

Soybean Herbicide Program: Cost-Based Solution.

Trial ID: 10-DSO-Cost 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: Determine the success of herbicide programs within three different cost ranges that may be used by growers during the herbicide selection process.

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	05-28-10	06-15-10	06-18-10
Time of Day:	19:30	8:30	10:00	10:00
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	POST1	POST2	POST3
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	DKP	DKP	JRK	JRK
Air Temperature, Unit:	57 F	79 F	92 F	93 F
% Relative Humidity:	50	54	67	59
Wind Velocity, Unit:	4 MPH	2 MPH	1 MPH	1 MPH
Wind Direction:	NW	NE	S	S
Dew Presence (Y/N):	N	Y	N	N
Soil Temperature, Unit:	68 F	78 F	80 F	81 F
Soil Moisture:	NORMAL	ABONOR	ABONOR	ABONOR
% Cloud Cover:	30	25	0	0
Crop stage at application:	05-08-10	05-28-10	06-15-10	06-18-10
Height Min, Max (inch):	NA	V1	V6-V9	R1
		3	6 10	24 17 26

	Pest Stage At Each Application			
	A	B	C	D
Application Date:	05-08-10	05-28-10	06-15-10	06-18-10
Weed Code:	AMATA	AMATA	AMATA	AMATA
Stage Majority (leaves):	NA	6	6	10
Stage Min, Max:		COTY 10	COTY 20	COTY 20
Height Majority:		4 IN	3 IN	6 IN
Height Min, Max:		0.25 6	0.5 16	0.5 18
Density, Unit:		20 FT2	2 FT2	3 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

Soybean Herbicide Program: Cost-Based Solution.

Trial ID: 10-DSO-Cost

Location: De Soto, IL

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

GLXMA 09-24-10 Yield bu/A
GLXMA 06-07-10 Injury Percent 30 DA-A
GLXMA 06-15-10 Injury Percent 18 DA-B
GLXMA 06-29-10 Injury Percent 11 DA-C
GLXMA 07-13-10 Injury Percent 25 DA-D
GLXMA 09-16-10 Injury Percent EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	\$22 TO \$24 PROGRAMS									45 abc	0 e	0 e	0 f	0 a	0 a
1	AUTHORITY FIRST	70	WG	0.141	lb ai/a	3.2	oz/a	PRE	A						
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C						
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C						
2	\$22 TO \$24 PROGRAMS									45 abc	0 e	0 e	0 f	0 a	0 a
2	AUTHORITY MTZ	45	WG	0.31	lb ai/a	11	oz/a	PRE	A						
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C						
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C						
3	\$22 TO \$24 PROGRAMS									46 a	0 e	0 e	0 f	0 a	0 a
3	AUTHORITY ASSIST	4	SL	0.156	lb ai/a	5.0	fl oz/a	PRE	A						
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C						
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C						
4	\$22 TO \$24 PROGRAMS									40 cde	0 e	0 e	0 f	0 a	0 a
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B						
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B						
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST3	D						
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST3	D						
5	\$22 TO \$24 PROGRAMS									36 ef	26 b	18 b	9 b	0 a	0 a
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B						
5	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST1	B						
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST1	B						
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B						
6	\$22 TO \$24 PROGRAMS									38 de	0 e	0 e	0 f	0 a	0 a
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B						
6	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	POST1	B						
6	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST1	B						
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B						
7	\$22 TO \$24 PROGRAMS									41 a-d	19 c	7 cd	0 f	0 a	0 a
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B						
7	PREFIX	5.29	EC	1.32	lb ai/a	2.0	pt/a	POST1	B						
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B						
8	\$34 TO \$36 PROGRAMS									42 a-d	0 e	0 e	0 f	0 a	0 a
8	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.4	oz/a	PRE	A						
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C						
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C						
9	\$34 TO \$36 PROGRAMS									43 abc	0 e	0 e	0 f	0 a	0 a
9	AUTHORITY FIRST	70	WG	0.14	lb ai/a	3.2	oz/a	PRE	A						
9	PROWL H2O	3.8	CS	0.95	lb ai/a	2.0	pt/a	PRE	A						
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C						
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C						
10	\$34 TO \$36 PROGRAMS									46 a	0 e	0 e	0 f	0 a	0 a
10	CANOPY	75	WG	0.14	lb ai/a	3.0	oz/a	PRE	A						
10	PREFIX	5.29	EC	1.32	lb ai/a	2.0	pt/a	PRE	A						
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C						
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C						
11	\$34 TO \$36 PROGRAMS									45 ab	0 e	0 e	5 de	0 a	0 a
11	AUTHORITY FIRST	70	WG	0.141	lb ai/a	3.2	oz/a	PRE	A						
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C						
11	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST2	C						
11	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST2	C						
11	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C						
12	\$34 TO \$36 PROGRAMS									43 abc	0 e	0 e	4 e	0 a	0 a
12	AUTHORITY FIRST	70	WG	0.141	lb ai/a	3.2	oz/a	PRE	A						
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C						
12	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	POST2	C						
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C						

Soybean Herbicide Program: Cost-Based Solution.

Trial ID: 10-DSO-Cost

Location: De Soto, IL

Pest Code

Crop Code

Rating Date

Rating Data Type

Rating Unit

Rating Timing

Trt-Eval Interval

GLXMA 09-24-10 Yield bu/A	GLXMA 06-07-10 Injury Percent 30 DA-A 10 DA-B	GLXMA 06-15-10 Injury Percent 18 DA-B 0 DA-C	GLXMA 06-29-10 Injury Percent 11 DA-D 14 DA-C	GLXMA 07-13-10 Injury Percent 25 DA-D 28 DA-C	GLXMA 09-16-10 Injury Percent EOS
------------------------------------	--	---	--	--	---

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code													
13	\$34 TO \$36 PROGRAMS										42	a-d	17	cd	4	d	0	f	0	a	0	a
13	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B													
13	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	POST1	B													
13	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	POST1	B													
13	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B													
14	\$34 TO \$36 PROGRAMS										44	abc	0	e	0	e	12	a	0	a	0	a
14	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B													
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B													
14	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST3	D													
14	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST3	D													
14	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST3	D													
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST3	D													
15	\$34 TO \$36 PROGRAMS										43	a-d	15	d	4	d	0	f	0	a	0	a
15	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B													
15	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST1	B													
15	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST1	B													
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B													
15	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST3	D													
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST3	D													
16	\$34 TO \$36 PROGRAMS										40	b-e	19	c	8	c	0	f	0	a	0	a
16	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B													
16	PREFIX	5.29	EC	1.32	lb ai/a	2.0	pt/a	POST1	B													
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B													
16	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST3	D													
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST3	D													
17	\$46 TO \$48 PROGRAMS										44	abc	0	e	0	e	0	f	0	a	0	a
17	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.4	oz/a	PRE	A													
17	PROWL H2O	3.8	CS	0.95	lb ai/a	2.0	pt/a	PRE	A													
17	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C													
17	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C													
18	\$46 TO \$48 PROGRAMS										44	abc	0	e	0	e	0	f	0	a	0	a
18	AUTHORITY FIRST	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A													
18	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A													
18	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C													
18	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C													
19	\$46 TO \$48 PROGRAMS										46	a	0	e	0	e	6	cd	0	a	0	a
19	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.4	oz/a	PRE	A													
19	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C													
19	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST2	C													
19	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST2	C													
19	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C													
20	\$46 TO \$48 PROGRAMS										43	a-d	18	c	4	d	7	bc	0	a	0	a
20	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B													
20	PREFIX	5.29	EC	1.32	lb ai/a	2.0	pt/a	POST1	B													
20	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B													
20	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST3	D													
20	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST3	D													
20	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST3	D													
20	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST3	D													
21	NONTREATED										32	f	0	e	0	e	0	f	0	a	0	a
22	WEED FREE										43	abc	99	a	99	a	0	f	0	a	0	a
22	AUTHORITY FIRST	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A													
22	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	PRE	A													
22	HANDWEED AS NEEDED																					

LSD (P=.05)

5.4 2.5 3.3 1.9 0.0 0.0

Replicate F

11.658 1.000 1.414 0.102 0.000 0.000

Replicate Prob(F)

0.0001 0.3765 0.2544 0.9036 1.0000 1.0000

Treatment F

3.618 621.430 328.840 29.088 0.000 0.000

Treatment Prob(F)

0.0002 0.0001 0.0001 0.0001 1.0000 1.0000

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

Soybean Herbicide Program: Cost-Based Solution.

Trial ID: 10-DSO-Cost

Location: De Soto, IL

Pest Code		AMATA-HR		AMATA-HR		AMATA-HR		AMATA-HR		AMATA-HR	
Crop Code		06-07-10		06-15-10		06-29-10		07-13-10		09-16-10	
Rating Date		Control		Control		Control		Control		Control	
Rating Data Type		Percent		Percent		Percent		Percent		Percent	
Rating Unit		30 DA-A		18 DA-B		11 DA-D		25 DA-D		EOS	
Rating Timing		10 DA-B		0 DA-C		14 DA-C		28 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		
1	\$22 TO \$24 PROGRAMS									88 de	77 c
1	AUTHORITY FIRST	70	WG	0.141	lb ai/a	3.2	oz/a	PRE	A	88 cd	
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C	83 de	
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C	83 b	
2	\$22 TO \$24 PROGRAMS									85 ef	72 c
2	AUTHORITY MTZ	45	WG	0.31	lb ai/a	11	oz/a	PRE	A	78 e	
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C	81 e	
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C	80 b	
3	\$22 TO \$24 PROGRAMS									89 de	72 c
3	AUTHORITY ASSIST	4	SL	0.156	lb ai/a	5.0	fl oz/a	PRE	A	85 de	
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C	87 cde	
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C	84 b	
4	\$22 TO \$24 PROGRAMS									73 g	3 d
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B	67 f	
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B	50 g	
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST3	D	35 c	
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST3	D	3 d	
5	\$22 TO \$24 PROGRAMS									97 abc	7 d
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B	92 a-d	
5	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST1	B	55 fg	
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST1	B	40 c	
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B	7 d	
6	\$22 TO \$24 PROGRAMS									83 f	3 d
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B	85 de	
6	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	POST1	B	62 f	
6	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST1	B	47 c	
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B	3 d	
7	\$22 TO \$24 PROGRAMS									98 ab	88 b
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B	98 a	
7	PREFIX	5.29	EC	1.32	lb ai/a	2.0	pt/a	POST1	B	98 ab	
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B	98 a	
8	\$34 TO \$36 PROGRAMS									97 abc	94 ab
8	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.4	oz/a	PRE	A	96 ab	
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C	97 ab	
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C	97 a	
9	\$34 TO \$36 PROGRAMS									95 abc	91 ab
9	AUTHORITY FIRST	70	WG	0.14	lb ai/a	3.2	oz/a	PRE	A	93 abc	
9	PROWL H2O	3.8	CS	0.95	lb ai/a	2.0	pt/a	PRE	A	92 a-d	
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C	92 ab	
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C	91 ab	
10	\$34 TO \$36 PROGRAMS									98 abc	92 ab
10	CANOPY	75	WG	0.14	lb ai/a	3.0	oz/a	PRE	A	98 a	
10	PREFIX	5.29	EC	1.32	lb ai/a	2.0	pt/a	PRE	A	98 ab	
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C	98 a	
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C	92 ab	
11	\$34 TO \$36 PROGRAMS									92 cd	90 ab
11	AUTHORITY FIRST	70	WG	0.141	lb ai/a	3.2	oz/a	PRE	A	90 bcd	
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C	99 a	
11	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST2	C	98 a	
11	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST2	C	98 a	
11	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C	89 b	
12	\$34 TO \$36 PROGRAMS									93 bcd	
12	AUTHORITY FIRST	70	WG	0.141	lb ai/a	3.2	oz/a	PRE	A	86 cd	
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C	99 a	
12	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	POST2	C	98 a	
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C	89 b	

Soybean Herbicide Program: Cost-Based Solution.

Trial ID: 10-DSO-Cost

Location: De Soto, IL

Pest Code	AMATA-HR	AMATA-HR	AMATA-HR	AMATA-HR	AMATA-HR
Crop Code	06-07-10	06-15-10	06-29-10	07-13-10	09-16-10
Rating Date	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent
Rating Unit	30 DA-A	18 DA-B	11 DA-D	25 DA-D	
Rating Timing	10 DA-B	0 DA-C	14 DA-C	28 DA-C	
Trt-Eval Interval					EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
13	\$34 TO \$36 PROGRAMS									98 ab	98 a	94 abc	91 ab	90 b
13	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B					
13	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	POST1	B					
13	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	POST1	B					
13	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B					
14	\$34 TO \$36 PROGRAMS									77 g	70 f	93 abc	91 ab	88 b
14	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B					
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B					
14	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST3	D					
14	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST3	D					
14	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST3	D					
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST3	D					
15	\$34 TO \$36 PROGRAMS									97 abc	91 a-d	89 b-e	88 ab	91 ab
15	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B					
15	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST1	B					
15	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST1	B					
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B					
15	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST3	D					
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST3	D					
16	\$34 TO \$36 PROGRAMS									98 ab	98 a	99 a	99 a	96 ab
16	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B					
16	PREFIX	5.29	EC	1.32	lb ai/a	2.0	pt/a	POST1	B					
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B					
16	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST3	D					
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST3	D					
17	\$46 TO \$48 PROGRAMS									97 abc	97 ab	97 ab	97 a	94 ab
17	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.4	oz/a	PRE	A					
17	PROWL H2O	3.8	CS	0.95	lb ai/a	2.0	pt/a	PRE	A					
17	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C					
17	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C					
18	\$46 TO \$48 PROGRAMS									98 ab	98 a	98 a	98 a	95 ab
18	AUTHORITY FIRST	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
18	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A					
18	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C					
18	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C					
19	\$46 TO \$48 PROGRAMS									97 abc	97 ab	99 a	99 a	97 ab
19	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.4	oz/a	PRE	A					
19	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	C					
19	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST2	C					
19	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST2	C					
19	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	C					
20	\$46 TO \$48 PROGRAMS									97 abc	98 a	99 a	99 a	97 ab
20	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	B					
20	PREFIX	5.29	EC	1.32	lb ai/a	2.0	pt/a	POST1	B					
20	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	B					
20	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST3	D					
20	COBRA	2	EC	0.125	lb ai/a	8	fl oz/a	POST3	D					
20	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	POST3	D					
20	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST3	D					
21	NONTREATED									0 h	0 g	0 h	0 d	0 d
22	WEED FREE									99 a	99 a	99 a	99 a	99 a
22	AUTHORITY FIRST	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
22	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	PRE	A					
22	HANDWEED AS NEEDED													

LSD (P=.05)

5.4 7.7 8.8 11.7 9.2

Replicate F

1.392 1.964 1.824 1.502 1.848

Replicate Prob(F)

0.2598 0.1529 0.1739 0.2345 0.1702

Treatment F

123.182 63.377 60.736 43.048 116.034

Treatment Prob(F)

0.0001 0.0001 0.0001 0.0001 0.0001

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

Soybean Herbicide Program: Cost-Based Solution.

Trial ID: 10-DSO-Cost

Location: De Soto, IL

Trial Comments

1. Protocol: SIU-BGY.
2. Ratings: CI/WC prior to C, 14 + 28 da C, and EOS.
3. Yield.
4. AMATA-HR = Herbicide-resistant waterhemp (glyphosate). EOS = End of season.
5. Blanket burndown application of glyphosate (1.12 lbae/A) plus 2,4-D (0.475 lbae/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 9-24-10, (2) 30 inch rows by 26.5 ft.