

SPRING EPP CONTROL OF GLYPHOSATE RESISTANT HORSEWEED

USA-04-149

Trial ID: 04GRHW1

Study Dir.: Anthony F. Dobbels

Location: WESTERN BRANCH F-10

Investigator: Dr. Mark M. Loux

GENERAL TRIAL INFORMATION

Study Director: Anthony F. Dobbels  
Investigator: Dr. Mark M. Loux

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1. ERICA	Horseweed	Conyza canadensis
2. TAROF	Common dandelion	Taraxacum officinale
3. SENGL	Groundsel, cressleaf	Senecio glabellus
4. STEME	Common chickweed	Stellaria media
5. AMBTR	Giant ragweed	Ambrosia trifida

Crop 1: GLXMA SOYBEAN Variety: DEKALB DKB 38-52  
 Planting Date: 4-29-04 Planting Method: JOHN DEERE 7200  
 Rate: 155000 SEED/A Depth: 0.5 IN  
 Row Spacing: 30 IN Seed Bed: NO-TILL

SITE AND DESIGN

Plot Width, Unit: 10 FT Plot Length, Unit: 30 FT Reps: 3  
 Tillage Type: NO-TILL Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% OM: 4.3 Texture: silty clay loam  
 pH: 5.9 Soil Name: Kokomo  
 CEC: 21

APPLICATION DESCRIPTION

A  
 Application Date: 4-16-04  
 Time of Day: 11:00 A.M.  
 Application Method: SPRAY  
 Application Timing: SPRING  
 Applic. Placement: BROADCAST  
 Air Temp., Unit: 66 F  
 % Relative Humidity: 44  
 Wind Velocity, Unit: 10 S  
 Soil Temp., Unit: 50 F  
 Soil Moisture: DRY/DRY  
 % Cloud Cover: 15

CROP STAGE AT EACH APPLICATION

A  
 Crop 1 Code, Stage: GLXMA

WEED STAGE AT EACH APPLICATION

A  
 Weed 1 Code, Stage: ERICA 1-3"  
 Stage Scale: 10 LVS  
 Density, Unit: 69 M2  
 Weed 2 Code, Stage: TAROF 4-6"  
 Stage Scale: >12 LVS  
 Density, Unit: 2 M2  
 Weed 3 Code, Stage: SENGL 3"  
 Stage Scale: >12 LVS  
 Density, Unit: .2 M2  
 Weed 4 Code, Stage: STEME 12" ROS  
 Stage Scale: >12 LVS  
 Density, Unit: 20 M2  
 Weed 5 Code, Stage: AMBTR 1"  
 Stage Scale: COTYLEDON  
 Density, Unit: 6.6 M2

APPLICATION EQUIPMENT

A  
 Appl. Equipment: BACKPACK  
 Operating Pressure: 50  
 Nozzle Type: DG  
 Nozzle Size: 11002  
 Nozzle Spacing, Unit: 18 IN  
 Ground Speed, Unit: 3 MPH  
 Carrier: WATER  
 Spray Volume, Unit: 20 GPA  
 Propellant: CO2





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Weed Code  
Rating Data Type  
Rating Unit  
Rating Date  
Trt-Eval Interval  
# Subsamples, Dec.

ERICA CONTROL PERCENT 6-7-04 AT POST 0  
STEME CONTROL PERCENT 6-7-04 AT POST 0  
TAROF CONTROL PERCENT 6-7-04 AT POST 0  
AMBTR CONTROL PERCENT 6-7-04 AT POST 0  
SETFA CONTROL PERCENT 6-7-04 AT POST 0

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	9	10	11	12	13
1	CLASSIC	1 oz/a		EPP	A	57	100	93	10	60
1	EXPRESS	0.1 oz/a		EPP						
1	COC	0.8 qt/a		EPP						
2	CLASSIC	1 oz/a		EPP	A	80	100	67	70	10
2	EXPRESS	0.1 oz/a		EPP						
2	2,4-D	1 pt/a		EPP						
2	COC	0.8 qt/a		EPP						
3	CLASSIC	1 oz/a		EPP	A	63	100	87	10	33
3	EXPRESS	0.1 oz/a		EPP						
3	SENCOR	4 oz/a		EPP						
3	COC	0.8 qt/a		EPP						
4	CLASSIC	1 oz/a		EPP	A	99	100	87	83	60
4	EXPRESS	0.1 oz/a		EPP						
4	SENCOR	4 oz/a		EPP						
4	2,4-D	1 pt/a		EPP						
4	COC	0.8 qt/a		EPP						
5	CLASSIC	1 oz/a		EPP	A	43	100	70	43	91
5	EXPRESS	0.1 oz/a		EPP						
5	VALOR	2.5 oz/a		EPP						
5	COC	0.8 qt/a		EPP						
6	CLASSIC	1 oz/a		EPP	A	78	100	82	77	73
6	EXPRESS	0.1 oz/a		EPP						
6	VALOR	2.5 oz/a		EPP						
6	2,4-D	1 pt/a		EPP						
6	COC	0.8 qt/a		EPP						
7	CANOPY XL 2.5 OZ.				A	50	100	83	13	30
7	CLASSIC	0.96 oz/a		EPP						
7	AUTHORITY	1.56 oz/a		EPP						
7	EXPRESS	0.1 oz/a		EPP						
7	COC	0.8 qt/a		EPP						
8	CANOPY XL 2.5 OZ.				A	77	0	63	57	52
8	CLASSIC	0.96 oz/a		EPP						
8	AUTHORITY	1.56 oz/a		EPP						
8	EXPRESS	0.1 oz/a		EPP						
8	2,4-D	1 pt/a		EPP						
8	COC	0.8 qt/a		EPP						
9	CLASSIC	2 oz/a		EPP	A	47	100	73	7	75
9	EXPRESS	0.2 oz/a		EPP						
9	COC	0.8 qt/a		EPP						
10	CLASSIC	2 oz/a		EPP	A	86	100	98	72	63
10	EXPRESS	0.2 oz/a		EPP						
10	2,4-D	1 pt/a		EPP						
10	COC	0.8 qt/a		EPP						
11	CLASSIC	2 oz/a		EPP	A	87	100	92	10	70
11	EXPRESS	0.2 oz/a		EPP						
11	SENCOR	4 oz/a		EPP						
11	COC	0.8 qt/a		EPP						
12	CLASSIC	2 oz/a		EPP	A	98	100	85	70	67
12	EXPRESS	0.2 oz/a		EPP						
12	SENCOR	4 oz/a		EPP						
12	2,4-D	1 pt/a		EPP						
12	COC	0.8 qt/a		EPP						
13	CLASSIC	2 oz/a		EPP	A	57	100	75	40	85
13	EXPRESS	0.2 oz/a		EPP						
13	VALOR	2.5 oz/a		EPP						
13	COC	0.8 qt/a		EPP						
14	CLASSIC	2 oz/a		EPP	A	83	100	97	68	60
14	EXPRESS	0.2 oz/a		EPP						
14	VALOR	2.5 oz/a		EPP						
14	2,4-D	1 pt/a		EPP						
14	COC	0.8 qt/a		EPP						
15	CANOPY XL 4.5 OZ				A	50	100	93	10	45
15	CLASSIC	1.73 oz/a		EPP						
15	AUTHORITY	2.82 oz/a		EPP						
15	EXPRESS	0.2 oz/a		EPP						
15	COC	0.8 qt/a		EPP						
16	CANOPY XL 4.5 OZ				A	83	100	92	63	68
16	CLASSIC	1.73 oz/a		EPP						
16	AUTHORITY	2.82 oz/a		EPP						
16	EXPRESS	0.2 oz/a		EPP						
16	2,4-D	1 pt/a		EPP						
16	COC	0.8 qt/a		EPP						
17	SENCOR	4 oz/a		EPP	A	100	30	60	27	0
17	2,4-D	1 pt/a		EPP						
17	COC	0.8 qt/a		EPP						

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Weed Code	ERICA	STEME	TAROF	AMBTR	SETFA
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	6-7-04	6-7-04	6-7-04	6-7-04	6-7-04
Trt-Eval Interval	AT POST	AT POST	AT POST	AT POST	AT POST
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Product Rate	Product Rate Unit	Grow Stg	Appl Code	9	10	11	12	13
18	GRAMOXONE MAX	1.32	pt/a	EPP	A	47	57	27	27	0
18	2,4-D	1	pt/a	EPP						
18	COC	0.8	qt/a	EPP						
19	ROUNDUP WEATHERMAX	22	oz/a	EPP	A	77	100	87	23	0
19	AMS	4	qt/a	EPP						
20	ROUNDUP WEATHERMAX	22	oz/a	EPP	A	75	93	95	33	17
20	2,4-D	1	pt/a	EPP						
20	AMS	4	qt/a	EPP						
21	VALOR	2.5	oz/a	EPP	A	63	93	52	33	62
21	2,4-D	1	pt/a	EPP						
21	COC	0.8	qt/a	EPP						
22	AUTHORITY	4	oz/a	EPP	A	70	0	27	30	78
22	2,4-D	1	pt/a	EPP						
22	COC	0.8	qt/a	EPP						
23	CLASSIC	2	oz/a	EPP	A	68	57	85	63	68
23	VALOR	2.5	oz/a	EPP						
23	2,4-D	1	pt/a	EPP						
23	COC	0.8	qt/a	EPP						
24	UTC					0	0	0	0	0
LSD (P=.05)						19.3	17.3	19.9	35.8	39.5
Standard Deviation						11.7	10.5	12.1	21.7	23.9
CV						17.12	13.04	16.42	55.42	49.17
Replicate F						2.288	2.766	6.921	0.665	0.253
Replicate Prob(F)						0.1130	0.0734	0.0024	0.5189	0.7779
Treatment F						11.061	35.040	13.010	4.439	4.606
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001	0.0001