

MON63410 Systems for Glyphosate-Resistant Waterhemp.

Trial ID: 10-DSO-MON63410 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: 05-08-10

Objectives: To examine timings of MON63410 following preemergence herbicides and to evaluate preemergence herbicides as sequential recommendations for control of glyphosate-resistant waterhemp.

Crop 1: GLXMA Soybean Variety: AG 4005 Description: RR
 Planting Method: SEEDED Planting Date: 05-08-10
 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: 3 Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2009

Field Prep./Maintenance: N 13 LB/A, P205 34 LB/A, K20 92 LB/A

% OM: 2.5 Texture: SILT LOAM
 pH: 6.8 Soil Name: OKAW
 CEC: 12 Fert. Level: P1 88 LB/A, K 207 LB/A

	Application Description			
	A	B	C	D
Application Date:	05-08-10	05-14-10	06-02-10	06-16-10
Time of Day:	19:30	14:00	11:30	15:00
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	CRACK	V3	V9-R1
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	DKT	DKT	DKT	NVH
Air Temperature, Unit:	57 F	74 F	95 F	92 F
% Relative Humidity:	50	50	47	44
Wind Velocity, Unit:	5 MPH	2 MPH	4 MPH	1 MPH
Wind Direction:	NW	NW	S	S
Dew Presence (Y/N):	N	N	N	N
Soil Temperature, Unit:	68 F	75 F	82 F	81 F
Soil Moisture:	NORMAL	ABONOR	ABONOR	NORMAL
% Cloud Cover:	30	90	35	40
Crop stage at application:	NA	VE	V3	R1
Height Min, Max (inch):		0 0.25	4 8	14 28

	Pest Stage At Each Application			
	05-08-10	05-14-10	06-02-10	06-16-10
Application Date:	05-08-10	05-14-10	06-02-10	06-16-10
Weed Code:	AMATA	AMATA	AMATA	AMATA
Stage Majority (leaves):	NA	NA	8	12
Stage Min, Max:			2 12	COTY 20
Height Majority:			4 IN	6 IN
Height Min, Max:			0.5 6	0.5 16
Density, Unit:			30 FT2	0.01 FT2

	Application Equipment			
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002	XR 8002	XR 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

MON63410 Systems for Glyphosate-Resistant Waterhemp.

Trial ID: 10-DSO-MON63410

Location: De Soto, IL

										GLXMA 09-27-10 Yield bu/A	GLXMA 05-21-10 Injury Percent	GLXMA 05-21-10 Chlorosis Percent	GLXMA 05-21-10 Stunt Percent	GLXMA 06-09-10 Injury Percent	GLXMA 06-09-10 Chlorosis Percent	GLXMA 06-09-10 Stunt Percent
Pest Code Crop Code Rating Date Rating Data Type Rating Unit Rating Timing Trt-Eval Interval										7 DA-B	7 DA-B	7 DA-B	7 DA-B	7 DA-C	7 DA-C	7 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			5.0	oz/a	PRE	A	31 abc	6 b	0 b	6 bc	2 de	0 e	2 c
1	VALOR SX	51	WG	0.093	lb ai/a			PRE	A							
1	CLASSIC	25	WG	0.0322	lb ai/a			PRE	A							
1	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D							
1	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D							
2	VALOR XLT	40.3	WG			3	oz/a	PRE	A	34 abc	11 a	3 a	8 b	8 c	0 e	8 b
2	VALOR SX	51	WG	0.056	lb ai/a			PRE	A							
2	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A							
2	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	CRACK	B							
2	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	CRACK	B							
2	AMS	100	SG	2	% w/w	2	% w/w	CRACK	B							
3	VALOR XLT	40.3	WG			3	oz/a	PRE	A	36 abc	0 d	0 b	0 e	2 de	2 cd	0 c
3	VALOR SX	51	WG	0.056	lb ai/a			PRE	A							
3	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A							
3	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C							
3	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
3	AMS	100	SG	2	% w/w	2	% w/w	V3	C							
4	VALOR XLT	40.3	WG			3	oz/a	PRE	A	38 abc	2 cd	0 b	2 de	0 e	0 e	0 c
4	VALOR SX	51	WG	0.056	lb ai/a			PRE	A							
4	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A							
4	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V9-R1	D							
4	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D							
4	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D							
5	VALOR SX	51	WG	0.096	lb ai/a	3.0	oz/a	PRE	A	42 a	6 b	0 b	6 bc	0 e	0 e	0 c
5	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D							
5	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D							
6	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	41 ab	5 b	0 b	5 c	3 de	3 c	0 c
6	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C							
6	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
6	AMS	100	SG	2	% w/w	2	% w/w	V3	C							
7	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	35 abc	0 d	0 b	0 e	5 cd	3 cd	2 c
7	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C							
7	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
7	AMS	100	SG	2	% w/w	2	% w/w	V3	C							
8	GANGSTER (CO-PACK)					3.1	oz/a	PRE	A	36 abc	4 bc	0 b	4 cd	3 de	3 cd	0 c
8	GANGSTER FR	84	WG	0.0263	lb ai/a			PRE	A							
8	GANGSTER V	51	WG	0.083	lb ai/a			PRE	A							
8	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C							
8	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
8	AMS	100	SG	2	% w/w	2	% w/w	V3	C							
9	AUTHORITY MTZ	45	WG	0.28	lb ai/a	10	oz/a	PRE	A	38 abc	1 d	0 b	1 e	2 de	2 d	0 c
9	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C							
9	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
9	AMS	100	SG	2	% w/w	2	% w/w	V3	C							
10	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	33 abc	13 a	0 b	13 a	4 de	3 cd	1 c
10	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C							
10	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
10	AMS	100	SG	2	% w/w	2	% w/w	V3	C							
11	AUTHORITY FIRST	70	WG	0.14	lb ai/a	3.2	oz/a	PRE	A	32 abc	0 d	0 b	0 e	3 de	3 cd	0 c
11	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C							
11	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
11	AMS	100	SG	2	% w/w	2	% w/w	V3	C							
12	PREFIX	5.29	EC	1.49	lb ai/a	1.125	qt/a	PRE	A	32 abc	0 d	0 b	0 e	0 e	0 e	0 c
12	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D							
12	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D							
13	PREFIX	5.29	EC	1.49	lb ai/a	1.125	qt/a	V3	C	39 abc				20 b	11 ab	8 b
13	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
13	AMS	100	SG	2	% w/w	2	% w/w	V3	C							

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Pest Code Crop Code Rating Date Rating Data Type Rating Unit Rating Timing Trt-Eval Interval										GLXMA 09-27-10 Yield bu/A	GLXMA 05-21-10 Injury Percent	GLXMA 05-21-10 Chlorosis Percent	GLXMA 05-21-10 Stunt Percent	GLXMA 06-09-10 Injury Percent	GLXMA 06-09-10 Chlorosis Percent	GLXMA 06-09-10 Stunt Percent
										7 DA-B	7 DA-B	7 DA-B	7 DA-C	7 DA-C	7 DA-C	7 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
14	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C	38 abc				28 a	10 b	17 a
14	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
14	AMS	100	SG	2	% w/w	2	% w/w	V3	C							
14	COBRA	2	EC	0.187	lb ai/a	12	fl oz/a	V3	C							
15	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C	30 bc				27 a	12 a	17 a
15	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
15	AMS	100	SG	2	% w/w	2	% w/w	V3	C							
15	COBRA	2	EC	0.187	lb ai/a	12	fl oz/a	V3	C							
15	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V9-R1	D							
15	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D							
15	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D							
16	VALOR XLT	40.3	WG			3	oz/a	PRE	A	36 abc	0 d	0 b	0 e	3 de	3 cd	0 c
16	VALOR SX	51	WG	0.056	lb ai/a			PRE	A							
16	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A							
16	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C							
16	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C							
16	AMS	100	SG	2	% w/w	2	% w/w	V3	C							
16	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V9-R1	D							
16	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D							
16	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D							
17	NONTREATED									28 c	0 d	0 b	0 e	0 e	0 e	0 c
LSD (P=.05)										12.3	2.8	0.0	2.8	4.0	1.4	4.2
Replicate F										3.640	3.130	0.000	3.130	0.261	4.888	0.759
Replicate Prob(F)										0.0376	0.0606	1.0000	0.0606	0.7722	0.0140	0.4766
Treatment F										0.900	20.865	0.000	17.800	43.975	62.387	15.251
Treatment Prob(F)										0.5752	0.0001	1.0000	0.0001	0.0001	0.0001	0.0001

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

MON63410 Systems for Glyphosate-Resistant Waterhemp.

Trial ID: 10-DSO-MON63410

Location: De Soto, IL

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

GLXMA 06-23-10 Injury Percent	GLXMA 06-23-10 Chlorosis Percent	GLXMA 06-23-10 Stunt Percent
7 DA-D	7 DA-D	7 DA-D

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			5.0	oz/a	PRE	A	2 cd	0 a	2 cd
1	VALOR SX	51	WG	0.093	lb ai/a			PRE	A			
1	CLASSIC	25	WG	0.0322	lb ai/a			PRE	A			
1	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D			
1	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D			
2	VALOR XLT	40.3	WG			3	oz/a	PRE	A	2 cd	0 a	2 cd
2	VALOR SX	51	WG	0.056	lb ai/a			PRE	A			
2	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A			
2	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	CRACK	B			
2	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	CRACK	B			
2	AMS	100	SG	2	% w/w	2	% w/w	CRACK	B			
3	VALOR XLT	40.3	WG			3	oz/a	PRE	A	0 d	0 a	0 d
3	VALOR SX	51	WG	0.056	lb ai/a			PRE	A			
3	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A			
3	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C			
3	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
3	AMS	100	SG	2	% w/w	2	% w/w	V3	C			
4	VALOR XLT	40.3	WG			3	oz/a	PRE	A	0 d	0 a	0 d
4	VALOR SX	51	WG	0.056	lb ai/a			PRE	A			
4	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A			
4	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V9-R1	D			
4	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D			
4	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D			
5	VALOR SX	51	WG	0.096	lb ai/a	3.0	oz/a	PRE	A	0 d	0 a	0 d
5	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D			
5	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D			
6	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	0 d	0 a	0 d
6	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C			
6	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
6	AMS	100	SG	2	% w/w	2	% w/w	V3	C			
7	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	3 c	0 a	3 c
7	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C			
7	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
7	AMS	100	SG	2	% w/w	2	% w/w	V3	C			
8	GANGSTER (CO-PACK)					3.1	oz/a	PRE	A	2 cd	0 a	2 cd
8	GANGSTER FR	84	WG	0.0263	lb ai/a			PRE	A			
8	GANGSTER V	51	WG	0.083	lb ai/a			PRE	A			
8	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C			
8	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
8	AMS	100	SG	2	% w/w	2	% w/w	V3	C			
9	AUTHORITY MTZ	45	WG	0.28	lb ai/a	10	oz/a	PRE	A	0 d	0 a	0 d
9	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C			
9	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
9	AMS	100	SG	2	% w/w	2	% w/w	V3	C			
10	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	3 cd	0 a	3 cd
10	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C			
10	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
10	AMS	100	SG	2	% w/w	2	% w/w	V3	C			
11	AUTHORITY FIRST	70	WG	0.14	lb ai/a	3.2	oz/a	PRE	A	0 d	0 a	0 d
11	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C			
11	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
11	AMS	100	SG	2	% w/w	2	% w/w	V3	C			
12	PREFIX	5.29	EC	1.49	lb ai/a	1.125	qt/a	PRE	A	0 d	0 a	0 d
12	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D			
12	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D			
13	PREFIX	5.29	EC	1.49	lb ai/a	1.125	qt/a	V3	C	6 b	0 a	6 b
13	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
13	AMS	100	SG	2	% w/w	2	% w/w	V3	C			

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Pest Code			
Crop Code			
Rating Date	GLXMA	GLXMA	GLXMA
Rating Data Type	06-23-10	06-23-10	06-23-10
Rating Unit	Injury	Chlorosis	Stunt
Rating Timing	Percent	Percent	Percent
Trt-Eval Interval	7 DA-D	7 DA-D	7 DA-D

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
14	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C	7 b	0 a	7 b
14	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
14	AMS	100	SG	2	% w/w	2	% w/w	V3	C			
14	COBRA	2	EC	0.187	lb ai/a	12	fl oz/a	V3	C			
15	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C	10 a	0 a	10 a
15	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
15	AMS	100	SG	2	% w/w	2	% w/w	V3	C			
15	COBRA	2	EC	0.187	lb ai/a	12	fl oz/a	V3	C			
15	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V9-R1	D			
15	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D			
15	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D			
16	VALOR XLT	40.3	WG			3	oz/a	PRE	A	1 cd	0 a	1 cd
16	VALOR SX	51	WG	0.056	lb ai/a			PRE	A			
16	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A			
16	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C			
16	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C			
16	AMS	100	SG	2	% w/w	2	% w/w	V3	C			
16	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V9-R1	D			
16	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D			
16	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D			
17	NONTREATED									0 d	0 a	0 d
LSD (P=.05)										2.7	0.0	2.7
Replicate F										0.090	0.000	0.090
Replicate Prob(F)										0.9140	1.0000	0.9140
Treatment F										10.028	0.000	10.028
Treatment Prob(F)										0.0001	1.0000	0.0001

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

MON63410 Systems for Glyphosate-Resistant Waterhemp.

Trial ID: 10-DSO-MON63410

Location: De Soto, IL

Pest Code										AMATA-HR	AMATA-HR	AMATA-HR	AMATA-HR	AMATA-HR
Crop Code										06-02-10	06-16-10	06-30-10	07-28-10	08-11-10
Rating Date										Control	Control	Control	Control	Control
Rating Data Type										Percent	Percent	Percent	Percent	Percent
Rating Unit												14 DA-D	42 DA-D	56 DA-D
Rating Timing												28 DA-C	56 DA-C	70 DA-C
Trt-Eval Interval										0 DA-C	0 DA-D			
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			5.0	oz/a	PRE	A	99 ab	96 bcd	99 a	99 a	98 a
1	VALOR SX	51	WG	0.093	lb ai/a			PRE	A					
1	CLASSIC	25	WG	0.0322	lb ai/a			PRE	A					
1	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D					
1	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D					
2	VALOR XLT	40.3	WG			3	oz/a	PRE	A	99 a	99 ab	98 abc	99 a	99 a
2	VALOR SX	51	WG	0.056	lb ai/a			PRE	A					
2	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A					
2	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	CRACK	B					
2	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	CRACK	B					
2	AMS	100	SG	2	% w/w	2	% w/w	CRACK	B					
3	VALOR XLT	40.3	WG			3	oz/a	PRE	A	97 abc	98 abc	98 abc	99 a	98 a
3	VALOR SX	51	WG	0.056	lb ai/a			PRE	A					
3	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A					
3	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C					
3	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C					
3	AMS	100	SG	2	% w/w	2	% w/w	V3	C					
4	VALOR XLT	40.3	WG			3	oz/a	PRE	A	98 ab	94 d	96 cde	93 abc	93 abc
4	VALOR SX	51	WG	0.056	lb ai/a			PRE	A					
4	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A					
4	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V9-R1	D					
4	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D					
4	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D					
5	VALOR SX	51	WG	0.096	lb ai/a	3.0	oz/a	PRE	A	98 ab	96 cd	98 abc	98 ab	97 ab
5	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D					
5	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D					
6	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	95 c	98 abc	99 ab	99 a	99 a
6	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C					
6	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C					
6	AMS	100	SG	2	% w/w	2	% w/w	V3	C					
7	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	85 d	96 cd	95 e	89 bc	85 c
7	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C					
7	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C					
7	AMS	100	SG	2	% w/w	2	% w/w	V3	C					
8	GANGSTER (CO-PACK)					3.1	oz/a	PRE	A	98 ab	99 ab	98 abc	99 a	99 a
8	GANGSTER FR	84	WG	0.0263	lb ai/a			PRE	A					
8	GANGSTER V	51	WG	0.083	lb ai/a			PRE	A					
8	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C					
8	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C					
8	AMS	100	SG	2	% w/w	2	% w/w	V3	C					
9	AUTHORITY MTZ	45	WG	0.28	lb ai/a	10	oz/a	PRE	A	96 bc	98 abc	97 a-d	94 abc	94 abc
9	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C					
9	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C					
9	AMS	100	SG	2	% w/w	2	% w/w	V3	C					
10	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	99 ab	99 ab	98 abc	99 a	99 a
10	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C					
10	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C					
10	AMS	100	SG	2	% w/w	2	% w/w	V3	C					
11	AUTHORITY FIRST	70	WG	0.14	lb ai/a	3.2	oz/a	PRE	A	97 abc	98 abc	98 abc	98 ab	98 a
11	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C					
11	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C					
11	AMS	100	SG	2	% w/w	2	% w/w	V3	C					
12	PREFIX	5.29	EC	1.49	lb ai/a	1.125	qt/a	PRE	A	99 ab	99 ab	98 abc	99 a	99 a
12	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D					
12	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D					
13	PREFIX	5.29	EC	1.49	lb ai/a	1.125	qt/a	V3	C		98 abc	95 de	85 c	87 bc
13	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C					
13	AMS	100	SG	2	% w/w	2	% w/w	V3	C					

MON63410 Systems for Glyphosate-Resistant Waterhemp.

Trial ID: 10-DSO-MON63410

Location: De Soto, IL

Pest Code		AMATA-HR		AMATA-HR		AMATA-HR		AMATA-HR		AMATA-HR	
Crop Code		06-02-10		06-16-10		06-30-10		07-28-10		08-11-10	
Rating Date		Control		Control		Control		Control		Control	
Rating Data Type		Percent		Percent		Percent		Percent		Percent	
Rating Unit		14 DA-D		42 DA-D		56 DA-D		56 DA-D		56 DA-D	
Rating Timing		0 DA-C		0 DA-D		28 DA-C		56 DA-C		70 DA-C	
Trt-Eval Interval											
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
14	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C		
14	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C	97 abc	97 b-e
14	AMS	100	SG	2	% w/w	2	% w/w	V3	C	93 abc	91 abc
14	COBRA	2	EC	0.187	lb ai/a	12	fl oz/a	V3	C		
15	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C	97 abc	98 abc
15	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C	99 a	99 a
15	AMS	100	SG	2	% w/w	2	% w/w	V3	C		
15	COBRA	2	EC	0.187	lb ai/a	12	fl oz/a	V3	C		
15	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V9-R1	D		
15	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D		
15	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D		
16	VALOR XLT	40.3	WG			3	oz/a	PRE	A	97 abc	99 a
16	VALOR SX	51	WG	0.056	lb ai/a			PRE	A	99 a	99 a
16	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A	99 a	99 a
16	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V3	C		
16	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V3	C		
16	AMS	100	SG	2	% w/w	2	% w/w	V3	C		
16	MON 63410	3	CS	1.125	lb ai/a	48	fl oz/a	V9-R1	D		
16	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	V9-R1	D		
16	AMS	100	SG	2	% w/w	2	% w/w	V9-R1	D		
17	NONTREATED									0 e	0 e
										0 f	0 d
										0 d	0 d
LSD (P=.05)										2.8	2.4
Replicate F										0.845	2.913
Replicate Prob(F)										0.4409	0.0688
Treatment F										723.943	810.192
Treatment Prob(F)										0.0001	0.0001

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

Trial Comments

1. Protocol: Monsanto (04-11).
2. Ratings: CI at 7 DA-B, C and D timings (chlorosis and stunt).
WC at 0, 28 and 56 DA-C and D (rate all plots with POST treatments each time).
3. Yield not necessary, but if possible.
4. AMATA-HR = Herbicide-resistant waterhemp (glyphosate).
5. Blanket burndown application of glyphosate (1.12 lb ae/A) plus 2,4-D (0.475 lb ae/A) plus AMS was applied 4-13-10.
Blanket preemergence application of Gramoxone (3 pt/A) plus NIS (0.5% v/v) was applied 5-8-10.
6. Harvested 9-27-10, (2) 30 inch rows by 26.5 ft.