

Fall versus Spring Herbicides for Horseweed Control in Soybean - FMC.

Trial ID: 14-FagerS-MT-BD-FMC Location: Murphysboro, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Trial Status: F one-year/final Initiation Date: 11-29-13 Completion Date: 11-1-14	
Trial Location	
City: Murphysboro Country: USA State/Prov.: Illinois IL Postal Code: 62966	

Objectives:
 Compare horseweed control from fall versus spring herbicide applications in no-till soybean.

Study Director: Ronald F. Krausz Organization: Belleville Research Center - Southern Illinois Univ Carbondale Address: 2036 Charles Lane City+State/Prov: Belleville, IL Postal Code: 62221 Country: USA		Contacts Title: Researcher/Farm Manager Phone No.: 618-566-4761 E-mail: rkrausz@siu.edu	
Crop Description			
Crop 1: GLXMA Glycine max Variety: AG3832 Description: RR2Y		Soybean BBCH Scale: BSOY Planting Date: 5-6-14 Planting Method: SEEDED	
Planting Rate, Unit: 170000 S/A Depth, Unit: 1 IN Row Spacing, Unit: 30 IN			

Pest Description	
Pest 1 Type: W Code: ANNWI Common Name: weeds, winter annual Description: including STEME, LAMAM, and LAMPU	
Pest 2 Type: W Code: TTTTT Common Name: weeds, generally Description: overall weed control	
Pest 3 Type: W Code: ERICA <i>Conyza canadensis</i> (L.) Crong. Common Name: horseweed Description: glyphosate-resistant marestail	
Pest 4 Type: W Code: AMATA <i>Amaranthus rudis</i> Sauer Common Name: waterhemp, common Description: glyphosate-resistant waterhemp	

Site and Design							
Treated Plot Width: 6.67 FT Total Plot Width: 10 FT Site Type: FIELD Treated Plot Length: 30 FT Total Plot Length: 30 FT Experimental Unit: 1 PLOT Tillage Type: NOTILL no-till Replications: 4 Study Design: RACOB L Randomized Complete Block (RCB)							
Untreated Arrangement: INCLUDED single control randomized in each block							
<table border="1"> <thead> <tr> <th>No.</th> <th>Previous Crop</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>GLXMA</td> <td>2013</td> </tr> </tbody> </table>		No.	Previous Crop	Year	1.	GLXMA	2013
No.	Previous Crop	Year					
1.	GLXMA	2013					

Maintenance					
<table border="1"> <thead> <tr> <th>No.</th> <th>Maintenance Product Name</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A</td> </tr> </tbody> </table>		No.	Maintenance Product Name	1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A
No.	Maintenance Product Name				
1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A				

Soil Description										
% OM: 1.87 Texture: SIL silt loam pH: 5.5 Soil Name: Alvin CEC: 7.06										
Additional Measured Elements										
<table border="1"> <thead> <tr> <th>Element</th> <th>Quantity</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>P1</td> <td>172</td> <td>lb/A</td> </tr> <tr> <td>K</td> <td>446</td> <td>lb/A</td> </tr> </tbody> </table>		Element	Quantity	Unit	P1	172	lb/A	K	446	lb/A
Element	Quantity	Unit								
P1	172	lb/A								
K	446	lb/A								

Moisture and Weather Conditions																																																																														
Overall Moisture Conditions: NORMAL Closest Weather Station: SOUTHERN IL AIRPORT (93810) Distance, Unit: 3.5 MI																																																																														
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7.	11-25-13					7	DAY	17	59	F
8.	12-2-13					7	DAY	6	67	F
9.	12-5-13	1.61	IN	RAIN	rain	2	DAY			
10.	12-9-13					7	DAY	0	38	F
11.	12-14-13	0.54	IN	RAIN	rain	2	DAY			
12.	12-16-13					7	DAY	21	64	F
13.	12-20-13	1.5	IN	RAIN	rain	2	DAY			
14.	12-23-13					7	DAY	12	52	F
15.	12-31-13					7	DAY	6	45	F
16.	1-5-14	0.98	IN	RAIN	rain	2	DAY			
17.	1-7-14					7	DAY	-2	52	F
18.	1-9-14	0.59	IN	RAIN	rain	2	DAY			
19.	1-14-14					7	DAY	15	57	F
20.	1-21-14					7	DAY	2	59	F
21.	1-28-14					7	DAY	3	55	F
22.	2-1-14	0.54	IN	RAIN	rain	2	DAY			
23.	2-4-14					7	DAY	1	32	F
24.	2-11-14					7	DAY	3	47	F
25.	2-14-14	0.16	IN	RAIN	rain	1	DAY			
26.	2-17-14	0.09	IN	RAIN	rain	1	DAY			
27.	2-18-14					7	DAY	26	68	F
28.	2-20-14	0.52	IN	RAIN	rain	1	DAY			
29.	2-25-14					7	DAY	10	51	F
30.	3-2-14	0.78	IN	RAIN	rain	1	DAY			
31.	3-4-14					7	DAY	9	52	F
32.	3-11-14					7	DAY	25	73	F
33.	3-16-14	0.61	IN	RAIN	rain	1	DAY			
34.	3-18-14					7	DAY	26	69	F
35.	3-25-14					7	DAY	19	61	F
36.	3-27-14	0.71	IN	RAIN	rain	3	DAY			
37.	4-1-14	3.44	IN	RAIN	rain	4	DAY			
38.	4-1-14					7	DAY	37	70	F
39.	4-7-14	0.64	IN	RAIN	rain	2	DAY			
40.	4-8-14					7	DAY	42	76	F
41.	4-13-14	0.57	IN	RAIN	rain	2	DAY			
42.	4-15-14					7	DAY	31	77	F
43.	4-22-14					7	DAY	41	77	F
44.	4-24-14	1.13	IN	RAIN	rain	2	DAY			
45.	4-27-14	2.02	IN	RAIN	rain	2	DAY			
46.	4-29-14					7	DAY	39	84	F
47.	5-6-14					7	DAY	54	83	F
48.	5-8-14	1.25	IN	RAIN	rain	2	DAY			
49.	5-11-14	0.34	IN	RAIN	rain	1	DAY			
50.	5-13-14	2.53	IN	RAIN	rain	3	DAY			
51.	5-13-14					7	DAY	39	80	F
52.	5-20-14					7	DAY	46	85	F
53.	5-22-14	0.06	IN	RAIN	rain	1	DAY			
54.	5-25-14	0.07	IN	RAIN	rain	2	DAY			
55.	5-27-14					7	DAY	62	88	F
56.	5-30-14	0.09	IN	RAIN	rain	1	DAY			
57.	6-1-14	0.66	IN	RAIN	rain	2	DAY			
58.	6-3-14					7	DAY	64	88	F
59.	6-4-14	0.91	IN	RAIN	rain	1	DAY			
60.	6-7-14	0.32	IN	RAIN	rain	1	DAY			
61.	6-9-14	0.71	IN	RAIN	rain	2	DAY			
62.	6-10-14					7	DAY	51	91	F
63.	6-12-14	0.06	IN	RAIN	rain	1	DAY			
64.	6-17-14					7	DAY	69	93	F
65.	6-24-14	1.69	IN	RAIN	rain	1	DAY			
66.	6-24-14					7	DAY	67	92	F
67.	6-29-14	0.08	IN	RAIN	rain	1	DAY			
68.	7-1-14	0.81	IN	RAIN	rain	1	DAY			
69.	7-1-14					7	DAY	55	90	F
70.	7-8-14	0.15	IN	RAIN	rain	1	DAY			
71.	7-13-14	0.71	IN	RAIN	rain	2	DAY			
72.	7-15-14					7	DAY	54	85	F
73.	7-22-14					7	DAY	56	91	F
74.	7-23-14	0.16	IN	RAIN	rain	1	DAY			
75.	7-29-14					7	DAY	55	87	F
76.	8-5-14	0.13	IN	RAIN	rain	1	DAY			
77.	8-5-14					7	DAY	63	89	F
78.	8-7-14	1.95	IN	RAIN	rain	3	DAY			

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79.	8-11-14	0.19	IN	RAIN	rain	1	DAY			
80.	8-12-14					7	DAY	56	84	F
81.	8-16-14	0.77	IN	RAIN	rain	2	DAY			
82.	8-19-14					7	DAY	66	93	F
83.	8-26-14					7	DAY	68	94	F
84.	8-28-14	0.02	IN	RAIN	rain	1	DAY			
85.	8-30-14	0.49	IN	RAIN	rain	1	DAY			
86.	9-2-14					7	DAY	50	93	F
87.	9-9-14					7	DAY	43	85	F
88.	9-10-14	1.96	IN	RAIN	rain	2	DAY			
89.	9-16-14					7	DAY	43	85	F
90.	9-21-14	0.07	IN	RAIN	rain	1	DAY			
91.	9-23-14					7	DAY	42	86	F
92.	9-30-14					7	DAY	35	86	F
93.	10-2-14	0.52	IN	RAIN	rain	2	DAY			
94.	10-6-14	0.08	IN	RAIN	rain	2	DAY			
95.	10-7-14					7	DAY	45	81	F
96.	10-9-14	0.66	IN	RAIN	rain	4	DAY			
97.	10-13-14	0.98	IN	RAIN	rain	3	DAY			
98.	10-14-14					7	DAY	35	76	F
99.	10-21-14					7	DAY	33	81	F
100.	10-28-14	0.55	IN	RAIN	rain	1	DAY			
101.	10-28-14					7	DAY	22	70	F
102.	11-4-14	0.84	IN	RAIN	rain	1	DAY			
103.	11-4-14					7	DAY	24	69	F
104.	11-11-14					7	DAY	15	60	F

Application Description

	A	B	C	D
Application Date:	11-29-13	4-30-14	5-29-14	6-5-14
Appl. Start Time:	13:15	7:30	19:00	16:30
Appl. Stop Time:	13:45	8:10	19:30	16:45
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	FALL	7DBP	V2	2-4"W
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	NTH	LXF	EAE	EAE
Air Temperature, Unit:	55 F	54 F	82 F	79 F
% Relative Humidity:	44	76	80	72
Wind Velocity, Unit:	4 MPH	4 MPH	2 MPH	1 MPH
Wind Direction:	E	W	S	E
Dew Presence (Y/N):	N	Y	N	N
Soil Temperature, Unit:	40 F	57 F	80 F	79 F
Soil Moisture:	NORMAL	ABONOR	NORMAL	NORMAL
% Cloud Cover:	0	98	50	100
Next Moisture Occurred On:	12-5-13	5-8-14	5-30-14	6-7-14
Time to Next Moisture, Unit:	6 DAY	8 DAY	22 HR	2 DAY

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	NA	V2	V4
Stage Minimum, Percent:			V2	V3
Stage Maximum, Percent:			V2	V4
Height, Unit:			5 IN	6 IN
Height Minimum, Maximum:			4 5	5 6

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Pest Stage At Each Application				
	A	B	C	D
Pest 1 Code, Type, Scale:	ANNWI W	ANNWI W	ANNWI W	ANNWI W
Stage Majority, Percent:	NA	NA	NA	NA
Pest 2 Code, Type, Scale:	TTTTT W	TTTTT W	TTTTT W	TTTTT W
Stage Majority, Percent:	NA	NA	NA	NA
Pest 3 Code, Type, Scale:	ERICA W	ERICA W	ERICA W	ERICA W
Stage Majority, Percent:	4	6	NA	NA
Stage Minimum, Percent:	2	2		
Stage Maximum, Percent:	6	10		
Height, Unit:	1 IN	1.75 IN		
Height Minimum, Maximum:	0.5 2	0.5 2		
Density, Unit:	2 FT2	1 FT2		
Pest 4 Code, Type, Scale:	AMATA W	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	NA	NA	6	8
Stage Minimum, Percent:			4	6
Stage Maximum, Percent:			8	10
Height, Unit:			2 IN	4 IN
Height Minimum, Maximum:			1 3	3 5
Density, Unit:			3 FT2	3 FT2

Application Equipment				
	A	B	C	D
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR	XR
Nozzle Size:	8002	8002	8002	8002
Boom Length, Unit:	6.67 FT	6.67 FT	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns: Average=6

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Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	TTTT	ANNWI	ERICA-HR	AMATA-HR
							4-23-14 Control Percent 145 DA-A	4-23-14 Control Percent 145 DA-A	4-23-14 Control Percent 145 DA-A	4-23-14 Control Percent 145 DA-A
							-7 DA-B	-7 DA-B	-7 DA-B	-7 DA-B
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Unit	Rate	Rate	Unit	Stage	Code	
1	NONTREATED								0	0
2	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	FALL	A		95 a	99 a
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	FALL	A			
	AUTHORITY XL	70 WG		0.175 lb ai/a	4 oz/a	FALL	A			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	FALL	A			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	7DBP	B			
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	7DBP	B			
	AIM EC	2 EC		0.0117 lb ai/a	0.75 fl oz/a	7DBP	B			
	AUTHORITY MAXX	66 WG		0.23 lb ai/a	5.6 oz/a	7DBP	B			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	7DBP	B			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	2-4"W	D			
	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a	2-4"W	D			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	2-4"W	D			
3	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	FALL	A		96 a	99 a
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	FALL	A			
	AUTHORITY XL	70 WG		0.175 lb ai/a	4 oz/a	FALL	A			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	FALL	A			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	7DBP	B			
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	7DBP	B			
	AIM EC	2 EC		0.0117 lb ai/a	0.75 fl oz/a	7DBP	B			
	AUTHORITY MAXX	66 WG		0.23 lb ai/a	5.6 oz/a	7DBP	B			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	7DBP	B			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	V2	C			
	ANTHEM	2.15 SE		0.101 lb ai/a	6 fl oz/a	V2	C			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	V2	C			
4	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	FALL	A		92 b	99 a
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	FALL	A			
	AUTHORITY MTZ	45 WG		0.338 lb ai/a	12 oz/a	FALL	A			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	FALL	A			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	7DBP	B			
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	7DBP	B			
	AIM EC	2 EC		0.0117 lb ai/a	0.75 fl oz/a	7DBP	B			
	AUTHORITY MAXX	66 WG		0.206 lb ai/a	5 oz/a	7DBP	B			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	7DBP	B			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	2-4"W	D			
	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a	2-4"W	D			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	2-4"W	D			
5	GRAMOXONE 2 SL	2 SL		0.625 lb ai/a	2.5 pt/a	FALL	A		87 c	88 b
	COC (PRIME OIL)	100 SL		1 % v/v	1 % v/v	FALL	A			
	AUTHORITY MTZ	45 WG		0.338 lb ai/a	12 oz/a	FALL	A			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	FALL	A			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 oz/a	7DBP	B			
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 oz/a	7DBP	B			
	AIM EC	2 EC		0.0117 lb ai/a	0.75 oz/a	7DBP	B			
	AUTHORITY MAXX	66 WG		0.206 lb ai/a	5 oz/a	7DBP	B			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	7DBP	B			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 oz/a	V2	C			
	ANTHEM	2.15 SE		0.101 lb ai/a	6 oz/a	V2	C			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	V2	C			
LSD (P=.05)									2.4	5.2
Standard Deviation									1.5	3.3
CV									1.59	3.39
Replicate F									1.102	0.948
Replicate Prob(F)									0.3975	0.4577
Treatment F									31.773	12.281
Treatment Prob(F)									0.0001	0.0016
									2.226	0.1546
									35.448	3.216
									0.0001	0.0757

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Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	TTTT	ANNWI	ERICA-HR	AMATA-HR
							4-30-14 Control Percent 152 DA-A	4-30-14 Control Percent 152 DA-A	4-30-14 Control Percent 152 DA-A	4-30-14 Control Percent 152 DA-A
							0 DA-B	0 DA-B	0 DA-B	0 DA-B
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl		
No.	Name	Conc	Type	Unit	Rate	Rate	Unit	Stage	Code	
1	NONTREATED									0
2	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	FALL	A			91 a
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	FALL	A			99 a
	AUTHORITY XL	70 WG		0.175 lb ai/a	4 oz/a	FALL	A			99 a
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	FALL	A			18 ab
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	7DBP	B			
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	7DBP	B			
	AIM EC	2 EC		0.0117 lb ai/a	0.75 fl oz/a	7DBP	B			
	AUTHORITY MAXX	66 WG		0.23 lb ai/a	5.6 oz/a	7DBP	B			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	7DBP	B			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	2-4"W	D			
	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a	2-4"W	D			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	2-4"W	D			
3	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	FALL	A			93 a
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	FALL	A			99 a
	AUTHORITY XL	70 WG		0.175 lb ai/a	4 oz/a	FALL	A			99 a
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	FALL	A			31 a
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	7DBP	B			
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	7DBP	B			
	AIM EC	2 EC		0.0117 lb ai/a	0.75 fl oz/a	7DBP	B			
	AUTHORITY MAXX	66 WG		0.23 lb ai/a	5.6 oz/a	7DBP	B			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	7DBP	B			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	V2	C			
	ANTHEM	2.15 SE		0.101 lb ai/a	6 fl oz/a	V2	C			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	V2	C			
4	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	FALL	A			80 b
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	FALL	A			95 a
	AUTHORITY MTZ	45 WG		0.338 lb ai/a	12 oz/a	FALL	A			28 b
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	FALL	A			0 b
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	7DBP	B			
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 fl oz/a	7DBP	B			
	AIM EC	2 EC		0.0117 lb ai/a	0.75 fl oz/a	7DBP	B			
	AUTHORITY MAXX	66 WG		0.206 lb ai/a	5 oz/a	7DBP	B			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	7DBP	B			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 fl oz/a	2-4"W	D			
	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a	2-4"W	D			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	2-4"W	D			
5	GRAMOXONE 2 SL	2 SL		0.625 lb ai/a	2.5 pt/a	FALL	A			69 c
	COC (PRIME OIL)	100 SL		1 % v/v	1 % v/v	FALL	A			83 b
	AUTHORITY MTZ	45 WG		0.338 lb ai/a	12 oz/a	FALL	A			13 c
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	FALL	A			0 b
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 oz/a	7DBP	B			
	2,4-D LV 4	3.8 EC		0.475 lb ae/a	16 oz/a	7DBP	B			
	AIM EC	2 EC		0.0117 lb ai/a	0.75 oz/a	7DBP	B			
	AUTHORITY MAXX	66 WG		0.206 lb ai/a	5 oz/a	7DBP	B			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	7DBP	B			
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a	22 oz/a	V2	C			
	ANTHEM	2.15 SE		0.101 lb ai/a	6 oz/a	V2	C			
	AMS	100 SG		1.02 % w/w	8.5 lb/100 gal	V2	C			
LSD (P=.05)										4.5
Standard Deviation										8.4
CV										5.3
										5.61
										13.6
										8.5
										11.7
										14.28
										96.27
Replicate F										1.992
Replicate Prob(F)										0.1858
Treatment F										63.332
Treatment Prob(F)										0.0001
										1.512
										0.2768
										8.256
										0.0001
										0.462
										0.7160
										117.295
										6.670
										0.0115

Southern Illinois University

Fall versus Spring Herbicides for Horseweed Control in Soybean - FMC.

Trial ID: 14-FagerS-MT-BD-FMC Location: Murphysboro, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	TTTTT	ANNWI	ERICA-HR	AMATA-HR	GLXMA	GLXMA
							5-6-14 Control Percent 0 DAP	5-6-14 Control Percent 0 DAP	5-6-14 Control Percent 0 DAP	5-6-14 Control Percent 0 DAP	5-18-14 Injury Percent	5-28-14 Injury Percent
							6 DA-B	6 DA-B	6 DA-B	6 DA-B	5 DAE	15 DAE
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED									0	0	0
2	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		FALL A		98 a	99 a	99 a
	2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		FALL A				
	AUTHORITY XL	70 WG		0.175 lb ai/a		4 oz/a		FALL A				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		FALL A				
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		7DBP B				
	2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		7DBP B				
	AIM EC	2 EC		0.0117 lb ai/a		0.75 fl oz/a		7DBP B				
	AUTHORITY MAXX	66 WG		0.23 lb ai/a		5.6 oz/a		7DBP B				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		7DBP B				
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		2-4"W D				
	MARVEL	3 SL		0.17 lb ai/a		7.25 fl oz/a		2-4"W D				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		2-4"W D				
3	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		FALL A		99 a	99 a	99 a
	2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		FALL A				
	AUTHORITY XL	70 WG		0.175 lb ai/a		4 oz/a		FALL A				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		FALL A				
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		7DBP B				
	2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		7DBP B				
	AIM EC	2 EC		0.0117 lb ai/a		0.75 fl oz/a		7DBP B				
	AUTHORITY MAXX	66 WG		0.23 lb ai/a		5.6 oz/a		7DBP B				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		7DBP B				
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		V2 C				
	ANTHEM	2.15 SE		0.101 lb ai/a		6 fl oz/a		V2 C				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		V2 C				
4	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		FALL A		89 b	99 a	78 b
	2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		FALL A				
	AUTHORITY MTZ	45 WG		0.338 lb ai/a		12 oz/a		FALL A				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		FALL A				
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		7DBP B				
	2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		7DBP B				
	AIM EC	2 EC		0.0117 lb ai/a		0.75 fl oz/a		7DBP B				
	AUTHORITY MAXX	66 WG		0.206 lb ai/a		5 oz/a		7DBP B				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		7DBP B				
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		2-4"W D				
	MARVEL	3 SL		0.17 lb ai/a		7.25 fl oz/a		2-4"W D				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		2-4"W D				
5	GRAMOXONE 2 SL	2 SL		0.625 lb ai/a		2.5 pt/a		FALL A		85 c	99 a	75 b
	COC (PRIME OIL)	100 SL		1 % v/v		1 % v/v		FALL A				
	AUTHORITY MTZ	45 WG		0.338 lb ai/a		12 oz/a		FALL A				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		FALL A				
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 oz/a		7DBP B				
	2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 oz/a		7DBP B				
	AIM EC	2 EC		0.0117 lb ai/a		0.75 oz/a		7DBP B				
	AUTHORITY MAXX	66 WG		0.206 lb ai/a		5 oz/a		7DBP B				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		7DBP B				
	ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 oz/a		V2 C				
	ANTHEM	2.15 SE		0.101 lb ai/a		6 oz/a		V2 C				
	AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		V2 C				
LSD (P=.05)										3.1	0.0	3.9
Standard Deviation										1.9	0.0	2.4
CV										2.1	0.0	2.75
Replicate F										4.985	0.000	2.522
Replicate Prob(F)										0.0263	1.0000	0.1235
Treatment F										47.426	0.000	115.502
Treatment Prob(F)										0.0001	1.0000	0.0001
											1.653	1.667
											0.2455	0.2427
											1.653	3.000
											0.2455	0.0877
												1.122
												0.3905
												1.122
												0.3905

Southern Illinois University

Fall versus Spring Herbicides for Horseweed Control in Soybean - FMC.

Trial ID: 14-FagerS-MT-BD-FMC Location: Murphysboro, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Pest Code							TTTTT	ERICA-HR	AMATA-HR	TTTTT	ERICA-HR	AMATA-HR
Crop Code												
Rating Date							5-21-14	5-21-14	5-21-14	5-29-14	5-29-14	5-29-14
Rating Type							Control	Control	Control	Control	Control	Control
Rating Unit							Percent	Percent	Percent	Percent	Percent	Percent
Rating Timing							-8 DA-C	-8 DA-C	-8 DA-C	0 DA-C	0 DA-C	0 DA-C
Trt-Eval Interval							21 DA-B	21 DA-B	21 DA-B	29 DA-B	29 DA-B	29 DA-B
Trt Treatment No. Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Rate	Growth Stage	Appl Code				
1 NONTREATED									0	0	0	0
2 ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a	FALL	A		96 a	99 a	94 a	87 a
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a	FALL	A					99 a
AUTHORITY XL	70 WG		0.175 lb ai/a		4 oz/a	FALL	A					84 a
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	FALL	A					
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a	7DBP	B					
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a	7DBP	B					
AIM EC	2 EC		0.0117 lb ai/a		0.75 fl oz/a	7DBP	B					
AUTHORITY MAXX	66 WG		0.23 lb ai/a		5.6 oz/a	7DBP	B					
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	7DBP	B					
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a	2-4"W	D					
MARVEL	3 SL		0.17 lb ai/a		7.25 fl oz/a	2-4"W	D					
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	2-4"W	D					
3 ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a	FALL	A		96 a	99 a	93 a	91 a
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a	FALL	A					99 a
AUTHORITY XL	70 WG		0.175 lb ai/a		4 oz/a	FALL	A					89 a
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	FALL	A					
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a	7DBP	B					
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a	7DBP	B					
AIM EC	2 EC		0.0117 lb ai/a		0.75 fl oz/a	7DBP	B					
AUTHORITY MAXX	66 WG		0.23 lb ai/a		5.6 oz/a	7DBP	B					
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	7DBP	B					
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a	V2	C					
ANTHEM	2.15 SE		0.101 lb ai/a		6 fl oz/a	V2	C					
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	V2	C					
4 ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a	FALL	A		93 a	98 ab	93 a	90 a
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a	FALL	A					98 a
AUTHORITY MTZ	45 WG		0.338 lb ai/a		12 oz/a	FALL	A					86 a
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	FALL	A					
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a	7DBP	B					
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a	7DBP	B					
AIM EC	2 EC		0.0117 lb ai/a		0.75 fl oz/a	7DBP	B					
AUTHORITY MAXX	66 WG		0.206 lb ai/a		5 oz/a	7DBP	B					
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	7DBP	B					
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a	2-4"W	D					
MARVEL	3 SL		0.17 lb ai/a		7.25 fl oz/a	2-4"W	D					
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	2-4"W	D					
5 GRAMOXONE 2 SL	2 SL		0.625 lb ai/a		2.5 pt/a	FALL	A		94 a	95 b	93 a	89 a
COC (PRIME OIL)	100 SL		1 % v/v		1 % v/v	FALL	A					98 a
AUTHORITY MTZ	45 WG		0.338 lb ai/a		12 oz/a	FALL	A					87 a
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	FALL	A					
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 oz/a	7DBP	B					
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 oz/a	7DBP	B					
AIM EC	2 EC		0.0117 lb ai/a		0.75 oz/a	7DBP	B					
AUTHORITY MAXX	66 WG		0.206 lb ai/a		5 oz/a	7DBP	B					
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	7DBP	B					
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 oz/a	V2	C					
ANTHEM	2.15 SE		0.101 lb ai/a		6 oz/a	V2	C					
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal	V2	C					
LSD (P=.05)									3.2	3.2	0.9	4.4
Standard Deviation									2.0	2.0	0.6	2.8
CV									2.09	2.04	0.62	3.09
Replicate F									0.617	0.691	1.000	6.253
Replicate Prob(F)									0.6212	0.5803	0.4363	0.0139
Treatment F									1.809	4.065	3.000	1.637
Treatment Prob(F)									0.2157	0.0442	0.0877	0.2488
												0.4363
												0.3805

Southern Illinois University

Fall versus Spring Herbicides for Horseweed Control in Soybean - FMC.

Trial ID: 14-FagerS-MT-BD-FMC Location: Murphysboro, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing								TTTTT	ERICA-HR	AMATA-HR	TTTTT	ERICA-HR	AMATA-HR	
								6-5-14 Control Percent 0 DA-D	6-5-14 Control Percent 0 DA-D	6-5-14 Control Percent 0 DA-D	6-28-14 Control Percent 23 DA-D	6-28-14 Control Percent 23 DA-D	6-28-14 Control Percent 23 DA-D	
Trt-Eval Interval								7 DA-C	7 DA-C	7 DA-C	30 DA-C	30 DA-C	30 DA-C	
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl						
No.	Name	Conc	Type	Unit	Rate	Rate	Unit	Stage	Code					
1	NONTREATED									0	0	0	0	
2	ROUNDUP POWERMAX 2,4-D LV 4 AUTHORITY XL AMS ROUNDUP POWERMAX 2,4-D LV 4 AIM EC AUTHORITY MAXX AMS ROUNDUP POWERMAX MARVEL AMS	4.5 SL 3.8 EC 70 WG 100 SG 4.5 SL 3.8 EC 2 EC 66 WG 100 SG 4.5 SL 3 SL 100 SG		0.77 lb ae/a 0.475 lb ae/a 0.175 lb ai/a 1.02 % w/w 0.77 lb ae/a 0.475 lb ae/a 0.0117 lb ai/a 0.23 lb ai/a 1.02 % w/w 0.77 lb ae/a 0.17 lb ai/a 1.02 % w/w	22 fl oz/a 16 fl oz/a 4 oz/a 8.5 lb/100 gal 22 fl oz/a 16 fl oz/a 0.75 fl oz/a 5.6 oz/a 8.5 lb/100 gal 22 fl oz/a 7.25 fl oz/a 8.5 lb/100 gal		FALL FALL FALL FALL 7DBP 7DBP 7DBP 7DBP 7DBP 2-4"W 2-4"W 2-4"W	A A A A B B B B B D D D	90 b	99 a	89 b	97 a	99 a	96 a
3	ROUNDUP POWERMAX 2,4-D LV 4 AUTHORITY XL AMS ROUNDUP POWERMAX 2,4-D LV 4 AIM EC AUTHORITY MAXX AMS ROUNDUP POWERMAX ANTHEM AMS	4.5 SL 3.8 EC 70 WG 100 SG 4.5 SL 3.8 EC 2 EC 66 WG 100 SG 4.5 SL 2.15 SE 100 SG		0.77 lb ae/a 0.475 lb ae/a 0.175 lb ai/a 1.02 % w/w 0.77 lb ae/a 0.475 lb ae/a 0.0117 lb ai/a 0.23 lb ai/a 1.02 % w/w 0.77 lb ae/a 0.101 lb ai/a 1.02 % w/w	22 fl oz/a 16 fl oz/a 4 oz/a 8.5 lb/100 gal 22 fl oz/a 16 fl oz/a 0.75 fl oz/a 5.6 oz/a 8.5 lb/100 gal 22 fl oz/a 6 fl oz/a 8.5 lb/100 gal		FALL FALL FALL FALL 7DBP 7DBP 7DBP 7DBP 7DBP V2 V2 V2	A A A A B B B B B C C C	98 a	99 a	98 a	97 a	99 a	96 a
4	ROUNDUP POWERMAX 2,4-D LV 4 AUTHORITY MTZ AMS ROUNDUP POWERMAX 2,4-D LV 4 AIM EC AUTHORITY MAXX AMS ROUNDUP POWERMAX MARVEL AMS	4.5 SL 3.8 EC 45 WG 100 SG 4.5 SL 3.8 EC 2 EC 66 WG 100 SG 4.5 SL 3 SL 100 SG		0.77 lb ae/a 0.475 lb ae/a 0.338 lb ai/a 1.02 % w/w 0.77 lb ae/a 0.475 lb ae/a 0.0117 lb ai/a 0.206 lb ai/a 1.02 % w/w 0.77 lb ae/a 0.17 lb ai/a 1.02 % w/w	22 fl oz/a 16 fl oz/a 12 oz/a 8.5 lb/100 gal 22 fl oz/a 16 fl oz/a 0.75 fl oz/a 5 oz/a 8.5 lb/100 gal 22 fl oz/a 7.25 fl oz/a 8.5 lb/100 gal		FALL FALL FALL FALL 7DBP 7DBP 7DBP 7DBP 7DBP 2-4"W 2-4"W 2-4"W	A A A A B B B B B D D D	89 b	98 a	89 b	96 a	98 a	95 a
5	GRAMOXONE 2 SL COC (PRIME OIL) AUTHORITY MTZ AMS ROUNDUP POWERMAX 2,4-D LV 4 AIM EC AUTHORITY MAXX AMS ROUNDUP POWERMAX ANTHEM AMS	2 SL 100 SL 45 WG 100 SG 4.5 SL 3.8 EC 2 EC 66 WG 100 SG 4.5 SL 2.15 SE 100 SG		0.625 lb ai/a 1 % v/v 0.338 lb ai/a 1.02 % w/w 0.77 lb ae/a 0.475 lb ae/a 0.0117 lb ai/a 0.206 lb ai/a 1.02 % w/w 0.77 lb ae/a 0.101 lb ai/a 1.02 % w/w	2.5 pt/a 1 % v/v 12 oz/a 8.5 lb/100 gal 22 oz/a 16 oz/a 0.75 oz/a 5 oz/a 8.5 lb/100 gal 22 oz/a 6 oz/a 8.5 lb/100 gal		FALL FALL FALL FALL 7DBP 7DBP 7DBP 7DBP 7DBP V2 V2 V2	A A A A B B B B B C C C	98 a	99 a	98 a	98 a	98 a	97 a
LSD (P=.05)									5.5	0.9	4.4	1.9	1.3	2.7
Standard Deviation									3.4	0.6	2.7	1.2	0.8	1.7
CV									3.64	0.59	2.93	1.24	0.83	1.79
Replicate F									2.629	0.673	1.842	0.617	0.093	0.586
Replicate Prob(F)									0.1141	0.5896	0.2097	0.6211	0.9621	0.6393
Treatment F									8.273	1.653	14.905	1.536	0.835	1.207
Treatment Prob(F)									0.0059	0.2455	0.0008	0.2712	0.5077	0.3618

Southern Illinois University

Fall versus Spring Herbicides for Horseweed Control in Soybean - FMC.

Trial ID: 14-FagerS-MT-BD-FMC Location: Murphysboro, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Pest Code							TTTTT	ERICA-HR	AMATA-HR
Crop Code									
Rating Date							7-28-14	7-28-14	7-28-14
Rating Type							Control	Control	Control
Rating Unit							Percent	Percent	Percent
Rating Timing							53 DA-D	53 DA-D	53 DA-D
Trt-Eval Interval							60 DA-C	60 DA-C	60 DA-C
Trt Treatment No. Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1 NONTREATED									0 0 0
2 ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		FALL A		93 ab 97 a 93 a
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		FALL A		
AUTHORITY XL	70 WG		0.175 lb ai/a		4 oz/a		FALL A		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		FALL A		
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		7DBP B		
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		7DBP B		
AIM EC	2 EC		0.0117 lb ai/a		0.75 fl oz/a		7DBP B		
AUTHORITY MAXX	66 WG		0.23 lb ai/a		5.6 oz/a		7DBP B		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		7DBP B		
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		2-4"W D		
MARVEL	3 SL		0.17 lb ai/a		7.25 fl oz/a		2-4"W D		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		2-4"W D		
3 ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		FALL A		95 a 99 a 95 a
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		FALL A		
AUTHORITY XL	70 WG		0.175 lb ai/a		4 oz/a		FALL A		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		FALL A		
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		7DBP B		
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		7DBP B		
AIM EC	2 EC		0.0117 lb ai/a		0.75 fl oz/a		7DBP B		
AUTHORITY MAXX	66 WG		0.23 lb ai/a		5.6 oz/a		7DBP B		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		7DBP B		
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		V2 C		
ANTHEM	2.15 SE		0.101 lb ai/a		6 fl oz/a		V2 C		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		V2 C		
4 ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		FALL A		90 b 98 a 91 a
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		FALL A		
AUTHORITY MTZ	45 WG		0.338 lb ai/a		12 oz/a		FALL A		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		FALL A		
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		7DBP B		
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 fl oz/a		7DBP B		
AIM EC	2 EC		0.0117 lb ai/a		0.75 fl oz/a		7DBP B		
AUTHORITY MAXX	66 WG		0.206 lb ai/a		5 oz/a		7DBP B		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		7DBP B		
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 fl oz/a		2-4"W D		
MARVEL	3 SL		0.17 lb ai/a		7.25 fl oz/a		2-4"W D		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		2-4"W D		
5 GRAMOXONE 2 SL	2 SL		0.625 lb ai/a		2.5 pt/a		FALL A		95 a 96 a 96 a
COC (PRIME OIL)	100 SL		1 % v/v		1 % v/v		FALL A		
AUTHORITY MTZ	45 WG		0.338 lb ai/a		12 oz/a		FALL A		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		FALL A		
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 oz/a		7DBP B		
2,4-D LV 4	3.8 EC		0.475 lb ae/a		16 oz/a		7DBP B		
AIM EC	2 EC		0.0117 lb ai/a		0.75 oz/a		7DBP B		
AUTHORITY MAXX	66 WG		0.206 lb ai/a		5 oz/a		7DBP B		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		7DBP B		
ROUNDUP POWERMAX	4.5 SL		0.77 lb ae/a		22 oz/a		V2 C		
ANTHEM	2.15 SE		0.101 lb ai/a		6 oz/a		V2 C		
AMS	100 SG		1.02 % w/w		8.5 lb/100 gal		V2 C		
LSD (P=.05)							3.1	3.2	3.7
Standard Deviation							2.0	2.0	2.3
CV							2.11	2.09	2.49
Replicate F							5.130	2.322	2.015
Replicate Prob(F)							0.0243	0.1435	0.1823
Treatment F							4.565	1.755	3.585
Treatment Prob(F)							0.0331	0.2253	0.0595

Fall versus Spring Herbicides for Horseweed Control in Soybean - FMC.

Trial ID: 14-FagerS-MT-BD-FMC Location: Murphysboro, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Trial Comments

1. Protocol: FMC.
2. Ratings: CI at 5 and 15 DAE,
WC 7, 15, and 30 DA-A, at B, at planting, 28 and 42 DA-B, at C, at D,
and 5, 30, and 60 DA-C
3. ANNWI = Winter annual weeds including STEME (common chickweed), LAMAM (henbit),
and LAMPU (purple deadnettle).
TTTTT = Overall weed control including winter annuals, marestail and waterhemp.
ERICA-HR = Herbicide-resistant marestail (glyphosate).
AMATA-HR = Herbicide-resistant waterhemp (glyphosate).
DAE = Days after crop emergence.
DAP = Days after planting (soybean).
4. Ratings at 0 DA-C were also 181 DA-A, 29 DA-B, and prior to D.
Ratings at 0 DA-D were also 188 DA-A, 36 DA-B, and 7 DA-C.
Ratings at 30 DA-C were also 211 DA-A, 59 DA-B, and 23 DA-D.
Ratings at 60 DA-C were also 241 DA-A, 89 DA-B, and 53 DA-D.
5. Following the FALL application on 11-29-13, the first rainfall event was 1.61 inch within 7 days.
Following the 7DBP application on 4-30-14, the first rainfall event was 1.25 inch within 9 days.
Following the V2 application on 5-29-14, the first rainfall event was 1.66 inch within 7 days.
Following the 2-4"W application on 6-5-14, the first rainfall event was 1.09 inch within 7 days.
6. Weed control ratings scheduled for 30 DA-A on 12-29-13 were not possible due to snow cover.
In late April, May and June AMATA-HR control in plots with low ERICA-HR control is partially due to
competition from a dense population of ERICA-HR.
By 5-21-14 winter annual weeds in the nontreated plots were senescing naturally and were no
longer providing competition, while ERICA-HR, where not controled, was providing competition.
Readers should consider winter annual weed control (ANNWI) and/or overall weed control ratings
(TTTTT) before making assumptions about herbicidal weed control of ERICA-HR or AMATA-HR.
7. Harvested 11-1-14, (2) 30 inch rows by 27 ft.