

UNIVERSITY OF KENTUCKY

DEPARTMENT OF AGRONOMY

1971

RESULTS OF HERBICIDE EVALUATION TRIALS

NOT FOR PUBLICATION

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## LIST OF HERBICIDES USED IN WEED CONTROL STUDIES-1971

A-820	N- <u>sec</u> -butyl-4- <u>tert</u> -butyl-2,6-dinitroaniline.	Amchem
AC 92390	Unknown	American Cyanamid
Alachor	(Lasso)--2-chloro-2', 6'-diethyl-N-(methoxymethyl) acetamide	Monsanto
Ametryne (Evik)	--2-(ethylamino)-4-(isopropylamino)-6-(methylthio)-s-triazine	Geigy
Amiben--3-amino-2,5-dichlorobenzoic acid		Amchem
Amilan(Amiben + Lorox)		Amchem
Atrazine (AAtrex)	--2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine	Geigy
BAS 3512	3-isopropyl-1 H-2,1,3-benzothiadiazinone-(4)3H-one-2,2-dioxide	BASF
BAS 3921	N-propyl-N(2-chloroethyl)-2,6-dinitro-4-trifluoromethyl-aniline	BASF
BAY 2236	1,1-Dimethyl-3-(m-chloro-p-trifluoromethoxyphenyl) urea	Chemagro
BAY 94337	--4-amino-6-6-butyl-3-(methylthio)-as-triazin-5 (4H)-one	Chemagro
Benefin (Balan)	--N-butyl- <u>a,a,a</u> -trifluoro-2,6-dinitro- <u>p</u> -toluidine	Eli Lilly
Bladex-(SD-15418)	2-(4-chloro-6-ethylamino-s-triazin-2-ylamino)-2-methylpropionitrile	Shell
Bromoxynil	3,5-dibromo-4-hydroxybenzoxynitrile	Amchem and Rhodia
Butylate		Stauffer
Chloroprotham (CIPC)	isopropyl N-(3-chlorophenyl) carbamate	Pittsburgh Plate Glass
Crop Oil		Gulf
Diphenamid (Enide & Dymid)		Upjohn and Eli Lilly
Dinoseb (Dow General)	--2- <u>sec</u> butyl-4,6-dinitrophenol	Dow
DS 5328	is-2,5-dimethyl-1-pyrrolidinyl-carboxanilide	Diamond Shamrock
E1-119	3,5-dinitro-N,N-dipropyl-sulfanilamide	Eli Lilly
E1-179	4-isopropyl-2,6-dinitro-N,N-(dipropyl) aniline	Eli Lilly
EPTC (Eptam)	S-ethyl dipropylthiocarbamate	Stauffer
ER-9063	Unknown	Geigy
GA-10832	N-m-propyl-N-cyclopropylmethyl-4-trifluoromethyl-2,6-dinitroaniline	Ciba-Geigy
GS-13529	--(terbulethylazine)2-chloro-4-ethylamino-6- <u>tert</u> -butylamino-s-triazine	Geigy
GS-38946	N-ethyl-N-Tetrahydrofurfuryl-4-trifluoromethyl-2,6-dinitroaniline	Geigy
Linuron (Lorox)	--3-(3,4-dichlorophenyl)-1-methoxy-1-methylurea	Dupont
Maloran--3-(4-Bromo-3-chlorophenyl)-1-methoxy-1-methylurea		CIBA
Mon 0468	0468 N-(phosphonomethyl) glycine mono(dimethylamine) salt	Monsanto
Mon 097	2-chloro-N(ethoxymethyl)-6' ethyl-o-acetotoluidide	Monsanto
Naphthalic Anhydride		Gulf
Nitralin (Planavin)	4-(methylsulfonyl)-2,6-dinitro-N,N-dipropylaniline	Shell
Outfox (S 6115)	--2-chloro-4-cyclopropylamino-6-isopropylamino-s-triazine	Gulf
Paraquat	Paraquat dichloride (1,1:dimethyl 4,4'-bipyridinium dichloride)	Chevron
Pebulate (Tillam)	--S-propyl butylethylthiocarbamate	Stauffer
Preforan-P-Nitrophenyl	2-nitro-4-(trifluoromethyl)phenyl ether	CIBA
Premerge - Dinoseb	4,6-dinitro-o- <u>sec</u> -butylphenol	Dow
R-25788	Unknown	Stauffer
R-7465	2-(alpha-napthoxy)-N,N-diethylpropionamide	Stauffer
Simazine (princep)	--2,4-chloro-4,6-bis (ethylamino)-s-triazine	Geigy
Solo	Chloroprotham plus Naptalam	Uniroyal
2,4-DB	4,(2,4-dichlorophenoxy) butyric acid	AMCHEM
Tenoran	3- p-chlorophenoxy)phenyl -1,1-dimethylurea	CIBA
Trifluralin (Treflan)	-- <u>a,a,a</u> -trifluoro-2,6-dinitro-N,N-dipropyl- <u>P</u> -toluidine	Eli Lilly
2,4-D amine		Amchem
Vernolate (Vernam)	--s-propyl dipropylthiocarbamate	Stauffer
X-77		Chevron

Day	May		June			July			August		
	Precip.	Temp Max. Min.	Precip.	Temp Max. Min.	Precip.	Temp Max Min.	Precip	Temp Max Min			
1		65 37		81 58	.49	82 68		79 58			
2	.14	58 42	.05	79 64	.03	79 64		77 65			
3	.03	55 36		85 62		82 61	.37	77 68			
4		63 35		86 63		83 68	.22	79 67			
5	.02	66 49		87 68		81 65	.04	73 64			
6	1.00	66 57		87 70	.03	82 66	.01	76 64			
7	1.72	69 56		83 68		84 66		81 63			
8	.24	65 50		80 69		88 68		84 63			
9		70 49		73 68		86 69		85 63			
10	.27	74 50		80 56	.44	86 66		85 68			
11		72 59		86 58	1.16	82 67		81 64			
12	.30	66 43		83 69	.33	81 62		81 58			
13	1.69	56 40	.13	84 68		84 64		82 57			
14		68 38		83 65		81 69		83 61			
15		69 54	1.04	72 64	T	81 61		85 60			
16		75 55	.05	79 65	.02	82 67		82 65			
17		80 57		81 61		87 64		83 64			
18		80 58		82 66		82 65		81 66			
19		79 61		82 66	1.50	80 65		85 63			
20		73 57	1.60	84 62	.33	75 60		87 66			
21		72 52	.04	82 66		78 58		85 67			
22		66 46	2.71	71 65		81 60		79 69			
23		72 46	.10	80 61		80 64		83 67			
24	.01	79 65		84 61	.27	76 68		81 56			
25	.91	67 52		86 65		78 69		85 60			
26		70 49	.07	88 65		84 68	.10	80 65			
27	.33	59 47		95 71	.06	77 61		76 60			
28	.32	62 43		89 70		80 55		75 57			
29		66 47	.03	88 65	.51	77 63		80 57			
30		74 53	.45	86 70	.02	70 62		86 60			
31		77 55			.16	74 60		86 67			
Sum	6.98		6.27		5.35		.74				
Avg.		69 50		83 65		80.7 64.3		81.4 53.0			

## Techniques Used in Herbicide Trials

Lexington:

**Design:** Trials were designed as randomized complete blocks with four replications of plots 2 rows wide by 40 to 50 feet long with border rows except in no-till corn and soybeans.

**Application:** Treatments were applied with a CO<sub>2</sub> sprayer. Herbicides were incorporated with a power driven rototiller.

**Rating:** Weed control was rated on a 0 to 10 scale where 0 equals no control and 10 equals perfect control and 7 is considered commercially acceptable. Crop injury was rated on a 0 to 10 scale also. A rating of 3 and above was considered not to be commercially acceptable.

**Cultivation:** Plots were not cultivated

**Organic Matter:** All experiments 3.5, 3.7%

University of Kentucky - Agronomy Department - Lexington  
Corn - Preemergence

Visual Evaluation 6/17

Trt. No.	Herbicide Formulation	Lb/A Active	Weed Control						Velvet Leaf	Spiney-sida
			Grass	Broadleaf	Giant Foxtail	Pigweed	Smartweed			
1	Atrazine 4L*	2.0	90 bcdef <sup>1/</sup>	95 abcde	90 abcd	90 abcd	97 abc	90 abc	93 abcd	
2	Simazine 80 W	1.0	83 bcdef	85 bcdefg	83 bcd	87 abc	90 abcd	68 abcdefg	77 abcde	
3	do	2.0	85 bcdef	78 cdefg	85 abcd	43 abc	73 abcd	63 abcdefg	93 abcd	
4	Atrazine 4L + Simazine 80 W	1.0 + 1.0	80 cdef	90 abcdef	83 bcd	98 ab	100 a	90 abcd	58 def	
5	Atrazine 4L + Lasso 4E	1.0 + 2.0	100 a	98 ab	100 a	100 a	100 a	93 ab	73 ab	
6	Lasso 3 + Atrazine 2 Formul.	1.5 + 1	95 ab	88 bcdefg	93 abcd	100 a	97 abc	68 abcdef	93 abcd	
7	Simazine 80W + Lasso 4E	1.0 + 2.0	95 abc	80 bcdefgh	95 abc	93 abc	83 abcd	53 cdefgh	83 abcde	
8	GS 13529 80W	2.0	73 def	90 abcdef	68 d	93 ab	88 abcd	76 abcde	90 abcd	
9	do + Lasso 4E	1.0 + 2.0	90 abcde	85 bcdefgh	98 ab	97 ab	90 abcd	90 abcd	90 abcd	
10	Outfox 1E	1.0	78 def	93 abcd	80 cd	95 ab	97 abc	93 abc	97 abc	
11	do	2.0	90 abcde	95 abc	93 abcd	100 a	98 ab	100 a	78 bcd	
12	do + Lasso 4E	1.0 + 2.0	93 abcd	93 abcde	93 abcd	98 ab	100 a	90 abcd	95 abcd	
13	Maloran 50 W	3.0	68 f	83 bcdefgh	73 d	60 d	90 abcd	85 abcd	66 cdefg	
14	do + Lasso 4E	1.5 + 2.0	95 abc	83 abcdefgh	98 ab	98 ab	87 abcd	88 abcd	73 bcdef	
15	Lasso 4E	1.0	85 bcdef	68 efgh	88 abcd	65 cd	58 de	28 fghi	40 fg	
16	do	2.0	95 abc	63 h	93 abcd	80 abcd	68 cd	18 hi	63 defg	
17	do	3.0	98 ab	68 gh	98 ab	87 abcd	35 e	5 i	55 efg	
18	Mon 097 5E	1.0	93 abcde	65 gh	93 abcd	90 abcd	0 f	43 defghi	33 g	
19	do	2.0	93 abc	75 defgh	88 abcd	67 bcd	75 abcd	30 efg	50 efg	
20	do	3.0	95 abc	70 fgh	98 ab	93 abc	97 abc	23 ghi	97 abc	
21	Bladex 80 W	2.0	88 abcdef	88 bcdefgh	95 abc	93 abc	88 abcd	78 abcde	83 abcde	
22	do + Lasso 4E	1.0 + 2.0	95 abc	73 efgh	95 abc	83 ab	68 bcd	40 efghi	63 bcdefg	
23	DS 5328 65W	3.0	73 ef	85 cdefgh	95 cd	98 ab	100 a	100 a	97 abc	
24	Check cultivated	-	100 a	100 a	100 a	100 a	100 a	100 a	100 a	
	C.V.		14%	16%	16%	19%	24%	37%	25%	

Corn Pre-emergence (cont).

Trt No.	Herbicide Formulation	Lb/A Active	Visual Evaluation <del>7/27</del> Weed Control							Cbrn Plants 1000/A at Harvest	Yield Bu/A
			Grass	Broadleaf	Giant Foxtail	Pigweed	Smartweed	Velvet Leaf	Spiney Sida		
1	Atrazine 4L *	2.0	63 cde	85 bc	68 bcde	95 b	95 b	88 bc	83 bcd	20.9 a	157 a
2	Simazine 80W	1.0	58 def	80 bcd	75 bcd	87 bcde	73 bcde	80bcdefgh	73 bcdef	20.3 a	146 a
3	do	2.0	73 bcd	80 bcd	80 bcd	83 cdefg	80 bcd	75 cdefgh	73 bcdef	20.9 a	148 a
4	Atrazine 4L + Simazine 80W	1.0 + 1.0	58 def	90 b	60 def	90 bcde	90 b	90 bcd	90 bc	19.3 a	153 a
5	Atrazine 4L + Lasso 4E	1.0 + 2.0	85 b	90 b	93 ab	<del>93 bc</del> 88 b	83 bc	88 b		21.2 a	165 a
6	Lasso 3 + atra- zine 2 formul.	1.5 + 1	75 bcd	88 bc	85 bcd	90 bcde	90 b	80 bcde	83 bcd	21.0 a	158 a
7	Simazine 80W + Lasso 4E	1.0 + 2.0	85 b	60 de	90 ab	88 bcd	83 b	73 defgh	77 bcde	20.0 a	149 a
8	GS 13529 80W	2.0	63 cde	90 b	85 bcd	90 bcde	83 bc	88 bcde	77 bcde	21.5 a	146 a
9	do + Lasso 4E	1.0 + 2.0	83 bc	75 bcd	85 bcd	90 bcde	83 bc	75 bcdef	70 cdef	20.7 a	153 a
10	Outfox 1E	1.0	60 def	90 b	70 bcde	88 bcde	85 bc	83 bcde	80 bcde	19.4 a	149 a
11	do	2.0	78 bcd	90 b	80 bcd	90 bcde	90 b	90 bc	83 bcd	20.6 a	159 a
12	do + Lasso 4E	1.0 + 2.0	90 b	90 b	90 bc	93 bc	90 b	93 b	90 bc	19.7 a	127 a
13	Maloran 50W	3.0	43 ef	83 bcd	45 ef	70 g	83 bc	80 bcdef	60 ef	21.2 a	134 a
14	do + Lasso 4E	1.5 + 2.0	78 bcd	75 bcd	80 bcd	83 cdefg	77 bcd	83 bcdef	73 bcdef	19.9 a	155 a
15	Lasso 4E	1.0	60 cdef	60 de	65 cdef	70 fg	60 cde	58 h	53 f	20.2 a	145 a
16	do	2.0	83 bc	58 de	90 bc	80 defg	55 de	63 fgh	57 f	20.3 a	139 a
17	do	3.0	90 b	43 e	88 bcd	77 efg	48 e	55 gh	60 ef	20.7 a	140 a
18	Mon 097 5E	1.0	73 bcd	58 de	78 bcd	78 efg	35 e	60 h	60 ef	20.2 a	150 a
19	do	2.0	88 b	73 bcd	90 bc	93 bc	83 b	65 cdefgh	77 bcdef	20.1 a	149 a
20	do	3.0	90 b	65 cde	88 bcd	90 bcde	80 bcd	58 h	77 bcdef	20.6 a	143 a
21	Bladex 80W	2.0	60 cdef	85 bc	88 bcd	87 bcdef	90 b	80 bcdefg	77 bcdef	20.3 a	151 a
22	do + Lasso 4E	1.0 + 2.0	78 bcd	70 bcd	88 bcd	85 bcdefg	83 bc	68 efg	68 def	20.9 a	145 a
23	DS 5328 65W	3.0	38 f	90 b	38 f	88 bcde	83 bc	80 bcde	73 bcdef	20.1 a	147 a
24	Check cultivated	-	100 a	100 a	100 a	100 a	100 a	100 a	100 a	20.3 a	156 a
C.V. =			15%	15%	17%	9%	15%	13%	13%	6%	9%

1/ Mean values within a column are not significantly different at 5% level probability if followed by one or more of same letters

\* All treatments preemergence  
 Location Campus Farm - Lexington, Ky.  
 Planted & treated May 17  
 Soil type - silt loam  
 Fertilization - 100 lb N + 400 lb 12-12-12  
 Variety - Pioneer 3369 A

Additional weed species present that went into the grass and broadleaf ratings are:  
 Nut sedge, crabgrass, fall panicum, morning glory and lambsquarter.

University of Kentucky - Agronomy Department - Lexington  
Corn - Pre-Plant Inc.

Trt. No.	Herbicide Formulation	Lb/A Active	Visual Evaluation - 6/17								Visual Evaluation-7/	
			Weed Control								Weed Control	
			Grass	Broadleaf	Crop Injury	Velvet Leaf	Smart-Weed	Giant Foxtail	Lambs Quarter	Pig-Weed	Grass	Broad leaf
1	Atrazine 4L *	1	83 c <sup>1/</sup>	100 a	0 a	90 ab	100 a	90 b	100 a	100 a	40 f	85 bc
2	do	2	88 bc	100 a	20 a	93 ab	100 a	90 b	100 a	100 a	50 f	90 b
3	Simazine 80W	2	93 abc	98 ab	0 a	94 ab	100 a	93 b	100 a	95 ab	73 cde	90 bc
4	GS 13529 80W	2	80 bc	98 ab	10 a	93 ab	100 a	95 ab	100 a	100 a	48 f	90 b
5	Bladex 80W	2	95 abc	95 ab	0 a	95 ab	98 a	95 ab	100 a	83 b	58 ef	88 bc
6	Outfox 1E	1	83 bc	90 ab	10 a	88 ab	100 a	90 b	100 a	100 a	50 f	85 bc
7	do	2	98 ab	98 ab	10 a	95 a	100 a	95 ab	100 a	100 a	75 bcd	93 b
8	Sutan 6E	4	90 abc	68 c	10 a	98 a	28 e	98 ab	55 d	98 a	80 bcd	43 g
9	do	8	98 ab	88 abc	0 a	95 a	40 de	100 a	68 c	98 a	90 b	58 efg
10	Eptam 6E	3	100 a	85 abc	35 c	100 a	68 bc	100 a	87 bc	90 ab	75 bcd	45 g
11	do	6	100 a	100 a	40 cd	100 a	98 a	100 a	100 a	100 a	85 bcd	65cdefg
12	Atrazine 1½ + Sutan 4½ Formul.	1 + 3	98 ab	100 a	0 a	100 a	100 a	98 ab	100 a	100 a	80 bcd	90 b
13	GS 13529 80W + Sutan 6E	1 + 3	95 abc	100 a	0 a	100 a	100 a	100 a	100 a	100 a	78 bcd	90 b
14	Outfox 1E + Bladex 80 W +											
15	Sutan 6E	1 + 3	88 abc	88 abc	10 a	73 b	70 bc	95 ab	93 ab	93 ab	70 de	60 defg
16	Sutan 6E + R-25788 6E	8 + 1	100 a	75 bc	10 a	100 a	55 cd	100 a	75 c	100 a	90 b	50 fg
17	R-25788 6E	.25	0 d	0 d	0 a	0 c	0 f	0 c	0 e	0 c	0 g	0 h
18	do	1	0 d	0 d	0 a	0 c	0 f	0 c	0 e	0 c	0 g	0 h
19	Eptam 6E + R-25788	3 + 1	98 ab	90 abc	10 a	95 ab	73 bc	100 a	97 ab	94 ab	85 bcd	58 efg
20	do do	6 + 1	100 a	100 a	10 a	100 a	100 a	100 a	100 a	100 a	88 bc	83 bcd
21	do do	6 + .25	100 a	95 ab	10 a	100 a	78 ab	100 a	100 a	100 a	90 b	78 bcde
22	do + Napthalic anhydride	6 + .5%	100 a	100 a	25 ab	100 a	100 a	100 a	100 a	100 a	90 b	75bcdef
23	Napthalic anhydride	.5%	0 d	0 d	0 a	0 c	0 f	0 c	0 e	0 c	0 g	0 h
24	Check cultivated		75 bc	75 abc	30 ab	100 a	100 a	100 a	100 a	100 a	100 a	100 a
		C.V.	16%	19%	143%	16%	20%	9%	13%	10%	12%	18%



Corn - post emergence (cont)

Trt No.	Herbicide Formulation	Lb/A Active	Visual Evaluation 7/27							Corn plt 1000/A at harvest	Yield Bu/A	
			WEED CONTROL									
			Grass	Broadleaf	Crop Injury	Pig-Weed	Smart-weed	Velvet-leaf	Giant Foxtail	Lambs quarters		
1	Linuron 50W 2,4-D amine(1.5 lb/A)**	1	38 de	92 a	0 a	85 bc	88 cd	88 c	45 cdef	90 cd	22.2 a	140 a
2	do + Oil**	1.0 + 1gpa	68 bc	92 a	0 a	88 bc	93 bc	88 bc	68 bcd	93 bc	21.9 a	128 a
3	do + Surf**	1.0 + .5%	68 bc	95 a	0 a	90 bc	90 bcd	90 bc	68 bcd	90 cd	20.9 a	151 a
4	do + do**	.5 + .5%	38 cde	92 a	0 a	87 bc	88 cd	88 c	38 defg	90 cd	21.3 a	140 a
5	EVIK 80W**	1.0	33 de	92 a	0 a	87 bc	88 cd	90 bc	33 efg	90 cd	23.0 a	141 a
6	do + Oil**	1.0 + 1gpa	60 bcd	90 a	0 a	90 bc	90 bcd	90 bc	60 bcde	90 cd	21.2 a	128 a
7	do + Surf**	1.0 + .5%	70 b	92 a	0 a	93 b	93 bcd	93 bc	73 bc	95 bc	21.8 a	161 a
8	do + do**	2.0 + .5%	85 b	95 a	0 a	93 b	95 ab	95 ab	88 b	95 b	22.0 a	138 a
9	BAS 3512 80W*	1.0	13 e	90 a	0 a	83 c	83 d	85 c	13 fg	80 d	22.7 a	125 a
10	do + Surf*	1.0 + .5%	10 e	92 a	0 a	90 bc	90 bc	93 bc	10 g	95 bc	22.7 a	112 a
11	Outfox 1E*	1.0	23 e	90 a	0 a	90 bc	90 bcd	90 bc	20 fg	90 cd	22.5 a	120 a
12	do *	2.0	35 de	92 a	0 a	93 b	93 bc	93 bc	43 cdefg	95 bc	21.8 a	138 a
13	Atrazine + Oil*	2 + 1gpa	30 de	92 a	0 a	87 bc	88 cd	93 bc	38 defg	80 d	22.4 a	138 a
14	Check	--	100 a	100 a	0 a	100 a	100 a	100 a	100 a	100 a	22.3 a	148 a
		C.V.	28%	9%		8%	9%	9%	29%	7%	5%	14%

1/ Mean values within a column are not significantly different at 5% level probability if followed by one or more of same letters

\* Early post overtop \*\* Post directed, also had 1.5 lb/A 2,4-D amine

Location - campus farm, Lexington, Ky.

Planted - May 17. Treated - early post overtop June 7; post directed June 18.

Soil type - silt loam

Fertilization - 100 lb N + 400 lb 12-12-12

Variety - Pioneer 3369A

Additional weed species present that went into the grass and broadleaf ratings are:

Nut sedge, crabgrass, green foxtail, morning glory and spineysida

University of Kentucky - Agronomy Department - Lexington  
Zero tillage corn in bluegrass sod

Trt. No.	Herbicide Formulation	Active	Visual Evaluation			7/6	Visual Evaluation			Corn plt. 1000/A at Harvest	Yield Bu/A
			Weed Control				Weed Control				
			Grass	Broad-leaf	Sod	Grass	Broad-leaf	Sod			
1	Atrazine 4L*	2.0	65 bcde <sup>1/</sup>	85 ab	100 a	43 abcdef	90 a	100 a	12.2 a	123 ab	
2	do + Dow General 5E + X-77	2.0 + 2.5 + 0.5%	65 bcde	88 a	100 a	48 abcdef	90 a	100 a	14.2 a	139 ab	
3	do do do do	2.0 + 3.75 + 0.5%	55 cde	70 abc	100 a	25 cdef	90 a	100 a	11.0 a	111 b	
4	do + Paraquat 2E + X-77	2.0 + 0.25 + 0.5%	68 bcde	85 ab	100 a	45 abcdef	90 a	100 a	13.4 a	136 ab	
5	Simazine 80W	2.0	65 bcde	83 ab	90 a	65 ab	90 a	100 a	14.0 a	132 ab	
6	do + Dow General 5E + X-77	2.0 + 2.5 + 0.5%	68 bcd	83 ab	98 a	43 abcdef	90 a	100 a	14.1 a	134 ab	
7	Simazine 80W + Dow General 5E + X-77	2.0 + 3.75 + 0.5%	63 bcde	88 ab	100 a	38 bcdef	90 a	100 a	14.3 a	134 ab	
8	do + Paraquat 2E + X-77	2.0 + 0.25 + 0.5%	75 abc	85 ab	100 a	58 abc	90 a	100 a	13.7 a	130 ab	
9	Maloran 50W + Oil	2.0 + 1gpa	45 e	43 cde	10 c	40 bcdef	70 c	33 d	11.3 a	67 ab	
10	do + Paraquat 2E + X-77	2.0 + 0.25 + 0.5%	18 f	55 bcd	58 b	10 f	73 bc	55 bc	9.5 a	71 c	
11	Outfox 1E	1.0	55 cde	88 a	100 a	55 abcd	90 a	100 a	14.2 a	129 ab	
12	do	2.0	83 ab	90 a	100 a	68 ab	85 ab	98 a	16.0 a	153 a	
13	do + Paraquat 2E + X-77	1.0 + 0.25 + 0.5%	63 cde	88 a	100 a	20 cdef	90 a	100 a	13.7 a	132 ab	
14	do do + do	2.0 + 0.25 + 0.5%	88 a	90 a	100 a	83 a	90 a	100 a	15.6 a	152 ab	
15	Atrazine 4L + Mon 04685E + Surf	2.0 + .50 + 0.5%	68 bcd	90 a	100 a	48 abcdef	90 a	100 a	13.1 a	136 ab	
16	do + do + do	2.0 + 2.0 + 0.5%	68 bcde	88 a	100 a	45 abcdef	80 abc	78 ab	14.3 a	136 ab	
17	do + do + do	2.0 + 4.0 + 0.5%	50 de	75 abc	100 a	13 ef	88 ab	100 a	11.5 a	131 ab	
18	Mon 0468 5E	0.5	15 f	20 e	38 b	18 def	55 d	33 d	10.9 a	61 c	
19	Mon 0468 5E	2.0	10 f	53 cde	98 a	13 ef	83 abc	100 a	16.1 a	125 ab	
20	Mon 0468 5L	4.0	10 f	33 de	98 a	13 ef	80 abc	100 a	15.6 a	119 ab	
		C.V. =	18%	20%	15%	39%	9%	21%		20%	

1/ Mean values within a column are not significantly different at 5% level probability if followed by one or more of same letters

\* All treatments pre-emergence

Location - Maine Chance Farm, Lexington, Ky.

Planted - May 5 - Treated April 27

Soil Type - silt loam

Fertilization - 150 # N

Variety - Pioneer 3369 A

Weed species: tumble pigweed, redroot pigweed, yellow foxtail, crabgrass, dallis grass and purple awn foxtail

University of Kentucky - Agronomy Department - Lexington  
Soybeans - Preemergence

Visual Evaluation - 6/29

Trt. No.	Herbicide Formulation	Lb/A Active	Weed Control					
			Grass	Broadleaf	Lambs Quarter	Giant Foxtail	Velvet Leaf	Pig Weed
1	Amilon 4.5 *	2 + .66	90 bcdef <sup>1/</sup>	80 bcde	100 a	90 abc	97 ab	100 a
2	Dynoben 1.5	1 + 2	80 defg	78 cde	95 a	83 bcde	79 abcde	88 abc
3	BAY 94337 70W	.5	88 cdefg	85 bcd	100 a	88 abcd	100 a	100 a
4	BAY 94337 70 W	.75	93 abcd	85 bcd	100 a	93 abc	95 ab	98 ab
5	Maloran 50W	1.5	75 fg	70 defgh	100 a	63 de	78 abcde	100 a
6	Preforan 3E	4.5	98 ab	70 defgh	88 a	98 ab	28 fgh	100 a
7	AC 92390 4E	.75	75 efg	53 gh	55 b	63 de	13 gh	65 cd
8	AC 92390 4E	1.0	80 defg	55 fgh	95 a	78 cde	23 fgh	67 cd
9	Lorox 50W	1	70 efg	73 cdefg	100 a	78 bcde	77 abcde	100 a
10	Lasso 4E + Lorox 50 W	2 + .5	97 abc	87 bcd	100 a	100 a	87 abcd	100 a
11	Lasso 4E	1	97 abc	50 h	87 a	90 abc	30 fgh	80 abc
12	Lasso 4E	2	97 abc	64 efgh	54 b	100 a	13 gh	93 abc
13	Lasso 4 E	3	100 a	80 bcd	95 a	100 a	35 efgh	73 bcd
14	Mon 097 5E	1	100 a	73 cdef	88 a	100 a	63 bcdef	100 a
15	Mon 097 5E	2	97 abc	80 bcde	100 a	100 a	50 bcdefg	100 a
16	Mon 097 5E	3	100 a	85 bcd	100 a	100 a	53 cdefg	100 a
17	Dyanap 2 + 1	3 + 1.5	78 efg	83 bcde	85 a	63 de	75 abcde	80 abc
18	Solo 2 + 2	3 + 3	94 abcd	70 defgh	90 a	93 abc	50 defg	80 abc
19	Bladex 80W	.5	48 h	53 gh	45 b	53 e	0 h	50 d
20	Amiben 2E	3	93 abcd	80 bcde	95 a	93 abc	93 abc	88 abc
21	BAY 2236 70 W	1	85 cdefg	93 b	98 a	85 abc	100 a	98 ab
22	DS 5328 65W	2.5	70 g	77 cde	100 a	70 cde	97 ab	90 abc
23	E1-119 75W	2	93 abcd	73 cdefg	95 a	98 ab	90 abc	73 bcd
24	E1-119 75W	3	98 ab	83 bcde	100 a	100 a	95 ab	100 a
25	E1-119 + Lorox 50 W	2 + .5	93 abcd	83 bcde	100 a	93 abc	90 abcd	93 abc
26	E1-119 + Dinoseb 3	2 + 3	90 bcde	80 bcde	98 a	93 abc	83 abcd	90 abc
27	E1-119 + Amiben	2 + 2	100 a	90 bc	100 a	100 a	95 ab	100 a
28	Check	--	100 a	100 a	100 a	100 a	100 a	100 a
C.V. =			11%	13%	16%	16%	36%	20%

## Soybeans - Preemergence

Visual Evaluation 7/27

Trt. No.	Herbicide Formulation	Lb/A Active	Weed Control						Yield Bu/A
			Grass	Broadleaf	Lambs Quarter	Giant Foxtail	Velvet Leaf	Pig Weed	
1	Amilon 4.5*	2 + .66	75 bcd	63 bcdefg	83 bcde	78 bcde	70 bcd	78 bc	16 cd
2	Dynoben 1.5	1 + 2	80 bcd	50 cdefghi	45 ij	83 bcde	57 bcde	63 bcd	16 cd
3	BAY 94337 70 W	.5	73 cde	70 bcde	83 bcde	68 e	77 b	75 bc	13 de
4	BAY 94337 70 W	.75	88 bc	78 <sup>2</sup> bcd	83 bc	85 bcde	80 b	80 b	17bcd
5	Maloran 50 W	1.5	53 e	43 defghi	68 defgh	75 bcde	63 bcd	68 bc	7 ij
6	Preforan 3E	4.5	90 bc	48 fghi	53 hij	90 b	23 f	75 bc	11 fgh
7	AC 92390 4E	.75	73 cde	25 i	40 j	70 de	27 ef	38 def	4 j
8	AC 92390 4E	1.0	78 bcd	28 hi	67 defgh	78 bcde	25 ef	30 f	9 gh
9	Lorox 50 W	1	77 bcd	67 bcdef	80 bcdef	77 bcde	74 b	60 bc	13 efg
10	Lasso 4E + Lorox 50W	2 + .5	83 bc	53 cdefghi	80 bcdef	80 bcde	54 bcdef	83 b	18 bcd
11	Lasso 4E	1	87 bc	33 ghi	83 bcde	87 bcd	30 ef	50 cdef	20 abc
12	Lasso 4E	2	90 bc	40 efghi	67 defgh	90 b	40 def	67 bcd	13 efg
13	Lasso 4E	3	88 bc	70 cdefghi	78 bcdef	88 bc	40 def	73 bc	26 a
14	Mon 097 5E	1	85 bc	63 bcdefg	65 efgh	88 bc	45 cdef	80 bc	21 abc
15	Mon 097 5E	2	87 bc	70 bc	90 b	83 bcde	44 cdef	83 b	23 ab
16	Mon 097 5E	3	90 b	68 bcdef	83 bcde	88 bc	40 def	83 b	17bcd
17	Dyanap 2 + 1	3 + 1.5	93 cde	65 bcdef	63 fghi	73 cde	65 bcd	63 bcd	16 cde
18	Solo 2 + 2	3 + 3	75 bcd	40 efghi	70 defgh	83 bcde	40 def	33 ef	17 bcd
19	Bladex 80 W	.5	80 bcd	40 efghi	73 cdef	73 cde	30 ef	25 f	7 hij
20	Amiben 2E	3	83 bcd	58 cdefgh	59 ghi	80 bcde	74 bc	60 bcde	22 abc
21	BAY 2236 70 W	1	78 bcd	88 b	88 bc	80 bcde	80 b	85 b	26 a
22	DS 5328 65W	2.5	63 d	73 bcd	80 bcdef	70 de	67 bcd	63 bcd	20 abc
23	E1-119 75W	2	88 bc	50 cdefghi	67 defgh	88 bc	67 bcd	70 bc	13 def
24	E1-119 75 W	3	90 bc	70 bcde	83 bcd	90 b	70 bcd	75 bc	12 efg
25	E1-119 + Lorox 50 W	2 + .5	78 bcd	83 bc	70 defgh	75 bcde	57 bcde	68 bc	17 bcd
26	E1-119 + Dinoseb 3	2 + 3	88 bc	65 bcdef	75 bcdefg	90 b	55 bcde	63 bcd	21 abc
27	E1-119 + Amiben	2 + 2	90 bc	70 bcde	90 b	90 b	65 bcd	87 b	16 cde
28	Check	-	100 a	100 a	100 a	100 a	100 a	100 a	25 a
C.V. =			13%	22%	11%	11%	24%	19%	23%

1/ Mean values within a column are not significantly different at 5% level probability if followed by one or more of same letters

\* All treatments are pre-emergence

Location - Campus farm, Lexington, Kentucky

Planted & treated May 21

Soil type - silt loam

Fertilization - 400 lb/A 12-12-12

Variety - Cutler

Additional weed species present that went into the grass and broadleaf ratings are:

Fall panicum, goose grass, hop horn bean copper leaf, morning glory, jimson weed, hucklebur, black nightshade and smartweed

University of Kentucky - Agronomy Department - Lexington  
Soybeans - Pre Plant Inc.

Trt. No.	Herbicide Formulation	Lb/A Active	Visual Evaluation 6/29						
			Weed Control						
			Grass	Broadleaf	Crop Injury	Lambs Quarters	Giant Foxtail	Pigweed	Velvet Leaf
1	A-820 4E *	1	93 abcd <sup>1/</sup>	78 fg	0 a	84 ab	95 ab	90 abc	20 efg
2	A-820 4E	2	95 abc	73 fg	0 a	80 ab	95 ab	95 abc	13 fg
3	BAS 3921 H 3 E	1	90 bcd	85 de	0 a	97 a	95 ab	97 ab	0 bcde
4	BAS 3921 H 3 E	2	98 ab	90 cd	18 de	75 ab	94 ab	100 a	88 abc
5	AC 92390 4E	.75	83 d	73 fg	0 a	63 b	80 c	80 c	24 efg
6	AC 92390 4E	1	88 cd	70 g	0 a	80 ab	80 c	85 bc	50 cdef
7	Treflan 4E	.75	98 ab	83 def	0 a	80 ab	90 bc	94 abc	77 abcd
8	Treflan 4E	1.50	95 abc	88 cd	45 f	97 a	100 a	100 a	94 ab
9	Vernam 6E	2.50	98 ab	88 cd	40 f	100 a	95 ab	100 a	100 a
10	Amiben 2E	3	93 abcd	80 defg	0 a	95 a	95 ab	100 a	90 abc
11	CGA-10832 4E	1.5	98 ab	85 de	20 de	100 a	100 a	94 abc	0 g
12	GS-38946 2E	1.5	98 ab	90 cd	0 a	97 a	100 a	97 ab	94 ab
13	ER-9063 2E	1.5	93 abcd	75 efg	0 a	90 ab	97 ab	90 abc	45 def
14	Treflan 4E + Lorox 50W	.75 +.50	100 a	90 cd	10 bcd	94 a	97 ab	94 abc	75 abcd
15	Treflan 4E + Lorox 50W	1.50 +.50	95 abc	93 bc	33 ef	97 a	100 a	97 ab	90 abc
16	Treflan 4E + Dinoseb 3E	1.5 + 3	93 abcd	80 defg	0 a	87 ab	85 c	100 a	0 def
17	Treflan 4E + CIPC 4E	1.5 + 3	100 a	95 b	40 f	97 a	97 ab	94 abc	100 a
18	Vernam 6E + Lorox 50W	2 +.5	93 abc	90 cd	15 cde	100 a	95 ab	100 ab	80 abcd
19	Nitralin 4E	1.5	98 ab	88 cd	0 a	94 a	100 a	97 ab	40 def
20	Check	---	100 a	100 a	0 a	100 a	100 a	100 a	100 a
		C.V.	11%	7%	53%	20%	9%	11%	34%

## Soybeans - Pre Plant Inc.

Trt No.	Herbicide Formulation	Lb/A Active	Visual Evaluation 7/27							Yield Bu/A
			Weed Control							
			Grass	Broad- leaf	Crop Injury	Lambs Quarters	Giant Foxtail	Pigweed	Velvet Leaf	
1	A-820 4E *	1	90 b	48 fgh	0 a	47 de	90 b	53 gh	37 e	15 cd
2	A-820 4E	2	88 b	58 cdefg	0 a	57 cd	85 bc	80 b	37 e	16 bc
3	BAS 3921 H 3 E	1	88 b	60 bcdef	0 a	67 bc	85 bc	73 bcde	50 cde	23 ab
4	BAS 3921 H 3 E	2	90 b	70 bcd	5 a	70 bc	90 b	70 cdef	68 bcd	22 ab
5	AC 92390 4E	.75	88 b	35 h	0 a	33 e	85 bc	70 cdef	33 e	17abc
6	AC 92390 4E	1	85 b	48 fgh	0 a	50 cde	80 cd	50 h	45 de	19 ab
7	Treflan 4E	.75	85 b	50 efgh	0 a	67 bc	80 cd	57 fgh	47 cde	21 ab
8	Treflan 4E	1.50	90 b	70 bcdef	25 b	80 b	90 b	80 bcd	52 bcde	18 ab
9	Vernam 6E	2.50	83 b	53 defgh	0 a	80 b	75 d	73 bcde	70 bc	12 de
10	Amiben 2E	3	80 b	60 bcdef	0 a	70 bc	80 cd	83 bc	75 b	19abc
11	CGA-10832 4E	1.5	90 b	68 bcde	0 a	85 b	90 b	83 bc	40 e	21 ab
12	GS-38946 2E	1.5	85 b	55 cdefg	0 a	53 cd	83 bc	50 h	53 de	15 cd
13	ER-9063 2E	1.5	85 b	40 gh	0 a	57 cd	87 bc	60 efgh	40 e	10 e
14	Treflan 4E + Lorox 50 W	.75 + .50	85 b	73 bc	0 a	83 b	83 bc	83 bc	65 bcd	18abc
15	Treflan 4E + Lorox 50W	1.50 + .50	80 b	65 bcdef	8 a	80 b	83 bc	80 bcd	58 bcde	23 ab
16	Treflan 4E + Dinoseb 3E	1.5 + 3	83 b	63 bcdef	0 a	47 de	85 bc	74 bcde	40 e	18 ab
17	Treflan 4E + CIPC 4E	1.5 + 3	90 b	78 bc	18 b	77 b	90 b	87 b	70 bc	19abc
18	Vernam 6E + Lorox 50W	2 + .5	80 b	78 b	3 a	85 b	85 bc	83 bc	80 bc	25 a
19	Nitralin 4E	1.5	88 b	55 cdefg	0 a	70 bc	83 bc	67 defg	38 e	20 ab
20	Check	---	100 a	100 a	0 a	100 a	100 a	100 a	100 a	23 ab
		C.V.	7%	13%	200%	13%	5%	10%	18%	23%

1/ Mean values within a column are not significantly different at 5% level probability if followed by one or more of same letters

\* All treatments are pre-plant incorporated 2-3"

Planted & treated May 21

Soil type - silt loam

Fertilization - 400 lb/A 12-12-12

Variety - Cutler

Additional weed species present that went into the grass and broadleaf ratings are:

Fall panicum, goose grass, hop horn bean copper leaf, morning glory, jimson weed, hucklebur, black nightshade and smartweed

University of Kentucky - Agronomy Department - Lexington  
Soybeans in Wheat Stubble

Trt. No.	Herbicide Formulation	Active	Visual Evaluation 9/9/71			Yield Bu/A
			Grass	Broadleaf	Crop Injury	
1	Lasso + Paraquat + Surf *	2 +.25 + .5%	28 d <sup>1/</sup>	90 a	8 a	23 c
2	do + do + do	3 +.25 +.5%	23 d	90 a	0 a	23 c
3	Lorox + do + do	1 + do + do	73 bc	90 a	8 a	28 b
4	Lasso + Lorox + Paraquat + Surf	2 + 1 +.25 +.5%	78 abc	90 a	0 a	28 b
5	do do do do	6 + 1.5 +.75+.5%	88 ab	90 a	0 a	29 b
6	Lorox + Dow General + Surf	1 + 3.75 +.5%	10 d	90 a	0 a	20 cd
7	do do + Crop Oil	1 + 3.75 + lgpa	10 d	90 a	0 a	22 cd
8	Lorox + Surf	2 + .5%	10 d	90 a	0 a	19 de
9	Lorox + Crop Oil	2 + lgpa	18 d	90 a	0 a	20 d
10	Amilon + Surf	3 + 1 + 5%	10 d	90 a	8 a	16 e
11	Amilon + Paraquat + Surf	3 + 1 +.25 +.5%	60 c	90 a	8 a	26 b
12	Maloran + Paraquat + Surf	2 + .25 +.5%	75 abc	90 a	0 a	29 b
13	El-119 + Paraquat + Surf	3 + .25+.5%	65 bc	90 a	20 b	16 e
14	Lorox + El-119 + Paraquat + Surf	1 + 3 + .25+.5%	78 abc	90 a	25 b	16 e
15	Mon 0468 + Surf	2	90 a	80 a	0 a	37 a
16	Mon 0468 + Surf	4	90 a	80 a	0 a	37 a
C.V. =			17.52	0.0	151.16	

1/ Mean values within a column are not significantly different at 5% level probability if followed by one or more of same letters.

\* Treatments are all pre-emergence

Planted Treated

Soil type - silt loam

Variety - Calland

Weed species: crabgrass, redroot pigweed

University of Kentucky - Agronomy Department - Lexington  
Soybeans - Stale Seed Bed

Trt. No.	Herbicide Formulation	Lb/A Active	Visual Evaluation 6/29						Visual Evaluation 8/2				
			Weed Control						Weed Control				
			Grass	Broad-leaf	Giant Foxtail	Pigweed	Velvet leaf	Morning Glory	Lambs quarter	Grass	Broad-leaf	Giant Foxtail	Pigweed
1	Lorox 80W+X-77*	.75	95 abc	98 a	95 ab	100 a	100 a	93 a	100 a	73 bcd	88 c	63 cde	90 bcde
2	Lorox + Paraquat + Surf*	.75 + .25 +.5%	100 a	100 a	100 a	100 a	100 a	98 a	100 a	90 ab	90 bc	95 ab	95 abc
3	Dow General *	5	93 bc	100 a	90 b	100 a	100 a	100 a	100 a	63 d	85 c	58 de	90 bcde
4	BAY 94337 + X-77*	.5 + .5%	90 bc	100 a	90 b	100 a	100 a	95 a	100 a	60 d	93 bc	55 e	90 bcde
5	Dinoseb*	5 + .5%	98 ab	98 a	95 ab	100 a	100 a	97 a	100 a	68 cd	80 cd	68 cde	83 de
6	Paraquat + X-77*	.25 + .5%	100 a	100 a	100 a	100 a	98 a	100 a	100 a	85 bcd	68 d	85 abc	75 e
7	Amiben + Paraquat + X-77*	3 +.25+.5%	98 ab	100 a	98 a	100 a	100 a	97 a	100	90 abc	85 cd	90 ab	93 bcd
8	El-119 + Paraquat + X-77*	3 +.25+.5%	88 c	100 a	88 b	100 a	100 a	98 a	100 a	68 cd	90 c	65 cde	88 cde
9	El-119 + Lorox + Paraquat + X-77*	2+.75+.25+.5%	100 a	100 a	100 a	100 a	100 a	100 a	100 a	98 a	98 ab	98 a	100 a
10	Lasso + Lorox + Paraquat + X-77*	2+.5+.25+.5%	100 a	100 a	100 a	100 a	100 a	100 a	100 a	93 ab	90 bc	93 ab	93 bcd
11	Chloramben + Linuron + Paraquat + X-77*	2+.5+.25+.5%	100 a	100 a	100 a	100 a	100 a	95 a	100 a	85 bcd	88 c	83 bcd	90 bcde
12	Check	2+.5+.25+.5%	100 a	100 a	100 a	100 a	100 a	100 a	100 a	98 a	100 a	98 a	98 ab
C.V. =			8%	4%	7%	0.0	3%	9%	0.0	16%	11%	16%	11%



## Soybeans - Stale Seed Bed (cont)

Trt. No.	Herbicide Formulation	Lb/A Active	Visual Evaluation 8/2			Yield Bu/A
			Weed Control			
			Velvet leaf	Morning Glory	Lambs Quarter	
1	Lorox 80W + X-77*	.75	90 bcd	75 a	93 bc	16 c
2	Lorox + paraquat + Surf*	.75 + .25 + .5%	95 abc	85 a	95 abc	28 ab
3	Dow General *	5	78 d	88 a	93 bc	15 c
4	BAY 94337 + X-77*	.5 + .5%	93 abcd	78 a	93 bc	18 bc
5	Dinoseb *	5 + .5%	88 cd	85 a	90 cd	24 abc
6	Paraquat + X-77 *	.25 + .5%	85 cd	85 a	75 d	19 bc
7	Amiben + paraquat + X-77*	3 + .25 + .5%	93 abcd	75 a	93 bc	20 bc
8	E1-119 + paraquat + X-77	3 + .25 + .5%	90 bcd	75 a	93 bc	19 bc
9	E1-119 + Lorox + paraquat + X-77	2 + .75 + .25 + .5%	98 a	88 a	100 a	28 ab
10	Lasso + Lorox + paraquat + X-77	2 + .5 + .25 + .5%	93 abcd	78 a	93 bc	25 abc
11	Chloramben + Linuron + paraquat + X-77	2 + .5 + .25 + .5%	90 bcd	85 a	90 cd	25 abc
12		---	98 ab	98 a	98 ab	31 a
		C.V.	11%	16%	10%	

\* Treated - Treflan PPI May 17. All other treatments applied post emergence, weeds, June 9  
 Planted June 10  
 Fertilizer - 400#/A 12-12-12  
 Variety - Cutler  
 Location - Campus Farm

University of Kentucky - Agronomy Department - Lexington  
Burley Tobacco

Trt.	Herbicide Formulation	Active	Visual Evaluation 7/6					Visual Evaluation 8/10					Yield Bu/A		
			Grass	Broad-leaf	Spiney-sida	Tumble Pigweed	Redroot Pigweed	Velvet leaf	Grass	Broad-leaf	Spiney-sida	Tumble Pigweed		Redroot Pigweed	Velvet leaf
1	El-179 6E*	1.5	83 bcd <sup>1/</sup>	65 ef	60 c	88 c	88 cd	20 c	90 b	30 c	50 bc	53 bc	50 de	38 b	1716bc
2	do *	3	80 bcd	73 cde	68 c	93 bc	93 bc	25 c	90 b	40 bc	73 b	58 bc	68 cd	45 b	1903bc
3	Benefin 1.5 *	1.5	75 d	70 de	63 c	90 bc	90 bc	23 c	83 c	30 c	43 c	73 bc	58 cde	55 b	1654 b
4	do *	3	90 b	80 bc	65 c	98 ab	98 ab	57 bc	88 bc	40 bc	45 c	70 bc	68 bcd	65 b	2028 b
5	Tillam 6E *	4	88 bc	75 cd	85 bc	80 c	70 de	70 b	88 bc	33 bc	60 bc	50 bc	35 e	70 b	1778bc
6	Tillam 6E + R7465 50W *	2 + 2	83 bcd	60 f	73 c	48 d	48 f	48 bc	90 b	30 c	65 bc	48 c	35 e	65 b	1529 d
7	R-7465 50W *	2	78 cd	58 f	70 c	60 d	68 e	50 bc	85 bc	38 bc	63 bc	53 bc	80 bc	58 b	1669 c
8	Enide 50W**	6	83 bcd	75 cd	65 c	90 c	90 c	38 bc	88 bc	35 bc	58 bc	70 bc	80 bc	53 b	1810bc
9	Lasso 4E **	2	90 b	73 cde	65 c	83 c	83 cde	25 c	90 b	25 c	63 bc	53 bc	53 de	40 b	1638 c
10	do **	4	90 b	85 b	90 b	93 bc	93 bc	38 bc	90 b	55 b	70 b	78 b	88 b	35 b	1591 c
11	Check	-	100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a	2434 a
		C.V. = 7%		6%	17%	12%	12%	33%	4%	20%	18%	19%	17%	28%	

Mean values within a column are not significantly different at 5% level of probability if followed by one or more of same letters

Treatments pre-plant incorporated 2-3"

\*\* Post transplanted

Location - Maine Chance Farm, Lexington, Ky.

Planted & Treated June 4

Soil type - silt loam

Fertilization - 150 lb/A N, 200 lb sulphate of potash

Variety Ky 14.

Weed species: tumble pigweed, redroot pigweed, spineysida, velvetleaf, crabgrass