



RESULTS OF  
**Herbicide Evaluation Trials**  
**1976**

(NOT FOR PUBLICATION)



UNIVERSITY OF KENTUCKY  
DEPARTMENT OF AGRONOMY

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HERBICIDES USED IN WEED CONTROL STUDIES - 1976

<u>Chemical (Generic) Name</u>	<u>Trade Name</u>
Alachlor	Lasso
Alachlor	Lasso + Atrazine pkg mix
Alachlor	Lasso + Lorox pkg mix
Alachlor	Lasso + Metribuzin pkg mix
Ametryne	Evik
Atrazine	Aatrex
BAS-9021	BAS-9021
Benefin	Balan
Bentazon	Basagran
Bifenox	Modown
Butralin	Amex
Butylate	Sutan
Butylate + R-29148	Sutan + R-29148
Butylate + R-25788	Sutan
CGA-24705	Dual
Chloramiben	Amiben
Chloroxuron	Tenoran
Chloroprotham	Furloe
Crop oil	Crop oil
Cyanazine	Bladex
Devrinol + Pebulate	Devrinol + Tillam
Dicamba	Banvel
Dicamba + 2,4-D	Weedmaster
Diesel oil	Diesel oil
Dinitromine	Cobex
Dinoseb	Premerge
Diphenamid	Enide
EL-161	Sonalan
EPTC	Eptam
EPTC + R-25788	Eradicane
EPTC + R-29148	Eptam + R-29148
Fluchloralin	Basalin
Glyphosate	Roundup
H-22234	Antor
H-25893	H-25893
H-26905	H-26905
H-26910	H-26910
HOE-23408	HOE-23408
Linuron	Lorox

<u>Chemical (Generic) Name</u>	<u>Trade Name</u>
M-3785	M-3785
M-3906	M-3906
M-4127	Dowco 356
M-4135	Dowco 333
M-4207	Dowco 291
MBR-8251	Destun
MBR-12325	Embark
MBR-16345	MBR-16345
Metribuzin	Lexone, Sencor
Naptalam + Dinoseb	Dyanap
Ortho 19790	Ortho 19790
Oryzalin	Surflan
Oxadiazon	Ronstar
Paraquat	Paraquat CL
Pebulate	Tillam
Penoxalin	Prowl
Procyanazine	Cycle
Profluralin	Tolban
R-24315	R-24315
R-33222	R-33222
R-36548	R-36548
R-37878	R-37878
R-37878 + R-25788	R-37878 + R-25788
RH-2915	RH-2915
RH-6201	RH-6201
RH-8817	RH-8817
SD-35337	SD-35337
Simazine	Princep
Surfactant	AL-1336
Surfactant	Citowett Plus
Surfactant	X-77
Trifluralin	Treflan
USB-3153	USB-3153
VCS-438	Probe
VEL-4004	VEL-4004, Dicamba
VEL-4005	VEL-4005, Dicamba + 2,4-D
VEL-4207	VEL-4207
VEL-5026	VEL-5026
VEL-5052	VEL-5052
Vernolate	Vernam
Vernolate + R-29148	Vernam + R-29148
Vernolate + R-25788	Surpass
2,4-D	Lithate
2,4-D amine	2,4-D amine
2,4-DB	Butyrac 200

CLIMATIC DATA  
May 1976

DAY	TEMPERATURE °F										PRECIPITATION INCHES
	2" ABOVE				1" BELOW				AIR		
	SOD		BARE		SOD		BARE		MAX	MIN	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	78	53	75	53	69	60	83	55	69	50	0.22
2	77	45	78	47	67	58	85	48	71	46	0.01
3	69	35	62	36	65	56	73	38	58	35	0.15
4	72	28	69	29	67	52	84	34	61	31	0.00
5	85	42	85	44	67	56	92	45	78	44	0.00
6	79	61	79	61	66	60	82	60	77	60	0.00
7	66	45	65	47	64	60	71	48	73	46	0.12
8	82	37	72	39	71	55	84	42	62	38	0.00
9	91	30	82	31	72	54	96	38	69	31	0.00
10	85	38	88	39	71	57	94	46	75	40	0.00
11	87	54	87	55	72	62	94	58	77	56	0.00
12	94	35	86	38	75	58	98	45	71	37	0.00
13	91	41	92	43	72	59	97	47	84	43	0.00
14	82	64	82	65	71	65	82	64	83	61	0.18
15	89	65	89	64	79	67	92	65	75	61	0.20
16	78	51	81	51	72	66	87	56	75	53	0.10
17	79	56	77	56	70	64	83	56	70	54	0.43
18	73	39	69	41	68	63	68	46	60	42	0.21
19	80	36	77	38	70	58	82	42	70	39	0.00
20	88	45	87	46	73	59	93	48	77	48	0.00
21	91	55	91	56	75	63	98	55	82	55	0.00
22	93	55	91	55	80	65	94	59	81	54	0.17
23	82	54	81	54	74	65	87	55	78	51	0.00
24	82	50	81	52	76	63	92	53	69	49	0.00
25	91	47	88	46	76	62	97	50	69	45	0.00
26	96	43	90	43	79	61	102	49	73	43	0.00
27	93	43	93	40	79	62	103	50	77	45	0.00
28	70	60	71	60	70	67	73	61	76	58	0.30
29	86	59	89	58	76	65	90	60	77	57	0.05
30	92	56	92	56	78	66	95	58	81	58	0.00
31	85	62	82	62	74	68	83	63	77	60	0.98

3.12 TOTAL

Location: Maine Chance - Spindletop Farm

CLIMATIC DATA  
June 1976

DAY	TEMPERATURE °F										PRECIPITATION INCHES
	2" ABOVE				1" BELOW				AIR		
	SOD		BARE		SOD		BARE		MAX	MIN	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	85	65	82	65	76	69	84	65	77	61	0.34
2	72	64	69	63	73	70	73	66	77	62	0.40
3	72	64	71	64	71	69	72	64	67	60	0.42
4	86	60	81	60	78	67	87	60	77	56	0.07
5	85	52	81	52	81	67	89	54	77	52	0.00
6	93	48	90	48	81	66	98	52	78	46	0.00
7	101	54	93	55	82	68	104	57	83	53	0.00
8	101	56	97	57	84	69	106	60	85	54	0.00
9	103	56	98	57	85	70	111	61	88	57	0.00
10	102	59	97	60	84	71	110	64	87	59	0.00
11	94	61	92	63	82	72	103	66	85	62	0.00
12	106	60	98	63	86	72	112	65	88	63	0.00
13	99	65	99	66	84	73	108	69	89	65	0.00
14	98	72	96	73	84	74	105	72	88	69	0.00
15	94	71	94	71	83	75	101	71	85	68	0.07
16	81	58	80	60	77	72	83	62	84	65	0.27
17	95	56	90	56	86	69	95	60	80	52	0.00
18	95	64	94	64	83	73	101	65	86	60	0.00
19	94	69	82	69	82	74	92	70	81	66	1.06
20	88	62	81	63	79	74	83	64	72	60	Trace
21	90	61	79	61	77	72	84	62	70	58	0.00
22	91	57	85	57	81	70	95	59	76	56	0.00
23	90	57	88	57	82	70	98	59	81	57	0.00
24	86	69	83	69	78	73	84	69	80	68	0.23
25	86	65	83	65	80	75	90	68	78	69	0.23
26	100	65	91	66	85	73	98	67	83	62	0.05
27	108	61	95	61	87	73	105	63	85	59	0.00
28	94	62	90	62	84	74	99	65	83	61	0.00
29	100	67	95	69	87	75	105	69	84	66	0.00
30	86	59	81	60	83	75	89	63	74	64	0.50

3.64 TOTAL

Location: Maine Chance - Spindletop Farm

CLIMATIC DATA  
July 1976

DAY	TEMPERATURE °F										PRECIPITATION INCHES
	2" ABOVE				1" BELOW				AIR		
	SOD		BARE		SOD		BARE		MAX	MIN	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN			
1	93	56	85	57	85	72	98	57	76	56	0.00
2	93	53	88	53	82	70	100	58	80	54	0.00
3	74	58	72	59	76	70	76	62	66	59	1.13
4	104	57	85	57	81	69	84	60	76	54	0.00
5	101	55	90	55	81	70	94	58	78	55	0.00
6	95	60	86	62	80	69	94	63	77	59	0.84
7	94	60	89	61	81	72	95	62	81	59	0.00
8	88	68	86	69	79	73	89	68	82	67	0.95
9	109	62	93	63	85	73	101	65	84	62	0.00
10	99	64	94	65	85	75	98	66	86	65	0.00
11	97	73	95	73	88	77	106	73	89	72	0.00
12	98	66	93	67	88	79	106	71	88	75	0.00
13	101	56	90	56	88	73	108	62	83	55	0.00
14	102	58	96	59	88	74	112	64	90	57	0.00
15	102	70	101	70	89	78	110	73	91	73	0.00
16	86	65	83	69	82	77	89	67	78	67	0.40
17	100	53	84	54	85	72	92	58	75	52	0.00
18	102	54	90	54	85	72	103	58	81	52	0.45
19	103	55	93	55	87	72	112	60	84	55	0.00
20	98	60	94	61	86	65	108	65	85	60	0.00
21	99	66	97	67	87	65	111	69	88	77	0.00
22	106	72	98	73	89	78	109	74	87	85	0.09
23	104	72	100	73	91	79	114	74	91	90	0.00
24	103	71	100	72	90	79	114	74	92	70	0.00
25	101	64	92	66	87	78	105	70	93	81	0.61
26	106	57	97	58	88	74	113	62	87	86	0.00
27	108	62	98	63	86	76	112	68	88	79	0.00
28	97	69	93	70	85	77	105	72	85	83	0.00
29	97	71	92	72	85	74	102	74	85	83	0.02
30	100	78	91	69	88	77	98	72	84	83	0.85
31	95	65	89	65	86	77	95	68	85	84	0.21

5.55 TOTAL

Location: Maine Chance - Spindletop Farm

CLIMATIC DATA  
August 1976

DAY	TEMPERATURE °F										PRECIPITATION INCHES
	2" ABOVE				1" BELOW				AIR		
	SOD		BARE		SOD		BARE		MAX	MIN	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	98	59	89	61	87	79	96	65	83	63	0.01
2	99	58	90	60	85	75	104	64	77	57	0.00
3	103	53	91	54	86	73	106	59	79	52	0.00
4	98	54	93	54	86	72	115	61	83	52	0.00
5	95	65	90	65	83	74	108	68	85	63	0.00
6	96	70	89	71	81	76	96	72	84	67	0.69
7	87	57	78	59	78	74	82	61	76	61	0.40
8	101	52	86	52	81	69	95	55	72	50	0.00
9	102	53	89	54	84	70	105	58	79	51	0.00
10	108	55	95	56	84	70	115	59	82	54	0.00
11	111	58	100	59	85	72	120	63	89	57	0.00
12	99	65	97	66	84	75	112	70	89	65	0.00
13	101	68	98	68	85	75	114	72	89	60	0.00
14	107	68	97	69	83	76	104	72	85	65	0.05
15	98	69	87	68	83	75	95	70	85	65	0.22
16	104	63	92	64	85	75	104	65	79	60	0.00
17	97	53	87	53	83	71	115	59	78	53	0.00
18	102	52	93	52	82	70	110	59	82	52	0.00
19	108	57	97	59	84	71	114	63	85	58	0.00
20	103	56	94	58	84	71	113	62	83	57	0.00
21	110	56	98	58	86	72	117	64	82	59	0.00
22	115	61	101	61	86	73	118	68	88	58	0.00
23	111	61	99	62	85	73	115	67	87	59	0.00
24	115	64	102	65	86	75	117	72	88	63	0.00
25	101	70	95	71	85	77	106	75	86	69	0.00
26	96	69	86	70	82	76	98	71	81	67	0.86
27	101	67	91	67	85	75	100	69	85	65	0.00
28	100	71	99	73	85	77	102	71	87	69	0.00
29	97	58	87	61	84	76	99	61	82	64	0.19
30	98	50	85	52	81	70	99	57	78	49	0.00
31	105	50	90	50	80	69	104	56	81	49	0.00

2.42 TOTAL

Location: Maine Chance - Spindletop Farm



## TECHNIQUES USED IN HERBICIDE TRIALS

- DESIGN:** Trials were designed as randomized complete blocks with four replications of plots 2 rows wide by 30-40 feet long with broder 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 scale of 0 to 100, with 0 representing no control and 100 representing total control. A rating of 70 is considered commercially acceptable. Crop injury was also rated on a scale of 0 to 100, where 0 represents no injury and 100 represents total crop damage. A rating of 30 or above is considered NOT commercially acceptable.
- CULTIVATION:** Plots were not cultivated except certain CHECK plots where indicated.
- ORGANIC**
- MATTER:** Maine Chance - Spendletop Farm ranged from 3.2 to 6.1%. Individual organic matter is listed on each experiment.
- PH:** Maine Chance - Spindletop Farm ranged from 5.4 to 6.4. Individual pH is listed on each experiment.
- NOTE:** Where grass evaluation were only taken in the corn exp. the predominant species was Giant Foxtail with a scattering of fall panicum yellow foxtail and crabgrass.
- Where grass evaluations were only taken in tbe Soybean exp. the predominant species was Giant foxtail with a scattering of crab grass.

CORN PREEMERGENCE  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28			Visual Evaluation 7/21						# Plants per A (thou)	Yield bu/A	
				% Control			% Control								
				Grasses	Broad-leaf	Crop Injury	Pig-weed	Velvet-leaf	Lambs-quarters	Fox-tail	Grasses	Broad-leaf			Crop Injury
1.	Atrazine	4L	2	75	93	0	90	85	90	70	63	83	0	16.6	120
2.	Simazine	80WP	2	83	93	0	90	85	88	83	73	83	0	17.5	129
3.	Cyanazine	4L	3	83	80	0	73	75	80	78	80	68	0	19.6	133
4.	Atrazine	4L +	1												
	Simazine	80WP	2	90	93	0	95	88	90	88	88	85	0	18.4	154
5.	Cyanazine	4L +	3												
	Simazine	80WP	2	95	88	0	95	80	90	90	90	85	0	16.5	113
6.	Alachlor	4E	2.5	93	78	0	93	63	80	88	90	70	0	16.9	150
7.	Alachlor	4E +	2												
	Atrazine	4L	1	93	88	0	98	75	85	88	90	80	0	17.9	130
8.	Bifenox	4F	2	83	95	10	88	88	88	70	65	83	0	18.3	135
9.	Penoxalin	75WP	2	80	88	0	90	85	85	75	60	68	0	17.7	127
10.	Penoxalin	4E	2	78	90	0	85	83	85	75	70	75	0	17.1	136
11.	Cyanazine	4L +	2												
	Atrazine	4L	2	93	98	0	83	93	93	90	85	88	0	17.4	135
12.	Procyanazine	80WP	2	83	80	0	75	68	73	83	83	60	0	18.7	147
13.	Procyanazine	80WP	3	83	78	0	73	80	83	78	75	70	0	18.7	141
14.	Procyanazine	80WP +	1.5												
	CGA-24705	6E	1.5	95	80	0	90	78	83	90	85	80	0	18.7	150
15.	Procyanazine	80WP +	2												
	CGA-24705	6E	2	90	88	0	98	83	88	88	83	83	0	16.5	127
16.	Procyanazine	80WP +	2												
	Alachlor	4E	2	95	88	0	88	75	90	93	85	83	0	19.6	143
17.	CGA-24705	6E	2.5	93	73	0	95	50	53	83	85	30	0	14.7	118
18.	CGA-24705	6E +	1.5												
	Atrazine	4L	1.2	98	95	0	93	83	90	90	88	85	0	17.3	145

CORN PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28			Visual Evaluation 7/21					# Plants per A (thou)	Yield bu/A		
				% Control			% Control								
				Broad-Grasses	Crop-leaf Injury	Pig-weed	Velvet-leaf	Lambs-quarters	Fox-tail	Broad-Grasses	Crop-leaf Injury				
19.	CGA-24705	6E +	2												
	Atrazine	4L	1.6	98	98	0	93	85	93	93	93	88	0	18.0	136
20.	Alachlor	4E +	2.7												
	Atrazine	4L	1.3	98	95	0	95	93	95	95	90	90	0	16.4	145
21.	Alachlor	4E +	3												
	Atrazine	4L	1.5	95	93	0	95	83	88	90	88	88	0	18.5	139
22.	Alachlor pkg mx with Atrazine	2.67E 1.33	2.67 1.33	98	90	0	93	80	90	90	88	83	0	18.1	146
23.	Alachlor pkg mx with Atrazine	2.67E 1.33	3 1.5	98	100	0	90	90	90	90	90	88	0	17.1	144
24.	H-22234	4E +	2												
	Atrazine	4L	1.5	90	95	0	93	83	88	90	83	88	0	18.7	147
25.	H-22234	4E +	2												
	Cyanazine	4L	2	88	85	0	95	73	80	80	80	73	0	16.3	123
26.	Bifenox	80WP +	1.2												
	Alachlor	4E	2	93	85	8	85	75	70	85	83	70	0	18.1	140
27.	Bifenox	4F +	1.5												
	Alachlor	4E	2	88	98	13	93	93	93	88	88	90	0	19.5	134
28.	Bifenox	80WP +	1.6												
	Alachlor	4E	2	88	95	10	90	88	90	90	85	88	0	17.2	143
29.	Bifenox	4E +	2												
	Alachlor	4E	2	100	100	3	98	98	98	98	93	88	0	18.9	133
30.	Bifenox	4E +	1.5												
	CGA-24705	6E	2	95	100	0	93	93	93	93	90	85	0	16.5	129
31.	Penoxalin	4E +	1.5												
	Atrazine	4L	1.5	83	93	0	90	90	90	83	78	90	0	18.8	139
32.	Penoxalin	4E +	1.5												
	Cyanazine	4L	2	80	88	0	93	83	83	83	78	75	0	17.1	135

CORN PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28			Visual Evaluation 7/21						# Plants per A (thou)	Yield bu/A		
				% Control			% Control									
				Grasses	Broad-leaf	Crop Injury	Pig-weed	Velvet-leaf	Lambs-quarters	Fox-tail	Grasses	Broad-leaf	Crop Injury			
33.	R-37878	5.4E + 4														
	R-25788			90	43	0	85	30	38	78	70	23	0	17.6	123	
34.	R-37878	5.4E + 6														
	R-25788			85	63	0	78	50	53	78	68	30	0	15.7	113	
35.	VEL 4004	4S + 0.5														
	Alachlor	4E 2		93	93	0	90	90	90	90	85	80	0	15.1	126	
36.	VEL 5026	50WP 0.38		93	95	0	93	85	85	88	93	83	0	16.9	133	
37.	VEL 5026	50WP + 0.25														
	Alachlor	4E 2		98	95	0	90	85	90	88	90	85	0	17.3	142	
38.	VEL 5026	50WP + 0.38														
	Alachlor	4E 2		95	98	0	90	90	90	90	90	88	0	18.6	125	
39.	VEL 5026	50WP + 0.5														
	Alachlor	4E 2		100	98	0	95	95	95	95	88	85	0	17.5	117	
40.	VEL 5026	50WP 0.75		95	95	0	93	90	90	88	88	88	0	17.5	124	
41.	VEL 4207	2E + 1														
	Alachlor	4E 2		93	88	0	95	80	85	85	88	85	0	18.7	137	
42.	VEL 4207	2E + 1.5														
	Alachlor	4E 2		93	88	0	88	78	80	88	78	83	0	17.9	139	
43.	Dicamba	4S + 0.5														
	Alachlor	4E 2		95	78	0	93	75	85	90	88	70	0	18.3	122	
44.	M-4207	2E 1		93	90	0	90	85	88	85	88	83	0	17.7	114	
45.	M-4207	2E 1.5		95	90	3	95	70	88	90	90	80	0	17.3	119	
46.	M-4207	2E 2		100	88	5	88	68	85	83	88	78	0	17.9	127	
47.	Metribuzin	50WP 0.5		80	90	0	90	83	83	73	78	65	0	18.3	125	
48.	Metribuzin	50WP + 0.5														
	Alachlor	4E 2		93	88	0	90	85	88	85	88	80	0	19.6	136	
49.	CHECK (cultivated)	0		100	100	0	100	100	100	100	100	100	0	17.4	141	
	LSD (.05)			8	10	3	10	16	11	12	11	14	NS	NS	23	

LOCATION: Maine Chance Farm      VARIETY: Pioneer 3369A      SOIL TYPE: Maury Silt Loam      pH: 6.75  
 FERTILITY: 200 lb/A N + 400 lb/A 16-16-16      O.M.: 3.81%      DATE PLANTED & TREATED: May 10, 1976

CORN PREEMERGENCE SUPPLEMENT  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/30			Visual Evaluation 7/27					# Plants per A (thou)	Yield bu/A	
				% Control			% Control							
				Grasses	Broad-leaf	Crop Injury	Pig-weed	Lambs-quarter	Fox-tail	Grasses	Broad-leaf	Crop Injury		
1.	Ortho 19790	65WP	1.5	80	75	0	63	63	83	83	55	0	17.8	137
2.	Ortho 19790	65WP	2	88	90	0	73	70	90	90	65	0	19.9	154
3.	Ortho 19790	65WP +	1.5											
	Atrazine	4L	1.5	93	95	0	90	90	90	90	90	0	20.9	156
4.	Alachlor	4E	1.5	88	88	0	75	83	90	90	73	0	17.7	146
5.	Alachlor	4E	2	90	85	0	85	80	88	88	75	0	19.6	170
6.	Alachlor	4E +	2											
	Atrazine	4L	1.5	93	90	0	93	88	93	93	93	0	19.6	165
7.	Atrazine	4L	1.5	98	95	0	88	90	85	85	90	0	17.1	147
8.	VEL-5052	2EC	2	93	83	0	73	75	90	90	63	0	19.2	143
9.	CGA-24705	6E	2	88	70	0	80	68	90	90	68	0	17.0	150
10.	H-22234	4E	2	90	73	0	65	65	90	90	58	0	18.6	150
11.	Cyanazine	4S	3	95	95	0	80	90	88	88	83	0	19.9	154
12.	Cyanazine	80WP	3	95	90	0	75	90	90	90	73	0	19.2	150
13.	Cyanazine	4(1043)	3	90	78	0	88	90	90	90	78	0	16.6	143
14.	Cyanazine	4(1054)	3	90	85	0	75	90	88	88	78	0	19.0	145
15.	CHECK (cultivated)			100	100	0	100	100	100	100	100	0	19.0	161
			LSD (.05)	NS	16	NS	16	20	5	5	14	NS	NS	NS

LOCATION: Spindletop Farm

VARIETY: Pioneer 3369A

SOIL TYPE: Maury silt loam

pH: 6.2

FERTILITY: 200 lb/A N + 400 lb/A 16-16-16

O.M.: 3.7%

DATE PLANTED & TREATED: May 27, 1976

CORN POSTEMERGENCE  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Eval. 6/28			Visual Evaluation 7/20					Visual Eval. 7/27			#Plants
					% Control		Pig-weed	Velvet-leaf	Lambs-quarters	Jimson-weed	Fox-tail	% Control		Broad-leaf	Crop per A Yld (thou) bu/A	
					Broad-Grasses	Crop-leaf Injury										
1.	Atrazine	4L +	0.75	PRE												
	Ametryne	80WP	1	PD	93	100	0	90	90	90	90	88	85	88	0	19.0 155
2.	Alachlor	4E +	2	PRE												
	Atrazine	4L +	2	EP												
	crop oil		4 qt	EP	100	100	0	90	90	90	90	90	90	90	0	19.0 152
3.	2,4-D	4E	0.5	EP	50	90	0	90	90	90	90	15	23	83	0	18.7 150
4.	Procyanazine	80WP	2	EP	70	93	0	83	83	83	83	55	55	75	0	19.7 159
5.	Procyanazine	80WP	2.4	LP	70	60	20	50	50	38	48	75	65	35	0	17.6 134
6.	CGA-24705	6E +	2	EP												
	Atrazine	4L	1.6	EP	80	95	0	90	90	90	90	80	73	90	0	20.3 174
7.	CGA-24705	6E	2	EP	48	30	0	15	15	15	15	28	65	13	0	18.3 132
8.	Alachlor	4E +	2	PRE												
	Bentazon	4E	0.75	EP	98	98	0	90	90	90	90	88	88	83	0	18.4 156
9.	Alachlor	4E +	2	PRE												
	Bentazon	4E	1	EP	98	95	0	90	90	90	88	90	90	80	0	19.0 150
10.	Alachlor	4E +	2	PRE												
	Bentazon	4E	1.5	EP	98	95	0	90	90	90	90	88	85	90	0	19.9 181
11.	Butylate +															
	R-25788	6.7E +	4	PPI												
	Bentazon	4E	0.75	EP	88	95	0	90	90	90	90	88	80	88	0	19.7 158
12.	Butylate +															
	R-25788	6.7E +	4	PPI												
	Bentazon	4E	1	EP	98	83	0	90	90	90	90	90	90	88	0	19.8 160
13.	Butylate +															
	R-25788	6.7E +	4	PPI												
	Bentazon	4E	1.5	EP	95	95	0	90	90	90	88	90	90	80	0	19.9 159

CORN POSTEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Eval. 6/28			Visual Evaluation 7/20					Visual Eval. 7/27			#Plants	
					% Control			% Control					% Control				
					Broad-Grasses	Crop-leaf	Injury	Pig-weed	Velvet-leaf	Lambs-quarters	Jimson-weed	Fox-tail	Broad-Grasses	Crop-leaf	Injury	per A	Yld thou bu/A
14.	Alachlor	4E +	2	PRE													
	Bentazon	4E	1	EP	95	88	0	90	88	88	88	90	83	83	0	18.6	152
15.	Alachlor	4E +	2	PRE													
	Bentazon	4E +	0.75	EP													
	Bentazon	4E	0.75	LP	100	98	0	90	90	90	90	90	90	88	0	19.0	163
16.	Penoxalin	4E +	2	PRE													
	Dicamba	4S	0.25	EP	93	100	0	90	90	90	90	90	88	88	0	20.6	154
17.	Vernolate +																
	R-25788	6.7E +	2.5	PPI													
	Dicamba	4S	0.25	EP	93	98	0	90	90	90	90	90	80	85	0	18.5	154
18.	VEL 5026	50WP	0.25	LP	33	70	28	55	55	53	55	35	45	65	0	18.2	109
19.	VEL 5026	50WP	0.5	LP	70	95	33	90	85	90	90	58	68	80	0	18.6	131
20.	CHECK (cultivated)		0		100	100	0	100	100	100	100	100	100	100	0	18.7	152
				LSD (.05)	11	8	2	11	12	10	11	17	15	11	NS	NS	22

LOCATION: Maine Chance Farm VARIETY: Pioneer 3369A SOIL TYPE: Maury Silt Loam pH: 6.7  
 FERTILITY: 200 lb/A N + 400 lb/A 16-16-16 O.M.: 3.74%  
 DATE PLANTED: May 10, 1976  
 PRE APPLIED: May 10  
 EP (weeds 2-4" high, corn 4-6" high):  
 LP (weeds 6-8" high, corn 8-12" high):

CORN POSTEMERGENCE SUPPLEMENT  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Eval. 6/28			Visual Evaluation 7/20				Visual Eval. 7/27			# Plants per A (thou)	Yield bu/A
					% Control			Pig-weed	Velvet-leaf	Jimson weed	Fox-tail	% Control				
					Broad-Grasses	Crop-leaf	Injury					Broad-Grasses	Crop-leaf	Injury		
1.	Atrazine	4L +	0.75	PRE												
	Ametryne	80WP	1	PD	85	100	0	90	90	90	58	60	85	0	19.4	193
2.	Alachlor	4E +	2	PRE												
	Atrazine	4L +	2	EP												
	crop oil		4 qt	EP	95	100	0	90	90	90	90	90	93	0	19.9	210
3.	2,4-D	4E	0.5	EP	25	100	0	90	90	90	13	10	90	0	17.3	141
4.	Alachlor	4E +	2	PRE												
	VEL 4004	4S	0.25	EP	88	90	0	90	90	90	70	60	83	0	20.9	196
5.	VEL 4004	4S	0.5	LP	10	100	0	90	90	90	13	13	90	0	19.4	173
6.	Dicamba +															
	2,4-D	4E	0.5	LP	20	100	0	90	90	90	13	10	90	0	19.8	165
7.	VEL 4207	2E	0.25	EP	10	100	0	90	90	90	10	25	90	0	20.8	191
8.	VEL 4207	2E	0.38	EP	10	98	0	90	90	90	15	15	90	0	20.9	182
9.	VEL 4207	2E	0.5	EP	10	100	0	90	90	90	10	18	88	0	19.4	172
10.	VEL 4207	2E +	0.25	EP												
	2,4-D	4E	0.5	EP	10	100	0	90	90	90	13	15	90	0	21.0	178
11.	M-4127	4E +	0.5	EP												
	Atrazine	4L	2	EP	90	100	0	90	90	90	85	53	90	0	21.3	217
12.	M-4127	4E +	1	EP												
	Atrazine	4L	2	EP	88	100	0	90	90	90	90	70	88	0	21.8	206
13.	M-4127	4E +	2	EP												
	Atrazine	4L	2	EP	93	100	0	90	90	90	90	78	90	0	19.6	208
14.	CHECK (cultivated)		0		100	100	0	100	100	100	100	100	100	0	19.4	176
LSD (.05)					14	NS	NS	NS	NS	NS	17	19	5	NS	5	15

LOCATION: Maine Chance Farm VARIETY: Pioneer 3369A  
 FERTILITY: 200 lb/A N + 400 lb/A 16-16-16  
 DATE PLANTED: May 10, 1976

SOIL TYPE: Maury Silt Loam  
 O.M.: 4.49%

pH: 6.85

PRE APPLIED: May 10 EP (weeds 2-4" high, corn 4-6" high):

LP (weeds 6-8" high, corn 8-12" high):



CORN PREPLANT INCORPORATED  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28							Visual Eval. 7/26			#Plants per A (thou)	Yield bu/A	
				Broad-Grasses	Crop leaf	Crop Injury	Pig-weed	Velvet-leaf	Lambs-quarters	Jimson-weed	Fox-tail	Broad-Grasses	Crop leaf			Crop Injury
1.	EPTC + R-25788	6.7E	3	93	70	0	65	43	43	33	93	73	38	0	18.3	125
2.	Butylate + R-25788	6.7E	4	93	25	0	83	20	20	20	90	80	28	0	17.5	112
3.	Vernolate + R-25788	6.7E	4	90	28	0	70	35	35	25	90	73	28	0	17.7	125
4.	EPTC + R-25788	6.7E +	3	93	80	0	88	78	78	78	93	80	73	0	19.5	125
	Atrazine	4L	1													
5.	Cyanazine + Butylate + R-25788	4L +	2	95	83	0	90	85	78	55	90	78	58	0	19.3	134
6.	Cyanazine + EPTC + R-25788	4L +	2	93	85	0	85	78	78	58	88	75	55	0	20.0	158
7.	Cyanazine + EPTC + R-25788	4L +	2	95	88	0	88	83	60	70	93	80	70	0	18.7	149
8.	CGA-24705 + Procyanazine	6E +	1.5	90	35	0	75	30	30	30	90	70	35	0	19.3	121
9.	CGA-24705 + Procyanazine	6E +	2	88	63	0	73	43	40	40	90	78	43	0	20.4	142
10.	CGA-24705 + Procyanazine	6E +	2	88	70	0	85	53	58	33	90	70	40	0	17.5	114
11.	Procyanazine + Butylate + R-25788	80WP +	1.5	95	65	0	90	75	73	38	90	43	58	0	16.9	126

CORN PREPLANT INCORPORATED Continued

Trt. No.	Treatment Formula	Rate lb/A	Visual Evaluation 6/28					Visual Eval. 7/26					#Plants per A	Yield bu/A		
			% Control					% Control								
			Broad-Grasses	Crop leaf Injury	Pig-weed	Velvet-leaf	Lambs-quarters	Jimson-weed	Fox-tail	Broad-Grasses	Crop leaf Injury	Pig-weed	Velvet-leaf	Lambs-quarters	Jimson-weed	Fox-tail
12.	Procyanazine 80WP + Butylate + R-25788	2														
		4	93	78	0	90	70	70	55	90	88	48	0	17.6	111	
13.	CGA-24705	2.5	90	48	0	80	38	38	25	90	73	40	0	17.2	103	
14.	CGA-24705 + Atrazine	1.5														
		1.2	85	68	0	85	60	58	53	88	80	55	0	19.4	144	
15.	CGA-24705 + Atrazine	2														
		1.6	93	80	0	85	80	83	75	88	85	80	0	19.3	144	
16.	Alachlor + Atrazine	2.7														
		1.3	93	80	0	85	70	70	70	88	78	70	0	17.9	134	
17.	Alachlor + Atrazine	3														
		1.5	93	80	0	90	78	83	78	90	80	65	0	18.5	110	
18.	Alachlor pkg with Atrazine	2.67E + 1.33														
		2.67	85	70	0	85	65	65	55	88	83	63	0	17.7	120	
19.	Alachlor pkg with Atrazine	2.67E + 1.33														
		1.5	95	80	0	93	83	88	78	93	80	70	0	18.8	126	
20.	Butylate (6) + R-29148	4														
		4														
	Atrazine	1	93	88	0	90	83	83	70	93	90	75	0	18.5	151	
21.	Butylate (6) + R-29148	6														
		6														
	Atrazine	1	93	80	0	90	75	75	50	90	80	50	0	17.5	114	
22.	Vernolate (6) + R-29148	4														
		4														
	Atrazine	1	90	88	0	88	88	88	83	88	75	73	0	19.7	142	
23.	R-37878 + R-25788	4														
		4														
	Atrazine	1	95	78	0	90	75	83	83	90	78	65	0	17.5	128	
24.	R-37878 + R-25788	6														
		6														
	Atrazine	1.5	95	75	0	93	68	78	73	93	88	68	0	19.3	147	

CORN PREPLANT INCORPORATED Continued

Trt. No.	Treatment Formula	Rate lb/A	Visual Evaluation 6/28								Visual Eval. 7/26			Yield bu/A	
			% Control								% Control				#Plants per A (thou)
			Broad-Grasses	Broad-leaf	Crop Injury	Pig-weed	Velvet-leaf	Lambs-quarters	Jimson-weed	Fox-tail	Broad-Grasses	Broad-leaf	Crop Injury		
25.	Butylate + R-25788	6.7E + 4													
	Atrazine 4L	1	93	83	0	85	80	80	70	90	83	68	0	19.0	134
26.	Eptam + R-25788	3S 4	93	73	0	78	40	40	38	90	75	48	0	18.3	119
27.	Eptam + R-25788	3S 6	98	78	0	90	78	78	55	90	75	58	0	17.3	121
28.	Eptam + R-25788	6.7E + 3													
	Procyanazine 80WP	1.5	93	78	0	88	80	80	50	93	78	63	0	19.3	141
29.	Eptam + R-25788	6.7E + 6													
	Procyanazine 80WP	2	100	93	0	85	83	83	83	93	85	78	0	17.8	139
30.	Vernolate + R-25788	6.7E + 4													
	Procyanazine 80WP	1.5	93	80	0	88	55	55	45	90	78	48	0	19.2	146
31.	CHECK (uncultivated)		0	0	0	0	0	0	0	0	0	0	0	15.8	92
32.	CHECK (cultivated)		100	100	0	100	100	100	100	100	100	100	0	17.2	160
	LSD (.05)		7	12	NS	13	22	24	20	5	14	18	NS	6	17

LOCATION: Maine Chance Farm      VARIETY: Pioneer 3369A      SOIL TYPE: Maury silt loam      pH: 6.9  
 FERTILITY: 200 lb/A N + 400 lb/A 16-16-16      DATE PLANTED & TREATED: May 11, 1976      O.M.: 3.72%

NO-TILL CORN IN KILLED BLUEGRASS SOD - PREEMERGENCE

Department of Agronomy

University of Kentucky

1976

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28					Visual Eval. 7/20			# Plants per A (thou)	Yield bu/A
				% Control					% Control				
				Grasses	Broad-leaf	Sod Kill	Fox-tail	Pig-weed	Grasses	Broad-leaf	Sod Kill		
1.	Atrazine	4L +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	95	95	100	80	90	68	85	100	18.1	155
2.	Simazine	80WP +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	90	98	93	80	85	80	88	100	18.8	146
3.	Alachlor	4E +	2.5										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	58	85	50	40	83	43	80	100	18.3	136
4.	Alachlor	4E +	2.5										
	Glyphosate	3E	2	68	93	100	35	80	60	83	100	19.6	151
5.	Alachlor	4E +	2.5										
	Cyanazine	4L +	2										
	Glyphosate	3E	2	65	93	100	40	85	53	83	100	18.7	160
6.	Cyanazine	4L +	3										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	68	90	100	53	75	55	80	100	17.4	136
7.	CGA-24705	6E +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	75	93	48	45	88	53	83	100	18.1	143
8.	Procyanazine	80WP +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	65	90	100	45	90	63	85	100	19.0	162
9.	Procyanazine	80WP +	3.2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	80	93	100	53	90	63	88	100	18.4	146
10.	Metribuzin	50WP +	0.5										
	Alachlor	4E +	2.5										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	60	90	96	40	78	48	80	100	19.4	152

NO-TILL CORN IN KILLED BLUEGRASS SOD - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28					Visual Eval. 7/20			# Plants per A (thou)	Yield bu/A
				% Control					% Control				
				Grasses	Broad-leaf	Sod Kill	Fox-tail	Pig-weed	Grasses	Broad-leaf	Sod Kill		
11.	Cyanazine	4L +	2										
	Atrazine	4L +	1										
	Diesel oil		4 qt	68	90	90	40	88	58	88	100	18.9	149
12.	Cyanazine	4L +	3										
	Atrazine	4L +	1										
	Diesel oil		4 qt	83	93	100	50	90	63	85	100	17.2	138
13.	Cyanazine	4L +	2										
	Atrazine	4L +	1										
	Diesel oil		8 qt	83	95	100	63	90	65	88	100	18.3	144
14.	Cyanazine	4L +	3										
	Atrazine	4L +	1										
	Diesel oil		8 qt	80	93	100	65	88	58	85	100	18.3	149
15.	CGA-24705	6E +	2										
	Procyanazine	80WP +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	60	85	90	48	70	48	70	100	19.3	134
16.	CGA-24705	6E +	1.5										
	Atrazine	4L +	1.2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	75	90	100	65	88	68	80	100	18.2	155
17.	CGA-24705	6E +	2										
	Atrazine	4L +	1.2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	98	100	100	73	90	68	88	100	18.2	158
18.	CGA-24705	6E +	2										
	Simazine	80WP +	1.6										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	85	93	93	83	88	78	85	100	19.2	150

NO-TILL CORN IN KILLED BLUEGRASS SOD - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28					Visual Eval. 7/20			# Plants per A (thou)	Yield bu/A
				% Control					% Control				
				Broad-Grasses	leaf	Sod Kill	Fox-tail	Pig-weed	Broad-Grasses	leaf	Sod Kill		
19.	Atrazine	4L +	1										
	Simazine	8OWP +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	100	100	100	88	90	88	88	100	20.6	155
20.	Atrazine	4L +	1.5										
	Simazine	8OWP +	1.5										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	98	98	100	88	90	90	90	100	19.8	162
21.	H-22234	4E +	2.5										
	Atrazine	4L +	1.5										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	93	98	100	73	90	73	85	100	18.5	160
22.	H-22234	4E +	2.5										
	Cyanazine	4L +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	83	98	95	50	85	55	88	100	18.4	145
23.	Penoxalin	4E +	2										
	Atrazine	4L +	1.5										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	98	100	100	83	90	90	90	100	20.1	163
24.	Penoxalin	4E +	2										
	Cyanazine	4L +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	83	93	100	43	90	58	88	100	18.2	152
			LSD (.05)	18	7	15	19	13	15	12	NS	NS	22

LOCATION: Spindletop Farm

VARIETY: Pioneer 3369A

SOIL TYPE: Maury silt loam

pH: 5.5

FERTILITY: 200 lb/A N + 400 lb/A 16-16-16

O.M.: 3.5%

DATE TREATED: May 13, 1976

DATE PLANTED: May 21, 1976

NO-TILL CORN - STALKLAND - PREEMERGENCE  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28			Visual Evaluation 8/9			# Plants per A (thou)	Yield bu/A		
				% Control			% Control						
				Broad-Grasses	Crop-leaf Injury		Fox-tail	Pig-weed	Broad-Grasses	Crop-leaf Injury			
1.	Atrazine	4L +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	80	93	0	80	80	75	85	0	19.9	166
2.	Atrazine	4L +	2										
	Glyphosate	3E	2	80	83	0	73	80	78	80	0	18.4	159
3.	Simazine	80WP +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	83	85	0	80	68	83	73	0	18.4	142
4.	Simazine	80WP +	2										
	Glyphosate	3E	2	88	80	0	88	73	83	70	0	18.8	142
5.	Alachlor	4E +	2.5										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	90	78	0	80	60	75	65	0	14.4	111
6.	Alachlor	4E +	2.5										
	Glyphosate	3E	2	65	45	0	78	10	75	45	0	18.3	131
7.	Alachlor	4E +	2.5										
	Cyanazine	4L +	2										
	Glyphosate	3E	2	68	63	0	70	48	75	63	0	17.3	123
8.	Alachlor pkmx	2.67E	2.67										
	with Atrazine	1.33 +	1.33										
	Glyphosate	3E	2	70	83	0	83	48	78	70	0	17.4	143
9.	Alachlor pkmx	2.67E	3										
	with Atrazine	1.33 +	1.5										
	Glyphosate	3E	2	75	80	0	68	68	68	73	0	19.8	139
10.	Cyanazine	4L +	3										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	78	90	0	80	58	80	68	0	18.9	136
11.	Cyanazine	4L +	3										
	Glyphosate	3E	2	75	70	0	78	43	70	65	0	14.7	126

NO-TILL CORN - STALKLAND - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28			Visual Evaluation 8/9					# Plants per A (thou)	Yield bu/A
				% Control			% Control						
				Grasses	Broad-leaf	Crop Injury	Fox-tail	Pig-weed	Grasses	Broad-leaf	Crop Injury		
12.	CGA-24705	6E +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	78	73	0	80	38	75	68	0	17.9	129
13.	CGA-24705	6E +	2										
	Glyphosate	3E	2	80	68	0	78	30	75	60	0	16.2	127
14.	Procyanazine	80WP +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	85	70	0	80	30	75	58	0	16.8	132
15.	Procyanazine	80WP +	2										
	Glyphosate	3E	2	78	68	0	80	43	80	65	0	18.9	138
16.	Procyanazine	80WP +	3.2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	85	85	0	83	48	85	65	0	19.0	160
17.	Procyanazine	80WP +	3.2										
	Glyphosate	3E	2	75	60	0	73	38	80	63	0	17.0	137
18.	Metribuzin	50WP +	0.5										
	Alachlor	4E +	2.5										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	85	85	0	80	78	70	75	0	17.5	131
19.	Metribuzin	50WP +	0.5										
	Glyphosate	3E	2	78	78	0	78	63	73	68	0	19.0	153
20.	Cyanazine	4L +	2										
	Atrazine	4L +	1										
	Diesel oil		4 qt	83	85	0	73	78	73	78	0	19.1	140
21.	Cyanazine	4L +	3										
	Atrazine	4L +	1										
	Diesel oil		4 qt	85	75	0	78	68	75	68	0	17.5	144
22.	Cyanazine	4L +	2										
	Atrazine	4L +	1										
	Diesel oil		8 qt	83	90	0	80	78	78	73	0	18.1	129
23.	Cyanazine	4L +	3										
	Atrazine	4L +	1										
	Diesel oil		8 qt	80	83	0	78	68	75	73	0	18.1	133



NO-TILL CORN - STALKLAND - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28 % Control			Visual Evaluation 8/9 % Control				# Plants per A (thou)	Yield bu/A	
				Grasses	Broad-leaf	Crop Injury	Fox-tail	Pig-weed	Broad-leaf	Crop Injury			
24.	Cyanazine	4L +	3										
	Atrazine	4L +	1										
	Glyphosate	3E	2	90	90	0	83	88	83	83	0	18.7	163
25.	Cyanazine	4L +	3										
	Atrazine	4L +	1										
	Diesel oil	+ 4 qt											
	Surfactant	0.5%		85	73	0	80	73	80	75	0	16.2	132
26.	Cyanazine	4L +	3										
	Atrazine	4L +	1										
	Diesel oil	+ 8 qt											
	Surfactant	0.5%		83	90	0	70	78	80	75	0	18.7	146
27.	CGA-24705	6E +	2										
	Procyanazine	80WP +	2										
	Paraquat	2E +	0.25										
	Surfactant	0.5%		75	78	0	78	63	75	73	0	16.4	139
28.	CGA-24705	6E +	2										
	Procyanazine	80WP +	2										
	Glyphosate	3E	2	83	90	0	83	23	78	68	0	16.3	152
29.	CGA-24705	6E +	1.5										
	Atrazine	4L +	1.2										
	Paraquat	2E +	0.25										
	Surfactant	0.5%		75	68	0	73	78	75	78	0	17.9	137
30.	CGA-24705	6E +	1.5										
	Atrazine	4L +	1.2										
	Glyphosate	3E	2	83	90	0	78	78	73	70	0	17.3	133
31.	CGA-24705	6E +	2										
	Atrazine	4L +	1.2										
	Paraquat	2E +	0.25										
	Surfactant	0.5%		93	93	0	88	88	75	85	0	16.7	166
32.	CGA-24705	6E +	2										
	Atrazine	4L +	1.2										
	Glyphosate	3E	2	78	78	0	80	68	78	83	0	18.4	148

NO-TILL CORN - STALKLAND - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28			Visual Evaluation 8/9				# Plants per A (thou)	Yield bu/A	
				% Control		Fox-tail	Pig-weed	% Control					
				Broad-Grasses	Crop-leaf Injury				Broad-Grasses	Crop-leaf Injury			
33.	CGA-24705	6E +	2										
	Simazine	80WP +	1.6										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	88	88	0	83	73	78	65	0	15.7	139
34.	CGA-24705	6E +	2										
	Simazine	80WP +	1.6										
	Glyphosate	3E	3	90	90	0	83	70	80	78	0	17.4	130
35.	Atrazine	4L +	1										
	Simazine	80WP +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	95	95	0	80	88	80	85	0	15.8	135
36.	Atrazine	4L +	1										
	Simazine	80WP +	2										
	Glyphosate	3E	2	93	90	0	83	80	83	83	0	16.9	140
37.	Atrazine	4L +	1.5										
	Simazine	80WP +	1.5										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	90	85	0	90	88	85	80	0	18.7	136
38.	Atrazine	4L +	1.5										
	Simazine	80WP +	1.5										
	Glyphosate	3E	2	85	85	0	80	80	78	83	0	18.9	165
39.	H-22234	4E +	2.5										
	Atrazine	4L +	1.5										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	70	78	0	70	68	80	78	0	18.5	142
40.	H-22234	4E +	2.5										
	Atrazine	4L +	1.5										
	Glyphosate	3E	2	80	88	0	78	88	70	85	0	18.8	159
41.	H-22234	4E +	2.5										
	Cyanazine	4L +	2										
	Paraquat	2E +	0.25										
	Surfactant		0.5%	78	73	0	70	50	78	73	0	19.8	132

NO-TILL CORN - STALKLAND - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/28			Visual Evaluation 8/9				# Plants per A (thou)	Yield bu/A	
				% Control			% Control						
				Broad-Grasses	Crop-leaf	Injury	Fox-tail	Pig-weed	Broad-Grasses	Crop-leaf	Injury		
42.	H-22234	4E	+	2.5									
	Cyanazine	4L	+	2									
	Glyphosate	3E		2	78	78	0	73	50	80	70	0	19.4 141
43.	Penoxalin	4E	+	2									
	Atrazine	4L	+	1.5									
	Paraquat	2E	+	0.25									
	Surfactant			0.5%	90	88	0	83	88	78	80	0	16.6 151
44.	Penoxalin	4E	+	2									
	Atrazine	4L	+	1.5									
	Glyphosate	3E		2	85	93	0	80	80	75	80	0	17.5 169
45.	Penoxalin	4E	+	2									
	Cyanazine	4L	+	2									
	Paraquat	2E	+	0.25									
	Surfactant			0.5%	83	70	0	78	40	77	73	0	16.5 132
46.	Penoxalin	4E	+	2									
	Cyanazine	4L	+	2									
	Glyphosate	3E		2	73	85	0	73	77	75	75	0	17.7 135
	LSD (.05)				12	14	NS	8	24	NS	11	NS	9 30

LOCATION: Spindletop Farm

VARIETY: Pioneer 3369A

SOIL TYPE: Maury silt loam pH: 6.3

FERTILITY: 200 lb/A N + 400 lb/A 16-16-16

O.M.: 4.23%

DATE TREATED: May 12, 1976

DATE PLANTED: May 21, 1976

CORN - YELLOW NUTSEDGE  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Vis. Ev. 5/25		Vis. Ev. 6/15		Vis. Ev. 7/8		# Plants per A (thou)	Yield bu/A
					Nut-sedge	Crop Injury	Nut-sedge	Crop Injury	Nut-sedge	Crop Injury		
1.	Alachlor	4E +	3	PPI								
	Atrazine TM	4L	1.5	PPI	83	0	92	0	78	0	18.4	153
2.	Alachlor	4E +	3	PRE								
	Atrazine TM	4L	1.5	PRE	73	0	92	0	78	0	18.4	155
3.	Alachlor	4E +	3	PRE								
	Atrazine PM	4L	1.5	PRE	45	0	82	0	68	0	19.6	175
4.	Alachlor	4E +	3	PPI								
	Atrazine PM	4L	1.5	PPI	88	0	93	0	85	0	19.0	169
5.	Alachlor	4E	3	PPI	85	0	90	0	83	0	19.2	156
6.	Alachlor	4E	3	PRE	55	0	78	0	65	0	18.3	162
7.	CGA-24705	6E	3	PPI	85	0	96	0	93	0	19.6	167
8.	CGA-24705	6E	3	PRE	45	0	90	0	80	0	19.6	169
9.	CGA-24705	6E +	3	PPI								
	Atrazine	4L	1.5	PPI	83	0	95	0	88	0	20.3	168
10.	CGA-24705	6E +	3	PRE								
	Atrazine	4L	1.5	PRE	58	0	90	0	90	0	18.1	145
11.	CGA-24705	6E +	2	PPI								
	Procyanazine	80WP	2.5	PPI	85	0	98	0	85	0	19.4	166
12.	CGA-24705	6E	2.5	PPI	83	0	97	0	93	0	18.6	166
13.	CGA-24705	6E +	2	PPI								
	Atrazine	4L	1.6	PPI	63	0	93	0	88	0	19.5	164
14.	Butylate +											
	R-25788	6.7E +	4	PPI								
	Atrazine	4L	1.5	PPI	38	0	75	0	73	0	18.0	150
15.	Butylate +											
	R-25788	6.7E +	4	PPI								
	Procyanazine	80WP	2	PPI	23	0	76	0	73	0	20.5	160
16.	EPTC + R-25788	6.7E +	4	PPI								
	Atrazine	4L	1.5	PPI	83	0	97	0	95	0	19.4	171
17.	Procyanazine	80WP +	2.5	PPI								
	Alachlor	4E	2	PPI	75	0	84	0	63	0	18.1	168

CORN - YELLOW NUTSEDGE Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Vis. Ev. 5/25		Vis. Ev. 6/15		Vis. Ev. 7/8		# Plants per A (thou)	Yield bu/A
					% Control Nut-sedge	% Control Crop Injury	% Control Nut-sedge	% Control Crop Injury	% Control Nut-sedge	% Control Crop Injury		
18.	H-22234	4E +	3	PPI								
	Atrazine	4L	1.5	PPI	25	3	60	0	45	0	20.0	153
19.	H-22234	4E +	3	PRE								
	Atrazine	4L	1.5	PRE	8	0	46	0	55	0	18.2	169
20.	H-25893	2E +	3	PPI								
	Atrazine	4L	1.5	PPI	58	0	86	0	78	0	18.1	164
21.	H-25893	2E +	3	PRE								
	Atrazine	4L	1.5	PRE	5	0	65	0	70	0	19.2	161
22.	H-26910	4E +	3	PPI								
	Atrazine	4L	1.5	PPI	73	0	90	0	78	0	18.8	167
23.	H-26910	4E +	3	PRE								
	Atrazine	4L	1.5	PRE	30	0	84	0	78	0	19.1	160
24.	Penoxalin	4E	2	PRE	0	0	0	0	0	0	18.8	152
25.	Penoxalin	4E +	1.5	PRE								
	Atrazine	4L	1.5	PRE	0	0	8	0	28	0	18.3	153
26.	Atrazine	4L +	1.5	PRE								
	Butylate +											
	R-25788	6.7E +	2	POD								
	Surfactant		0.5%	POD	0	0	8	0	0	0	19.9	169
27.	Atrazine	4L +	1.5	PRE								
	Butylate +											
	R-25788	6.7E +	4	POD								
	Surfactant		0.5%	POD	0	0	8	0	0	0	19.7	166
28.	Atrazine	4L +	1.5	PRE								
	Butylate +											
	R-25788	6.7E +	6	POD								
	Surfactant		0.5%	POD	0	0	5	0	0	0	16.3	152
29.	Atrazine	4L +	2	EP								
	Crop Oil	LM	4 qt	EP	0	0	53	0	53	0	18.2	157
30.	Atrazine	4L +	1.5	PRE								
	Bentazon	4E	1.5	EP	0	0	86	0	73	0	18.5	160

CORN - YELLOW NUTSEDGE Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Vis. Ev. 5/25		Vis. Ev. 6/15		Vis. Ev. 7/8		# Plants per A (thou)	Yield bu/A
					% Control		% Control		% Control			
					Nut- sedge	Crop Injury	Nut- sedge	Crop Injury	Nut- sedge	Crop Injury		
31.	Atrazine	4L +	1.5	PRE								
	Bentazon	4E	0.75	EP+LP	0	0	90	0	93	0	19.2	165
32.	Atrazine	4L +	2	PRE								
	Bentazon	4E	2	EP	0	0	90	0	80	0	17.9	157
33.	VEL-5052	2E	3	PRE	50	0	84	0	73	0	18.8	157
34.	VEL-5052	2E	3	PPI	73	0	89	0	80	0	21.4	174
35.	EPTC + R-25788	6.7E +	6	PPI								
	Atrazine	4L	1.5	PPI	85	0	98	0	98	0	20.2	184
36.	Vernolate +											
	R-25788	6.7E +	4	PPI								
	Atrazine	4L	1.5	PPI	82	0	76	0	93	0	19.0	172
37.	Ametryne	80WP +	2	POD								
	Surfactant		0.5%	POD	0	0	63	0	45	0	18.5	158
38.	CHECK (uncultivated)				0	0	0	0	0	0	15.1	137
39.	CHECK (cultivated)				100	0	100	0	100	0	19.4	172
	LSD (.05)				18	NS	16	NS	11	NS	7	21

LOCATION: Spindletop Farm

VARIETY: Pioneer 3369A

SOIL TYPE: Maury silt loam

FERTILITY: 200 lb/A N + 400 lb/A 16-16-16

pH: 6.5

O.M.: 3%

DATE PLANTED & TREATED: May 5, 1976

EP & POD: June 4, 1976

LP: June 14, 1976

SOYBEAN PREEMERGENCE  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/30						Visual Eval. 7/21		
				% Control								
				Grasses	Broad-leaf	Crop Injury	Pig-weed	Jimson-weed	Cockle-bur	Grasses	Broad-leaf	Crop Injury
1.	H-22234	4E	2.5	83	25	0	88	18	18	70	10	0
2.	H-22234	4E +	2									
	Linuron	50WP	0.75	90	75	0	90	73	60	90	35	0
3.	H-22234	4E +	2									
	Naptalam	3E	4.5	85	68	0	70	58	60	83	28	0
4.	H-22234	4E +	2									
	Metribuzin	50WP	0.38	90	80	0	93	73	65	90	65	0
5.	Chloramiben	2E	3	83	33	0	88	20	23	75	10	0
6.	Chloramiben	2E +	2									
	Linuron	50WP	1	80	58	0	90	35	35	78	23	0
7.	Chloramiben	2E +	2									
	Metribuzin	50WP	0.38	75	65	0	93	35	45	78	28	0
8.	Alachlor	4E	2.5	83	43	0	85	13	13	78	15	0
9.	Linuron	50WP	1	78	45	0	85	20	20	80	10	0
10.	Metribuzin	50WP	0.38	70	60	0	90	30	30	65	25	0
11.	Alachlor	4E +	2									
	Chloramiben	2E	2	83	63	0	85	30	38	80	13	0
12.	Alachlor	4E +	2									
	Metribuzin	50WP	0.38	88	80	0	93	70	75	85	63	0
13.	Alachlor	4E +	2.4									
	Metribuzin	50WP	0.45	83	80	0	95	83	68	93	68	0
14.	Alachlor	4E +	2.8									
	Metribuzin	50WP	0.52	93	88	3	98	78	85	93	78	0
15.	Alachlor pkmx	3.2E +	2									
	w/ Metribuzin	0.6	0.38	88	78	0	88	63	63	83	40	0
16.	Alachlor pkmx	3.2E +	2.4									
	w/ Metribuzin	0.6	0.45	95	83	0	100	75	75	85	55	0

SOYBEAN PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/30						Visual Eval. 7/21		
				% Control								
				Broad- Grasses	leaf Injury	Crop Injury	Pig- weed	Jimson- weed	Cockle- bur	Broad- Grasses	Crop leaf Injury	
17.	Alachlor pkmx w/ Metribuzin	3.2E + 0.6	2.8 0.52	95	85	0	98	80	80	85	78	0
18.	Alachlor Linuron	4E + 50WP	2.4 0.8	90	80	0	98	75	78	85	58	0
19.	Alachlor pkmx Linuron	2.4E + 0.8	2.4 0.8	88	70	0	93	53	48	78	30	0
20.	CGA-24705	6E	1.5	88	43	0	93	15	20	73	10	0
21.	CGA-24705	6E	2	83	38	0	75	23	23	78	13	0
22.	CGA-24705 Linuron	6E + 50WP	1.5 0.75	88	73	0	93	73	63	85	40	0
23.	CGA-24705 Linuron	6E + 50WP	2 0.75	90	80	0	85	73	60	75	33	0
24.	CGA-24705 Metribuzin	6E + 50WP	2 0.5	90	80	0	90	65	68	85	45	0
25.	CGA-24705 Metribuzin	6E + 50WP	1.5 0.38	93	78	0	95	73	68	90	50	0
26.	CGA-24705 Metribuzin	6E + 50WP	2 0.38	95	83	0	95	75	75	88	55	0
27.	CGA-24705 Metribuzin	6E + 50WP	2 0.75	90	90	8	95	88	88	90	83	0
28.	CGA-24705 Naptalam	6E + 3E	2 4.5	78	60	0	73	43	45	70	28	0
29.	Naptalam	3E	4.5	75	28	0	23	25	25	58	15	0
30.	Naptalam Alachlor	3E + 4E	4.5 2	83	70	0	90	60	63	88	33	0
31.	Naptalam Chloramiben Linuron	3E + 2E + 50WP	4.5 3 1	88	75	0	98	68	80	83	40	0
32.	M-4127	4E	1	83	40	0	88	18	20	83	10	0
33.	M-4127 Metribuzin	4E + 50WP	1 0.38	80	80	0	95	63	65	80	45	0



SOYBEAN PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/30						Visual Eval. 7/21			
				% Control									
				Grasses	Broad-leaf	Crop Injury	Pig-weed	Jimson-weed	Cockle-bur	Grasses	Broad-leaf	Crop Injury	
34.	M-4127	4E +	1										
	Linuron	50WP	0.75	85	65	0	93	33	33	78	15	0	
35.	M-4135	2E	1	65	15	0	85	10	10	75	10	0	
36.	M-4135	2E +	1										
	Metribuzin	50WP	0.38	88	80	0	95	65	70	85	40	0	
37.	M-4135	2E +	1										
	Linuron	50WP	0.75	85	65	0	93	55	53	78	25	0	
38.	Chloroprotham	4E	2	63	28	0	55	25	25	40	15	0	
39.	RH-2915	2EC	0.38	90	90	23	100	90	88	90	83	8	
40.	RH-2915	2EC	0.5	90	90	40	100	93	88	88	85	10	
41.	RH-2915	2EC +	0.38										
	Alachlor	4E	2	90	88	38	100	95	85	93	85	5	
42.	Oryzalin	75WP	1	78	30	0	88	23	18	80	13	0	
43.	Oryzalin	75WP +	1										
	Naptalam	3E	3	70	48	0	93	30	30	73	18	0	
44.	Oryzalin	75WP +	1										
	Metribuzin	50WP	0.38	80	63	0	93	35	35	75	23	0	
45.	Sonalan	3E	1	75	10	0	88	10	10	73	10	0	
46.	Sonalan	3E	1.25	78	13	0	78	10	10	70	10	0	
47.	Sonalan	3E +	1										
	Metribuzin	50WP	0.38	78	75	0	88	60	63	70	43	0	
48.	Sonalan	3E +	1.25										
	Metribuzin	50WP	0.38	80	70	0	83	53	55	80	38	0	
49.	Sonalan	3E +	1										
	Linuron	50WP	0.75	78	60	0	88	35	38	80	13	0	
50.	Sonalan	3E +	1.25										
	Linuron	50WP	0.75	73	53	0	93	20	33	75	10	0	
51.	Sonalan	3E +	1										
	Naptalam	3E	4.5	75	65	0	73	58	58	73	20	0	
52.	Sonalan	3E +	1.25										
	Naptalam	3E	4.5	73	63	0	48	35	33	73	23	0	

SOYBEAN PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/30						Visual Eval. 7/21		
				% Control								
				Grasses	Broad-leaf	Crop Injury	Pig-weed	Jimson-weed	Cockle-bur	Grasses	Broad-leaf	Crop Injury
53.	Bifenox	80WP	1.6	70	80	18	95	80	75	73	63	0
54.	Bifenox	80WP +	1.6									
	Alachlor	4E	2	80	80	15	98	73	68	83	53	0
55.	VEL-5052	2E	2.5	83	10	0	85	10	10	80	10	0
56.	VEL-5052	2E +	2									
	Linuron	50WP	0.75	90	68	0	93	45	50	80	20	0
57.	VEL-5052	2E +	2									
	Metribuzin	50WP	0.38	88	73	0	90	53	55	83	35	0
58.	VCS-438	75WP	1	68	30	0	73	15	15	40	15	0
59.	VCS-438	75WP	2	73	68	0	80	48	45	68	18	0
60.	VCS-438	75WP +	0.75									
	Alachlor	4E	2	83	63	0	93	58	40	83	35	0
61.	VCS-438	75WP +	1									
	Alachlor	4E	2	90	63	0	90	45	38	83	28	0
62.	VCS-438	75WP +	1.5									
	Alachlor	4E	2	83	75	0	93	65	58	78	40	0
63.	R-37878	6E +	4									
	Linuron	50WP	1	83	58	5	75	40	40	80	15	0
64.	R-36548	6E	2	73	20	0	58	18	15	55	15	0
65.	R-36548	6E	4	73	45	0	70	43	40	60	20	0
66.	R-24315	50WP	2	95	90	3	100	93	80	88	78	0
67.	R-33222	50WP	1	73	35	0	70	23	23	68	10	0
68.	Penoxalin	4E	1.5	63	45	0	85	18	18	75	15	0
69.	Penoxalin	4E +	1									
	Metribuzin	50WP	0.38	83	70	0	93	55	60	75	33	0
70.	CHECK (cultivated)			100	100	0	100	100	100	100	100	0
	LSD (.05)			13	18	5	14	22	22	14	21	3

LOCATION: Spindletop Farm  
 FERTILITY: 400 lb/A 16-16-16

VARIETY: Calland  
 DATE PLANTED & TREATED: May 19, 1976

SOIL TYPE: Maury silt loam  
 pH: 6.5  
 O.M.: 3.36%

SOYBEAN PREEMERGENCE SUPPLEMENT  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	Visual Evaluation 6/29						Visual Eval. 7/13		
				% Control								
				Grasses	Broad-leaf	Crop Injury	Pig-weed	Jimson-weed	Cockle-bur	Grasses	Broad-leaf	Crop Injury
1.	Bifenox	80WP	1.6	83	85	15	95	75	75	80	70	0
2.	Bifenox	4F	2	78	85	15	98	83	83	75	75	0
3.	Bifenox	80WP +	1.6									
	Alachlor	4E	2	93	83	13	98	80	80	88	65	0
4.	Bifenox	4F +	1.5									
	Alachlor	4E	2	95	93	23	100	90	90	90	88	0
5.	Bifenox	80WP +	1.6									
	Alachlor	4E	2	95	85	18	98	83	80	90	78	0
6.	Bifenox	4F +	2									
	Alachlor	4E	2	98	93	28	100	88	83	90	85	3
7.	Bifenox	80WP +	1.2									
	CGA-24705	6E	2	93	78	10	90	83	80	85	58	0
8.	Bifenox	4F +	1.5									
	CGA-24705	6E	2	100	93	33	75	88	83	90	80	3
9.	BAS-9021	75WP	1	73	20	0	45	10	10	68	25	0
10.	BAS-9021	75WP	2	65	13	0	10	10	10	68	10	0
11.	HOE-23408	3E	2.5	75	25	0	50	15	33	73	25	0
12.	HOE-23408	3E +	2.5									
	Linuron	50WP	0.75	80	48	0	90	25	23	70	10	0
13.	SD-35337	1E	2	88	70	0	88	63	68	80	45	0
14.	Chlorpropham	4E	2	68	55	0	60	23	23	73	23	0
15.	Oxadiazon	2E	1	88	83	13	95	80	80	80	75	0
16.	Oxadiazon	2E	1.5	88	90	18	98	88	88	85	88	0
17.	Oxadiazon	2E +	1									
	Alachlor	4E	2	98	90	10	100	83	83	90	83	0
18.	CHECK (cultivated)			100	100	0	100	100	100	100	100	0
		LSD (.05)		9	16	10	30	15	18	7	23	NS

LOCATION: Spindletop Farm  
 FERTILITY: 400 lb/A 16-16-16

VARIETY: Calland  
 O.M.: 3.5%

SOIL TYPE: Maury silt loam pH: 6.4  
 DATE PLANTED & TREATED: May 19, 1976

SOYBEAN POSTEMERGENCE  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 6/29					Visual Eval. 7/21			
					% Control					% Control			
					Grasses	Broad- leaf	Crop Injury	Pig- weed	Jimson- weed	Cockle- bur	Grasses	Broad- leaf	Crop Injury
1.	Trifluralin	4E	0.75	PPI	83	53	0	93	38	48	80	20	0
2.	Alachlor	4E	2.5	PRE	93	60	0	93	50	53	78	10	0
3.	Metribuzin	50WP	0.38	PRE	85	78	0	98	75	78	85	65	0
4.	Trifluralin	4E +	0.75	PPI									
	Bentazon	4E	1	EP	90	98	0	100	95	95	83	90	0
5.	Trifluralin	4E +	0.75	PPI									
	Bentazon	4E	1	LP	93	93	0	98	95	95	83	83	0
6.	Alachlor	4E +	2	PRE									
	Metribuzin	50WP	0.28	POD	95	93	0	100	98	98	90	85	0
7.	Alachlor	4E +	2	PRE									
	Naptalam	3E	4.5	EP	93	93	0	100	100	100	93	90	0
8.	Alachlor	4E +	2	PRE									
	Bentazon	4E	0.75	EP	100	90	0	98	98	98	93	88	0
9.	Alachlor	4E +	2	PRE									
	Bentazon	4E	1	EP	93	93	0	98	93	93	93	90	0
10.	Alachlor	4E +	2	PRE									
	Bentazon	4E	0.75	EP+LP	98	95	0	98	98	98	93	93	0
11.	Metribuzin	50WP +	0.38	PRE									
	Bentazon	4E	1	EP	58	95	0	98	95	95	68	90	0
12.	CGA-24705	6E +	2	PRE									
	Bentazon	4E	1	EP	98	93	0	95	95	95	95	93	0
13.	Fluchloralin	4E	1.5	PPI	88	60	0	100	50	60	85	20	0
14.	Fluchloralin	4E +	0.75	PPI									
	Bentazon	4E	2	EP	75	93	0	100	93	93	75	85	0
15.	Fluchloralin	4E +	1.5	PPI									
	Bentazon	4E	1.5	EP	93	95	5	98	95	95	88	88	0
16.	Chloramiben	2E	3	EP	58	65	0	93	70	70	60	50	0
17.	BAS-9021	75WP	1	EP	70	10	0	10	10	10	78	10	0
18.	BAS-9021	75WP	2	EP	70	10	0	10	10	10	73	10	0

SOYBEAN POSTEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 6/29					Visual Eval. 7/21			
					% Control					% Control			
					Grasses	Broad-leaf	Crop Injury	Pig-weed	Jimson-weed	Cockle-bur	Grasses	Broad-leaf	Crop Injury
19.	BAS-9021	75WP	1	LP	70	10	0	18	10	10	78	10	0
20.	BAS-9021	75WP	2	LP	70	10	0	10	10	10	80	10	0
21.	BAS-9021	75WP	0.5	EP+LP	70	10	0	13	35	13	75	10	0
22.	BAS-9021	75WP	1	EP+LP	70	10	0	10	10	10	78	10	0
23.	BAS-9021	75WP +	1	EP									
	Bentazon	4E	1	EP	98	90	0	95	95	95	85	85	0
24.	BAS-9021	75WP +	2	EP									
	Bentazon	4E	1	EP	95	85	5	90	88	88	90	78	0
25.	Dinitromine	2E +	0.5	PPI									
	Bentazon	4E	1	EP	80	80	10	100	95	95	78	85	0
26.	Dinitromine	2E +	0.5	PPI									
	Naptalam	3E	4.5	EP	93	95	20	100	100	75	88	90	0
27.	RH-6201	4E	0.5	EP	85	98	0	100	100	100	93	90	0
28.	RH-6201	4E	1	EP	90	100	0	98	98	98	90	90	0
29.	Chloroxuron	50WP	3	EP	65	78	0	95	80	80	53	70	0
30.	HOE-23408	3E	1	EP	70	10	0	10	10	10	73	10	0
31.	HOE-23408	3E	1.5	EP	70	10	0	10	10	10	75	10	0
32.	HOE-23408	3E	2	LP	70	10	0	10	10	10	73	10	0
33.	HOE-23408	3E +	1	EP									
	Bentazon	4E +	0.75	EP									
	Surfactant		0.5%	LP	85	90	0	95	90	90	70	75	0
34.	HOE-23408	3E +	1.5	EP									
	Bentazon	4E	0.75	EP	70	88	0	93	95	95	83	70	0
35.	HOE-23408	3E +	1.5	LP									
	Surfactant		0.5%	LP	70	13	0	10	10	10	73	10	0
36.	HOE-23408	3E +	1.5	EP									
	Chloroxuron	50WP	1.5	EP	93	75	8	95	83	83	90	70	0
37.	HOE-23408	3E +	1	EP									
	Surfactant		0.5%	EP	73	10	0	10	10	10	80	10	0

SOYBEAN POSTEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 6/29					Visual Eval. 7/21			
					% Control					% Control			
					Grasses	Broad-leaf	Crop Injury	Pig-weed	Jimson-weed	Cockle-bur	Grasses	Broad-leaf	Crop Injury
38.	MBR-12325	4S +	0.5	EP									
	Naptalam	3E	4.5	EP	90	95	13	98	98	98	90	80	0
39.	2,4-DB	2E	0.2	EP	45	75	18	93	83	83	18	75	0
40.	CHECK (cultivated)				100	100	0	100	100	100	100	98	0
	LSD (.05)				9	8	7	7	13	14	14	13	NS

LOCATION: Spindletop Farm  
 FERTILITY: 400 lb/A 16-16-16

VARIETY: Calland  
 O.M.: 0.3%

SOIL TYPE: Maury silt loam      pH: 6.45  
 DATE PLANTED & TREATED: May 21, 1976  
 EP: June 10, 1976  
 LP: June 16, 1976

SOYBEAN PREPLANT INCORPORATED OVERLAY  
 Department of Agronomy  
 University of Kentucky  
 1976

rt. o.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 6/29					Visual Eval. 7/21			
					% Control					% Control			
					Broad- Grasses	Crop leaf	Pig- Injury	Jimson- weed	Cockle- bur	Grasses	Broad- leaf	Crop Injury	
1.	Butralin	4E	2.5	PPI	80	48	0	93	38	40	75	10	0
2.	Butralin	4E +	2.5	PPI									
	Metribuzin	50WP	0.38	PRE	88	88	0	98	88	88	78	70	0
3.	Butralin	4E +	2.5	PPI									
	Metribuzin	50WP	0.38	PPI	88	80	0	100	88	80	78	50	0
4.	Butralin	4E +	2.5	PPI									
	Chloramiben	2E	2	PRE	88	58	0	90	73	70	85	38	0
5.	Butralin	4E +	2	PPI									
	Chloramiben	2E	2	PPI	83	50	0	98	58	43	88	28	0
6.	Fluchloralin	4E	1	PPI	75	48	0	90	38	38	83	10	0
7.	Dinitromine	2E	0.25	PPI	78	38	0	78	18	18	83	10	0
8.	Dinitromine	2E	0.38	PPI	75	43	0	93	38	38	80	15	0
9.	Dinitromine	2E	0.5	PPI	73	50	0	90	48	48	83	35	0
0.	Dinitromine	50WP	0.5	PPI	78	43	0	90	28	28	80	20	0
1.	Metribuzin	50WP	0.38	PRE	60	63	0	88	53	53	63	68	0
2.	Metribuzin	50WP	0.38	PPI	75	80	0	80	73	78	78	53	0
3.	Dinitromine	2E +	0.38	PPI									
	Metribuzin	50WP	0.38	PRE	83	85	0	90	88	88	88	68	0
4.	Dinitromine	2E +	0.38	PPI									
	Naptalam	3E	4.5	PRE	78	73	0	90	78	78	80	53	0
5.	Dinitromine	2E +	0.5	PPI									
	Linuron	50WP	0.75	PRE	85	65	0	100	63	63	83	35	0
6.	Dinitromine	2E	0.5	PPI									
	Bifenox	80WP	1.5	PRE	95	85	23	98	83	83	95	78	0
7.	Dinitromine	2E +	0.38	PPI									
	RH-2915	2EC	0.38	PRE	100	93	30	100	98	98	98	93	5
8.	Dinitromine	2E +	0.5	PPI									
	RH-6201	4E	1	EP	100	100	0	100	100	100	100	100	0
9.	USB-3153	50WP	0.25	PPI	83	45	0	90	38	48	78	15	0

SOYBEAN PREPLANT INCORPORATED OVERLAY Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 6/29					Visual Eval. 7/21			
					% Control					% Control			
					Broad-Grasses	Crop leaf	Crop Injury	Pig-weed	Jimson-weed	Cockle-bur	Broad-Grasses	Crop leaf	Crop Injury
20.	USB-3153	50WP +	0.25	PPI									
	Dinitromine	2E	0.25	PPI	80	53	0	98	28	28	85	10	0
21.	Profluralin	4E	1	PPI	75	28	0	93	18	18	80	10	0
22.	Profluralin	4E +	1.5	PPI									
	Metribuzin	50WP	0.38	PRE	90	83	0	90	78	78	83	70	0
23.	Profluralin	4E +	1.5	PPI									
	Metribuzin	50WP	0.75	PRE	93	88	0	98	88	88	85	68	0
24.	Profluralin	4E +	1.5	PPI									
	Metribuzin	50WP	0.38	PPI	88	78	0	93	78	78	80	55	0
25.	Profluralin	4E +	1.5	PPI									
	Metribuzin	50WP	0.75	PPI	85	83	13	100	78	73	83	65	0
26.	Trifluralin	4E	0.75	PPI	75	35	0	93	20	20	83	10	0
27.	Trifluralin	4E +	0.75	PPI									
	Chloramiben	2E	2	PRE	85	48	0	90	43	43	90	20	0
28.	Trifluralin	4E +	0.75	PPI									
	Chloramiben	2E	2	PPI	80	68	0	98	53	53	88	40	0
29.	Trifluralin	4E +	0.75	PPI									
	Naptalam	3E	4.5	PRE	85	73	0	98	73	63	90	50	0
30.	Trifluralin	4E +	0.75	PPI									
	Linuron	50WP	0.75	PRE	80	65	0	93	48	50	85	20	0
31.	Trifluralin	4E +	0.75	PPI									
	Metribuzin	50WP	0.38	PPI	85	70	0	93	68	63	88	43	0
32.	Trifluralin	4E +	0.75	PPI									
	Metribuzin	50WP	0.38	PRE	85	78	0	98	70	73	88	58	0
33.	Trifluralin	4E +	0.75	PPI									
	RH-2915	2EC	0.5	PPI	85	80	0	100	83	78	83	70	0
34.	Vernolate	7E	2.5	PPI	83	55	0	98	43	43	88	28	0
35.	Vernolate	7E +	2.5	PPI									
	Trifluralin	4E	0.75	PPI	88	58	5	98	40	43	90	30	0
36.	Vernolate	7E +	2.5	PPI									
	R-24315	50WP	2	PPI	88	73	0	90	70	70	83	43	0



SOYBEAN PREPLANT INCORPORATED OVERLAY Continued

Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 6/29					Visual Eval. 7/21			
				% Control								
				Broad- Grasses	leaf Injury	Crop Injury	Pig- weed	Jimson- weed	Cockle- bur	Broad- Grasses	leaf Injury	Crop Injury
Penoxalin	4E	1.5	PPI	78	60	0	90	43	40	85	25	0
Penoxalin	4E +	1.5	PPI									
Metribuzin	50WP	0.38	PPI	88	70	0	100	53	53	83	38	0
Penoxalin	4E +	1.5	PPI									
Metribuzin	50WP	0.38	PRE	93	85	0	98	88	73	93	68	0
Penoxalin	4E +	1.5	PPI									
Linuron	50WP	0.75	PRE	90	70	0	93	73	73	83	40	0
R-36548	6E	2	PPI	48	25	0	30	10	10	75	30	0
R-36548	6E	4	PPI	73	45	0	63	50	50	65	33	0
Vernolate	7E +	2.5	PPI									
R-24315	50WP	2	PPI	85	73	3	90	63	58	95	53	0
Vernolate	7E +	3	PPI									
R-24315	50WP	2	PPI	90	70	0	93	63	60	85	43	0
R-33222	50WP	1	PPI	73	58	0	73	38	38	68	25	0
RH-2915	2EC	0.5	PPI	70	70	0	90	68	53	83	43	0
RH-8817	2E	1	PPI	85	80	0	98	83	73	83	63	0
Trifluralin	4E +	0.75	PPI									
RH-8817	2E	1	PPI	93	83	0	98	83	70	90	75	0
Sonalan	3E	0.75	PPI	75	60	0	90	43	48	85	43	0
Sonalan	3E	1	PPI	80	48	0	90	43	53	80	18	0
Sonalan	3E +	0.75	PPI									
Metribuzin	50WP	0.38	PPI	85	73	0	93	70	78	80	50	0
Sonalan	3E +	1	PPI									
Metribuzin	50WP	0.38	PPI	95	70	0	93	70	70	90	50	0
Alachlor	4E +	2	PPI									
Metribuzin	50WP	0.38	PPI	70	60	0	93	80	78	78	53	0
Alachlor	4E +	2.4	PPI									
Metribuzin	50WP	0.45	PPI	88	75	0	98	83	83	88	55	0
Alachlor	4E +	2.8	PPI									
Metribuzin	50WP	0.52	PPI	90	75	5	98	73	73	88	70	0

SOYBEAN PREPLANT INCORPORATED OVERLAY Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 6/29					Visual Eval. 7/21			
					% Control					% Control			
					Grasses	Broad-leaf	Crop Injury	Pig-weed	Jimson-weed	Cockle-bur	Grasses	Broad-leaf	Crop Injury
56.	Alachlor pk mx w/ Metribuzin	3.2E + 0.6	2 0.38	PPI PPI	88	73	0	93	60	50	88	65	0
57.	Alachlor pk mx w/ Metribuzin	3.2E + 0.6	2.4 0.45	PPI PPI	88	75	0	93	68	68	90	53	0
58.	Alachlor pk mx w/ Metribuzin	3.2E + 0.6	2.8 0.52	PPI PPI	90	78	0	93	70	73	83	60	0
59.	Bifenox Trifluralin	80WP + 4E	1.2 1	PRE PPI	95	85	23	100	83	83	95	68	0
60.	Bifenox Trifluralin	4E + 4E	1.5 1	PRE PPI	98	85	13	98	90	90	90	68	3
61.	RH-2915	2EC	0.38	PPI	75	63	0	90	63	68	75	28	0
62.	CHECK (cultivated)				100	100	0	100	100	100	100	100	0
LSD (.05)					14	17	5	11	17	18	14	24	1

LOCATION: Spindletop Farm  
 FERTILITY: 400 lb/A 16-16-16

VARIETY: Calland SOIL TYPE: Maury silt loam  
 DATE PLANTED & TREATED: May 20, 1976

pH: 6.4  
 O.M.: 3.4%

NO-TILL SOYBEANS IN WHEAT STUBBLE - PREEMERGENCE  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	Visual Eval. 8/9		Visual Eval. 9/9		Yield bu/A
				% Control		% Control		
				Grasses	Broadleaf	Grasses	Broadleaf	
1.	Bifenox	80WP +	1.2					
	Alachlor	4E +	2					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	70	80	63	77	43.6
2.	Bifenox	80WP +	1.5					
	Alachlor	4E +	2					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	73	87	63	77	45.8
3.	Alachlor	4E +	2.5					
	Metribuzin	50WP +	0.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	87	77	83	77	51.5
4.	RH-2915	2EC +	0.5					
	Oryzalin	75WP +	1.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	77	87	70	83	46.0
5.	RH-2915	2EC +	0.5					
	Oryzalin	75WP +	1.5					
	Glyphosate	3E	2	90	90	80	80	53.4
6.	RH-2915	2EC +	0.5					
	Alachlor	4E +	2					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	90	87	83	87	50.7
7.	RH-2915	2EC +	0.5					
	Alachlor	4E +	2					
	Glyphosate	3E	2	97	97	90	90	53.2
8.	RH-2915	2EC +	0.25					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	80	80	77	77	46.1
9.	RH-2915	2EC +	0.25					
	Glyphosate	3E	2	80	47	70	67	43.6

NO-TILL SOYBEANS IN WHEAT STUBBLE - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Eval. 8/9		Visual Eval. 9/9		Yield bu/A
				% Control		% Control		
				Grasses	Broadleaf	Grasses	Broadleaf	
10.	RH-2915	2EC +	0.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	83	73	73	70	43.8
11.	RH-2915	2EC +	0.5					
	Glyphosate	3E	2	93	97	83	87	47.6
12.	RH-2915	2EC +	0.5					
	Alachlor	4E +	2.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	80	80	70	73	43.8
13.	RH-2915	2EC +	0.5					
	Alachlor	4E +	2.5					
	Glyphosate	3E	2	87	80	77	73	52.3
14.	Chloropropham	4E +	2					
	Alachlor	4E +	2.25					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	77	73	73	70	46.4
15.	Chloropropham	4E +	2					
	Alachlor	4E +	2					
	Glyphosate	3E	2	87	70	77	60	47.0
16.	Chloropropham	4E +	3					
	Metribuzin	50WP +	0.38					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	73	73	67	67	47.2
17.	Alachlor	4E +	2					
	Linuron	50WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	90	90	83	83	43.6
18.	Alachlor	4E +	2					
	Linuron	50WP +	1					
	Glyphosate	3E	2	87	83	80	80	51.8
19.	H-22234	4E +	2					
	Metribuzin	50WP +	0.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	80	80	70	70	45.8

NO-TILL SOYBEANS IN WHEAT STUBBLE - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Eval. 8/9		Visual Eval. 9/9		Yield bu/A
				% Control		% Control		
				Grasses	Broadleaf	Grasses	Broadleaf	
20.	H-22234	4E +	2					
	Linuron	50WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	70	80	63	70	49.1
21.	CGA-24705	6E +	1.5					
	Linuron	50WP +	0.75					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	83	90	80	80	45.1
22.	CGA-24705	6E +	2					
	Linuron	50WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	83	87	80	80	48.8
23.	CGA-24705	6E +	2					
	Metribuzin	50WP +	0.38					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	83	87	77	80	52.6
24.	CGA-24705	6E +	2					
	Metribuzin	50WP +	0.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	90	83	80	80	46.5
25.	CGA-24705	6E +	2.5					
	Metribuzin	50WP +	0.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	87	87	83	83	45.5
26.	Alachlor	4E +	2.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	73	73	67	70	49.9
27.	Alachlor	4E +	2.5					
	Glyphosate	3E	2	83	77	77	73	51.0
28.	Linuron	50WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	77	57	73	46	44.7

NO-TILL SOYBEANS IN WHEAT STUBBLE - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Eval. 8/9		Visual Eval. 9/9		Yield bu/A
				% Control		% Control		
				Grasses	Broadleaf	Grasses	Broadleaf	
29.	Metribuzin	50WP +	0.38					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	70	73	67	67	46.8
30.	Alachlor	4E +	2					
	Metribuzin	50WP +	0.38					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	87	70	80	67	49.8
31.	Alachlor	4E +	2.5					
	Linuron	50WP +	0.75					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	90	87	83	83	46.5
32.	Alachlor	4E +	2.5					
	Linuron	50WP +	0.75					
	Glyphosate	3E	2	83	83	77	77	50.6
33.	Naptalam	3E +	4.5					
	Alachlor	4E +	2					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	77	73	67	57	41.6
34.	Oryzalin	75WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	83	73	73	63	45.8
35.	Oryzalin	75WP +	1					
	Glyphosate	3E	2	90	87	80	80	51.0
36.	Oryzalin	75WP +	1.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	77	77	73	73	42.7
37.	Oryzalin	75WP +	1					
	Naptalam	3E +	4.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	90	87	83	83	38.0
38.	Oryzalin	75WP +	1					
	Metribuzin	50WP +	0.38					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	83	83	73	77	50.7

NO-TILL SOYBEANS IN WHEAT STUBBLE - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Eval. 8/9		Visual Eval. 9/9		Yield bu/A
				% Control		% Control		
				Grasses	Broadleaf	Grasses	Broadleaf	
39.	Oryzalin	75WP +	1.5					
	Metribuzin	50WP +	0.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	87	90	83	83	53.4
40.	Sonalan	3E +	1.25					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	73	53	63	47	44.7
41.	VCS-438	75WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	63	23	57	13	37.8
42.	VCS-438	75WP +	2					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	90	70	83	70	47.1
43.	VCS-438	75WP +	1.5					
	Alachlor	4E +	2					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	87	70	80	60	51.4
44.	Penoxalin	4E +	1.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	67	87	60	73	51.2
45.	Penoxalin	4E +	2					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	80	87	80	80	52.3
46.	Penoxalin	4E +	1					
	Metribuzin	50WP +	0.38					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	80	87	77	83	50.6
47.	Penoxalin	4E +	1					
	Linuron	50WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	77	83	67	77	33.2

NO-TILL SOYBEANS IN WHEAT STUBBLE - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Eval 8/9		Visual Eval. 9/9		Yield bu/A
				% Control		% Control		
				Grasses	Broadleaf	Grasses	Broadleaf	
48.	Penoxalin	4E +	1.5					
	Metribuzin	50WP +	0.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	87	87	80	80	45.4
49.	Penoxalin	4E +	1.5					
	Linuron	50WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	70	83	67	73	49.1
50.	Penoxalin	4E +	1.5					
	Naptalam	3E +	4.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	67	87	60	80	45.8
51.	Naptalam	3E +	4.5					
	Linuron	50WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	80	87	74	77	39.8
52.	Naptalam	3E +	4.5					
	Linuron	50WP	1	53	80	43	70	38.2
53.	Naptalam	3E +	4.5					
	Metribuzin	50WP +	0.38					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	67	80	60	70	44.1
54.	R-37878	6E +	4					
	Linuron	50WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	60	67	57	60	41.6
55.	USB-3153	50WP +	0.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	60	63	50	57	46.5
56.	USB-3153	50WP +	0.25					
	Linuron	50WP +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	77	77	73	70	54.8



NO-TILL SOYBEANS IN WHEAT STUBBLE - PREEMERGENCE Continued

Trt. No.	Treatment	Formula	Rate lb/A	Visual Eval. 8/9		Visual Eval. 9/9		Yield bu/A
				% Control		% Control		
				Grasses	Broadleaf	Grasses	Broadleaf	
57.	VEL-5052	2E +	2.5					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	87	50	73	37	41.8
58.	VEL-5052	2E +	2					
	VCS-438	75WP +	0.75					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	63	53	53	50	43.5
59.	M-4135	2E +	1					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	63	63	53	57	40.9
60.	M-4135	2E +	1					
	Metribuzin	50WP +	0.38					
	Paraquat	2E +	0.25					
	Surfactant		0.5%	83	77	80	73	51.4
			LSD (.05)	21	20	23	21	

LOCATION: Spindletop Farm  
 FERTILITY: No fertility

VARIETY: Calland  
 pH: 6.5 O.M.: 3.5%

SOIL TYPE: Maury silt loam  
 DATE PLANTED & TREATED: June 10, 1976

SOYBEANS - YELLOW NUTSEDGE  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 5/25		Visual Evaluation 6/15		Visual Evaluation 7/8		Yield bu/A
					% Control Nutsedge	Crop Injury	% Control Nutsedge	Crop Injury	% Control Nutsedge	Crop Injury	
1.	Alachlor	4E +	3	PPI							
	Metribuzin	TM 50WP	0.38	PPI	83	13	94	0	83	0	34
2.	Alachlor	4E +	4	PPI							
	Metribuzin	TM 50WP	0.38	PPI	92	13	95	0	93	0	32
3.	Alachlor	4E +	2	PPI							
	Metribuzin	PM 3.8E	0.38	PPI	83	8	90	3	73	0	27
4.	Alachlor	4E +	2.4	PPI							
	Metribuzin	PM 3.8E	0.45	PPI	85	10	90	0	80	0	33
5.	Alachlor	4E +	2.8	PPI							
	Metribuzin	PM 3.8E	0.52	PPI	85	8	92	0	78	0	31
6.	Alachlor	4E +	2	PPI							
	Metribuzin	TM 50WP	0.38	PPI	88	10	90	0	78	0	33
7.	Alachlor	4E +	2.4	PPI							
	Metribuzin	TM 50WP	0.45	PPI	85	10	90	3	85	0	29
8.	Alachlor	4E +	2.8	PPI							
	Metribuzin	TM 50WP	0.52	PPI	88	10	93	0	80	0	29
9.	Alachlor	4E	2.0	PPI	80	13	86	0	68	0	27
10.	Alachlor	4E	3	PPI	89	8	91	0	75	0	33
11.	Alachlor	4E	4	PPI	90	10	93	0	83	0	34
12.	Metribuzin	50WP	0.38	PPI	28	10	30	0	30	0	27
13.	Metribuzin	50WP	0.52	PPI	33	13	48	3	40	0	27
14.	CGA-24705	6E	2	PPI	85	10	94	3	90	0	29
15.	CGA-24705	6E	3	PPI	86	10	97	0	98	0	32
16.	CGA-24705	6E	4	PPI	88	8	99	0	98	0	33
17.	H-26910	4E	3	PPI	65	10	89	0	85	0	23
18.	H-26910	4E +	3	PPI							
	Metribuzin	50WP	0.38	PPI	73	10	90	0	83	0	36
19.	H-22234	4E	3	PPI	38	8	65	0	55	0	24
20.	H-22234	4E +	3	PPI							
	Metribuzin	50WP	0.38	PPI	50	10	71	0	63	0	30

SOYBEANS - YELLOW NUTSEDGE Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 5/25		Visual Evaluation 6/15		Visual Evaluation 7/8		Yield bu/A
					% Control		% Control		% Control		
					Nutsedge	Crop Injury	Nutsedge	Crop Injury	Nutsedge	Crop Injury	
21.	Vernolate	7E	3	PPI	73	30	88	10	78	0	25
22.	Vernolate	7E +	2.5	PPI							
	Trifluralin	4E	0.5	PPI	58	30	85	5	68	8	22
23.	CGA-24705	6E +	2	PPI							
	Metribuzin	50WP	0.38	PRE	78	8	94	3	90	0	30
24.	CGA-24705	6E +	2.5	PPI							
	Metribuzin	50WP	0.38	PRE	88	10	96	0	95	0	33
25.	CGA-24705	6E +	3	PPI							
	Metribuzin	50WP	0.38	PRE	83	8	96	0	100	0	32
26.	Alachlor	4E +	3	PPI							
	RH-2915	2EC	0.5	PRE	88	55	91	23	80	18	28
27.	CGA-24705	6E +	3	PPI							
	RH-2915	2EC	0.5	PRE	90	40	99	25	100	13	31
28.	Trifluralin	4E +	1	PPI							
	Metribuzin	50WP +	0.38	PPI							
	MBR-12325	4S	0.75	EP	45	13	58	35	70	48	23
29.	Alachlor	4E	2	PRE	25	5	45	0	38	0	29
30.	Alachlor	4E	4	PRE	68	5	93	0	80	0	35
31.	Penoxalin	4E	2	PRE	10	15	0	3	0	0	22
32.	Penoxalin	75WP +	1.5	PRE							
	Metribuzin	50WP	0.38	PRE	5	8	8	0	0	0	27
33.	MBR-8251	4S	3	PRE	50	10	93	0	88	10	15
34.	RH-6201	4E	2	PRE	8	13	23	0	0	0	27
35.	Alachlor	4E +	3	PRE							
	RH-2915	2EC	0.5	PRE	78	40	85	25	75	8	29
36.	CGA-24705	6E +	3	PRE							
	RH-2915	2EC	0.5	PRE	68	58	96	23	93	13	30
37.	Oryzalin	75WP +	1.5	PRE							
	Bentazon	4E	1.5	EP	3	5	86	3	78	0	32
38.	Oryzalin	75WP +	1.5	PRE							
	Bentazon	4E	0.75+0.75	EP+LP	0	5	68	3	85	0	33

SOYBEANS - YELLOW NUTSEDGE Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 5/25		Visual Evaluation 6/15		Visual Evaluation 7/8		Yield bu/A
					% Control		% Control		% Control		
					Nutsedge	Crop Injury	Nutsedge	Crop Injury	Nutsedge	Crop Injury	
39.	RH-6201	4E	0.5	EP	15	8	23	10	0	0	24
40.	Bentazon	4E	0.75+0.75	EP+LP	8	3	65	3	95	0	25
41.	CHECK (uncultivated)				13	0	0	0	0	0	20
42.	CHECK (cultivated)				100	0	100	0	100	0	36
LSD (.05)					20	12	15	7	9	8	

LOCATION: Spindletop Farm  
 FERTILITY: 400 lb/A 16-16-16

VARIETY: Williams  
 O.M.: 3%

SOIL TYPE: Maury silt loam      pH: 6.5  
 DATE PLANTED & TREATED:  
 PRE & PPI: May 5, 1976  
 EP: June 6, 1976  
 LP: June 14, 1976

BURLEY TOBACCO  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 7/8			Visual Evaluation 8/2				
					% Control			% Control				
					Grasses	Broad- leaf	Crop Injury	Pigweed	Foxtail	Grasses	Broad- leaf	Crop Injury
1.	Diphenamid	50WP	6	PRE	80	90	0	68	88	88	65	0
2.	Pebulate	6E	4	PPI	95	90	0	40	90	90	38	0
3.	Benefin	1.5E	1.5	PPI	78	80	0	33	90	88	33	0
4.	Dinitromine	2E	0.38	PPI	83	78	5	23	90	88	23	0
5.	Dinitromine	2E	0.75	PPI	78	90	8	58	90	90	58	0
6.	H-26905	4E	2	PRE	93	70	0	25	88	85	25	0
7.	H-26905	4E	4	PRE	90	93	18	50	88	88	50	0
8.	Oxadiazon	2E	1	PRT	75	83	0	65	90	78	63	0
9.	Oxadiazon	2E	2	PRT	98	95	8	75	83	80	75	0
10.	Oxadiazon	2E	4	PRT	95	78	0	90	90	88	90	0
11.	MBR-8251	4S	1.5	POT	75	55	0	10	90	90	10	0
12.	MBR-8251	4S	3	POT	83	68	0	10	90	90	10	0
13.	Benefin	1.5E +	1.5	PPI								
	MBR-8251	4S	1.5	POT	98	98	5	75	90	90	68	0
14.	Pebulate	6E +	4	PPI								
	MBR-8251	4S	1.5	POT	98	98	8	73	90	90	70	0
15.	Bifenox	80WP	1.5	PRT	63	85	0	43	75	65	43	0
16.	Bifenox	80WP	1.5	PPI	68	90	0	43	78	65	43	0
17.	R-37878	6E +	1	PPI								
	Pebulate	6E	4	PPI	90	85	5	40	90	90	43	0
18.	R-37878	6E +	3	PRE								
	Pebulate	6E	4	PPI	90	90	0	60	90	85	60	0
19.	R-37878	6E +	1	PRE								
	Pebulate	6E	4	PPI	88	85	0	23	88	88	23	0
20.	Vernolate +											
	R-25788	6.7E	3	PPI	90	88	8	50	90	90	48	0

BURLEY TOBACCO Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Evaluation 7/8			Visual Evaluation 8/2				
					% Control			% Control				
					Broad-Grasses	Crop-leaf	Injury	Pigweed	Foxtail	Grasses	Broad-leaf	Crop-Injury
21.	Vernolate + R-25788	6.7E	4	PPI	90	90	0	48	90	90	48	0
22.	Penoxalin	75WP	0.5	PPI	88	70	0	13	88	88	13	0
23.	Penoxalin	75WP	1.5	PPI	93	88	0	30	90	90	30	0
24.	Penoxalin	4E	0.5	PPI	83	70	0	20	88	88	20	0
25.	Penoxalin	4E	1.5	PPI	88	90	0	30	90	90	30	0
26.	Devrinal pkg mx 1E + with Pebulate	4	4	PPI	95	98	0	73	90	90	70	0
27.	USB-3153	50WP	0.5	PPI	85	85	0	70	90	90	65	0
28.	Oryzalin	75WP	0.75	PRT	78	68	0	15	90	90	15	0
29.	Oryzalin	75WP	1	PRT	80	75	0	23	90	85	23	0
30.	CHECK (cultivated)				100	100	0	100	100	100	100	0
	LSD (.05)				13	16	NS	24	8	11	23	NS

LOCATION: Spindletop Farm VARIETY: Ky 14  
 FERTILITY: 200 lb/A N + 400 lb/A 5-10-15

SOIL TYPE: Maury silt loam  
 DATE SET & TREATED: June 8, 1976

BURLEY TOBACCO - YELLOW NUTSEDGE  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	MOA	Visual Eval. 7/6		Visual Eval. 7/27		Visual Eval. 8/18	
					% Control		% Control		% Control	
					Crop Nutsedge	Crop Injury	Crop Nutsedge	Crop Injury	Crop Nutsedge	Crop Injury
1.	Pebulate	6E	4	PPI	98	0	96	0	85	0
2.	Benefin	1.5E	1.5	PPI	0	0	0	0	0	0
3.	Diphenamid	50WP	6	PPI	15	0	43	0	16	0
4.	Vernolate + R-25788	6.7E	4	PPI	100	0	98	5	90	0
5.	Oryzalin	75WP	0.75	PRT	0	0	3	0	0	0
6.	MBR-8251	4S	4	PRE	83	0	90	0	66	0
7.	Penoxalin	75WP	1.5	PPI	0	0	0	0	0	0
8.	Penoxalin	75WP	0.5	PPI	0	0	0	0	0	0
9.	Dinitromine	2E	0.5	PPI	8	0	8	0	8	0
10.	USB-3153	50WP	0.5	PPI	8	0	5	0	8	0
11.	CHECK (uncultivated)				0	0	0	0	0	0
12.	CHECK (cultivated)				100	0	100	0	90	0
LSD (.05)					12	NS	8	3	13	NS

LOCATION: Spindletop Farm  
 FERTILITY: 150 lb/A N

VARIETY: Ky 14      SOIL TYPE: Maury silt loam      pH: 6.5      O.M.: 3%  
 DATE TREATED: June 7, 1976      DATE SET: June 8, 1976

HERBICIDE SCREENING STUDY  
 Department of Agronomy  
 University of Kentucky  
 1976

Trt. No.	Treatment	Formula	Rate lb/A	MOA	% Control 5 weeks after treatment*										(cont'd)
					corn	oats	grain sorghum	soy-beans	alfalfa	peas	snap-beans	cucum-bers	cotton	cante-ropes	
1.	Penoxalin	4E	1.5	PE	0	70	15	10	0	20	15	15	15	55	
2.	BAS-9021	75WP	2	PE	75	85	50	0	0	30	10	0	5	0	
3.	Sonalan	3E	1.25	PE	0	20	15	0	0	15	20	0	0	0	
4.	RH-6201	4E	2	PE	10	70	85	0	65	10	40	65	30	65	
5.	SD-35337	1E	2	PE	0	35	20	0	30	15	30	60	0	95	
6.	R-37878	6E	6	PE	45	10	30	45	0	25	30	65	15	15	
7.	R-36548	6E	6	PE	40	95	85	15	50	35	45	55	15	90	
8.	R-33222	50WP	2	PE	10	0	15	0	15	5	10	55	10	60	
9.	R-37104	50WP	4	PE	0	45	10	20	0	5	40	55	10	60	
10.	M-4127	4E	2	PE	5	50	25	5	25	25	10	85	10	45	
11.	MBR-16349	50WP	0.5	PE	0	10	15	0	0	15	5	0	0	0	
12.	Oryzalin	75WP	1.5	PE	0	10	15	0	5	15	0	15	30	40	
13.	Alachlor	4E	2.5	PE	0	90	80	0	0	20	10	25	5	25	
14.	Atrazine	4L	2	PE	0	100	30	100	95	100	100	100	70	100	
15.	Ortho 19790	65WP	2	PE	0	30	20	0	0	15	5	10	5	15	
16.	M-4135	2E	2	PE	15	80	25	10	30	25	25	60	5	65	
17.	Metribuzin	50WP	0.5	PE	20	90	35	0	50	45	80	85	75	100	
18.	Sonalan	3E	1.25	PPI	5	80	90	0	40	0	0	0	5	10	
19.	H-26910	4E	2.5	PPI	0	20	10	5	0	0	5	5	15	5	
20.	R-37878	6E	6	PPI	50	80	10	15	0	0	15	20	15	10	
21.	R-36548	6E	6	PPI	70	100	55	0	60	25	25	25	5	30	
22.	R-33222	50WP	2	PPI	0	5	0	0	95	15	10	15	15	40	
23.	USB-3153	50WP	0.5	PPI	5	15	25	0	0	5	0	15	10	20	
24.	BAS-9021	75WP	2	PPI	55	75	20	0	0	0	10	0	10	10	
25.	MBR-16349	50WP	0.5	PPI	0	0	10	0	0	0	5	5	10	0	
26.	EPTC + R-25788	6.7E	4	PPI	0	100	95	10	0	30	5	80	95	100	
27.	Trifluralin	4E	1	PPI	40	95	90	0	0	0	0	0	0	15	
28.	RH-6201	4E	1	POE	40	30	85	5	70	50	45	90	100	100	

\* Mean of 2 replications



HERBICIDE SCREENING STUDY Continued

Trt. No.	Treatment	Formula	Rate lb/A	MOA	% Control 5 weeks after treatment*								
					seedling johnsongrass	wild cane	cockle- bur	velvet- leaf	jimson- weed	morning- glory	fox- tail	pig- weed	spiny sida
1.	Penoxalin	4E	1.5	PE	55	0	0	85	35	0	95	90	100
2.	BAS-9021	75WP	2	PE	5	75	0	0	0	0	25	0	0
3.	Sonalan	3E	1.25	PE	5	0	0	0	0	0	70	20	50
4.	RH-6201	4E	2	PE	85	60	15	10	75	45	100	75	50
5.	SD-35337	1E	2	PE	40	0	0	5	40	0	100	40	40
6.	R-37878	6E	6	PE	20	20	0	10	5	0	100	90	45
7.	R-36548	6E	6	PE	100	20	0	25	25	5	95	85	95
8.	R-33222	50WP	2	PE	25	0	0	0	30	0	95	15	0
9.	R-37104	50WP	4	PE	0	0	0	0	65	0	55	10	10
10.	M-4127	4E	2	PE	50	0	0	0	25	0	100	95	45
11.	MBR-16349	50WP	0.5	PE	0	0	0	0	0	0	0	5	0
12.	Oryzalin	75WP	1.5	PE	45	0	0	15	0	0	90	75	20
13.	Alachlor	4E	2.5	PE	55	25	0	0	15	0	100	100	50
14.	Atrazine	4L	2	PE	5	0	70	35	100	100	100	95	100
15.	Ortho 19790	65WP	2	PE	5	0	0	0	0	0	90	75	75
16.	M-4135	2E	2	PE	90	5	0	0	15	0	100	90	65
17.	Metribuzin	50WP	0.5	PE	5	5	40	90	55	5	60	100	100
18.	Sonalan	3E	1.25	PPI	95	100	0	5	65	5	100	100	0
19.	H-26910	4E	2.5	PPI	0	0	5	0	0	0	90	70	0
20.	R-37878	6E	6	PPI	10	30	0	0	15	0	90	60	0
21.	R-36548	6E	6	PPI	0	60	0	30	60	10	90	75	25
22.	R-33222	50WP	2	PPI	0	0	0	0	50	0	0	15	0
23.	USB-3153	50WP	0.5	PPI	75	80	0	20	65	0	90	95	60
24.	BAS-9021	75WP	2	PPI	5	75	0	0	5	0	20	0	0
25.	MBR-16349	50WP	0.5	PPI	0	0	0	0	0	0	5	0	0
26.	EPTC + R-25788	6.7E	4	PPI	95	100	10	65	85	55	100	85	60
27.	Trifluralin	4E	1	PPI	70	100	0	30	40	15	100	95	0
28.	RH-6201	4E	1	POE	0	35	100	65	95	85	50	80	25

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LOCATION: Spindletop Farm

SOIL TYPE: Lanton silt loam

FERTILIZATION: 400 lb/A 16-16-16

DATE PLANTED & TREATED: May 13, 1976

POE APPLIED: June 18, 1976

\*Mean of 2 replications

