Levene's F^	0.912	0.259	0.514
Levene's Prob(F)	0.521	0.974	0.815
Shapiro-Wilk^	0.9136*	0.9191*	0.9524
P(Shapiro-Wilk)^	0.0082*	0.0118*	0.1687
Skewness^	-1.1229*	1.0344*	-0.6413
P(Skewness)^	0.0094*	0.016*	0.1493
Kurtosis^	1.4325	0.8245	0.2225
P(Kurtosis)^	0.0819	0.3096	0.7945
Replicate F	0.937	0.857	2.455
Replicate Prob(F)	0.4382	0.4769	0.0914
Treatment F	2.269	1.589	1.957
Treatment Prob(F)	0.0577	0.1804	0.1105

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

^Calculated from residual.

d=Means are reported in de-transformed data units

University of Kentucky

ENGENIA PRE WEED CONTROL IN SOYBEAN

Trial ID: 22-27_SOY-REC Cooperator Trial ID:
 Protocol ID: MKD-FH-2022-US-D38-A-01.0 Location: UKREC Trial Year: 30
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Travis Legleiter

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMAPA, Amaranthus palmeri, Palmer amaranth = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

PLOT = plot

GRAIN = grain

P = Pest is Part Rated

C = Crop is Part Rated

Rating Type

LENGTH = length

WEIGHT = weight

WEITES = weight - test

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

FT, , = foot

lb, , = pound

BU, , = bushel

PLOT = total plot

Plant-Eval Interval

15 DP-1 = 1 GLXMA May-17-2022

30 DP-1 = 1 GLXMA May-17-2022

45 DP-1 = 1 GLXMA May-17-2022

140 DP-1 = 1 GLXMA May-17-2022

ARM Action Codes

AA = Automatic arcsine square root % transformation

ET4 = Excluded treatment 4

TY1 = $(726/(5*[5]))*[6]*(100-[7])/86.5$

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

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=400 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Code	Appl Description	Amt Product to Measure	Rep 1	2	3	4
1	UNTREATED CHECK							Untreated Check		101	207	308	407
2	AUTHORITY EDGE	4.25 LB/GAL		SC	7 fl oz/a	A		PREEMERGENCE	7.292 mL/mx	102	208	306	402
3	AUTHORITY EDGE	4.25 LB/GAL		SC	9 fl oz/a	A		PREEMERGENCE	9.375 mL/mx	103	206	305	404
4	AUTHORITY EDGE METRIBUZIN	4.25 LB/GAL 75 %		SC WG	7 fl oz/a 5 oz/a	A A		PREEMERGENCE PREEMERGENCE	7.292 mL/mx 4.993 g/mx	104	203	304	401
5	AUTHORITY SUPREME	4.16 LB/GAL		SC	7 oz/a	A		PREEMERGENCE	7.292 mL/mx	105	202	309	412
6	AUTHORITY EDGE ANTHEM MAXX ENGENIA Roundup PowerMAX 3	4.25 LB/GAL 4.3 LB/GAL 5 LBAE/GAL 4.8 LBAE/GAL		SC SC L SL	7 fl oz/a 4 fl oz/a 12.8 fl oz/a 30 fl oz/a	A B B B		PREEMERGENCE EPOST 21 DAA-A EPOST 21 DAA-A EPOST 21 DAA-A	7.292 mL/mx 4.167 mL/mx 13.33 mL/mx 31.25 mL/mx	106	210	303	406
7	BOUNDARY 6.5EC	6.5 LB/GAL		EC	29 fl oz/a	A		PREEMERGENCE	30.21 mL/mx	107	212	302	408
8	KYBER	2.64 LB/GAL		SC	16 fl oz/a	A		PREEMERGENCE	16.67 mL/mx	108	209	311	410
9	ANTHEM MAXX	4.3 LB/GAL		SC	4 fl oz/a	A		PREEMERGENCE	4.167 mL/mx	109	211	301	405
10	WARRANT	3 LB/GAL		MS	48 oz/a	A		PREEMERGENCE	50.0 mL/mx	110	201	307	411
11	DUAL II MAGNUM (7.64EC)	7.64 LB/GAL		EC	21 fl oz/a	A		PREEMERGENCE	21.87 mL/mx	111	204	312	403
12	OUTLOOK (6EC)	6 LB/GAL		EC	14 fl oz/a	A		PREEMERGENCE	14.58 mL/mx	112	205	310	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
39.062	mL	AUTHORITY EDGE	4.25	LB/GAL	SC	
6.241	g	METRIBUZIN	75	%	WG	
9.115	mL	AUTHORITY SUPREME	4.16	LB/GAL	SC	
10.417	mL	ANTHEM MAXX	4.3	LB/GAL	SC	
16.667	mL	ENGENIA	5	LBAE/GAL	L	
39.062	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	
37.760	mL	BOUNDARY 6.5EC	6.5	LB/GAL	EC	
20.833	mL	KYBER	2.64	LB/GAL	SC	
62.500	mL	WARRANT	3	LB/GAL	MS	
27.344	mL	DUAL II MAGNUM (7.64EC)	7.64	LB/GAL	EC	
18.229	mL	OUTLOOK (6EC)	6	LB/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.

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

General Trial Information

Study Director: COPELAND, J.
Investigator: Travis Legleiter **Title:** Assistant Extension Professor

Discipline: H herbicide
Status: E established

ARM Trial Created On: Apr-5-2022

Conducted Under GLP: No

Conducted Under GEP: No

Objectives:

Differentiate Authority Supreme/Edge and Anthem Maxx from competitive offerings by evaluating length of residual weed control on Palmer amaranth, waterhemp, grassy weeds, morningglory ssp., and other difficult to control weeds.

Contacts

Role: STYDIR study director
Study Director: COPELAND, J.
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
Role: SPONSR sponsor
Sponsor: Drake Copeland

Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: Oct-12-2022 **Stage Scale:** BBCH
Variety: AG38XF1
Attributes: XtendFlex
Planting Date: May-17-2022 **Planting Rate:** 140000 S/A
Depth: 1 IN
Planting Method: PLANTD planted
Harvested Width: 5 FT
% Standard Moisture: 13.5

Pest Description

Pest 1 Type: W **Code:** EPHNU Euphorbia nutans **Entry Date:** Oct-12-2022
Common Name: Eyebane **Stage Scale:** BBCH

Pest 2 Type: W **Code:** AMACH Amaranthus hybridus **Entry Date:** Oct-12-2022
Common Name: smooth pigweed **Stage Scale:** BBCH

Pest 3 Type: W **Code:** AMARE Amaranthus retroflexus **Entry Date:** Oct-12-2022
Common Name: Redroot pigweed **Stage Scale:** BBCH

Pest 4 Type: W **Code:** AMAPA Amaranthus palmeri **Entry Date:** Oct-12-2022
Common Name: Palmer amaranth **Stage Scale:** BBCH

Pest 5 Type: W **Code:** ELEIN Eleusine indica **Entry Date:** Oct-12-2022
Common Name: Goosegrass **Stage Scale:** BBCH

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

Site and Design

Treated Plot Width: 10 FT
 Treated Plot Length: 30 FT
 Treated Plot Area: 300.0 FT²
 Replications: 4 Treatments: 12 Plots: 48

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

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix
1.	Apr-29-2022	HERB	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30	fl oz/a	yes
2.	Apr-29-2022	HERB	2,4-D LV4	4	lbae/gal	SL	1	pt/1	yes
3.	May-17-2022	HERB	Gramoxone	3.0	lba/gal	L	3	pt/a	no

Soil Description

Description Name: 505-D4
 % Sand: 15 % OM: 2.5 Texture: SIL silt loam
 % Silt: 73 Soil Name: Sadler Silt Loam
 % Clay: 12.1
 pH: 6.27

Application Description

	A	B
Application Date	May-17-2022	Jun-9-2022
Appl. Start Time	10:40 AM	10:45 AM
Appl. Stop Time	11:23 AM	10:47 AM
Application Method	SPRAY	SPRAY
Application Timing	PREPRE	EAPOWE
Application Placement	soil	foliar
Applied By	JLG	JLG
Appl. Entry Date	Oct-12-2022	Oct-12-2022
Air Temperature Start, Stop	80.4, 84 F	75.4, 74.7 F
% Relative Humidity Start, Stop	41, 65	54.9, 52.2
Wind Velocity+Dir. Start	2.6 MPH, WSW	7 MPH, N
Wind Velocity+Dir. Stop	3 MPH, W	5 MPH, N
Wind Velocity+Dir. Max	11.4 MPH, W	10 MPH, N
Wet Leaves (Y/N)	N, no	N, no
Soil Temperature	69 F	80.3 F
Soil Moisture	DRY	DRY
% Cloud Cover	24	0

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter

Conducted Under GEP: No

Protocol Application Directions:

APPLICATION DIRECTIONS:

PRE - PREEMERGENCE OF WEEDS AND CROP; APPLY DIRECTLY AFTER PLANTING UP TO THREE DAYS AFTER PLANTING,

DO NOT APPLY TO EMERGED SOYBEANS

USE APPROPRIATE NOZZLES AND CARRIER VOLUME TO ENSURE ADEQUATE COVERAGE
 POST APPLICATIONS CAN BE APPLIED AFTER (35 DAA) ASSESSMENT TO CLEAN UP ESCAPES.
 DO NOT ADD RESIDUAL PRODUCT TO THIS OVERSPRAY, EXCEPTION IS TREATMENT THAT INCLUDES ANTHEM MAXX IN POST.

FINAL % CONTROL RATING 56 DAA

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		V2, -
Height Average		5.5 IN
Height Minimum, Maximum		5, 6

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	EPHNU, W, BBCH	EPHNU, W, BBCH
Height Minimum, Maximum		2.25, 2.25
Density Minimum, Maximum		0, 1
Pest 2 Code, Type, Scale	AMACH, W, BBCH	AMACH, W, BBCH
Height Minimum, Maximum		1.5, 1.5
Density Minimum, Maximum		0, 1
Pest 3 Code, Type, Scale	AMARE, W, BBCH	AMARE, W, BBCH
Height Minimum, Maximum		0.25, 0.25
Density Minimum, Maximum		0, 1
Pest 4 Code, Type, Scale	AMAPA, W, BBCH	AMAPA, W, BBCH
Height Average		1.875 IN
Height Minimum, Maximum		0.75, 3
Density Average		2 FT ²
Density Minimum, Maximum		1, 3
Pest 5 Code, Type, Scale	ELEIN, W, BBCH	ELEIN, W, BBCH
Height Average		0.875 IN
Height Minimum, Maximum		0.75, 1
Density Average		1 ft ²
Density Minimum, Maximum		0, 2

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

Application Equipment

	A	B
Equipment Type	BACCAI	BACCAI
Operation Pressure	32 PSI	50 PSI
Nozzle Model	XR11002	TTI 110015
Nozzle Type	FLAFXR	TEEJAI
Nozzle TradeName	XR TeeJet	TEEJET
Nozzle Tip Size, Color	02, Yellow	015, Green
Nozzle Spacing	20.0 IN	20.0 IN
Boom ID	BLUE	BLUE
Boom Length	10.0 FT	10.0 FT
Boom Height	18.0 IN	18.0 IN
Ground Speed	3 KPH	3 MPH
Application Amount	15 GAL/AC	15 GAL/AC
Mix Overage	25.0 %	25.0 %
Mix Size	2.0 L	2.0 L
Propellant	COMCO2	COMCO2

Notes

Context	Date	By	Notes
STATUS	Apr-5-2022	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Oct-12-2022	Travis Legleiter	Automatically added by ARM: Status changed to: E: changed by (EKYLET).
STATUS	Oct-12-2022	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.
	Oct-13-2022	Travis Legleiter	The May 26, 2022 rating (7 DAT) for Palmer amaranth was not taken due to a lack of overall emergenc of Palmer in all plots including the untreated check.

Instructions:

GENERAL

TITLE OBJECTIVE

Evaluating **Authority Supreme/Edge and Anthem Maxx** for Residual Weed Control in **Soybeans**
 Differentiate Authority Supreme/Edge and Anthem Maxx from competitive offerings by evaluating length of residual weed control on Palmer amaranth, waterhemp, grassy weeds, morningglory spp., and other difficult to control weeds.

PROTOCOL COORDINATOR OWNER TRIAL TYPE

Drake Copeland
 Drake Copeland
 H-Herbicide

TRIAL LAYOUT/DESIGN

DESIGN REPS PLOT WIDTH/LENGTH PLOT AREA

RCB
 4
 10 x 30 ft
 300 ft sq

TIMING (APPL)

TIMING No.	CODE	DESCRIPTION	MIN APPS	APP INTERVAL	MAX APPS	SPRAYER DEFAULT
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University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
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 Investigator (Creator): Travis Legleiter

Conducted Under GEP: No

0	UNTRCHK	Untreated Timing	0	0	0	
A = 1	PREPRE	PREEMERGENCE	1	0	1	
B = 2	EAPOWE	V3 Soybeans	1	0	1	

Comments:
APPLICATION DIRECTIONS:
 PRE - PREEMERGENCE OF WEEDS AND CROP; APPLY DIRECTLY AFTER PLANTING UP TO THREE DAYS AFTER PLANTING, DO NOT APPLY TO EMERGED SOYBEANS
 USE APPROPRIATE NOZZLES AND CARRIER VOLUME TO ENSURE ADEQUATE COVERAGE
 POST APPLICAITONS CAN BE APPLIED AFTER (35 DAA) ASSESSMENT TO CLEAN UP ESCAPES.
 DO NOT ADD RESIDUAL PRODUCT TO THIS OVERPSRAY, EXCEPTION IS TREATMENT THAT INCLUDES ANTHEM MAXX IN POST.
 FINAL % CONTROL RATING 56 DAA

TREATMENTS

NO.	TRT.	DESCRIPTION	PART	COMPONENT	LOT#	RATE	UNIT	FORM_CONC	TIMING(APPL)
1	999	Untreated Check	A						0|UNTRCHK
2	2	Authority Supreme (8 fl oz/A)	A	AUTHORITY SUPR		8	fl ozP/ac	SC 500 g/L	1|PREPRE
3	3	Authority Supreme (7 fl oz/A) + metribuzin (5 oz/A)	A	AUTHORITY SUPR		7	fl ozP/ac	SC 500 g/L	1|PREPRE
			B	METRIBUZIN		5	ozP/ac	WG 75 %w/w	1|PREPRE
4	4	Authority Supreme (6.5) fb Anthem Maxx (2.5)	A	AUTHORITY SUPR		6.50	fl ozP/ac	SC 500 g/L	1|PREPRE
			B	ANTHEM MAXX		2.50	fl ozP/ac	SC 4.3000 lb/gal	2|EAPOWE
5	800	Boundary (29 fl oz/A)	A	BOUNDARY (6.5EC)		29	fl ozP/ac	EC 6.50 lb/gal	1|PREPRE
6	801	Zidua Pro (6 fl oz/A)	A	ZIDUA PRO		6	fl ozP/ac	SC 4.09 lb/gal	1|PREPRE
7	803	Kyber 16 fl oz/A	A	KYBER		16	fl ozP/ac	SC 2.64 lb/gal	1|PREPRE
8	8	Anthem Maxx (4 fl oz/A)	A	ANTHEM MAXX		4	fl ozP/ac	SC 4.3000 lb/gal	1|PREPRE
9	804	Warrant (48 fl oz/A)	A	WARRANT		48	ozP/ac	MIC 3 lb/gal	1|PREPRE
10	805	Outlook (14 fl oz/A)	A	OUTLOOK (6EC)		14	fl ozP/ac	EC 6 lb/gal	1|PREPRE
11	806	Dual II Magnum (20.8 fl oz/A)	A	DUAL II MAGNUM (7.64EC)		20.80	fl ozP/ac	EC 7.64 lb/gal	1|PREPRE
12	12	Authority Edge (8 fl oz/A)	A	AUTHORITY EDGE		8	fl ozP/ac	SC 4.25 lb/gal	1|PREPRE
13	13	Authority Edge (7 fl oz/A) + metribuzin (5 oz/A)	A	AUTHORITY EDGE		7	fl ozP/ac	SC 4.25 lb/gal	1|PREPRE
			B	METRIBUZIN		5	ozP/ac	WG 75 %w/w	1|PREPRE
14	14	Authority Edge (7) fb Anthem Maxx (3.1)	A	AUTHORITY EDGE		7	fl ozP/ac	SC 4.25 lb/gal	1|PREPRE
			B	ANTHEM MAXX		3.10	fl ozP/ac	SC 4.3000 lb/gal	2|EAPOWE
15	15	Authority First (6.4 oz/A)	A	AUTHORITYFIRST		6.40	ozP/ac	WG 70.00 % w/w	1|PREPRE

Data to Collect:

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

Pest Type			W, Weed	W, Weed		
Pest Code			AMAPA	AMAPA		
Pest Scientific Name			Amaranthus palm>	Amaranthus palm>		
Pest Name			Palmer amaranth	Palmer amaranth		
Crop Type, Code	C, GLXMA	C, GLXMA				
BBCH Scale	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max				
Crop Name	Soybean	Soybean				
Rating Date	May-26-2022	Jun-1-2022	Jun-1-2022	Jun-16-2022		
SE Group No.	11	13	14	15		
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P		
Rating Type	PHYGEN	PHYGEN	CONTROL	CONTROL		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size						
Number of Subsamples	1	1	1	1		
Data Entry Date	Oct-13-2022	Oct-13-2022	Oct-13-2022	Oct-13-2022		
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Days After First/Last Applic.	9, 9	15, 15	15, 15	30, 7		
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot	1	3		
			4	5		
1	UNTREATED CHECK	101	0.0	0.0	0.0	0.0
		207	0.0	0.0	0.0	0.0
		308	0.0	0.0	0.0	0.0
		407	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0
2	AUTHORITY EDGE	7 fl oz/a A 102	0.0	0.0	100.0	100.0
		208	0.0	0.0	100.0	70.0
		306	0.0	0.0	100.0	97.0
		402	0.0	0.0	100.0	80.0
		Mean =	0.0	0.0	100.0	86.8
3	AUTHORITY EDGE	9 fl oz/a A 103	0.0	0.0	100.0	95.0
		206	0.0	0.0	100.0	90.0
		305	0.0	0.0	100.0	95.0
		404	0.0	0.0	100.0	97.0
		Mean =	0.0	0.0	100.0	94.3
4	AUTHORITY EDGE	7 fl oz/a A 104	0.0	0.0	100.0	97.0
	METRIBUZIN	5 oz/a A 203	0.0	0.0	100.0	75.0
		304	0.0	0.0	100.0	90.0
		401	0.0	0.0	100.0	50.0
		Mean =	0.0	0.0	100.0	78.0
5	AUTHORITY SUPREME	7 oz/a A 105	0.0	0.0	100.0	97.0
		202	0.0	0.0	100.0	80.0
		309	0.0	0.0	100.0	95.0
		412	0.0	0.0	97.0	90.0
		Mean =	0.0	0.0	99.3	90.5
6	AUTHORITY EDGE	7 fl oz/a A 106	0.0	0.0	100.0	100.0
	ANTHEM MAXX	4 fl oz/a B 210	0.0	0.0	100.0	100.0
	ENGENIA	12.8 fl oz/a B 303	0.0	0.0	100.0	100.0
	Roundup PowerMAX 3	30 fl oz/a B 406	0.0	0.0	97.0	97.0
		Mean =	0.0	0.0	99.3	99.3

d=Means are reported in de-transformed data units

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

				W, Weed AMAPA		W, Weed AMAPA	
				Amaranthus palm> Palmer amaranth		Amaranthus palm> Palmer amaranth	
Pest Type							
Pest Code							
Pest Scientific Name							
Pest Name							
Crop Type, Code		C, GLXMA	C, GLXMA				
BBCH Scale		BSOY	BSOY				
Crop Scientific Name		Glycine max	Glycine max				
Crop Name		Soybean	Soybean				
Rating Date		May-26-2022	Jun-1-2022	Jun-1-2022		Jun-16-2022	
SE Group No.		11	13	14		15	
Part Rated		PLANT, C	PLANT, C	PLANT, P		PLANT, P	
Rating Type		PHYGEN	PHYGEN	CONTROL		CONTROL	
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100		%, 0, 100	
Sample Size							
Number of Subsamples		1	1	1		1	
Data Entry Date		Oct-13-2022	Oct-13-2022	Oct-13-2022		Oct-13-2022	
EDC App		Rating Shell	Rating Shell	Rating Shell		Rating Shell	
Days After First/Last Applic.		9, 9	15, 15	15, 15		30, 7	
ARM Action Codes							
Number of Decimals							
Trt No.	Treatment Name	Rate	Appl Code	1	3	4	5
7	BOUNDARY 6.5EC	29 fl oz/a	A				
			107	0.0	0.0	100.0	80.0
			212	0.0	0.0	100.0	60.0
			302	0.0	0.0	100.0	65.0
			408	0.0	0.0	100.0	60.0
			Mean =	0.0	0.0	100.0	66.3
8	KYBER	16 fl oz/a	A				
			108	0.0	0.0	100.0	97.0
			209	0.0	0.0	100.0	90.0
			311	0.0	0.0	100.0	90.0
			410	0.0	0.0	100.0	85.0
			Mean =	0.0	0.0	100.0	90.5
9	ANTHEM MAXX	4 fl oz/a	A				
			109	0.0	0.0	100.0	60.0
			211	0.0	0.0	100.0	90.0
			301	0.0	0.0	100.0	70.0
			405	0.0	0.0	100.0	75.0
			Mean =	0.0	0.0	100.0	73.8
10	WARRANT	48 oz/a	A				
			110	0.0	0.0	100.0	90.0
			201	0.0	0.0	100.0	80.0
			307	0.0	0.0	100.0	100.0
			411	0.0	0.0	100.0	70.0
			Mean =	0.0	0.0	100.0	85.0
11	DUAL II MAGNUM (7.64EC)	21 fl oz/a	A				
			111	0.0	0.0	100.0	65.0
			204	0.0	0.0	100.0	97.0
			312	0.0	0.0	100.0	0.0
			403	0.0	0.0	100.0	70.0
			Mean =	0.0	0.0	100.0	58.0
12	OUTLOOK (6EC)	14 fl oz/a	A				
			112	0.0	0.0	100.0	50.0
			205	0.0	0.0	100.0	50.0
			310	0.0	0.0	100.0	50.0
			409	0.0	0.0	100.0	0.0
			Mean =	0.0	0.0	100.0	37.5

d=Means are reported in de-transformed data units

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans			
Trial ID: 22-28_SOY-REC		Cooperator Trial ID:	
Protocol ID: USA-22-069	Location: UKREC	Trial Year: 2022	
Project ID: Project ID 2: Project ID 3:			
Study Director: COPELAND, J. Sponsor Contact: Drake Copeland			
Investigator (Creator): Travis Legleiter		Conducted Under GEP: No	

Pest Type	W, Weed	W, Weed	C, GLXMA	C, GLXMA
Pest Code	AMAPA	AMAPA	BSOY	BSOY
Pest Scientific Name	Amaranthus palm>	Amaranthus palm>	Glycine max	Glycine max
Pest Name	Palmer amaranth	Palmer amaranth	Soybean	Soybean
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date	Jun-23-2022	Jul-13-2022	Oct-5-2022	Oct-5-2022
SE Group No.	16	17	18	19
Part Rated	PLANT, P	PLANT, P	GRAIN, C	GRAIN, C
Rating Type	CONTROL	CONTROL	WEIGHT	MOICON
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	LB, -, -	%, 0, 100
Sample Size			1 plot	1 PLOT
Number of Subsamples	1	1	1	1
Data Entry Date	Oct-13-2022	Oct-13-2022	Nov-8-2022	Nov-8-2022
EDC App	Rating Shell	Rating Shell		
Days After First/Last Applic.	37, 14	57, 34	141, 118	141, 118
ARM Action Codes		AA	ER1	
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot		
			6	7
			8	9
1 UNTREATED CHECK		101	0.0	0.0
		207	0.0	0.0
		308	0.0	0.0
		407	0.0	0.0
		Mean =	0.0	0.0d
2 AUTHORITY EDGE	7 fl oz/a A	102	95.0	90.0
		208	60.0	70.0
		306	97.0	85.0
		402	80.0	90.0
		Mean =	83.0	84.5d
3 AUTHORITY EDGE	9 fl oz/a A	103	90.0	95.0
		206	90.0	85.0
		305	95.0	90.0
		404	97.0	97.0
		Mean =	93.0	92.4d
4 AUTHORITY EDGE	7 fl oz/a A	104	95.0	95.0
METRIBUZIN	5 oz/a A	203	75.0	70.0
		304	90.0	88.0
		401	60.0	50.0
		Mean =	80.0	78.2d
5 AUTHORITY SUPREME	7 oz/a A	105	90.0	97.0
		202	90.0	65.0
		309	90.0	80.0
		412	95.0	80.0
		Mean =	91.3	82.3d
6 AUTHORITY EDGE	7 fl oz/a A	106	97.0	98.0
ANTHEM MAXX	4 fl oz/a B	210	97.0	97.0
ENGENIA	12.8 fl oz/a B	303	100.0	98.0
Roundup PowerMAX 3	30 fl oz/a B	406	97.0	97.0
		Mean =	97.8	97.5d

d=Means are reported in de-transformed data units

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans			
Trial ID: 22-28_SOY-REC		Cooperator Trial ID:	
Protocol ID: USA-22-069	Location: UKREC	Trial Year: 2022	
Project ID: Project ID 2: Project ID 3:			
Study Director: COPELAND, J. Sponsor Contact: Drake Copeland			
Investigator (Creator): Travis Legleiter		Conducted Under GEP: No	

Pest Type	W, Weed AMAPA	W, Weed AMAPA	C, GLXMA BSOY	C, GLXMA BSOY		
Pest Code	Amaranthus palm>	Amaranthus palm>	Glycine max	Glycine max		
Pest Scientific Name	Palmer amaranth	Palmer amaranth	Soybean	Soybean		
Pest Name						
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date	Jun-23-2022	Jul-13-2022	Oct-5-2022	Oct-5-2022		
SE Group No.	16	17	18	19		
Part Rated	PLANT, P	PLANT, P	GRAIN, C	GRAIN, C		
Rating Type	CONTROL	CONTROL	WEIGHT	MOICON		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	LB, -, -	%, 0, 100		
Sample Size			1 plot	1 PLOT		
Number of Subsamples	1	1	1	1		
Data Entry Date	Oct-13-2022	Oct-13-2022	Nov-8-2022	Nov-8-2022		
EDC App	Rating Shell	Rating Shell				
Days After First/Last Applic.	37, 14	57, 34	141, 118	141, 118		
ARM Action Codes		AA	ER1			
Number of Decimals						
Trt Treatment No. Name	Rate Rate Unit	Appl Code Plot	6	7	8	9
7 BOUNDARY 6.5EC	29 fl oz/a A	107	80.0	85.0		
		212	50.0	40.0	7.360	8.850
		302	50.0	75.0	8.150	8.240
		408	50.0	10.0	7.230	8.370
		Mean =	57.5	52.1d	7.580	8.483
8 KYBER	16 fl oz/a A	108	90.0	80.0		8.710
		209	90.0	75.0	9.340	8.790
		311	80.0	60.0	6.820	8.040
		410	90.0	80.0	7.260	7.730
		Mean =	87.5	74.1d	7.807	8.318
9 ANTHEM MAXX	4 fl oz/a A	109	50.0	50.0		7.960
		211	85.0	60.0	4.050	8.280
		301	60.0	70.0	7.360	7.010
		405	60.0	85.0	9.770	8.850
		Mean =	63.8	67.0d	7.060	8.025
10 WARRANT	48 oz/a A	110	70.0	80.0		8.510
		201	70.0	50.0	7.670	7.120
		307	90.0	80.0	9.110	8.600
		411	80.0	60.0	8.370	8.530
		Mean =	77.5	68.2d	8.383	8.190
11 DUAL II MAGNUM (7.64EC)	21 fl oz/a A	111	50.0	60.0		8.010
		204	95.0	65.0	9.710	9.290
		312	20.0	0.0	4.620	7.280
		403	70.0	50.0	10.160	8.900
		Mean =	58.8	36.8d	8.163	8.370
12 OUTLOOK (6EC)	14 fl oz/a A	112	20.0	40.0		8.290
		205	60.0	0.0	7.370	9.200
		310	55.0	20.0	6.110	7.220
		409	0.0	20.0	7.140	7.790
		Mean =	33.8	15.4d	6.873	8.125

d=Means are reported in de-transformed data units

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct-5-2022	Oct-5-2022	Oct-5-2022
SE Group No.	20	21	22
Part Rated	GRAIN, C	PLOT, C	GRAIN, C
Rating Type	WEITES	LENGTH	YIELD
Rating Unit/Min/Max	LB/BU, -, -	FT, -, -	BU, -, -
Sample Size		1 PLOT	1 A
Number of Subsamples	1	1	1
Data Entry Date	Nov-8-2022	Nov-8-2022	
EDC App			
Days After First/Last Applic.	141, 118	141, 118	141, 118
ARM Action Codes			ER2 TY1
Number of Decimals			1
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			10 11 12
1 UNTREATED CHECK		101	54.80 27.90 39.6
		207	53.30 25.30
		308	54.40 26.40 41.1
		407	54.90 27.00 41.7
		Mean =	54.35 26.65 40.8
2 AUTHORITY EDGE	7 fl oz/a A	102	53.80 27.60 47.9
		208	53.90 26.40
		306	55.00 26.40 52.9
		402	53.90 27.20 57.7
		Mean =	54.15 26.90 52.9
3 AUTHORITY EDGE	9 fl oz/a A	103	54.20 27.30 49.2
		206	54.80 26.30
		305	54.20 26.30 57.1
		404	54.70 27.50 59.8
		Mean =	54.48 26.85 55.3
4 AUTHORITY EDGE	7 fl oz/a A	104	54.50 27.30 52.9
METRIBUZIN	5 oz/a A	203	54.40 26.40
		304	53.67* 26.30*
		401	54.50 26.60 51.8
		Mean =	54.27 26.65 51.1
5 AUTHORITY SUPREME	7 oz/a A	105	55.60 27.80 51.0
		202	53.60 26.60
		309	54.70 27.10 45.6
		412	55.10 25.90 49.4
		Mean =	54.75 26.85 48.7
6 AUTHORITY EDGE	7 fl oz/a A	106	54.80 27.50 58.5
ANTHEM MAXX	4 fl oz/a B	210	54.60 25.70
ENGENIA	12.8 fl oz/a B	303	54.60 26.80 56.2
Roundup PowerMAX 3	30 fl oz/a B	406	55.10 27.40 49.9
		Mean =	54.78 26.85 54.9

d=Means are reported in de-transformed data units

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct-5-2022	Oct-5-2022	Oct-5-2022
SE Group No.	20	21	22
Part Rated	GRAIN, C	PLOT, C	GRAIN, C
Rating Type	WEITES	LENGTH	YIELD
Rating Unit/Min/Max	LB/BU, -, -	FT, -, -	BU, -, -
Sample Size		1 PLOT	1 A
Number of Subsamples	1	1	1
Data Entry Date	Nov-8-2022	Nov-8-2022	
EDC App			
Days After First/Last Applic.	141, 118	141, 118	141, 118
ARM Action Codes			ER2 TY1
Number of Decimals			1
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			10 11 12
7 BOUNDARY 6.5EC	29 fl oz/a A	107	54.70 24.80 54.5
		212	55.40 25.70
		302	48.40 26.30 47.7
		408	54.40 27.10 41.0
		Mean =	53.23 25.98 47.8
8 KYBER	16 fl oz/a A	108	54.90 25.20 52.9
		209	54.50 26.40
		311	54.20 25.90 40.6
		410	54.50 26.10 43.1
		Mean =	54.53 25.90 45.5
9 ANTHEM MAXX	4 fl oz/a A	109	55.00 26.40 48.4
		211	54.40 26.60
		301	54.10 25.30 45.4
		405	55.40 27.40 54.6
		Mean =	54.73 26.43 49.5
10 WARRANT	48 oz/a A	110	55.60 27.10 47.9
		201	55.00 28.30
		307	54.50 26.40 52.9
		411	55.40 26.70 48.1
		Mean =	55.13 27.13 49.7
11 DUAL II MAGNUM (7.64EC)	21 fl oz/a A	111	55.30 28.00 47.4
		204	54.40 26.20
		312	53.80 25.90 27.8
		403	52.50 27.60 56.3
		Mean =	54.00 26.93 43.8
12 OUTLOOK (6EC)	14 fl oz/a A	112	55.00 27.90 46.7
		205	55.30 25.50
		310	54.90 26.40 36.0
		409	55.80 26.50 41.7
		Mean =	55.25 26.58 41.5

d=Means are reported in de-transformed data units

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMAPA, Amaranthus palmeri, Palmer amaranth = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

GRAIN = grain

PLOT = plot

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

MOICON = moisture content

WEITES = weight - test

LENGTH = length

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

LB, , = pound

FT, , = foot

BU, , = bushel

plot = total plot

A = acre

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

AA = Automatic arcsine square root % transformation

ER1 = Excluded replicate 1

ER2 = Excluded replicate 2

TY1 = $(726/(5*[11]))*[8]*(100-@MVAVGREP([9]))/86.5$

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

			W, Weed AMAPA Amaranthus palm> Palmer amaranth	W, Weed AMAPA Amaranthus palm> Palmer amaranth		
Pest Type						
Pest Code						
Pest Scientific Name						
Pest Name						
Crop Type, Code	C, GLXMA	C, GLXMA				
BBCH Scale	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max				
Crop Name	Soybean	Soybean				
Rating Date	May-26-2022	Jun-1-2022	Jun-1-2022	Jun-16-2022		
SE Group No.	11	13	14	15		
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P		
Rating Type	PHYGEN	PHYGEN	CONTROL	CONTROL		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size						
Number of Subsamples	1	1	1	1		
Data Entry Date	Oct-13-2022	Oct-13-2022	Oct-13-2022	Oct-13-2022		
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Days After First/Last Applic.	9, 9	15, 15	15, 15	30, 7		
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl	1	3	4	5
No. Name	Rate Unit	Code				
1	UNTREATED CHECK		0.0 a	0.0 a	0.0 b	0.0 d
2	AUTHORITY EDGE	7 fl oz/a A	0.0 a	0.0 a	100.0 a	86.8 ab
3	AUTHORITY EDGE	9 fl oz/a A	0.0 a	0.0 a	100.0 a	94.3 ab
4	AUTHORITY EDGE METRIBUZIN	7 fl oz/a A 5 oz/a A	0.0 a	0.0 a	100.0 a	78.0 ab
5	AUTHORITY SUPREME	7 oz/a A	0.0 a	0.0 a	99.3 a	90.5 ab
6	AUTHORITY EDGE ANTHEM MAXX ENGENIA Roundup PowerMAX 3	7 fl oz/a A 4 fl oz/a B 12.8 fl oz/a B 30 fl oz/a B	0.0 a	0.0 a	99.3 a	99.3 a
7	BOUNDARY 6.5EC	29 fl oz/a A	0.0 a	0.0 a	100.0 a	66.3 abc
8	KYBER	16 fl oz/a A	0.0 a	0.0 a	100.0 a	90.5 ab
9	ANTHEM MAXX	4 fl oz/a A	0.0 a	0.0 a	100.0 a	73.8 ab
10	WARRANT	48 oz/a A	0.0 a	0.0 a	100.0 a	85.0 ab
11	DUAL II MAGNUM (7.64EC)	21 fl oz/a A	0.0 a	0.0 a	100.0 a	58.0 bc

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=8,9,10,11,12
 Excluded replicate 1 in column 8; 2 in 12
 Could not calculate LSD (% mean diff) for columns 1,3 because error mean square = 0.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

Pest Type			W, Weed AMAPA	W, Weed AMAPA
Pest Code				
Pest Scientific Name			Amaranthus palm>	Amaranthus palm>
Pest Name			Palmer amaranth	Palmer amaranth
Crop Type, Code	C, GLXMA	C, GLXMA		
BBCH Scale	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max		
Crop Name	Soybean	Soybean		
Rating Date	May-26-2022	Jun-1-2022	Jun-1-2022	Jun-16-2022
SE Group No.	11	13	14	15
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size				
Number of Subsamples	1	1	1	1
Data Entry Date	Oct-13-2022	Oct-13-2022	Oct-13-2022	Oct-13-2022
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Days After First/Last Applic.	9, 9	15, 15	15, 15	30, 7
ARM Action Codes				
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	1	3
12 OUTLOOK (6EC)	14 fl oz/a	A	0.0 a	0.0 a
LSD P=.05			0.84	24.14
Standard Deviation	0.00	0.00	0.58	16.78
CV	0.0	0.0	0.64	23.42
Levene's F^	.	.	0.485	1.695
Levene's Prob(F)	.	.	0.90	0.114
Shapiro-Wilk^	.	.	0.6529*	0.8833*
P(Shapiro-Wilk)^	.	.	0.0*	0.0002*
Skewness^	.	.	-2.1328*	-1.3267*
P(Skewness)^	.	.	0.0*	0.0005*
Kurtosis^	.	.	7.7016*	5.7339*
P(Kurtosis)^	.	.	0.0*	0.0*
Replicate F	0.000	0.000	2.200	1.281
Replicate Prob(F)	1.0000	1.0000	0.1066	0.2971
Treatment F	0.000	0.000	9752.112	11.557
Treatment Prob(F)	1.0000	1.0000	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=8,9,10,11,12
 Excluded replicate 1 in column 8; 2 in 12
 Could not calculate LSD (% mean diff) for columns 1,3 because error mean square = 0.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

	W, Weed AMAPA	W, Weed AMAPA		
Pest Type	Amaranthus palm>	Amaranthus palm>		
Pest Code	Palmer amaranth	Palmer amaranth		
Pest Scientific Name			C, GLXMA	C, GLXMA
Pest Name			BSOY	BSOY
Crop Type, Code			Glycine max	Glycine max
BBCH Scale			Soybean	Soybean
Crop Scientific Name			Oct-5-2022	Oct-5-2022
Crop Name			18	19
Rating Date	Jun-23-2022	Jul-13-2022	GRAIN, C	GRAIN, C
SE Group No.	16	17	WEIGHT	MOICON
Part Rated	PLANT, P	PLANT, P	LB, -, -	%, 0, 100
Rating Type	CONTROL	CONTROL	1 plot	1 PLOT
Rating Unit/Min/Max	%, 0, 100	%, 0, 100		
Sample Size			1	1
Number of Subsamples	1	1	Nov-8-2022	Nov-8-2022
Data Entry Date	Oct-13-2022	Oct-13-2022		
EDC App	Rating Shell	Rating Shell		
Days After First/Last Applic.	37, 14	57, 34	141, 118	141, 118
ARM Action Codes		AA	ER1	
Number of Decimals				
Trt Treatment	6	7	8	9
No. Name	Rate	dAA		
	Rate Unit			
1 UNTREATED CHECK		0.0 d	6.383 a	7.805 a
2 AUTHORITY EDGE	7 fl oz/a A	83.0 ab	8.833 a	8.415 a
3 AUTHORITY EDGE	9 fl oz/a A	93.0 ab	10.200 a	8.438 a
4 AUTHORITY EDGE	7 fl oz/a A	80.0 ab	8.885 a	8.002 a
METRIBUZIN	5 oz/a A			
5 AUTHORITY SUPREME	7 oz/a A	91.3 ab	8.323 a	8.278 a
6 AUTHORITY EDGE	7 fl oz/a A	97.8 a	9.347 a	8.398 a
ANTHEM MAXX	4 fl oz/a B			
ENGENIA	12.8 fl oz/a B			
Roundup PowerMAX 3	30 fl oz/a B			
7 BOUNDARY 6.5EC	29 fl oz/a A	57.5 bc	7.580 a	8.483 a
8 KYBER	16 fl oz/a A	87.5 ab	7.807 a	8.318 a
9 ANTHEM MAXX	4 fl oz/a A	63.8 abc	7.060 a	8.025 a
10 WARRANT	48 oz/a A	77.5 ab	8.383 a	8.190 a
11 DUAL II MAGNUM (7.64EC)	21 fl oz/a A	58.8 bc	8.163 a	8.370 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
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 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=8,9,10,11,12
 Excluded replicate 1 in column 8; 2 in 12
 Could not calculate LSD (% mean diff) for columns 1,3 because error mean square = 0.
 ^Calculated from residual.
 d=Means are reported in de-transformed data units

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

Pest Type	W, Weed	W, Weed		
Pest Code	AMAPA	AMAPA		
Pest Scientific Name	Amaranthus palm>	Amaranthus palm>		
Pest Name	Palmer amaranth	Palmer amaranth		
Crop Type, Code			C, GLXMA	C, GLXMA
BBCH Scale			BSOY	BSOY
Crop Scientific Name			Glycine max	Glycine max
Crop Name			Soybean	Soybean
Rating Date	Jun-23-2022	Jul-13-2022	Oct-5-2022	Oct-5-2022
SE Group No.	16	17	18	19
Part Rated	PLANT, P	PLANT, P	GRAIN, C	GRAIN, C
Rating Type	CONTROL	CONTROL	WEIGHT	MOICON
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	LB, -, -	%, 0, 100
Sample Size			1 plot	1 PLOT
Number of Subsamples	1	1	1	1
Data Entry Date	Oct-13-2022	Oct-13-2022	Nov-8-2022	Nov-8-2022
EDC App	Rating Shell	Rating Shell		
Days After First/Last Applic.	37, 14	57, 34	141, 118	141, 118
ARM Action Codes		AA	ER1	
Number of Decimals				
Trt Treatment	6	7	8	9
No. Name		dAA		
Rate Appl				
Rate Unit Code				
12 OUTLOOK (6EC)	14 fl oz/a A	33.8 c	15.4 d	6.873 a
LSD P=.05	23.20	17.71 - 27.21	2.5168	0.9775
Standard Deviation	16.13	12.27t	1.4822	0.6787
CV	23.49	23.53t	18.18	8.24
Levene's F^	3.414*	0.968	0.913	0.505
Levene's Prob(F)	0.003*	0.491	0.539	0.887
Shapiro-Wilk^	0.9734	0.9148*	0.948*	0.9549
P(Shapiro-Wilk)^	0.3422	0.002*	0.0361*	0.0675
Skewness^	-0.2742	-1.2248*	-0.8296*	-0.5422
P(Skewness)^	0.4423	0.0012*	0.0248*	0.1362
Kurtosis^	1.1595	2.9863*	1.5246*	-0.4957
P(Kurtosis)^	0.102	0.0*	0.0352*	0.4839
Replicate F	0.372	2.323	1.188	1.343
Replicate Prob(F)	0.7734	0.0930	0.3245	0.2778
Treatment F	12.439	13.722	1.627	0.383
Treatment Prob(F)	0.0001	0.0001	0.1624	0.9532

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 Could not calculate LSD (% mean diff) for columns 1,3 because error mean square = 0.
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University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter

Conducted Under GEP: No

			C, GLXMA BSOY	C, GLXMA BSOY	C, GLXMA BSOY	
Pest Type						
Pest Code						
Pest Scientific Name						
Pest Name						
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA	
BBCH Scale			BSOY	BSOY	BSOY	
Crop Scientific Name			Glycine max	Glycine max	Glycine max	
Crop Name			Soybean	Soybean	Soybean	
Rating Date			Oct-5-2022	Oct-5-2022	Oct-5-2022	
SE Group No.			20	21	22	
Part Rated			GRAIN, C	PLOT, C	GRAIN, C	
Rating Type			WEITES	LENGTH	YIELD	
Rating Unit/Min/Max			LB/BU, -, -	FT, -, -	BU, -, -	
Sample Size				1 PLOT	1 A	
Number of Subsamples			1	1	1	
Data Entry Date			Nov-8-2022	Nov-8-2022		
EDC App						
Days After First/Last Applic.			141, 118	141, 118	141, 118	
ARM Action Codes					ER2 TY1	
Number of Decimals					1	
Trt No.	Treatment Name	Rate Rate Unit	Appl Code	10	11	12
1	UNTREATED CHECK			54.35 a	26.65 a	40.8 a
2	AUTHORITY EDGE	7 fl oz/a A		54.15 a	26.90 a	52.9 a
3	AUTHORITY EDGE	9 fl oz/a A		54.48 a	26.85 a	55.3 a
4	AUTHORITY EDGE METRIBUZIN	7 fl oz/a A 5 oz/a A		54.27 a	26.65 a	51.1 a
5	AUTHORITY SUPREME	7 oz/a A		54.75 a	26.85 a	48.7 a
6	AUTHORITY EDGE ANTHEM MAXX ENGENIA Roundup PowerMAX 3	7 fl oz/a A 4 fl oz/a B 12.8 fl oz/a B 30 fl oz/a B		54.78 a	26.85 a	54.9 a
7	BOUNDARY 6.5EC	29 fl oz/a A		53.23 a	25.98 a	47.8 a
8	KYBER	16 fl oz/a A		54.53 a	25.90 a	45.5 a
9	ANTHEM MAXX	4 fl oz/a A		54.73 a	26.43 a	49.5 a
10	WARRANT	48 oz/a A		55.13 a	27.13 a	49.7 a
11	DUAL II MAGNUM (7.64EC)	21 fl oz/a A		54.00 a	26.93 a	43.8 a

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Missing data estimates are included in columns: Yates=8,9,10,11,12

Excluded replicate 1 in column 8; 2 in 12

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d=Means are reported in de-transformed data units

University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct-5-2022	Oct-5-2022	Oct-5-2022
SE Group No.	20	21	22
Part Rated	GRAIN, C	PLOT, C	GRAIN, C
Rating Type	WEITES	LENGTH	YIELD
Rating Unit/Min/Max	LB/BU, -, -	FT, -, -	BU, -, -
Sample Size		1 PLOT	1 A
Number of Subsamples	1	1	1
Data Entry Date	Nov-8-2022	Nov-8-2022	
EDC App			
Days After First/Last Applic.	141, 118	141, 118	141, 118
ARM Action Codes			ER2 TY1
Number of Decimals			1
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
12 OUTLOOK (6EC)	14 fl oz/a A		
		10	11
		55.25 a	26.58 a
			12
			41.5 a
LSD P=.05	1.556	1.094	10.39
Standard Deviation	1.080	0.760	6.12
CV	1.98	2.85	12.63
Levene's F^	0.942	0.599	0.974
Levene's Prob(F)	0.514	0.817	0.487
Shapiro-Wilk^	0.8044*	0.9875	0.9434*
P(Shapiro-Wilk)^	0.0*	0.8916	0.024*
Skewness^	-2.0879*	-0.2652	-0.8915*
P(Skewness)^	0.0*	0.4619	0.0163*
Kurtosis^	10.4365*	0.1345	1.4256*
P(Kurtosis)^	0.0*	0.849	0.0482*
Replicate F	1.875	3.515	1.425
Replicate Prob(F)	0.1537	0.0261	0.2628
Treatment F	0.999	0.981	1.859
Treatment Prob(F)	0.4682	0.4827	0.1069

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 Missing data estimates are included in columns: Yates=8,9,10,11,12
 Excluded replicate 1 in column 8; 2 in 12
 Could not calculate LSD (% mean diff) for columns 1,3 because error mean square = 0.
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University of Kentucky

Evaluating Authority Supreme/Edge and Anthem Maxx for Residual Weed Control in Soybeans

Trial ID: 22-28_SOY-REC Cooperator Trial ID:
 Protocol ID: USA-22-069 Location: UKREC Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: COPELAND, J. Sponsor Contact: Drake Copeland
 Investigator (Creator): Travis Legleiter Conducted Under GEP: No

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMAPA, Amaranthus palmeri, Palmer amaranth = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

GRAIN = grain

PLOT = plot

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

MOICON = moisture content

WEITES = weight - test

LENGTH = length

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

LB, , = pound

FT, , = foot

BU, , = bushel

plot = total plot

A = acre

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

AA = Automatic arcsine square root % transformation

ER1 = Excluded replicate 1

ER2 = Excluded replicate 2

TY1 = $(726/(5*[11]))*[8]*(100-@MVAVGREP([9]))/86.5$

University of Kentucky

ENLIST WEED CONTROL SYSTEM

Trial ID: 22-30
 Protocol ID: NA22K1A011H Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:

Trial Year: 2022

Reps: 3			Plots: 10 by 44 feet														
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Timing	Appl Code	Comment 1	Appl. Amount	Mix Size	Amt to Measure	Product	Rep 1	Rep 2	Rep 3
1	LIBERTY 280	2.34		SL	2 PT/A			MP	A	XR 10GPA	10 GPA	2.2 L	55.0 mL/mx		101	206	307
	AMSOL	34 %		SL	2.5 % V/V			MP	A	XR 10GPA	10 GPA	2.2 L	54.99 mL/mx				
2	ENLIST ONE	3.8		L	2 PT/A			MP	B	AIXR 10GPA	10 GPA	2.2 L	55.0 mL/mx		102	210	308
	LIBERTY 280	2.34		SL	2 PT/A			MP	B	AIXR 10GPA	10 GPA	2.2 L	55.0 mL/mx				
	AMSOL	34 %		SL	2.5 % V/V			MP	B	AIXR 10GPA	10 GPA	2.2 L	54.99 mL/mx				
3	ENLIST ONE	3.8		L	2 PT/A			MP	C	TTI 10GPA	10 GPA	2 L	50.0 mL/mx		103	201	306
	LIBERTY 280	2.34		SL	2 PT/A			MP	C	TTI 10GPA	10 GPA	2 L	50.0 mL/mx				
	AMSOL	34 %		SL	2.5 % V/V			MP	C	TTI 10GPA	10 GPA	2 L	49.99 mL/mx				
4	LIBERTY 280	2.34		SL	2 PT/A			MP	D	XR 15GPA	15 GPA	2.2 L	36.67 mL/mx		104	209	304
	AMSOL	34 %		SL	2.5 % V/V			MP	D	XR 15GPA	15 GPA	2.2 L	54.99 mL/mx				
5	ENLIST ONE	3.8		L	2 PT/A			MP	E	AIXR 15GPA	15 GPA	2.2 L	36.67 mL/mx		105	202	305
	LIBERTY 280	2.34		SL	2 PT/A			MP	E	AIXR 15GPA	15 GPA	2.2 L	36.67 mL/mx				
	AMSOL	34 %		SL	2.5 % V/V			MP	E	AIXR 15GPA	15 GPA	2.2 L	54.99 mL/mx				
6	ENLIST ONE	3.8		L	2 PT/A			MP	F	TTI 15GPA	15 GPA	2.2 L	36.67 mL/mx		106	203	310
	LIBERTY 280	2.34		SL	2 PT/A			MP	F	TTI 15GPA	15 GPA	2.2 L	36.67 mL/mx				
	AMSOL	34 %		SL	2.5 % V/V			MP	F	TTI 15GPA	15 GPA	2.2 L	54.99 mL/mx				
7	LIBERTY 280	2.34		SL	2 PT/A			MP	G	XR 20GPA	20 GPA	2.2 L	27.5 mL/mx		107	204	302
	AMSOL	34 %		SL	2.5 % V/V			MP	G	XR 20GPA	20 GPA	2.2 L	54.99 mL/mx				
8	ENLIST ONE	3.8		L	2 PT/A			MP	H	AIXR 20GPA	20 GPA	2.2 L	27.5 mL/mx		108	207	301
	LIBERTY 280	2.34		SL	2 PT/A			MP	H	AIXR 20GPA	20 GPA	2.2 L	27.5 mL/mx				
	AMSOL	34 %		SL	2.5 % V/V			MP	H	AIXR 20GPA	20 GPA	2.2 L	54.99 mL/mx				
9	ENLIST ONE	3.8		L	2 PT/A			MP	I	TTI 20GPA	20 GPA	2.2 L	27.5 mL/mx		109	208	309
	LIBERTY 280	2.34		SL	2 PT/A			MP	I	TTI 20GPA	20 GPA	2.2 L	27.5 mL/mx				
	AMSOL	34 %		SL	2.5 % V/V			MP	I	TTI 20GPA	20 GPA	2.2 L	54.99 mL/mx				
10	UNTREATED														110	205	303

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
352.500 mL		LIBERTY 280	2.34		SL	
489.947 mL		AMSOL	34 %		SL	
233.333 mL		ENLIST ONE	3.8		L	

* 'Per area' calculations based on application amount= 10,15,20 GPA, mix size= 2.2,2 L (mix size basis).

* 'Per volume' calculations use spray volume= 10,15,20 GPA, mix size= 2.2,2 L.

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

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

ARM Trial Created On: 5-6-2022
Initiation Date: 5-31-2022 **Planned Completion Date:** 10-31-2022

Trial Location

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

University of Kentucky

Latitude of LL Corner °: 38.11057816 N
 Longitude of LL Corner °: -84.4849 W
 GPS Accuracy of LL Corner: 9.8 FT
 Altitude of LL Corner: 808.40 FT

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 **E-mail:** travis.legleiter@uky.edu
City: PRINCETON **State/Prov:** KY **Postal Code:** 42445
Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
Country: USA United States **E-mail:** sara.carter@uky.edu
City: LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312

Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Variety: P41T07E
Attributes: ENLIST
Planting Date: 5-31-2022 **Planting Rate:** 150000 S/A
Depth: 1.25 IN
Rows per Plot: 6 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** FE field equipment
Seed Bed: SMOOTH smooth
Soil Temperature: 72 F **Soil Moisture:** WET wet
Emergence Date: 6-5-2022

Pest Description

Pest 1 Type: W **Code:** AMACH Amaranthus hybridus
Common Name: smooth pigweed **Stage Scale:** BBCH
Crop: 1 GLXMA
Pest 2 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed **Stage Scale:** BBCH
Crop: 1 GLXMA
Pest 3 Type: W **Code:** CHEAL Chenopodium album
Common Name: common lambsquarters **Stage Scale:** BBCH
Crop: 1 GLXMA
Pest 4 Type: W **Code:** DIGSA Digitaria sanguinalis
Common Name: large crabgrass **Stage Scale:** BBCH
Crop: 1 GLXMA

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 44 FT
Treated Plot Area: 440.0 FT² **Tillage Type:** CONTIL conventional-till
Replications: 3 **Treatments:** 10 **Plots:** 30 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

University of Kentucky

ENLIST WEED CONTROL SYSTEM

Trial ID: 22-30
 Protocol ID: NA22K1A011H Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:

Trial Year: 2022

Pest Type			W, Weed	W, Weed	W, Weed	W, Weed
Pest Code			AMACH	AMBTR	CHEAL	DIGSA
Pest Scientific Name			Amaranthus hybr>	Ambrosia trifida	Chenopodium alb>	Digitaria sangu>
Pest Name			smooth pigweed	Giant ragweed	common lambsqua>	large crabgrass
Crop Type, Code	C, GLXMA	C, GLXMA				
BBCH Scale	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max				
Crop Name	Soybean	Soybean				
Rating Date	7-18-2022	7-25-2022	7-25-2022	7-25-2022	7-25-2022	7-25-2022
Part Rated						
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	0-10, 0, 10	0-10, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing						
Days After First/Last Applic.	7, 7	14, 14	14, 14	14, 14	14, 14	14, 14
Trt-Eval Interval						
Plant-Eval Interval	48 DP-1	55 DP-1	55 DP-1	55 DP-1	55 DP-1	55 DP-1
Days After Emergence	43 DE-1	50 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
No.	Name	Rate Unit	Code Plot							
1	LIBERTY 280	2 PT/A	A	101	0.0	0.0	100.0	100.0	100.0	100.0
	AMSOL	2.5 % V/V	A	206	0.0	0.0	100.0	100.0	100.0	100.0
				307	0.0	0.0	100.0	100.0	100.0	100.0
				Mean =	0.0	0.0	100.0	100.0	100.0	100.0
2	ENLIST ONE	2 PT/A	B	102	0.0	0.0	100.0	100.0	100.0	100.0
	LIBERTY 280	2 PT/A	B	210	0.0	0.0	100.0	100.0	100.0	100.0
	AMSOL	2.5 % V/V	B	308	0.0	0.0	100.0	100.0	100.0	100.0
				Mean =	0.0	0.0	100.0	100.0	100.0	100.0
3	ENLIST ONE	2 PT/A	C	103	0.0	0.0	100.0	100.0	100.0	100.0
	LIBERTY 280	2 PT/A	C	201	0.0	0.0	100.0	100.0	100.0	100.0
	AMSOL	2.5 % V/V	C	306	0.0	0.0	100.0	100.0	100.0	100.0
				Mean =	0.0	0.0	100.0	100.0	100.0	100.0
4	LIBERTY 280	2 PT/A	D	104	0.0	0.0	100.0	100.0	100.0	100.0
	AMSOL	2.5 % V/V	D	209	0.0	0.0	100.0	100.0	100.0	100.0
				304	0.0	0.0	100.0	100.0	100.0	100.0
				Mean =	0.0	0.0	100.0	100.0	100.0	100.0
5	ENLIST ONE	2 PT/A	E	105	0.0	0.0	100.0	100.0	100.0	100.0
	LIBERTY 280	2 PT/A	E	202	0.0	0.0	100.0	100.0	100.0	100.0
	AMSOL	2.5 % V/V	E	305	0.0	0.0	100.0	100.0	100.0	100.0
				Mean =	0.0	0.0	100.0	100.0	100.0	100.0
6	ENLIST ONE	2 PT/A	F	106	0.0	0.0	100.0	100.0	100.0	100.0
	LIBERTY 280	2 PT/A	F	203	0.0	0.0	100.0	100.0	100.0	100.0
	AMSOL	2.5 % V/V	F	310	0.0	0.0	100.0	100.0	100.0	100.0
				Mean =	0.0	0.0	100.0	100.0	100.0	100.0
7	LIBERTY 280	2 PT/A	G	107	0.0	0.0	100.0	100.0	100.0	100.0
	AMSOL	2.5 % V/V	G	204	0.0	0.0	100.0	100.0	100.0	100.0
				302	0.0	0.0	100.0	100.0	100.0	100.0
				Mean =	0.0	0.0	100.0	100.0	100.0	100.0
8	ENLIST ONE	2 PT/A	H	108	0.0	0.0	100.0	100.0	100.0	100.0
	LIBERTY 280	2 PT/A	H	207	0.0	0.0	100.0	100.0	100.0	100.0
	AMSOL	2.5 % V/V	H	301	0.0	0.0	100.0	100.0	100.0	100.0
				Mean =	0.0	0.0	100.0	100.0	100.0	100.0
9	ENLIST ONE	2 PT/A	I	109	0.0	0.0	100.0	100.0	100.0	100.0
	LIBERTY 280	2 PT/A	I	208	0.0	0.0	100.0	100.0	100.0	100.0
	AMSOL	2.5 % V/V	I	309	0.0	0.0	100.0	100.0	100.0	100.0
				Mean =	0.0	0.0	100.0	100.0	100.0	100.0
10	UNTREATED			110	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
				303	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

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMACH	AMBTR	CHEAL	DIGSA
Pest Scientific Name		Amaranthus hybr>	Ambrosia trifida	Chenopodium alb>	Digitaria sangu>
Pest Name		smooth pigweed	Giant ragweed	common lambsqua>	large crabgrass
Crop Type, Code	C, GLXMA				
BBCH Scale	BSOY				
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Rating Date	8-8-2022	8-8-2022	8-8-2022	8-8-2022	8-8-2022
Part Rated					
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	0-10, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1 1
EDC App					
Rating Timing					
Days After First/Last Applic.	28, 28	28, 28	28, 28	28, 28	28, 28
Trt-Eval Interval					
Plant-Eval Interval	69 DP-1	69 DP-1	69 DP-1	69 DP-1	69 DP-1
Days After Emergence	64 DE-1	64 DE-1	64 DE-1	64 DE-1	64 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl		7	8	9	10	11	12
No.	Name	Rate Unit	Code Plot							
1	LIBERTY 280	2 PT/A	A 101		0.0	95.0	95.0	95.0	95.0	95.0
	AMSOL	2.5 % V/V	A 206		0.0	95.0	95.0	95.0	95.0	95.0
			A 307		0.0	95.0	95.0	95.0	95.0	95.0
			Mean =		0.0	95.0	95.0	95.0	95.0	95.0
2	ENLIST ONE	2 PT/A	B 102		0.0	95.0	95.0	95.0	95.0	95.0
	LIBERTY 280	2 PT/A	B 210		0.0	95.0	95.0	95.0	95.0	95.0
	AMSOL	2.5 % V/V	B 308		0.0	95.0	95.0	95.0	95.0	95.0
			Mean =		0.0	95.0	95.0	95.0	95.0	95.0
3	ENLIST ONE	2 PT/A	C 103		0.0	95.0	95.0	95.0	95.0	95.0
	LIBERTY 280	2 PT/A	C 201		0.0	95.0	95.0	95.0	95.0	95.0
	AMSOL	2.5 % V/V	C 306		0.0	95.0	95.0	95.0	95.0	95.0
			Mean =		0.0	95.0	95.0	95.0	95.0	95.0
4	LIBERTY 280	2 PT/A	D 104		0.0	95.0	95.0	95.0	95.0	95.0
	AMSOL	2.5 % V/V	D 209		0.0	95.0	95.0	95.0	95.0	95.0
			D 304		0.0	95.0	95.0	95.0	95.0	95.0
			Mean =		0.0	95.0	95.0	95.0	95.0	95.0
5	ENLIST ONE	2 PT/A	E 105		0.0	95.0	95.0	95.0	95.0	95.0
	LIBERTY 280	2 PT/A	E 202		0.0	95.0	95.0	95.0	95.0	95.0
	AMSOL	2.5 % V/V	E 305		0.0	95.0	95.0	95.0	95.0	95.0
			Mean =		0.0	95.0	95.0	95.0	95.0	95.0
6	ENLIST ONE	2 PT/A	F 106		0.0	95.0	95.0	95.0	95.0	95.0
	LIBERTY 280	2 PT/A	F 203		0.0	95.0	95.0	95.0	95.0	95.0
	AMSOL	2.5 % V/V	F 310		0.0	95.0	95.0	95.0	95.0	95.0
			Mean =		0.0	95.0	95.0	95.0	95.0	95.0
7	LIBERTY 280	2 PT/A	G 107		0.0	95.0	95.0	95.0	95.0	95.0
	AMSOL	2.5 % V/V	G 204		0.0	95.0	95.0	95.0	95.0	95.0
			G 302		0.0	95.0	95.0	95.0	95.0	95.0
			Mean =		0.0	95.0	95.0	95.0	95.0	95.0
8	ENLIST ONE	2 PT/A	H 108		0.0	95.0	95.0	95.0	95.0	95.0
	LIBERTY 280	2 PT/A	H 207		0.0	95.0	95.0	95.0	95.0	95.0
	AMSOL	2.5 % V/V	H 301		0.0	95.0	95.0	95.0	95.0	95.0
			Mean =		0.0	95.0	95.0	95.0	95.0	95.0
9	ENLIST ONE	2 PT/A	I 109		0.0	95.0	95.0	95.0	95.0	95.0
	LIBERTY 280	2 PT/A	I 208		0.0	95.0	95.0	95.0	95.0	95.0
	AMSOL	2.5 % V/V	I 309		0.0	95.0	95.0	95.0	95.0	95.0
			Mean =		0.0	95.0	95.0	95.0	95.0	95.0
10	UNTREATED		110		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
			303		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

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ENLIST WEED CONTROL SYSTEM

Trial ID: 22-30
 Protocol ID: NA22K1A011H Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:

Trial Year: 2022

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMACH, Amaranthus hybridus, smooth pigweed = US
 AMBTR, Ambrosia trifida, Giant ragweed = US
 CHEAL, Chenopodium album, common lambsquarters = US
 DIGSA, Digitaria sanguinalis, large crabgrass = 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

0-10, 0, 10 = 0-10 index/scale
 %, 0, 100 = percent

Plant-Eval Interval

48 DP-1 = 1 GLXMA 5-31-2022
 55 DP-1 = 1 GLXMA 5-31-2022
 69 DP-1 = 1 GLXMA 5-31-2022

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMACH	AMBTR	CHEAL	DIGSA
Pest Scientific Name	Amaranthus hybr>	Ambrosia trifida	Chenopodium alb>	Digitaria sangu>
Pest Name	smooth pigweed	Giant ragweed	common lambsqua>	large crabgrass
Crop Type, Code	C, GLXMA	C, GLXMA		
BBCH Scale	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max		
Crop Name	Soybean	Soybean		
Rating Date	7-18-2022	7-25-2022	7-25-2022	7-25-2022
Part Rated				
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	0-10, 0, 10	0-10, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
EDC App				
Rating Timing				
Days After First/Last Applic.	7, 7	14, 14	14, 14	14, 14
Trt-Eval Interval				
Plant-Eval Interval	48 DP-1	55 DP-1	55 DP-1	55 DP-1
Days After Emergence	43 DE-1	50 DE-1	50 DE-1	50 DE-1
ARM Action Codes				
Number of Decimals				

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
1	LIBERTY 280	2 PT/A	A	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	AMSOL	2.5 % V/V	A						
2	ENLIST ONE	2 PT/A	B	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	LIBERTY 280	2 PT/A	B						
3	AMSOL	2.5 % V/V	B						
	ENLIST ONE	2 PT/A	C	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
4	LIBERTY 280	2 PT/A	C						
	AMSOL	2.5 % V/V	C	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
5	ENLIST ONE	2 PT/A	D	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	LIBERTY 280	2 PT/A	D						
6	AMSOL	2.5 % V/V	D						
	ENLIST ONE	2 PT/A	E	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
7	LIBERTY 280	2 PT/A	E						
	AMSOL	2.5 % V/V	E	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
8	ENLIST ONE	2 PT/A	F	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	LIBERTY 280	2 PT/A	F						
9	AMSOL	2.5 % V/V	F						
	ENLIST ONE	2 PT/A	G	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
10	LIBERTY 280	2 PT/A	G						
	AMSOL	2.5 % V/V	G	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
11	ENLIST ONE	2 PT/A	H	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	LIBERTY 280	2 PT/A	H						
12	AMSOL	2.5 % V/V	H						
	ENLIST ONE	2 PT/A	I	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
13	LIBERTY 280	2 PT/A	I						
	AMSOL	2.5 % V/V	I						

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Pest Type			W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code			AMACH	AMBTR	CHEAL	DIGSA		
Pest Scientific Name			Amaranthus hybr>	Ambrosia trifida	Chenopodium alb>	Digitaria sangu>		
Pest Name			smooth pigweed	Giant ragweed	common lambsqua>	large crabgrass		
Crop Type, Code	C, GLXMA	C, GLXMA						
BBCH Scale	BSOY	BSOY						
Crop Scientific Name	Glycine max	Glycine max						
Crop Name	Soybean	Soybean						
Rating Date	7-18-2022	7-25-2022	7-25-2022	7-25-2022	7-25-2022	7-25-2022		
Part Rated								
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	0-10, 0, 10	0-10, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1		
EDC App								
Rating Timing								
Days After First/Last Applic.	7, 7	14, 14	14, 14	14, 14	14, 14	14, 14		
Trt-Eval Interval								
Plant-Eval Interval	48 DP-1	55 DP-1	55 DP-1	55 DP-1	55 DP-1	55 DP-1		
Days After Emergence	43 DE-1	50 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
No. Name	Rate Unit	Code						
10 UNTREATED			0.0 a	0.0 a	0.0 b	0.0 b	0.0 b	0.0 b
LSD P=.05		
Standard Deviation			0.00	0.00	0.00	0.00	0.00	0.00
CV			0.0	0.0	0.0	0.0	0.0	0.0
Levene's F^		
Levene's Prob(F)		
Shapiro-Wilk^		
P(Shapiro-Wilk)^		
Skewness^		
P(Skewness)^		
Kurtosis^		
P(Kurtosis)^		
Replicate F			0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)			1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F			0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)			1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMACH	AMBTR	CHEAL	DIGSA
Pest Scientific Name		Amaranthus hybr>	Ambrosia trifida	Chenopodium alb>	Digitaria sangu>
Pest Name		smooth pigweed	Giant ragweed	common lambsqua>	large crabgrass
Crop Type, Code	C, GLXMA				
BBCH Scale	BSOY				
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Rating Date	8-8-2022	8-8-2022	8-8-2022	8-8-2022	8-8-2022
Part Rated					
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	0-10, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1 1
EDC App					
Rating Timing					
Days After First/Last Applic.	28, 28	28, 28	28, 28	28, 28	28, 28
Trt-Eval Interval					
Plant-Eval Interval	69 DP-1	69 DP-1	69 DP-1	69 DP-1	69 DP-1
Days After Emergence	64 DE-1	64 DE-1	64 DE-1	64 DE-1	64 DE-1
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Appl Code	7	8	9	10	11	12
1	LIBERTY 280	2 PT/A	A	0.0 a	95.0 a	95.0 a	95.0 a	95.0 a	
	AMSOL	2.5 % V/V	A						
2	ENLIST ONE	2 PT/A	B	0.0 a	95.0 a	95.0 a	95.0 a	95.0 a	
	LIBERTY 280	2 PT/A	B						
	AMSOL	2.5 % V/V	B						
3	ENLIST ONE	2 PT/A	C	0.0 a	95.0 a	95.0 a	95.0 a	95.0 a	
	LIBERTY 280	2 PT/A	C						
	AMSOL	2.5 % V/V	C						
4	LIBERTY 280	2 PT/A	D	0.0 a	95.0 a	95.0 a	95.0 a	95.0 a	
	AMSOL	2.5 % V/V	D						
5	ENLIST ONE	2 PT/A	E	0.0 a	95.0 a	95.0 a	95.0 a	95.0 a	
	LIBERTY 280	2 PT/A	E						
	AMSOL	2.5 % V/V	E						
6	ENLIST ONE	2 PT/A	F	0.0 a	95.0 a	95.0 a	95.0 a	95.0 a	
	LIBERTY 280	2 PT/A	F						
	AMSOL	2.5 % V/V	F						
7	LIBERTY 280	2 PT/A	G	0.0 a	95.0 a	95.0 a	95.0 a	95.0 a	
	AMSOL	2.5 % V/V	G						
8	ENLIST ONE	2 PT/A	H	0.0 a	95.0 a	95.0 a	95.0 a	95.0 a	
	LIBERTY 280	2 PT/A	H						
	AMSOL	2.5 % V/V	H						
9	ENLIST ONE	2 PT/A	I	0.0 a	95.0 a	95.0 a	95.0 a	95.0 a	
	LIBERTY 280	2 PT/A	I						
	AMSOL	2.5 % V/V	I						

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Pest Type		W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code		AMACH	AMBTR	CHEAL	DIGSA			
Pest Scientific Name		Amaranthus hybr>	Ambrosia trifida	Chenopodium alb>	Digitaria sangu>			
Pest Name		smooth pigweed	Giant ragweed	common lambsqua>	large crabgrass			
Crop Type, Code	C, GLXMA							
BBCH Scale	BSOY							
Crop Scientific Name	Glycine max							
Crop Name	Soybean							
Rating Date	8-8-2022	8-8-2022	8-8-2022	8-8-2022	8-8-2022			
Part Rated								
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit/Min/Max	0-10, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1	1 1			
EDC App								
Rating Timing								
Days After First/Last Applic.	28, 28	28, 28	28, 28	28, 28	28, 28			
Trt-Eval Interval								
Plant-Eval Interval	69 DP-1	69 DP-1	69 DP-1	69 DP-1	69 DP-1			
Days After Emergence	64 DE-1	64 DE-1	64 DE-1	64 DE-1	64 DE-1			
ARM Action Codes								
Number of Decimals								
Trt Treatment	Rate	Appl	7	8	9	10	11	12
No. Name	Rate Unit	Code						
10 UNTREATED			0.0 a	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b
LSD P=.05		
Standard Deviation			0.00	0.00	0.00	0.00	0.00	0.00
CV			0.0	0.0	0.0	0.0	0.0	0.0
Levene's F^		
Levene's Prob(F)		
Shapiro-Wilk^		
P(Shapiro-Wilk)^		
Skewness^		
P(Skewness)^		
Kurtosis^		
P(Kurtosis)^		
Replicate F			0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)			1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F			0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)			1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

University of Kentucky

ENLIST WEED CONTROL SYSTEM

Trial ID: 22-30
Protocol ID: NA22K1A011H Location: LEXINGTON, KY Cooperator Trial ID:
Project ID: Project ID 2: Project ID 3: Trial Year: 2022
Study Director: TRAVIS LEGLEITER Sponsor Contact:
Investigator (Creator): Sara Carter

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMACH, Amaranthus hybridus, smooth pigweed = US
AMBTR, Ambrosia trifida, Giant ragweed = US
CHEAL, Chenopodium album, common lambsquarters = US
DIGSA, Digitaria sanguinalis, large crabgrass = 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

0-10, 0, 10 = 0-10 index/scale
%, 0, 100 = percent

Plant-Eval Interval

48 DP-1 = 1 GLXMA 5-31-2022
55 DP-1 = 1 GLXMA 5-31-2022
69 DP-1 = 1 GLXMA 5-31-2022

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Corteva Corn

Trial ID: 22-32
 Protocol ID: Corteva Corn Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:
 Trial Year: 2022

Reps: 3		Plots: 10 by 44 feet		Appl. Amount: 15 GAL/AC		Mix Size: 2.2 L (total for 3 plots; minimum=1.7206 L)							
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Other Rate	Other Rate	Appl Unit	Appl Timing	Appl Code	Comment	Amt to Measure	Product Rep
1	LEADOFF	33.4		WP	1.5 OZ/A			PRE	A			1.648 g/mx	101 204 301
	DURANGO DMA	4		SL	32 FL OZ/A			PRE	A			36.67 mL/mx	
	2,4-D ESTER	4		SC	1 PT/A			PRE	A			18.33 mL/mx	
	REALM Q	38.75		DF	4 OZ/A			V4	B			4.394 g/mx	
	DURANGO DMA	4		SL	32 FL OZ/A			V4	B			36.67 mL/mx	
	AATREX	4		F	2 LB AI/A			V4	B			73.33 mL/mx	
2	LEADOFF	33.4		WP	1.5 OZ/A			PRE	A			1.648 g/mx	102 201 303
	DURANGO DMA	4		SL	32 FL OZ/A			PRE	A			36.67 mL/mx	
	2,4-D ESTER	4		SC	1 PT/A			PRE	A			18.33 mL/mx	
	RESICORE	3.3		SC	1.25 QT/A			V4	B			45.83 mL/mx	
	DURANGO DMA	4		SL	32 FL OZ/A			V4	B			36.67 mL/mx	
	AATREX	4		F	2 LB AI/A			V4	B			73.33 mL/mx	
3	LEADOFF	33.4		WP	1.5 OZ/A			PRE	A			1.648 g/mx	103 205 304
	DURANGO DMA	4		SL	32 FL OZ/A			PRE	A			36.67 mL/mx	
	2,4-D ESTER	4		SC	1 PT/A			PRE	A			18.33 mL/mx	
	HALEX GT	4.38		CS	3.6 PT/A			V4	B			66.0 mL/mx	
	AATREX	4		F	2 LB AI/A			V4	B			73.33 mL/mx	
4	LEADOFF	33.4		WP	1.5 OZ/A			PRE	A			1.648 g/mx	104 203 302
	DURANGO DMA	4		SL	32 FL OZ/A			PRE	A			36.67 mL/mx	
	2,4-D ESTER	4		SC	1 PT/A			PRE	A			18.33 mL/mx	
	ARMEZON PRO	6.25		L	20 OZ/A			V4	B			22.92 mL/mx	
	DURANGO DMA	4		SL	32 FL OZ/A			V4	B			36.67 mL/mx	
5	ACURON	3.44		ZC	1.25 QT/A			PRE	A			45.83 mL/mx	105 202 305
	DURANGO DMA	4		SL	32 FL OZ/A			PRE	A			36.67 mL/mx	
	2,4-D ESTER	4		SC	1 PT/A			PRE	A			18.33 mL/mx	
	HALEX GT	4.38		CS	3.6 PT/A			V4	B			66.0 mL/mx	
	AATREX	4		F	1.7 LB AI/A			V4	B			62.33 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
6.590 g		LEADOFF	33.4		WP	
293.333 mL		DURANGO DMA	4		SL	
91.667 mL		2,4-D ESTER	4		SC	
4.394 g		REALM Q	38.75		DF	
282.303 mL		AATREX	4		F	
45.833 mL		RESICORE	3.3		SC	
132.000 mL		HALEX GT	4.38		CS	
22.917 mL		ARMEZON PRO	6.25		L	
45.833 mL		ACURON	3.44		ZC	

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

University of Kentucky

Corteva Corn

Trial ID: 22-32
 Protocol ID: Corteva Corn Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:
 Trial Year: 2022

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

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

ARM Trial Created On: 6-1-2022
Initiation Date: 5-11-2022 **Planned Completion Date:** 10-1-2022
Completion Date: 10-1-2022

Trial Location

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

Latitude of LL Corner °: 38.11815216 N
Longitude of LL Corner °: -84.492544 W
GPS Accuracy of LL Corner: 6.6 FT
Altitude of LL Corner: 801.20 FT

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 **E-mail:** travis.legleiter@uky.edu
City: PRINCETON **State/Prov:** KY **Postal Code:** 42445
Role: INVEST investigator
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST
Organization: UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
Country: USA United States **E-mail:** sara.carter@uky.edu
City: LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312

Crop Description

Crop 1: C ZEAMX Zea mays Corn **BBCH Scale:** BCOR
Stage Scale: BBCH
Variety: DKC 62-08
Attributes: RR
Planting Date: 5-11-2022 **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: MEDIUM medium
Soil Temperature: 65 F **Soil Moisture:** GOOD good
Emergence Date: 5-17-2022

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: 44 FT
Treated Plot Area: 440.0 FT² **Tillage Type:** NOTILL no-till
Replications: 3 **Treatments:** 5 **Plots:** 15 **Study Design:** RACOB L Randomized Complete Block (RCB)

University of Kentucky

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

Application Description

	A	B
Application Date	5-13-2022	6-16-2022
Appl. Start Time	10:00 AM	4:00 PM
Appl. Stop Time	10:20 AM	4:20 PM
Interval to Prev. Appl.		34 DAYS
Application Method	SPRAY	SPRAY
Application Timing	PRE	V4
Application Placement	BROFOL	BROFOL
Applied By	SARA	SARA
Air Temperature Start, Stop	72, - F	91, - F
% Relative Humidity Start, Stop	60, -	33, -
Wind Velocity+Dir. Start	6 MPH, SE	9 MPH, W
Soil Temperature	67 F	78 F
Soil Moisture	GOOD	GOOD
Soil Surface Condition	MEDIUM	MEDIUM
% Cloud Cover	40	0
Next Moisture Occurred On	5-14-2022	6-17-2022

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR
Days after Emergence	-4	30
Stage Majority, Percent		V4, 95
Height Average		10 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average	3 IN	6 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX
Pest 2 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH
Height Average	2 IN	4 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Height Average	3 IN	6 IN
Crop Part Attacked, Code	-, ZEAMX	-, ZEAMX

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
Boom Flow Rate	- IN	- IN
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	15 GPA
Mix Size	2.2 liters	2.2 liters
Propellant	CO2	CO2

University of Kentucky

Corteva Corn

Trial ID: 22-32
 Protocol ID: Corteva Corn Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:
 Trial Year: 2022

Pest Type			W, Weed	W, Weed	W, Weed		W, Weed
Pest Code			AMBTR	IPOSS	SETFA		AMBTR
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida
Pest Name			Giant ragweed	Morning glory	Giant foxtail		Giant ragweed
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	5-20-2022	6-6-2022	6-6-2022	6-6-2022	6-6-2022	6-30-2022	6-30-2022
Part Rated							
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100
Number of Subsamples	1	1	1	1	1	1	1
EDC App							
Rating Timing							
Days After First/Last Applic.	7, 7	24, 24	24, 24	24, 24	24, 24	48, 14	48, 14
Trt-Eval Interval							
Plant-Eval Interval	9 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1	50 DP-1	50 DP-1
Days After Emergence	3 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1	44 DE-1	44 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
1	LEADOFF	1.5 OZ/A	A 101	0.0	0.0	60.0	100.0	40.0	0.0	100.0
	DURANGO DMA	32 FL OZ/A	A 204	0.0	0.0	65.0	100.0	45.0	0.0	100.0
	2,4-D ESTER	1 PT/A	A 301	0.0	0.0	65.0	100.0	45.0	0.0	100.0
	REALM Q	4 OZ/A	B							
	DURANGO DMA	32 FL OZ/A	B							
	AATREX	2 LB A/A	B							
	Mean =			0.0	0.0	63.3	100.0	43.3	0.0	100.0
2	LEADOFF	1.5 OZ/A	A 102	0.0	0.0	45.0	100.0	35.0	0.0	100.0
	DURANGO DMA	32 FL OZ/A	A 201	0.0	0.0	50.0	100.0	40.0	0.0	100.0
	2,4-D ESTER	1 PT/A	A 303	0.0	0.0	45.0	100.0	40.0	0.0	100.0
	RESICORE	1.25 QT/A	B							
	DURANGO DMA	32 FL OZ/A	B							
	AATREX	2 LB A/A	B							
	Mean =			0.0	0.0	46.7	100.0	38.3	0.0	100.0
3	LEADOFF	1.5 OZ/A	A 103	0.0	0.0	45.0	100.0	75.0	0.0	100.0
	DURANGO DMA	32 FL OZ/A	A 205	0.0	0.0	75.0	100.0	80.0	0.0	100.0
	2,4-D ESTER	1 PT/A	A 304	0.0	0.0	80.0	100.0	80.0	0.0	100.0
	HALEX GT	3.6 PT/A	B							
	AATREX	2 LB A/A	B							
		Mean =			0.0	0.0	66.7	100.0	78.3	0.0	100.0
4	LEADOFF	1.5 OZ/A	A 104	0.0	0.0	80.0	100.0	65.0	0.0	100.0
	DURANGO DMA	32 FL OZ/A	A 203	0.0	0.0	80.0	100.0	65.0	0.0	100.0
	2,4-D ESTER	1 PT/A	A 302	0.0	0.0	65.0	100.0	65.0	0.0	100.0
	ARMEZON PRO	20 OZ/A	B							
	DURANGO DMA	32 FL OZ/A	B							
		Mean =			0.0	0.0	75.0	100.0	65.0	0.0	100.0
5	ACURON	1.25 QT/A	A 105	0.0	0.0	60.0	100.0	95.0	0.0	100.0
	DURANGO DMA	32 FL OZ/A	A 202	0.0	0.0	60.0	100.0	95.0	0.0	100.0
	2,4-D ESTER	1 PT/A	A 305	0.0	0.0	60.0	100.0	95.0	0.0	100.0
	HALEX GT	3.6 PT/A	B							
	AATREX	1.7 LB A/A	B							
		Mean =			0.0	0.0	60.0	100.0	95.0	0.0	100.0

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSS	SETFA		AMBTR	IPOSS
Pest Scientific Name	Ipomoea sp.	Setaria faberi		Ambrosia trifida	Ipomoea sp.
Pest Name	Morning glory	Giant foxtail		Giant ragweed	Morning glory
Crop Type, Code			C, ZEAMX		
BBCH Scale			BCOR		
Crop Scientific Name			Zea mays		
Crop Name			Corn		
Rating Date	6-30-2022	6-30-2022	7-13-2022	7-13-2022	7-13-2022
Part Rated					
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing					
Days After First/Last Applic.	48, 14	48, 14	61, 27	61, 27	61, 27
Trt-Eval Interval					
Plant-Eval Interval	50 DP-1	50 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence	44 DE-1	44 DE-1	57 DE-1	57 DE-1	57 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl		8	9	10	11	12	13
No.	Name	Rate Unit	Code Plot							
1	LEADOFF	1.5 OZ/A	A 101		100.0	100.0	0.0	95.0	85.0	95.0
	DURANGO DMA	32 FL OZ/A	A 204		100.0	100.0	0.0	95.0	90.0	95.0
	2,4-D ESTER	1 PT/A	A 301		100.0	100.0	0.0	95.0	85.0	95.0
	REALM Q	4 OZ/A	B							
	DURANGO DMA	32 FL OZ/A	B							
	AATREX	2 LB A/A	B							
	Mean =				100.0	100.0	0.0	95.0	86.7	95.0
2	LEADOFF	1.5 OZ/A	A 102		100.0	100.0	0.0	100.0	95.0	75.0
	DURANGO DMA	32 FL OZ/A	A 201		100.0	100.0	0.0	100.0	95.0	85.0
	2,4-D ESTER	1 PT/A	A 303		100.0	100.0	0.0	100.0	95.0	85.0
	RESICORE	1.25 QT/A	B							
	DURANGO DMA	32 FL OZ/A	B							
	AATREX	2 LB A/A	B							
	Mean =				100.0	100.0	0.0	100.0	95.0	81.7
3	LEADOFF	1.5 OZ/A	A 103		100.0	100.0	0.0	100.0	95.0	85.0
	DURANGO DMA	32 FL OZ/A	A 205		100.0	100.0	0.0	100.0	95.0	85.0
	2,4-D ESTER	1 PT/A	A 304		100.0	100.0	0.0	100.0	95.0	85.0
	HALEX GT	3.6 PT/A	B							
	AATREX	2 LB A/A	B							
		Mean =				100.0	100.0	0.0	100.0	95.0
4	LEADOFF	1.5 OZ/A	A 104		100.0	100.0	0.0	95.0	65.0	95.0
	DURANGO DMA	32 FL OZ/A	A 203		100.0	100.0	0.0	95.0	65.0	95.0
	2,4-D ESTER	1 PT/A	A 302		100.0	100.0	0.0	95.0	65.0	95.0
	ARMEZON PRO	20 OZ/A	B							
	DURANGO DMA	32 FL OZ/A	B							
		Mean =				100.0	100.0	0.0	95.0	65.0
5	ACURON	1.25 QT/A	A 105		100.0	100.0	0.0	100.0	100.0	100.0
	DURANGO DMA	32 FL OZ/A	A 202		100.0	100.0	0.0	100.0	100.0	100.0
	2,4-D ESTER	1 PT/A	A 305		100.0	100.0	0.0	100.0	100.0	100.0
	HALEX GT	3.6 PT/A	B							
	AATREX	1.7 LB A/A	B							
		Mean =				100.0	100.0	0.0	100.0	100.0	100.0

University of Kentucky

Corteva Corn

Trial ID: 22-32
 Protocol ID: Corteva Corn Location: LEXINGTON, KY
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Cooperator Trial ID:
 Trial Year: 2022

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

Rating Type

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

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

9 DP-1 = 1 ZEAMX 5-11-2022
 26 DP-1 = 1 ZEAMX 5-11-2022
 50 DP-1 = 1 ZEAMX 5-11-2022
 63 DP-1 = 1 ZEAMX 5-11-2022

Pest Type

Pest Code

Pest Scientific Name

Pest Name

Crop Type, Code

BBCH Scale

Crop Scientific Name

Crop Name

Rating Date

Part Rated

Rating Type

Rating Unit/Min/Max

Number of Subsamples

EDC App

Rating Timing

Days After First/Last Applic.

Trt-Eval Interval

Plant-Eval Interval

Days After Emergence

ARM Action Codes

Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7
1	LEADOFF	1.5	OZ/A	A	0.0 a	0.0 a	63.3 a	100.0 a	43.3 d	0.0 a	100.0 a
	DURANGO DMA	32	FL OZ/A	A							
	2,4-D ESTER	1	PT/A	A							
	REALM Q	4	OZ/A	B							
	DURANGO DMA	32	FL OZ/A	B							
	AATREX	2	LB A/A	B							
2	LEADOFF	1.5	OZ/A	A	0.0 a	0.0 a	46.7 a	100.0 a	38.3 e	0.0 a	100.0 a
	DURANGO DMA	32	FL OZ/A	A							
	2,4-D ESTER	1	PT/A	A							
	RESICORE	1.25	QT/A	B							
	DURANGO DMA	32	FL OZ/A	B							
	AATREX	2	LB A/A	B							
3	LEADOFF	1.5	OZ/A	A	0.0 a	0.0 a	66.7 a	100.0 a	78.3 b	0.0 a	100.0 a
	DURANGO DMA	32	FL OZ/A	A							
	2,4-D ESTER	1	PT/A	A							
	HALEX GT	3.6	PT/A	B							
	AATREX	2	LB A/A	B							
4	LEADOFF	1.5	OZ/A	A	0.0 a	0.0 a	75.0 a	100.0 a	65.0 c	0.0 a	100.0 a
	DURANGO DMA	32	FL OZ/A	A							
	2,4-D ESTER	1	PT/A	A							
	ARMEZON PRO	20	OZ/A	B							
	DURANGO DMA	32	FL OZ/A	B							

University of Kentucky

Pest Type			W, Weed	W, Weed	W, Weed					
Pest Code			AMBTR	IPOSS	SETFA	AMBTR				
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Setaria faberi	Ambrosia trifida				
Pest Name			Giant ragweed	Morning glory	Giant foxtail	Giant ragweed				
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	5-20-2022	6-6-2022	6-6-2022	6-6-2022	6-6-2022	6-30-2022	6-30-2022			
Part Rated										
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO			
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100			
Number of Subsamples	1	1	1	1	1	1	1			
EDC App										
Rating Timing										
Days After First/Last Applic.	7, 7	24, 24	24, 24	24, 24	24, 24	48, 14	48, 14			
Trt-Eval Interval										
Plant-Eval Interval	9 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1	50 DP-1	50 DP-1			
Days After Emergence	3 DE-1	20 DE-1	20 DE-1	20 DE-1	20 DE-1	44 DE-1	44 DE-1			
ARM Action Codes										
Number of Decimals										
Trt	Treatment	Rate	Appl	1	2	3	4	5	6	7
No.	Name	Rate Unit	Code							
5	ACURON	1.25 QT/A	A	0.0 a	0.0 a	60.0 a	100.0 a	95.0 a	0.0 a	100.0 a
	DURANGO DMA	32 FL OZ/A	A							
	2,4-D ESTER	1 PT/A	A							
	HALEX GT	3.6 PT/A	B							
	AATREX	1.7 LB AI/A	B							
	LSD P=.05			.	.	18.07	.	2.98	.	.
	Standard Deviation			0.00	0.00	9.60	0.00	1.58	0.00	0.00
	CV			0.0	0.0	15.39	0.0	2.47	0.0	0.0
	Levene's F^			.	.	1.269	.	0.05	.	.
	Levene's Prob(F)			.	.	0.345	.	0.995	.	.
	Shapiro-Wilk^			.	.	0.9362	.	0.8306*	.	.
	P(Shapiro-Wilk)^			.	.	0.3368	.	0.0093*	.	.
	Skewness^			.	.	-0.7428	.	0.3218	.	.
	P(Skewness)^			.	.	0.2628	.	0.6211	.	.
	Kurtosis^			.	.	1.6941	.	-1.2564	.	.
	P(Kurtosis)^			.	.	0.1901	.	0.3244	.	.
	Replicate F			0.000	0.000	0.887	0.000	6.000	0.000	0.000
	Replicate Prob(F)			1.0000	1.0000	0.4489	1.0000	0.0256	1.0000	1.0000
	Treatment F			0.000	0.000	3.511	0.000	676.000	0.000	0.000
	Treatment Prob(F)			1.0000	1.0000	0.0615	1.0000	0.0001	1.0000	1.0000

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed				
Pest Code	IPOSS	SETFA	AMBTR	IPOSS	SETFA				
Pest Scientific Name	Ipomoea sp.	Setaria faberi	Ambrosia trifida	Ipomoea sp.	Setaria faberi				
Pest Name	Morning glory	Giant foxtail	Giant ragweed	Morning glory	Giant foxtail				
Crop Type, Code			C, ZEAMX						
BBCH Scale			BCOR						
Crop Scientific Name			Zea mays						
Crop Name			Corn						
Rating Date	6-30-2022	6-30-2022	7-13-2022	7-13-2022	7-13-2022	6-6-2022			
Part Rated									
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1	1	1			
EDC App									
Rating Timing									
Days After First/Last Applic.	48, 14	48, 14	61, 27	61, 27	61, 27	24, 24			
Trt-Eval Interval									
Plant-Eval Interval	50 DP-1	50 DP-1	63 DP-1	63 DP-1	63 DP-1	26 DP-1			
Days After Emergence	44 DE-1	44 DE-1	57 DE-1	57 DE-1	57 DE-1	20 DE-1			
ARM Action Codes									
Number of Decimals									
Trt Treatment	Rate	Appl	8	9	10	11	12	13	
No. Name	Rate Unit	Code							
1	LEADOFF	1.5 OZ/A	A	100.0 a	100.0 a	0.0 a	95.0 b	86.7 c	95.0 a
	DURANGO DMA	32 FL OZ/A	A						
	2,4-D ESTER	1 PT/A	A						
	REALM Q	4 OZ/A	B						
	DURANGO DMA	32 FL OZ/A	B						
	AATREX	2 LB AI/A	B						
2	LEADOFF	1.5 OZ/A	A	100.0 a	100.0 a	0.0 a	100.0 a	95.0 b	81.7 b
	DURANGO DMA	32 FL OZ/A	A						
	2,4-D ESTER	1 PT/A	A						
	RESICORE	1.25 QT/A	B						
	DURANGO DMA	32 FL OZ/A	B						
	AATREX	2 LB AI/A	B						
3	LEADOFF	1.5 OZ/A	A	100.0 a	100.0 a	0.0 a	100.0 a	95.0 b	85.0 b
	DURANGO DMA	32 FL OZ/A	A						
	2,4-D ESTER	1 PT/A	A						
	HALEX GT	3.6 PT/A	B						
	AATREX	2 LB AI/A	B						
4	LEADOFF	1.5 OZ/A	A	100.0 a	100.0 a	0.0 a	95.0 b	65.0 d	95.0 a
	DURANGO DMA	32 FL OZ/A	A						
	2,4-D ESTER	1 PT/A	A						
	ARMEZON PRO	20 OZ/A	B						
	DURANGO DMA	32 FL OZ/A	B						

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	IPOSS	SETFA		AMBTR	IPOSS	SETFA		
Pest Scientific Name	Ipomoea sp.	Setaria faberi		Ambrosia trifida	Ipomoea sp.	Setaria faberi		
Pest Name	Morning glory	Giant foxtail		Giant ragweed	Morning glory	Giant foxtail		
Crop Type, Code			C, ZEAMX					
BBCH Scale			BCOR					
Crop Scientific Name			Zea mays					
Crop Name			Corn					
Rating Date	6-30-2022	6-30-2022	7-13-2022	7-13-2022	7-13-2022	6-6-2022		
Part Rated								
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1		
EDC App								
Rating Timing								
Days After First/Last Applic.	48, 14	48, 14	61, 27	61, 27	61, 27	24, 24		
Trt-Eval Interval								
Plant-Eval Interval	50 DP-1	50 DP-1	63 DP-1	63 DP-1	63 DP-1	26 DP-1		
Days After Emergence	44 DE-1	44 DE-1	57 DE-1	57 DE-1	57 DE-1	20 DE-1		
ARM Action Codes								
Number of Decimals								
Trt Treatment	Rate	Appl	8	9	10	11	12	13
No. Name	Rate Unit	Code						
5 ACURON	1.25 QT/A	A	100.0 a	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a
DURANGO DMA	32 FL OZ/A	A						
2,4-D ESTER	1 PT/A	A						
HALEX GT	3.6 PT/A	B						
AATREX	1.7 LB AI/A	B						
LSD P=.05			.	.	.	.	2.43	4.86
Standard Deviation			0.00	0.00	0.00	0.00	1.29	2.58
CV			0.0	0.0	0.0	0.0	1.46	2.83
Levene's F^			.	.	.	.	0.45	0.45
Levene's Prob(F)			.	.	.	.	0.77	0.77
Shapiro-Wilk^			.	.	.	.	0.8029*	0.8029*
P(Shapiro-Wilk)^			.	.	.	.	0.004*	0.004*
Skewness^			.	.	.	.	1.1823	-1.1823
P(Skewness)^			.	.	.	.	0.0845	0.0845
Kurtosis^			.	.	.	.	3.2308*	3.2308*
P(Kurtosis)^			.	.	.	.	0.0199*	0.0199*
Replicate F			0.000	0.000	0.000	0.000	1.000	1.000
Replicate Prob(F)			1.0000	1.0000	1.0000	1.0000	0.4096	0.4096
Treatment F			0.000	0.000	0.000	0.000	347.500	26.500
Treatment Prob(F)			1.0000	1.0000	1.0000	1.0000	0.0001	0.0001

University of Kentucky

Corteva Corn

Trial ID: 22-32
Protocol ID: Corteva Corn Location: LEXINGTON, KY
Project ID: Project ID 2: Project ID 3:
Cooperator Trial ID: Trial Year: 2022
Study Director: TRAVIS LEGLEITER Sponsor Contact:
Investigator (Creator): Sara Carter

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

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

9 DP-1 = 1 ZEAMX 5-11-2022

26 DP-1 = 1 ZEAMX 5-11-2022

50 DP-1 = 1 ZEAMX 5-11-2022

63 DP-1 = 1 ZEAMX 5-11-2022

University of Kentucky

AMVAC soybeanherbicide weed control treatments for academic trials

Trial ID: 22-35 Cooperator Trial ID:
 Protocol ID: 22C13H040 Location: LEXINGTON, KY Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

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 Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Comment	Amt Product	Rep				
No. Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Timing	Code	1	2	3	4	
1	UNTREATED CHECK										101	203	304	403	
2	ASSURE II	0.8	EC	12 FL OZ/A				MP	A		13.75 mL/mx	102	204	305	404
3	FIRSTRATE	84	W	0.3 OZ/A				MP	A		0.3295 g/mx	103	206	302	405
	NIS		L	0.25 % V/V				MP	A		5.499 mL/mx				
	UAN-28%		L	2.5 LB AI/100 GAL				MP	A						
4	CLASSIC	25	DF	0.75 OZ/A				MP	A		0.8238 g/mx	104	205	303	402
	NIS		L	0.25 % V/V				MP	A		5.499 mL/mx				
	UAN-28%		L	8 PT/A				MP	A		146.7 mL/mx				
5	SCEPTER	70	DG	2.8 OZ/A				MP	A		3.076 g/mx	105	201	306	401
6	PYTHON	80	WG	1.33 OZ/A				MP	A		1.461 g/mx	106	202	301	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
13.750 mL		ASSURE II	.8					EC	
0.330 g		FIRSTRATE	84					W	
10.999 mL		NIS						L	
146.667 mL		UAN-28%						L	
0.824 g		CLASSIC	25					DF	
3.076 g		SCEPTER	70					DG	
1.461 g		PYTHON	80					WG	

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

General Trial Information

Study Director: TRAVIS LEGLEITER **Title:** EXTENSION SPECIALIST
Investigator: Sara Carter **Title:** RESEARCH SPECIALIST

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

ARM Trial Created On: 6-7-2022
Initiation Date: 6-9-2022
Completion Date: 9-1-2022

Trial Location

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

Latitude of LL Corner °: 38.12981866 N
Longitude of LL Corner °: -84.4899385 W
GPS Accuracy of LL Corner: 6.6 FT
Altitude of LL Corner: 791.30 FT

Conducted Under GLP: No
Conducted Under GEP: No

University of Kentucky

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 **E-mail:** travis.legleiter@uky.edu
City: PRINCETON **State/Prov:** KY **Postal Code:** 42445
Role: INVEST investigator **Title:** RESEARCH SPECIALIST
Investigator: Sara Carter
Organization: UNIVERSITY OF KENTUCKY
Address 1: 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710
City: LEXINGTON **E-mail:** sara.carter@uky.edu
State/Prov: KY **Postal Code:** 40546-0312

Crop Description

Crop 1: C GLXMA Glycine max Soybean **Stage Scale:** BBCH **BBCH Scale:** BSOY
Variety: AG 42FX1
Attributes: Xtend Flex
Planting Date: 6-9-2022 **Planting Rate:** 120000 S/A
Depth: 1.25 in
Rows per Plot: 6 **Planting Method:** PLANTD planted
Row Spacing: 30 in **Planting Equipment:** FE field equipment
Seed Bed: MEDIUM medium
Soil Temperature: 72 F **Soil Moisture:** WET wet
Emergence Date: 6-14-2022

Pest Description

Pest 1 Type: W **Code:** SETFA Setaria faberi **Stage Scale:** BBCH
Common Name: Giant foxtail
Crop: 1 GLXMA

Pest 2 Type: W **Code:** ANVCR Anoda cristata **Stage Scale:** BBCH
Common Name: Spurred anoda
Crop: 1 GLXMA

Pest 3 Type: W **Code:** ABUTH Abutilon theophrasti **Stage Scale:** BBCH
Common Name: velvetleaf
Crop: 1 GLXMA

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 33 FT
Treated Plot Area: 330.0 FT² **Tillage Type:** CONTIL conventional-till
Replications: 4 **Treatments:** 6 **Plots:** 24 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

Application Description

Application Date: 7-7-2022 **A**
Appl. Stop Time: 1:30 PM
Application Method: SPRAY
Application Timing: MP
Application Placement: BROFOL
Applied By: SARA
Air Temperature Start, Stop: 86, - F
% Relative Humidity Start, Stop: 65, -
Wind Velocity+Dir. Start: 4 MPH, SW
Soil Temperature: 78 F
Soil Moisture: GOOD
Soil Surface Condition: SMOOTH
% Cloud Cover: 30
Next Moisture Occurred On: 7-8-2022

University of Kentucky

Crop Stage At Each Application

Crop 1 Code, BBCH Scale GLXMA, BSOY **A**
Days after Emergence 23
Height Average 7 IN

Pest Stage At Each Application

Pest 1 Code, Type, Scale SETFA, W, BBCH **A**
Crop Part Attacked, Code -, GLXMA
Pest 2 Code, Type, Scale ANVCR, W, BBCH
Crop Part Attacked, Code -, GLXMA
Pest 3 Code, Type, Scale ABUTH, W, BBCH
Crop Part Attacked, Code -, GLXMA

Application Equipment

Appl. Equipment BACKPACK **A**
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
Boom Flow Rate - 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
 OVERSPRAYED PLOT AREA WITH DUAL II MAGNUM AT PLANTING

Pest Type		W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		SETFA	ANVCR	ABUTH	SETFA
Pest Scientific Name		Setaria faberi	Anoda cristata	Abutilon theoph>	Setaria faberi
Pest Name		Giant foxtail	Spurred anoda	velvetleaf	Giant foxtail
Crop Type, Code	C, GLXMA	C, GLXMA			
BBCH Scale	BSOY	BSOY			
Crop Scientific Name	Glycine max	Glycine max			
Crop Name	Soybean	Soybean			
Rating Date	7-14-2022	7-21-2022	7-21-2022	7-21-2022	8-4-2022
Part Rated					
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
EDC App					
Rating Timing	7 DAY	14 DAY	14 DAY	14 DAY	28 DAY
Days After First/Last Applic.	7, 7	14, 14	14, 14	14, 14	28, 28
Trt-Eval Interval	7 DA-A	14 DA-A	14 DA-A	14 DA-A	28 DA-A
Plant-Eval Interval	35 DP-1	42 DP-1	42 DP-1	42 DP-1	56 DP-1
Days After Emergence	30 DE-1	37 DE-1	37 DE-1	37 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
1	UNTREATED CHECK		101	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
			304	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
			Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	ASSURE II	12 FL OZ/A	A 102	0.0	0.0	100.0	0.0	0.0	100.0
			204	0.0	0.0	100.0	0.0	0.0	100.0
			305	0.0	0.0	100.0	0.0	0.0	100.0
			404	0.0	0.0	100.0	0.0	0.0	100.0
			Mean =	0.0	0.0	100.0	0.0	0.0	100.0
3	FIRSTRATE	0.3 OZ/A	A 103	0.0	0.0	0.0	60.0	50.0	0.0
	NIS	0.25 % V/V	A 206	0.0	0.0	0.0	50.0	45.0	0.0
	UAN-28%	2.5 LB AI/100 GAL	A 302	0.0	0.0	0.0	55.0	50.0	0.0
			405	0.0	0.0	0.0	60.0	50.0	0.0
			Mean =	0.0	0.0	0.0	56.3	48.8	0.0

University of Kentucky

Pest Type			W, Weed	W, Weed	W, Weed	W, Weed
Pest Code			SETFA	ANVCR	ABUTH	SETFA
Pest Scientific Name			Setaria faberi	Anoda cristata	Abutilon theoph>	Setaria faberi
Pest Name			Giant foxtail	Spurred anoda	velvetleaf	Giant foxtail
Crop Type, Code	C, GLXMA	C, GLXMA				
BBCH Scale	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max				
Crop Name	Soybean	Soybean				
Rating Date	7-14-2022	7-21-2022	7-21-2022	7-21-2022	7-21-2022	8-4-2022
Part Rated						
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
EDC App						
Rating Timing	7 DAY	14 DAY	14 DAY	14 DAY	14 DAY	28 DAY
Days After First/Last Applic.	7, 7	14, 14	14, 14	14, 14	14, 14	28, 28
Trt-Eval Interval	7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	28 DA-A
Plant-Eval Interval	35 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1	56 DP-1
Days After Emergence	30 DE-1	37 DE-1	37 DE-1	37 DE-1	37 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
4	CLASSIC NIS UAN-28%	0.75 OZ/A 0.25 % V/V 8 PT/A	A 104	0.0	0.0	0.0	65.0	55.0	0.0
			A 205	0.0	0.0	0.0	60.0	65.0	0.0
			A 303	0.0	0.0	0.0	60.0	55.0	0.0
			402	0.0	0.0	0.0	65.0	50.0	0.0
			Mean =	0.0	0.0	0.0	62.5	56.3	0.0
5	SCEPTER	2.8 OZ/A	A 105	0.0	0.0	0.0	65.0	55.0	0.0
			201	0.0	0.0	0.0	60.0	55.0	0.0
			306	0.0	0.0	0.0	65.0	45.0	0.0
			401	0.0	0.0	0.0	65.0	60.0	0.0
			Mean =	0.0	0.0	0.0	63.8	53.8	0.0
6	PYTHON	1.33 OZ/A	A 106	0.0	0.0	0.0	60.0	65.0	0.0
			202	0.0	0.0	0.0	60.0	60.0	0.0
			301	0.0	0.0	0.0	55.0	65.0	0.0
			406	0.0	0.0	0.0	65.0	65.0	0.0
			Mean =	0.0	0.0	0.0	60.0	63.8	0.0

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	ANVCR	ABUTH	SETFA	ANVCR	ABUTH
Pest Scientific Name	Anoda cristata	Abutilon theoph>	Setaria faberi	Anoda cristata	Abutilon theoph>
Pest Name	Spurred anoda	velvetleaf	Giant foxtail	Spurred anoda	velvetleaf
Crop Type, Code					
BCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	8-4-2022	8-4-2022	8-15-2022	8-15-2022	8-15-2022
Part Rated					
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
EDC App					
Rating Timing	28 DAY	28 DAY	42 DAY	42 DAY	42 DAY
Days After First/Last Applic.	28, 28	28, 28	39, 39	39, 39	39, 39
Trt-Eval Interval	28 DA-A	28 DA-A	39 DA-A	39 DA-A	39 DA-A
Plant-Eval Interval	56 DP-1	56 DP-1	67 DP-1	67 DP-1	67 DP-1
Days After Emergence	51 DE-1	51 DE-1	62 DE-1	62 DE-1	62 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl	7		8		9		10		11	
No.	Name	Rate Unit	Code Plot										
1	UNTREATED CHECK		A	101	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
				304	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
				Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ASSURE II	12 FL OZ/A	A	102	0.0	0.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0
				204	0.0	0.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0
				305	0.0	0.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0
				404	0.0	0.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0
				Mean =	0.0	0.0	86.3	0.0	0.0	0.0	0.0	0.0	0.0
3	FIRSTRATE	0.3 OZ/A	A	103	65.0	65.0	0.0	40.0	55.0	55.0	55.0	55.0	55.0
	NIS	0.25 % V/V	A	206	50.0	60.0	0.0	45.0	65.0	65.0	65.0	65.0	65.0
	UAN-28%	2.5 LB AI/100 GAL	A	302	50.0	60.0	0.0	55.0	65.0	65.0	65.0	65.0	65.0
				405	50.0	65.0	0.0	50.0	65.0	65.0	65.0	65.0	65.0
				Mean =	53.8	62.5	0.0	47.5	60.0	60.0	60.0	60.0	60.0

University of Kentucky

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	ANVCR	ABUTH	SETFA	ANVCR	ABUTH
Pest Scientific Name	Anoda cristata	Abutilon theoph>	Setaria faberi	Anoda cristata	Abutilon theoph>
Pest Name	Spurred anoda	velvetleaf	Giant foxtail	Spurred anoda	velvetleaf
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	8-4-2022	8-4-2022	8-15-2022	8-15-2022	8-15-2022
Part Rated					
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
EDC App					
Rating Timing	28 DAY	28 DAY	42 DAY	42 DAY	42 DAY
Days After First/Last Applic.	28, 28	28, 28	39, 39	39, 39	39, 39
Trt-Eval Interval	28 DA-A	28 DA-A	39 DA-A	39 DA-A	39 DA-A
Plant-Eval Interval	56 DP-1	56 DP-1	67 DP-1	67 DP-1	67 DP-1
Days After Emergence	51 DE-1	51 DE-1	62 DE-1	62 DE-1	62 DE-1
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	7	8	9	10	11	
4	CLASSIC NIS UAN-28%	0.75 OZ/A 0.25 % V/V 8 PT/A	A 104	50.0	55.0	0.0	45.0	50.0	
			A 205	65.0	60.0	0.0	45.0	45.0	
			A 303	65.0	55.0	0.0	50.0	45.0	
			402	65.0	60.0	0.0	50.0	50.0	
			Mean =	61.3	57.5	0.0	47.5	47.5	
5	SCEPTER	2.8 OZ/A	A 105	65.0	65.0	0.0	65.0	55.0	
			201	65.0	50.0	0.0	50.0	50.0	
			306	55.0	50.0	0.0	50.0	50.0	
			401	65.0	55.0	0.0	55.0	55.0	
			Mean =	62.5	55.0	0.0	55.0	52.5	
6	PYTHON	1.33 OZ/A	A 106	65.0	50.0	0.0	45.0	65.0	
			202	65.0	65.0	0.0	50.0	65.0	
			301	60.0	60.0	0.0	55.0	60.0	
			406	65.0	60.0	0.0	45.0	60.0	
			Mean =	63.8	58.8	0.0	48.8	62.5	

University of Kentucky

AMVAC soybeanherbicide weed control treatments for academic trials

Trial ID: 22-35 Cooperator Trial ID:
 Protocol ID: 22C13H040 Location: LEXINGTON, KY Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, Giant foxtail = US
 ANVCR, Anoda cristata, Spurred anoda = US
 ABUTH, Abutilon theophrasti, velvetleaf = 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

Plant-Eval Interval

35 DP-1 = 1 GLXMA 6-9-2022
 42 DP-1 = 1 GLXMA 6-9-2022
 56 DP-1 = 1 GLXMA 6-9-2022
 67 DP-1 = 1 GLXMA 6-9-2022

Pest Type

Pest Code
 Pest Scientific Name
 Pest Name

	W, Weed SETFA	W, Weed ANVCR	W, Weed ABUTH	W, Weed SETFA
	Setaria faberi	Anoda cristata	Abutilon theoph>	Setaria faberi
	Giant foxtail	Spurred anoda	velvetleaf	Giant foxtail

Crop Type, Code

C, GLXMA C, GLXMA
 BSOY BSOY

BBCH Scale

Crop Scientific Name

Glycine max Glycine max
 Soybean Soybean

Crop Name

Rating Date

7-14-2022	7-21-2022	7-21-2022	7-21-2022	7-21-2022	8-4-2022

Part Rated

Rating Type

PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO

Rating Unit/Min/Max

%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100

Number of Subsamples

1	1	1	1	1	1

EDC App

Rating Timing

7 DAY	14 DAY	14 DAY	14 DAY	14 DAY	28 DAY

Days After First/Last Applic.

7, 7	14, 14	14, 14	14, 14	14, 14	28, 28

Trt-Eval Interval

7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	28 DA-A

Plant-Eval Interval

35 DP-1	42 DP-1	42 DP-1	42 DP-1	42 DP-1	56 DP-1

Days After Emergence

30 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1	51 DE-1

ARM Action Codes

Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6
1	UNTREATED CHECK				0.0 a	0.0 a	0.0 b	0.0 c	0.0 c	0.0 b
2	ASSURE II	12 FL OZ/A		A	0.0 a	0.0 a	100.0 a	0.0 c	0.0 c	100.0 a
3	FIRSTRATE	0.3 OZ/A		A	0.0 a	0.0 a	0.0 b	56.3 b	48.8 b	0.0 b
	NIS	0.25 % V/V		A						
	UAN-28%	2.5 LB AI/100 GAL		A						
4	CLASSIC	0.75 OZ/A		A	0.0 a	0.0 a	0.0 b	62.5 a	56.3 b	0.0 b
	NIS	0.25 % V/V		A						
	UAN-28%	8 PT/A		A						
5	SCEPTER	2.8 OZ/A		A	0.0 a	0.0 a	0.0 b	63.8 a	53.8 b	0.0 b
6	PYTHON	1.33 OZ/A		A	0.0 a	0.0 a	0.0 b	60.0 a	63.8 a	0.0 b
	LSD P=.05				.	.	.	3.73	6.30	.
	Standard Deviation				0.00	0.00	0.00	2.47	4.18	0.00
	CV				0.0	0.0	0.0	6.12	11.28	0.0
	Levene's F^				.	.	.	1.125	1.224	.
	Levene's Prob(F)				.	.	.	0.383	0.338	.
	Shapiro-Wilk^				.	.	.	0.9459	0.9033*	.
	P(Shapiro-Wilk)^				.	.	.	0.2201	0.0252*	.
	Skewness^				.	.	.	-0.3726	-0.0641	.
	P(Skewness)^				.	.	.	0.4648	0.8994	.
	Kurtosis^				.	.	.	-0.6733	1.6872	.
	P(Kurtosis)^				.	.	.	0.4964	0.0967	.
	Replicate F				0.000	0.000	0.000	3.864	0.238	0.000
	Replicate Prob(F)				1.0000	1.0000	1.0000	0.0313	0.8684	1.0000
	Treatment F				0.000	0.000	0.000	645.818	193.952	0.000
	Treatment Prob(F)				1.0000	1.0000	1.0000	0.0001	0.0001	1.0000

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	ANVCR	ABUTH	SETFA	ANVCR	ABUTH		
Pest Scientific Name	Anoda cristata	Abutilon theoph>	Setaria faberi	Anoda cristata	Abutilon theoph>		
Pest Name	Spurred anoda	velvetleaf	Giant foxtail	Spurred anoda	velvetleaf		
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date	8-4-2022	8-4-2022	8-15-2022	8-15-2022	8-15-2022		
Part Rated							
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		
EDC App							
Rating Timing	28 DAY	28 DAY	42 DAY	42 DAY	42 DAY		
Days After First/Last Applic.	28, 28	28, 28	39, 39	39, 39	39, 39		
Trt-Eval Interval	28 DA-A	28 DA-A	39 DA-A	39 DA-A	39 DA-A		
Plant-Eval Interval	56 DP-1	56 DP-1	67 DP-1	67 DP-1	67 DP-1		
Days After Emergence	51 DE-1	51 DE-1	62 DE-1	62 DE-1	62 DE-1		
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl	7	8	9	10	11
No. Name	Rate Unit	Code					
1	UNTREATED CHECK		0.0 b	0.0 b	0.0 b	0.0 b	0.0 c
2	ASSURE II	12 FL OZ/A	A	0.0 b	0.0 b	86.3 a	0.0 b
3	FIRSTRATE	0.3 OZ/A	A	53.8 a	62.5 a	0.0 b	47.5 a
	NIS	0.25 % V/V	A				60.0 a
	UAN-28%	2.5 LB AI/100 GAL	A				
4	CLASSIC	0.75 OZ/A	A	61.3 a	57.5 a	0.0 b	47.5 a
	NIS	0.25 % V/V	A				47.5 b
	UAN-28%	8 PT/A	A				
5	SCEPTER	2.8 OZ/A	A	62.5 a	55.0 a	0.0 b	55.0 a
6	PYTHON	1.33 OZ/A	A	63.8 a	58.8 a	0.0 b	48.8 a
	LSD P=.05		7.81	6.73	1.54	7.09	5.09
	Standard Deviation		5.18	4.46	1.02	4.71	3.37
	CV		12.89	11.46	7.1	14.21	9.1
	Levene's F^		0.743	1.45	0.533	2.044	99.40*
	Levene's Prob(F)		0.602	0.254	0.748	0.121	0.00*
	Shapiro-Wilk^		0.917	0.9304	0.6622*	0.9544	0.9765
	P(Shapiro-Wilk)^		0.0502	0.0993	0.0*	0.336	0.8238
	Skewness^		-0.3636	0.2688	2.2059*	0.6073	0.0
	P(Skewness)^		0.4756	0.5969	0.0002*	0.238	1.0
	Kurtosis^		3.1164*	2.6137*	8.7619*	1.7686	-0.3188
	P(Kurtosis)^		0.004*	0.0133*	0.0*	0.0825	0.7464
	Replicate F		0.349	0.331	1.000	0.549	0.122
	Replicate Prob(F)		0.7905	0.8031	0.4199	0.6567	0.9457
	Treatment F		146.178	183.941	4761.000	120.273	299.781
	Treatment Prob(F)		0.0001	0.0001	0.0001	0.0001	0.0001

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AMVAC soybeanherbicide weed control treatments for academic trials

Trial ID: 22-35 Cooperator Trial ID:
 Protocol ID: 22C13H040 Location: LEXINGTON, KY Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: TRAVIS LEGLEITER Sponsor Contact:
 Investigator (Creator): Sara Carter

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, Giant foxtail = US
 ANVCR, Anoda cristata, Spurred anoda = US
 ABUTH, Abutilon theophrasti, velvetleaf = 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

Plant-Eval Interval

35 DP-1 = 1 GLXMA 6-9-2022
 42 DP-1 = 1 GLXMA 6-9-2022
 56 DP-1 = 1 GLXMA 6-9-2022
 67 DP-1 = 1 GLXMA 6-9-2022

University of Kentucky

Corn variety -/+ fungicide infurrow

Trial ID: 22-var Location: LEXINGTON, KY Cooperator Trial ID:
 Protocol ID: Project ID 2: Project ID 3: Trial Year: 2022
 Study Director: Sara Carter Sponsor Contact: Todd Ladd
 Investigator (Creator): Sara Carter

Reps: 1 Plots: 15 by 135 feet
 Appl. Amount: 17 GAL/AC Mix Size: 40 GAL (total for 1 plots; minimum=0.7903 GAL)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Appl Timing	Appl Code	Appl Amt	Product Measure	Rep
1	CORVUS AATREX 59-82	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	101
2	CORVUS AATREX 111-35	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	102
3	CORVUS AATREX 62-22	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	103
4	CORVUS AATREX 62-70	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	104
5	CORVUS AATREX 63-57	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	105
6	CORVUS AATREX 1222	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	106
7	CORVUS AATREX 65-95	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	107
8	CORVUS AATREX 65-99	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	108
9	CORVUS AATREX 66-18	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	109
10	CORVUS AATREX 67-44	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	110
11	CORVUS AATREX 67-94	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	111
12	CORVUS AATREX 68-35	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	112
13	CORVUS AATREX 68-95	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	113
14	CORVUS AATREX 70-27	2.63 4	SC F	5.6 1	FL OZ/A QT/A	PRE PRE	A A	389.7 2226.7	mL/mx mL/mx	114

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Reps: 1 Plots: 15 by 135 feet
Appl. Amount: 17 GAL/AC Mix Size: 40 GAL (total for 1 plots; minimum=0.7903 GAL)

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep
15	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	115	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	59-82									
16	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	116	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	111-35									
17	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	117	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	62-22									
18	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	118	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	62-70									
19	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	119	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	63-57									
20	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	120	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	1222									
21	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	121	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	65-95									
22	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	122	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	65-99									
23	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	123	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	66-18									
24	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	124	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	67-44									
25	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	125	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	67-94									
26	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	126	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	68-35									

University of Kentucky

Reps: 1		Plots: 15 by 135 feet		Appl. Amount: 17 GAL/AC					Mix Size: 40 GAL (total for 1 plots; minimum=0.7903 GAL)	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Appl Timing	Appl Code	Amt to Measure	Product	Rep
27	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	127	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	68-95									
28	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	128	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	HEADLINE	2	EC	6	OZ/A	INF	A	417.5 mL/mx		
	70-27									
29	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	129	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	DELARO	325	SC	7	OZ/A	INF	A	487.1 mL/mx		
	59-82									
30	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	130	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	DELARO	325	SC	7	OZ/A	INF	A	487.1 mL/mx		
	111-35									
31	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	131	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	DELARO	325	SC	7	OZ/A	INF	A	487.1 mL/mx		
	62-22									
32	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	132	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	DELARO	325	SC	7	OZ/A	INF	A	487.1 mL/mx		
	62-70									
33	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	133	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	DELARO	325	SC	7	OZ/A	INF	A	487.1 mL/mx		
	63-57									
34	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	134	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	DELARO	325	SC	7	OZ/A	INF	A	487.1 mL/mx		
	1222									
35	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	135	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	DELARO	325	SC	7	OZ/A	INF	A	487.1 mL/mx		
	65-95									
36	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	136	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	DELARO	325	SC	7	OZ/A	INF	A	487.1 mL/mx		
	65-99									
37	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	137	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	DELARO	325	SC	7	OZ/A	INF	A	487.1 mL/mx		
	66-18									
38	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	389.7 mL/mx	138	
	AATREX	4	F	1	QT/A	PRE	A	2226.7 mL/mx		
	DELARO	325	SC	7	OZ/A	INF	A	487.1 mL/mx		
	67-44									

University of Kentucky

Reps: 1 Plots: 15 by 135 feet
Appl. Amount: 17 GAL/AC Mix Size: 40 GAL (total for 1 plots; minimum=0.7903 GAL)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Form Unit	Rate Unit	Appl Timing	Appl Code	Product to Measure	Rep
39	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	A	389.7 mL/mx	139
	AATREX	4	F	1	QT/A	PRE	A	A	2226.7 mL/mx	
	DELARO	325	SC	7	OZ/A	INF	A	A	487.1 mL/mx	
	67-94									
40	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	A	389.7 mL/mx	140
	AATREX	4	F	1	QT/A	PRE	A	A	2226.7 mL/mx	
	DELARO	325	SC	7	OZ/A	INF	A	A	487.1 mL/mx	
	68-35									
41	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	A	389.7 mL/mx	141
	AATREX	4	F	1	QT/A	PRE	A	A	2226.7 mL/mx	
	DELARO	325	SC	7	OZ/A	INF	A	A	487.1 mL/mx	
	68-95									
42	CORVUS	2.63	SC	5.6	FL OZ/A	PRE	A	A	389.7 mL/mx	142
	AATREX	4	F	1	QT/A	PRE	A	A	2226.7 mL/mx	
	DELARO	325	SC	7	OZ/A	INF	A	A	487.1 mL/mx	
	70-27									

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
16,366.334 mL		CORVUS	2.63		SC	
93,521.634 mL		AATREX	4		F	
5,845.116 mL		HEADLINE	2		EC	
6,819.301 mL		DELARO	325		SC	

* 'Per area' calculations based on application amount= 17 GPA, mix size= 40 GAL (mix size basis).

General Trial Information

Study Director: Sara Carter **Title:** Research Specialist

Discipline: F fungicide
Status: F one-year/final

ARM Trial Created On: 11-8-2022

Initiation Date: 6-8-2022

Planned Completion Date: 10-1-2022

Completion Date: 10-24-2022

Trial Location

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

Latitude of LL Corner °: 38.12793316 N
Longitude of LL Corner °: -84.49033033 W
GPS Accuracy of LL Corner: 9.8 FT
Altitude of LL Corner: 789.00 FT

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
City: Lexington, KY **E-mail:** skcart0@uky.edu
Role: SPONSR sponsor **Postal Code:** 40511
Sponsor: Todd Ladd
E-mail: james.ladd@bayer.com

University of Kentucky

Crop Description

Crop 1: C ZEAMX Zea mays Corn **BBCH Scale: BCOR**
Stage Scale: BBCH
Variety: SEE TRT LIST
Planting Date: 6-8-2022 **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: 73 F **Soil Moisture:** GOOD good
Emergence Date: 6-13-2022
Harvest Date: 10-24-2022 **Harvest Equipment:** MASSEY FERGUSON 8XP
Moisture Meter: HarvestMaster **Harvested Width:** 5 FT
% Standard Moisture: 15.5 **Harvested Length:** 135 FT
Weighing Equipment: HarvestMaster

Site and Design

Treated Plot Width: 15 FT **Site Type:** FIELD field
Treated Plot Length: 135 FT
Treated Plot Area: 2025.0 FT2 **Tillage Type:** CONTIL conventional-till
Replications: 1 **Treatments:** 42 **Plots:** 42 **Study Design:** RACOB L Randomized Complete Block (RCB)

Soil Description

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

Weather Conditions

Overall Moisture Conditions: WEWEDR wet-wet-dry
Weather Station Name: LEXINGTON AIRPORT **Distance:** 7 MI

Application Description

Application Date: 6-10-2022 **A**
Appl. Start Time: 9:00 AM
Appl. Stop Time: 9:30 AM
Application Method: SPRAY
Application Timing: PRE
Application Placement: BROSOI
Applied By: SARA
Air Temperature Start, Stop: 74, - F
% Relative Humidity Start, Stop: 65, -
Wind Velocity+Dir. Start: 4 MPH, WSW
Soil Temperature: 71 F
Soil Moisture: WET
Soil Surface Condition: SMOOTH
% Cloud Cover: 60
Next Moisture Occurred On: 6-10-2022
Time to Next Moisture: 6.0 HR

Crop Stage At Each Application

Crop 1 Code, BBCH Scale: ZEAMX, BCOR **A**
Days after Emergence: -3

Application Equipment

Appl. Equipment: TRACTOR **A**
Equipment Type: SPTRMO
Operation Pressure: 30 PSI
Nozzle Model: 8002
Nozzle Type: FLAFDG
Nozzle Spacing: 20 IN
Boom Length: 30.0 FT
Boom Height: 24.0 IN
Boom Flow Rate: - IN
Ground Speed: 3 MPH
Carrier: WATER
Application Amount: 17 GPA
Mix Size: 40.0 GAL
Propellant: PUMROL
Tank Mix (Y/N): Y, yes

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Corn variety -J/+ fungicide infurrow

Trial ID: 22-var Cooperator Trial ID:
 Protocol ID: Location: LEXINGTON, KY Trial Year: 2022
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sara Carter Sponsor Contact: Todd Ladd
 Investigator (Creator): Sara Carter

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
 Part Rated -, C
 Rating Type YIELD MOICON YIELD
 Rating Unit/Min/Max lb/plot, -, - %, 0, 100 BU, -, -
 Sample Size 1 PLOT 1 A
 Number of Subsamples 1 1 1
 EDC App
 Rating Timing
 Days After First/Last Applic. 136, 136 136, 136 136, 136
 Trt-Eval Interval 136 DA-A 136 DA-A 136 DA-A
 Plant-Eval Interval 138 DP-1 138 DP-1 138 DP-1
 Days After Emergence 133 DE-1 133 DE-1 133 DE-1
 ARM Action Codes TY1
 Number of Decimals 1 1 1

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3
1	CORVUS AATREX 59-82	5.6 FL OZ/A 1 QT/A	A A	101	164.3	15.0	190.5
				Mean =	164.3	15.0	190.5
2	CORVUS AATREX 111-35	5.6 FL OZ/A 1 QT/A	A A	102	162.6	15.0	188.5
				Mean =	162.6	15.0	188.5
3	CORVUS AATREX 62-22	5.6 FL OZ/A 1 QT/A	A A	103	160.2	18.8	177.4
				Mean =	160.2	18.8	177.4
4	CORVUS AATREX 62-70	5.6 FL OZ/A 1 QT/A	A A	104	171.5	17.9	192.0
				Mean =	171.5	17.9	192.0
5	CORVUS AATREX 63-57	5.6 FL OZ/A 1 QT/A	A A	105	173.7	18.3	193.5
				Mean =	173.7	18.3	193.5
6	CORVUS AATREX 1222	5.6 FL OZ/A 1 QT/A	A A	106	169.3	19.5	185.9
				Mean =	169.3	19.5	185.9
7	CORVUS AATREX 65-95	5.6 FL OZ/A 1 QT/A	A A	107	180.6	20.9	194.8
				Mean =	180.6	20.9	194.8
8	CORVUS AATREX 65-99	5.6 FL OZ/A 1 QT/A	A A	108	193.0	19.6	211.6
				Mean =	193.0	19.6	211.6
9	CORVUS AATREX 66-18	5.6 FL OZ/A 1 QT/A	A A	109	191.5	21.4	205.3
				Mean =	191.5	21.4	205.3
10	CORVUS AATREX 67-44	5.6 FL OZ/A 1 QT/A	A A	110	194.6	21.2	209.1
				Mean =	194.6	21.2	209.1

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Trt	Treatment	Rate	Appl				
No.	Name	Rate Unit	Code	Plot	1	2	3
11	CORVUS AATREX 67-94	5.6 FL OZ/A 1 QT/A	A A	111	192.9	22.3	204.4
				Mean =	192.9	22.3	204.4
12	CORVUS AATREX 68-35	5.6 FL OZ/A 1 QT/A	A A	112	203.4	22.0	216.4
				Mean =	203.4	22.0	216.4
13	CORVUS AATREX 68-95	5.6 FL OZ/A 1 QT/A	A A	113	194.3	22.7	204.8
				Mean =	194.3	22.7	204.8
14	CORVUS AATREX 70-27	5.6 FL OZ/A 1 QT/A	A A	114	199.5	22.8	210.0
				Mean =	199.5	22.8	210.0
15	CORVUS AATREX HEADLINE 59-82	5.6 FL OZ/A 1 QT/A 6 OZ/A	A A A	115	176.6	16.3	201.6
				Mean =	176.6	16.3	201.6
16	CORVUS AATREX HEADLINE 111-35	5.6 FL OZ/A 1 QT/A 6 OZ/A	A A A	116	184.1	16.7	209.1
				Mean =	184.1	16.7	209.1
17	CORVUS AATREX HEADLINE 62-22	5.6 FL OZ/A 1 QT/A 6 OZ/A	A A A	117	179.8	17.9	201.3
				Mean =	179.8	17.9	201.3
18	CORVUS AATREX HEADLINE 62-70	5.6 FL OZ/A 1 QT/A 6 OZ/A	A A A	118	192.6	17.4	217.0
				Mean =	192.6	17.4	217.0
19	CORVUS AATREX HEADLINE 63-57	5.6 FL OZ/A 1 QT/A 6 OZ/A	A A A	119	186.0	17.7	208.8
				Mean =	186.0	17.7	208.8

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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
Part Rated		-, C	
Rating Type	YIELD	MOICON	YIELD
Rating Unit/Min/Max	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size	1 PLOT		1 A
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	136, 136	136, 136	136, 136
Trt-Eval Interval	136 DA-A	136 DA-A	136 DA-A
Plant-Eval Interval	138 DP-1	138 DP-1	138 DP-1
Days After Emergence	133 DE-1	133 DE-1	133 DE-1
ARM Action Codes			TY1
Number of Decimals	1	1	1

Trt	Treatment	Rate	Appl				
No.	Name	Rate Unit	Code	Plot	1	2	3
20	CORVUS	5.6 FL OZ/A	A	120	180.4	20.8	194.9
	AATREX	1 QT/A	A				
	HEADLINE	6 OZ/A	A				
	1222						
				Mean =	180.4	20.8	194.9
21	CORVUS	5.6 FL OZ/A	A	121	193.1	20.5	209.4
	AATREX	1 QT/A	A				
	HEADLINE	6 OZ/A	A				
	65-95						
				Mean =	193.1	20.5	209.4
22	CORVUS	5.6 FL OZ/A	A	122	190.3	19.6	208.7
	AATREX	1 QT/A	A				
	HEADLINE	6 OZ/A	A				
	65-99						
				Mean =	190.3	19.6	208.7
23	CORVUS	5.6 FL OZ/A	A	123	186.2	21.6	199.1
	AATREX	1 QT/A	A				
	HEADLINE	6 OZ/A	A				
	66-18						
				Mean =	186.2	21.6	199.1
24	CORVUS	5.6 FL OZ/A	A	124	181.7	20.2	197.7
	AATREX	1 QT/A	A				
	HEADLINE	6 OZ/A	A				
	67-44						
				Mean =	181.7	20.2	197.7
25	CORVUS	5.6 FL OZ/A	A	125	176.7	22.1	187.7
	AATREX	1 QT/A	A				
	HEADLINE	6 OZ/A	A				
	67-94						
				Mean =	176.7	22.1	187.7
26	CORVUS	5.6 FL OZ/A	A	126	191.9	20.0	209.4
	AATREX	1 QT/A	A				
	HEADLINE	6 OZ/A	A				
	68-35						
				Mean =	191.9	20.0	209.4
27	CORVUS	5.6 FL OZ/A	A	127	191.7	21.7	204.9
	AATREX	1 QT/A	A				
	HEADLINE	6 OZ/A	A				
	68-95						
				Mean =	191.7	21.7	204.9
28	CORVUS	5.6 FL OZ/A	A	128	182.4	22.3	193.3
	AATREX	1 QT/A	A				
	HEADLINE	6 OZ/A	A				
	70-27						
				Mean =	182.4	22.3	193.3

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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
Part Rated		-, C	
Rating Type	YIELD	MOICON	YIELD
Rating Unit/Min/Max	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size	1 PLOT		1 A
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	136, 136	136, 136	136, 136
Trt-Eval Interval	136 DA-A	136 DA-A	136 DA-A
Plant-Eval Interval	138 DP-1	138 DP-1	138 DP-1
Days After Emergence	133 DE-1	133 DE-1	133 DE-1
ARM Action Codes			TY1
Number of Decimals	1	1	1

Trt	Treatment	Rate	Appl				
No.	Name	Rate Unit	Code	Plot	1	2	3
29	CORVUS	5.6 FL OZ/A	A	129	178.6	15.8	205.1
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	59-82						
				Mean =	178.6	15.8	205.1
30	CORVUS	5.6 FL OZ/A	A	130	193.7	18.5	215.3
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	111-35						
				Mean =	193.7	18.5	215.3
31	CORVUS	5.6 FL OZ/A	A	131	185.5	20.5	201.1
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	62-22						
				Mean =	185.5	20.5	201.1
32	CORVUS	5.6 FL OZ/A	A	132	187.2	17.9	209.6
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	62-70						
				Mean =	187.2	17.9	209.6
33	CORVUS	5.6 FL OZ/A	A	133	165.4	17.6	185.9
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	63-57						
				Mean =	165.4	17.6	185.9
34	CORVUS	5.6 FL OZ/A	A	134	165.1	18.7	183.1
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	1222						
				Mean =	165.1	18.7	183.1
35	CORVUS	5.6 FL OZ/A	A	135	169.4	19.0	187.1
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	65-95						
				Mean =	169.4	19.0	187.1
36	CORVUS	5.6 FL OZ/A	A	136	167.2	16.8	189.7
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	65-99						
				Mean =	167.2	16.8	189.7
37	CORVUS	5.6 FL OZ/A	A	137	185.0	21.5	198.1
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	66-18						
				Mean =	185.0	21.5	198.1

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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
Part Rated		, C	
Rating Type	YIELD	MOICON	YIELD
Rating Unit/Min/Max	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size	1 PLOT		1 A
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	136, 136	136, 136	136, 136
Trt-Eval Interval	136 DA-A	136 DA-A	136 DA-A
Plant-Eval Interval	138 DP-1	138 DP-1	138 DP-1
Days After Emergence	133 DE-1	133 DE-1	133 DE-1
ARM Action Codes			TY1
Number of Decimals	1	1	1

Trt	Treatment	Rate	Appl				
No.	Name	Rate Unit	Code Plot	1	2	3	
38	CORVUS	5.6 FL OZ/A	A	138	182.8	20.5	198.2
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	67-44						
			Mean =	182.8	20.5	198.2	
39	CORVUS	5.6 FL OZ/A	A	139	176.0	22.1	187.0
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	67-94						
			Mean =	176.0	22.1	187.0	
40	CORVUS	5.6 FL OZ/A	A	140	192.6	20.5	208.8
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	68-35						
			Mean =	192.6	20.5	208.8	
41	CORVUS	5.6 FL OZ/A	A	141	190.1	22.6	200.7
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	68-95						
			Mean =	190.1	22.6	200.7	
42	CORVUS	5.6 FL OZ/A	A	142	178.1	25.0	182.2
	AATREX	1 QT/A	A				
	DELARO	7 OZ/A	A				
	70-27						
			Mean =	178.1	25.0	182.2	

Crop Type, Code

C = EPPPO species (Bayer) codes
ZEAMX, BCOR, Zea mays, Corn = US

C = Crop is Part Rated

Rating Type

YIELD = yield
MOICON = moisture content

Rating Unit/Min/Max

lb/plot, , = pounds per plot
%, 0, 100 = percent
BU, , = bushel

PLOT = total plot

A = acre

Plant-Eval Interval

138 DP-1 = 1 ZEAMX 6-8-2022

ARM Action Codes

TY1 = 1.15238095*[1]*(100-[2])/84.5

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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
Part Rated		-, C	
Rating Type	YIELD	MOICON	YIELD
Rating Unit/Min/Max	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size	1 PLOT		1 A
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	136, 136	136, 136	136, 136
Trt-Eval Interval	136 DA-A	136 DA-A	136 DA-A
Plant-Eval Interval	138 DP-1	138 DP-1	138 DP-1
Days After Emergence	133 DE-1	133 DE-1	133 DE-1
ARM Action Codes			TY1
Number of Decimals	1	1	1

Trt No.	Treatment Name	Rate	Appl Code	1	2	3
1	CORVUS	5.6 FL OZ/A	A	164.3	15.0	190.5
	AATREX	1 QT/A	A			
	59-82					
2	CORVUS	5.6 FL OZ/A	A	162.6	15.0	188.5
	AATREX	1 QT/A	A			
	111-35					
3	CORVUS	5.6 FL OZ/A	A	160.2	18.8	177.4
	AATREX	1 QT/A	A			
	62-22					
4	CORVUS	5.6 FL OZ/A	A	171.5	17.9	192.0
	AATREX	1 QT/A	A			
	62-70					
5	CORVUS	5.6 FL OZ/A	A	173.7	18.3	193.5
	AATREX	1 QT/A	A			
	63-57					
6	CORVUS	5.6 FL OZ/A	A	169.3	19.5	185.9
	AATREX	1 QT/A	A			
	1222					
7	CORVUS	5.6 FL OZ/A	A	180.6	20.9	194.8
	AATREX	1 QT/A	A			
	65-95					
8	CORVUS	5.6 FL OZ/A	A	193.0	19.6	211.6
	AATREX	1 QT/A	A			
	65-99					
9	CORVUS	5.6 FL OZ/A	A	191.5	21.4	205.3
	AATREX	1 QT/A	A			
	66-18					
10	CORVUS	5.6 FL OZ/A	A	194.6	21.2	209.1
	AATREX	1 QT/A	A			
	67-44					
11	CORVUS	5.6 FL OZ/A	A	192.9	22.3	204.4
	AATREX	1 QT/A	A			
	67-94					
12	CORVUS	5.6 FL OZ/A	A	203.4	22.0	216.4
	AATREX	1 QT/A	A			
	68-35					
13	CORVUS	5.6 FL OZ/A	A	194.3	22.7	204.8
	AATREX	1 QT/A	A			
	68-95					
14	CORVUS	5.6 FL OZ/A	A	199.5	22.8	210.0
	AATREX	1 QT/A	A			
	70-27					
15	CORVUS	5.6 FL OZ/A	A	176.6	16.3	201.6
	AATREX	1 QT/A	A			
	HEADLINE	6 OZ/A	A			
	59-82					
16	CORVUS	5.6 FL OZ/A	A	184.1	16.7	209.1
	AATREX	1 QT/A	A			
	HEADLINE	6 OZ/A	A			
	111-35					

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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
Part Rated		-, C	
Rating Type	YIELD	MOICON	YIELD
Rating Unit/Min/Max	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size	1 PLOT		1 A
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	136, 136	136, 136	136, 136
Trt-Eval Interval	136 DA-A	136 DA-A	136 DA-A
Plant-Eval Interval	138 DP-1	138 DP-1	138 DP-1
Days After Emergence	133 DE-1	133 DE-1	133 DE-1
ARM Action Codes			TY1
Number of Decimals	1	1	1

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3
17	CORVUS	5.6	FL OZ/A	A	179.8	17.9	201.3
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	62-22						
18	CORVUS	5.6	FL OZ/A	A	192.6	17.4	217.0
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	62-70						
19	CORVUS	5.6	FL OZ/A	A	186.0	17.7	208.8
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	63-57						
20	CORVUS	5.6	FL OZ/A	A	180.4	20.8	194.9
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	1222						
21	CORVUS	5.6	FL OZ/A	A	193.1	20.5	209.4
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	65-95						
22	CORVUS	5.6	FL OZ/A	A	190.3	19.6	208.7
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	65-99						
23	CORVUS	5.6	FL OZ/A	A	186.2	21.6	199.1
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	66-18						
24	CORVUS	5.6	FL OZ/A	A	181.7	20.2	197.7
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	67-44						
25	CORVUS	5.6	FL OZ/A	A	176.7	22.1	187.7
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	67-94						
26	CORVUS	5.6	FL OZ/A	A	191.9	20.0	209.4
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	68-35						
27	CORVUS	5.6	FL OZ/A	A	191.7	21.7	204.9
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	68-95						
28	CORVUS	5.6	FL OZ/A	A	182.4	22.3	193.3
	AATREX	1	QT/A	A			
	HEADLINE	6	OZ/A	A			
	70-27						
29	CORVUS	5.6	FL OZ/A	A	178.6	15.8	205.1
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	59-82						

University of Kentucky

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
Part Rated		-, C	
Rating Type	YIELD	MOICON	YIELD
Rating Unit/Min/Max	lb/plot, -, -	%, 0, 100	BU, -, -
Sample Size	1 PLOT		1 A
Number of Subsamples	1	1	1
EDC App			
Rating Timing			
Days After First/Last Applic.	136, 136	136, 136	136, 136
Trt-Eval Interval	136 DA-A	136 DA-A	136 DA-A
Plant-Eval Interval	138 DP-1	138 DP-1	138 DP-1
Days After Emergence	133 DE-1	133 DE-1	133 DE-1
ARM Action Codes			TY1
Number of Decimals	1	1	1

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3
30	CORVUS	5.6	FL OZ/A	A	193.7	18.5	215.3
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	111-35						
31	CORVUS	5.6	FL OZ/A	A	185.5	20.5	201.1
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	62-22						
32	CORVUS	5.6	FL OZ/A	A	187.2	17.9	209.6
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	62-70						
33	CORVUS	5.6	FL OZ/A	A	165.4	17.6	185.9
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	63-57						
34	CORVUS	5.6	FL OZ/A	A	165.1	18.7	183.1
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	1222						
35	CORVUS	5.6	FL OZ/A	A	169.4	19.0	187.1
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	65-95						
36	CORVUS	5.6	FL OZ/A	A	167.2	16.8	189.7
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	65-99						
37	CORVUS	5.6	FL OZ/A	A	185.0	21.5	198.1
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	66-18						
38	CORVUS	5.6	FL OZ/A	A	182.8	20.5	198.2
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	67-44						
39	CORVUS	5.6	FL OZ/A	A	176.0	22.1	187.0
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	67-94						
40	CORVUS	5.6	FL OZ/A	A	192.6	20.5	208.8
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	68-35						
41	CORVUS	5.6	FL OZ/A	A	190.1	22.6	200.7
	AATREX	1	QT/A	A			
	DELARO	7	OZ/A	A			
	68-95						

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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
 Part Rated -, C
 Rating Type YIELD MOICON YIELD
 Rating Unit/Min/Max lb/plot, -, - % , 0, 100 BU, -, -
 Sample Size 1 PLOT 1 A
 Number of Subsamples 1 1 1
 EDC App
 Rating Timing
 Days After First/Last Applic. 136, 136 136, 136 136, 136
 Trt-Eval Interval 136 DA-A 136 DA-A 136 DA-A
 Plant-Eval Interval 138 DP-1 138 DP-1 138 DP-1
 Days After Emergence 133 DE-1 133 DE-1 133 DE-1
 ARM Action Codes TY1
 Number of Decimals 1 1 1

Trt No.	Treatment Name	Rate	Appl Code	1	2	3
42	CORVUS	5.6 FL OZ/A	A	178.1	25.0	182.2
	AATREX	1 QT/A	A			
	DELARO	7 OZ/A	A			
	70-27					
	LSD P=.05			.	.	.
	Standard Deviation			.	.	.
	CV			.	.	.
	Levene's F^			.	.	.
	Levene's Prob(F)			.	.	.
	Shapiro-Wilk^			.	.	.
	P(Shapiro-Wilk)^			.	.	.
	Skewness^			-0.3403	-0.2011	-0.2359
	P(Skewness)^			.	.	.
	Kurtosis^			-0.7445	-0.5099	-0.9316
	P(Kurtosis)^			.	.	.

Crop Type, Code
 C = EPPO species (Bayer) codes
 ZEAMX, BCOR, Zea mays, Corn = US

C = Crop is Part Rated

Rating Type

YIELD = yield

MOICON = moisture content

Rating Unit/Min/Max

lb/plot, , = pounds per plot

% , 0, 100 = percent

BU, , = bushel

PLOT = total plot

A = acre

Plant-Eval Interval

138 DP-1 = 1 ZEAMX 6-8-2022

ARM Action Codes

TY1 = 1.15238095*[1]*(100-[2])/84.5