

Glyphosate-Resistant Waterhemp Control in Soybean.

Trial ID: 11-DSO-MONprograms Location: De Soto, IL

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: De Soto IL 62924 USA
 Trial Status: FINAL Initiation Date: 5-20-11

Objectives: Evaluate residual herbicides followed by Warrant for control of glyphosate-resistant waterhemp.

Crop 1: GLXMA Soybean Variety: AG 4005 Description: RR
 Planting Method: SEEDED Planting Date: 5-20-11
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common
 Pest Description: glyphosate-resistant waterhemp

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 30 FT Tillage Type: NO-TILL
 Replications: 4 Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2010

Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 0 LB/A

% Sand: 15.4 % OM: 2.4 Texture: SILT LOAM
 % Silt: 64.7 pH: 6.1 Soil Name: OKAW
 % Clay: 19.9 CEC: 10.5 Fert. Level: P1 53 LB/A, K 352 LB/A

Application Description

	A	B	C
Application Date:	5-20-11	6-22-11	6-24-11
Time of Day:	17:30	8:00	7:45
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	2-4"W	V5-6
Application Placement:	BROSIOI	BROFOL	BROFOL
Applied By:	JRK	JRK	JRK
Air Temperature, Unit:	84 F	80 F	72 F
% Relative Humidity:	50	60	68
Wind Velocity, Unit:	3 MPH	3 MPH	2 MPH
Wind Direction:	S	W	W
Dew Presence (Y/N):	N	Y	Y
Soil Temperature, Unit:	74 F	75 F	72 F
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	100	15	15

	A	B	C
Crop stage at application:	20-5-11 NA	22-6-11 V4-V5	24-6-11 V5-V6
Height Min, Max (inch):		6 12 8	15

Pest Stage At Each Application

	A	B	C
Application Date:	5-20-11	6-22-11	6-24-11
Weed Code:	AMATA	AMATA	AMATA
Stage Majority (leaves):	NA	6	6
Stage Min, Max:		coty 8	coty 13
Height Majority:		3 IN	4 IN
Height Min, Max:		0.25 6	0.5 8
Density, Unit:		6 FT2	1 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002	XR 8002
Boom Length, Unit:	6.67 FT	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Glyphosate-Resistant Waterhemp Control in Soybean.

Trial ID: 11-DSO-MONprograms Location: De Soto, IL

Pest Code
 Crop Code
 Rating Date
 Rating Data Type
 Rating Unit
 Rating Timing
 Trt-Eval Interval

GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
10-22-11	10-22-11	10-22-11	6-23-11	7-14-11
Moisture	Test wt.	Yield	Injury	Injury
Percent	lb/bu	bu/A	Percent	Percent
			1 DA-B	22 DA-B
			-1 DA-C	20 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	VALOR XLT	40.3	WG				4 oz/a	PRE	A	13.1 a	55.7 a	52 a	0 a	0 a
1	VALOR SX	51	WG	0.075	lb ai/a			PRE	A					
1	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A					
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
1	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
2	VALOR XLT	40.3	WG				4 oz/a	PRE	A	13.4 a	55.4 a	49 ab	0 a	0 a
2	VALOR SX	51	WG	0.075	lb ai/a			PRE	A					
2	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A					
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
2	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B					
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
3	VALOR XLT	40.3	WG				4 oz/a	PRE	A	13.4 a	55.4 a	54 a	0 a	0 a
3	VALOR SX	51	WG	0.075	lb ai/a			PRE	A					
3	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A					
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
3	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B					
3	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B					
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
4	VALOR XLT	40.3	WG				4 oz/a	PRE	A	13.1 a	55.4 a	40 bc	0 a	0 a
4	VALOR SX	51	WG	0.075	lb ai/a			PRE	A					
4	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A					
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	V5-6	C					
4	FLEXSTAR	1.88	EC	0.353	lb ai/a	0.75	qt/a	V5-6	C					
4	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	V5-6	C					
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V5-6	C					
5	VALOR XLT	40.3	WG				4 oz/a	PRE	A	13.3 a	55.4 a	48 ab	0 a	0 a
5	VALOR SX	51	WG	0.075	lb ai/a			PRE	A					
5	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A					
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
5	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B					
5	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B					
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
5	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	V5-6	C					
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	V5-6	C					
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V5-6	C					
6	VALOR XLT	40.3	WG				4 oz/a	PRE	A	13.4 a	55.3 a	52 a	0 a	0 a
6	VALOR SX	51	WG	0.075	lb ai/a			PRE	A					
6	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A					
6	PROWL H2O	3.8	CS	0.95	lb ai/a	1	qt/a	PRE	A					
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
6	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B					
6	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B					
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
7	AUTHORITY XL	70	WG	0.284	lb ai/a	6.5	oz/a	PRE	A	13.2 a	55.5 a	50 a	0 a	0 a
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
7	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B					
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
8	AUTHORITY XL	70	WG	0.284	lb ai/a	6.5	oz/a	PRE	A	13.2 a	55.6 a	53 a	0 a	0 a
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
8	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B					
8	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B					
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
9	AUTHORITY XL	70	WG	0.284	lb ai/a	6.5	oz/a	PRE	A	13.1 a	55.6 a	52 a	0 a	0 a
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	V5-6	C					
9	FLEXSTAR	1.88	EC	0.353	lb ai/a	0.75	qt/a	V5-6	C					
9	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	V5-6	C					
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V5-6	C					
10	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	PRE	A	13.2 a	55.6 a	52 a	0 a	0 a
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
10	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B					
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					

Glyphosate-Resistant Waterhemp Control in Soybean.

Trial ID: 11-DSO-MONprograms Location: De Soto, IL

Pest Code														
Crop Code		GLXMA GLXMA GLXMA GLXMA GLXMA												
Rating Date		10-22-11 10-22-11 10-22-11 6-23-11 7-14-11												
Rating Data Type		Moisture Test wt. Yield Injury Injury												
Rating Unit		Percent lb/bu bu/A Percent Percent												
Rating Timing		1 DA-B 22 DA-B												
Trt-Eval Interval		-1 DA-C 20 DA-C												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
11	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	PRE	A	13.3 a	55.5 a	51 a	0 a	0 a
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
11	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B					
11	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B					
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
12	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	PRE	A	13.1 a	55.6 a	52 a	0 a	0 a
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	V5-6	C					
12	FLEXSTAR	1.88	EC	0.353	lb ai/a	0.75	qt/a	V5-6	C					
12	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	V5-6	C					
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V5-6	C					
13	V-10233	76	WG	0.214	lb ai/a	4.5	oz/a	PRE	A	13.1 a	55.6 a	51 a	0 a	0 a
13	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
13	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B					
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
14	V-10233	76	WG	0.214	lb ai/a	4.5	oz/a	PRE	A	13.2 a	55.6 a	50 a	0 a	0 a
14	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B					
14	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B					
14	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B					
14	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
15	V-10233	76	WG	0.214	lb ai/a	4.5	oz/a	PRE	A	13.1 a	55.6 a	53 a	0 a	0 a
15	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	V5-6	C					
15	FLEXSTAR	1.88	EC	0.353	lb ai/a	0.75	qt/a	V5-6	C					
15	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	V5-6	C					
15	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V5-6	C					
16	NONTREATED									13.7 a	55.3 a	37 c	0 a	0 a
LSD (P=.05)										0.75	0.70	9.4	0.0	0.0
Replicate F										0.163	0.170	1.030	0.000	0.000
Replicate Prob(F)										0.9207	0.9161	0.3886	1.0000	1.0000
Treatment F										0.364	0.228	2.070	0.000	0.000
Treatment Prob(F)										0.9818	0.9984	0.0306	1.0000	1.0000

Means followed by same letter do not significantly differ (P=.05, LSD)

Glyphosate-Resistant Waterhemp Control in Soybean.

Trial ID: 11-DSO-MONprograms Location: De Soto, IL

Pest Code	Crop Code	Rating Date	Rating Data Type	Rating Unit	Rating Timing	Trt-Eval Interval	AMATA-HR					
							AMATA-HR	AMATA-HR	AMATA-HR			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	6-23-11 Control Percent	7-14-11 Control Percent	10-5-11 Control Percent
1	VALOR XLT	40.3	WG				4 oz/a	PRE	A	87 cde	89 c	93 a
1	VALOR SX	51	WG	0.075	lb ai/a			PRE	A			
1	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A			
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
1	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
2	VALOR XLT	40.3	WG				4 oz/a	PRE	A	88 cde	98 ab	99 a
2	VALOR SX	51	WG	0.075	lb ai/a			PRE	A			
2	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A			
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
2	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B			
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
3	VALOR XLT	40.3	WG				4 oz/a	PRE	A	88 b-e	97 ab	96 a
3	VALOR SX	51	WG	0.075	lb ai/a			PRE	A			
3	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A			
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
3	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B			
3	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B			
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
4	VALOR XLT	40.3	WG				4 oz/a	PRE	A	87 de	97 ab	97 a
4	VALOR SX	51	WG	0.075	lb ai/a			PRE	A			
4	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A			
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	V5-6	C			
4	FLEXSTAR	1.88	EC	0.353	lb ai/a	0.75	qt/a	V5-6	C			
4	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	V5-6	C			
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V5-6	C			
5	VALOR XLT	40.3	WG				4 oz/a	PRE	A	83 e	98 ab	98 a
5	VALOR SX	51	WG	0.075	lb ai/a			PRE	A			
5	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A			
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
5	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B			
5	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B			
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
5	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	V5-6	C			
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	V5-6	C			
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V5-6	C			
6	VALOR XLT	40.3	WG				4 oz/a	PRE	A	92 abc	99 ab	98 a
6	VALOR SX	51	WG	0.075	lb ai/a			PRE	A			
6	CLASSIC	25	WG	0.0258	lb ai/a			PRE	A			
6	PROWL H2O	3.8	CS	0.95	lb ai/a	1	qt/a	PRE	A			
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
6	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B			
6	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B			
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
7	AUTHORITY XL	70	WG	0.284	lb ai/a	6.5	oz/a	PRE	A	92 abc	99 a	99 a
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
7	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B			
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
8	AUTHORITY XL	70	WG	0.284	lb ai/a	6.5	oz/a	PRE	A	93 ab	98 ab	99 a
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
8	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B			
8	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B			
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
9	AUTHORITY XL	70	WG	0.284	lb ai/a	6.5	oz/a	PRE	A	94 a	98 ab	99 a
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	V5-6	C			
9	FLEXSTAR	1.88	EC	0.353	lb ai/a	0.75	qt/a	V5-6	C			
9	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	V5-6	C			
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V5-6	C			
10	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	PRE	A	91 a-d	99 a	99 a
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
10	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B			
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			

Glyphosate-Resistant Waterhemp Control in Soybean.

Trial ID: 11-DSO-MONprograms Location: De Soto, IL

Pest Code		AMATA-HR			AMATA-HR			AMATA-HR				
Crop Code												
Rating Date		6-23-11			7-14-11			10-5-11				
Rating Data Type		Control			Control			Control				
Rating Unit		Percent			Percent			Percent				
Rating Timing		1 DA-B			22 DA-B							
Trt-Eval Interval		-1 DA-C			20 DA-C			EOS				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
11	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	PRE	A	94 a	98 ab	99 a
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
11	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B			
11	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B			
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
12	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	PRE	A	94 a	99 a	99 a
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	V5-6	C			
12	FLEXSTAR	1.88	EC	0.353	lb ai/a	0.75	qt/a	V5-6	C			
12	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	V5-6	C			
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V5-6	C			
13	V-10233	76	WG	0.214	lb ai/a	4.5	oz/a	PRE	A	85 e	94 b	93 a
13	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
13	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B			
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
14	V-10233	76	WG	0.214	lb ai/a	4.5	oz/a	PRE	A	84 e	99 ab	99 a
14	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	2-4"W	B			
14	FLEXSTAR	1.88	EC	0.294	lb ai/a	0.626	qt/a	2-4"W	B			
14	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	B			
14	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
15	V-10233	76	WG	0.214	lb ai/a	4.5	oz/a	PRE	A	85 e	97 ab	98 a
15	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	V5-6	C			
15	FLEXSTAR	1.88	EC	0.353	lb ai/a	0.75	qt/a	V5-6	C			
15	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	V5-6	C			
15	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V5-6	C			
16	NONTREATED									0 f	0 d	0 b
LSD (P=.05)										5.2	4.4	6.5
Replicate F										0.279	0.797	0.977
Replicate Prob(F)										0.8404	0.5019	0.4118
Treatment F										152.714	253.064	116.016
Treatment Prob(F)										0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: Monsanto (24-21).
2. Ratings: CI/WC at B, at C, and 21 DA-C, and WC at harvest.
3. Yield and grain moisture.
4. Blanket application of Roundup WeatherMax (22 floz/A) + 2,4-D LV4 (1 pt/A) + NPAK AMS (2.5 %v/v) was applied to all plots on 4-2-11.
Blanket burndown application of Gramoxone Inteon (3.5 pt/A) plus COC (1% v/v) was applied to all plots on 5-20-11.
5. AMATA-HR = Herbicide-resistant waterhemp (glyphosate).
EOS = End of season.
6. Rainfall for the week prior to planting and the PRE application was 1.2 inch.
Rainfall (weekly totals) for the the next six weeks were 2.18, 0, 0, 0.75, 1.81, and 4.38 inch.
7. Harvested 10-22-11, (2) 30 inch rows by 26.5 ft.