

Adjuvant Studies, Corn or Soybean

Southern Illinois University

Glyphosate Tank-Mixture Adjuvant Trial in Soybean - United Suppliers.

Trial ID: 12-11B-E80

Location: Belleville Res. Center

Investigator: Bryan Young

General Trial Information

Study Director: Bryan Young
Investigator: Bryan Young **Title:** Professor

Trial Status: F - one-year/final
Initiation Date: 5-29-12

Trial Location

City: Belleville
State/Prov.: IL
Postal Code: 62221
Country: USA

Objectives:

Compare experimental adjuvants for weed control activity and crop response.

Personnel

Study Director: Bryan Young
Investigator: Bryan Young **Title:** Professor
Affiliation: Southern Illinois University
Address: 1205 Lincoln Drive - AG 176 - MC 4415
Location: Carbondale IL
Postal Code: 62901 **E-mail:** bgyoung@siu.edu
Phone No.: 618-453-7679 **Mobile No.:** 618-713-6471

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG3832 **Description:** RR2Y
BCH Scale: BSOY **Planting Date:** 5-29-12
Planting Method: SEEDED Seeded **Rate, Unit:** 75 LB/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN

Pest Description

Pest 1 Type: W **Code:** ZEAMX - Zea mays L.
Common Name: corn, volunteer
Description: RR2/LL

Pest 2 Type: W **Code:** IPOSS
Common Name: morningglory, species
Description: Mixture of IPOHE and IPOLA

Pest 3 Type: W **Code:** ABUTH - Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 4 Type: W **Code:** AMBTR - Ambrosia trifida L.
Common Name: ragweed, giant

Pest 5 Type: W **Code:** SETFA - Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 25 FT
Plot Area, Unit: 250 FT2 **Tillage Type:** REDTIL reduced-till
Replications: 3 **Study Design:** RACOB� Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2011

Maintenance

No.	Maintenance Treatment Name
1.	N 0 LB/A, P205 50 LB/A, K20 100 LB/A

Soil Description

% OM: 1.9 **Texture:** SIL SILT LOAM
pH: 6.8 **Soil Name:** BETHALTO
CEC: 11

Additional Measured Elements

Element	Quantity	Unit
P1	84	LB/A
K	353	LB/A

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Overall Moisture Conditions:	BELNOR below normal	Moisture and Weather Conditions
Closest Weather Station: ICN - Belleville IL	Distance, Unit: 0.5 MI	

		A	Application Description
Application Date:	6-22-12		
Time of Day:	9:00		
Application Method:	Spray		
Application Timing:	3-4"W		
Application Placement:	BROFOL		
Applied By:	LAH		
Air Temperature, Unit:	79 F		
% Relative Humidity:	54		
Wind Velocity, Unit:	5 MPH		
Wind Direction:	N		
Dew Presence (Y/N):	N no		
Soil Temperature, Unit:	76 F		
Soil Moisture:	BELNOR		
% Cloud Cover:	20		
Next Rain Occurred On:	7-8-12		

		A	Crop Stage At Each Application
Crop 1 Code, BBCH Scale:	GLXMA BSOY		
Stage Scale Used:	V2		
Stage Majority, Percent:	V2		
Stage Minimum, Percent:	V2		
Height, Unit:	8 IN		
Height Minimum, Maximum:	5 8		

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Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ZEAMX W DESC
Stage Majority, Percent:	5
Stage Minimum, Percent:	5
Stage Maximum, Percent:	5
Height, Unit:	15 IN
Height Minimum, Maximum:	10 15
Density, Unit:	0.5 FT2
Pest 2 Code, Type, Scale:	IPOSS W DESC
Stage Majority, Percent:	2
Stage Minimum, Percent:	Coty
Stage Maximum, Percent:	8
Height, Unit:	2 IN
Height Minimum, Maximum:	0.5 4
Density, Unit:	5 FT2
Pest 3 Code, Type, Scale:	ABUTH W DESC
Stage Majority, Percent:	3
Stage Minimum, Percent:	Coty
Stage Maximum, Percent:	6
Height, Unit:	3 IN
Height Minimum, Maximum:	0.25 4
Pest 4 Code, Type, Scale:	AMBTR W DESC
Stage Majority, Percent:	4
Stage Minimum, Percent:	4
Stage Maximum, Percent:	8
Height, Unit:	4 IN
Height Minimum, Maximum:	2 6
Density, Unit:	1 FT2
Pest 5 Code, Type, Scale:	SETFA W DESC
Stage Majority, Percent:	3
Stage Minimum, Percent:	2
Stage Maximum, Percent:	5
Height, Unit:	4 IN
Height Minimum, Maximum:	2 6
Density, Unit:	1 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	TT
Nozzle Size:	110015
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	10 GPA

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval							GLXMA 6-29-12 Injury Percent 7 DA-A	GLXMA 7-6-12 Injury Percent 14 DA-A	ZEAMX 6-29-12 Control Percent 7 DA-A	ZEAMX 7-6-12 Control Percent 14 DA-A	ZEAMX 7-20-12 Control Percent 28 DA-A				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	ROUNDUP POWERMAX SELECT MAX AMS CHEMSURF 80	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 2	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	0 d	0 b	60 b	86 ab	77 b
2	ROUNDUP POWERMAX SELECT MAX AMS USIEX2442012	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 2	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	0 d	0 b	63 ab	88 a	83 ab
3	ROUNDUP POWERMAX SELECT MAX AMS USIEX2652012	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 2	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	0 d	0 b	62 ab	85 b	82 ab
4	ROUNDUP POWERMAX SELECT MAX AMS USIEX2882012	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 2	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	0 d	0 b	59 b	88 a	79 b
5	ROUNDUP POWERMAX SELECT MAX AMS USIEX2142012	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 2	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	0 d	0 b	57 b	86 ab	84 ab
6	ROUNDUP POWERMAX SELECT MAX AMS BETWEEN	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.5	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 4	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	0 d	0 b	63 ab	85 b	84 ab
7	ROUNDUP POWERMAX SELECT MAX AMS	4.5 0.97 100	SL EC SG	0.457 0.0455 1.02	lb ae/a lb ai/a % w/w	13 6 8.5	fl oz/a fl oz/a lb/100 gal	3-4" 3-4" 3-4"	W W W	A A A	0 d	0 b	63 ab	88 a	87 a
8	NONTREATED										0 d	0 b	0 e	0 g	0 d
9	FLEXSTAR GT 3.5 CLETHODIM AMS CHEMSURF 80	2.82 2 100 100	SL EC SG SL	0.617 0.047 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	1.75 3 8.5 2	pt/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	5 c	4 a	22 d	20 e	0 d
10	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2442012	2.82 2 100 100	SL EC SG SL	0.617 0.047 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	1.75 3 8.5 2	pt/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	6 bc	3 a	26 d	22 e	0 d
11	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2652012	2.82 2 100 100	SL EC SG SL	0.617 0.047 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	1.75 3 8.5 2	pt/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	7 ab	4 a	23 d	24 d	0 d
12	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2882012	2.82 2 100 100	SL EC SG SL	0.617 0.047 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	1.75 3 8.5 2	pt/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	5 c	0 b	20 d	17 f	0 d
13	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2142012	2.82 2 100 100	SL EC SG SL	0.617 0.047 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	1.75 3 8.5 2	pt/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	W W W W	A A A A	5 c	3 a	40 c	20 e	0 d

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.

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Pest Code										GLXMA	GLXMA	ZEAMX	ZEAMX	ZEAMX
Crop Code										6-29-12	7-6-12	6-29-12	7-6-12	7-20-12
Rating Date										Injury	Injury	Control	Control	Control
Rating Type										Percent	Percent	Percent	Percent	Percent
Rating Unit														
Rating Timing														
Trt-Eval Interval										7 DA-A	14 DA-A	7 DA-A	14 DA-A	28 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Unit	Growth Stage	Appl Code					
14	FLEXSTAR GT 3.5	2.82	SL	0.617	lb ae/a	1.75	pt/a	3-4"	W A	8 a	3 a	72 a	70 c	40 c
	CLETHODIM	2	EC	0.047	lb ai/a		3 fl oz/a	3-4"	W A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	3-4"	W A					
	BETWEEN	100	SL	0.5	% v/v	4	pt/100 gal	3-4"	W A					
15	FLEXSTAR GT 3.5	2.82	SL	0.617	lb ae/a	1.75	pt/a	3-4"	W A	5 c	1 b	22 d	22 e	0 d
	CLETHODIM	2	EC	0.047	lb ai/a		3 fl oz/a	3-4"	W A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	3-4"	W A					
16	NONTREATED									0 d	0 b	0 e	0 g	0 d
LSD (P=.05)										1.5	1.6	12.2	2.4	7.3
Standard Deviation										0.9	0.9	7.3	1.5	4.4
CV										35.08	81.18	17.96	2.92	11.41
Replicate F										0.175	1.180	0.019	0.303	5.874
Replicate Prob(F)										0.8405	0.3212	0.9812	0.7412	0.0070
Treatment F										35.952	9.552	33.353	1871.425	262.740
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001

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Investigator: Bryan Young

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval							IPOSS	IPOSS	IPOSS	ABUTH	ABUTH	ABUTH
							6-29-12 Control Percent	7-6-12 Control Percent	7-20-12 Control Percent	6-29-12 Control Percent	7-6-12 Control Percent	7-20-12 Control Percent
							7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Unit	Growth Stage	Appl Code				
1	ROUNDUP POWERMAX SELECT MAX AMS CHEMSURF 80	4.5 0.97 100 100	SL EC SG SL	0.457 lb ae/a 0.0455 lb ai/a 1.02 % w/w 0.25 % v/v	13 fl oz/a 6 fl oz/a 8.5 lb/100 gal 2 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	60 ef	78 bcd	86 ab	66 g 90 a-d 93 abc
2	ROUNDUP POWERMAX SELECT MAX AMS USIEX2442012	4.5 0.97 100 100	SL EC SG SL	0.457 lb ae/a 0.0455 lb ai/a 1.02 % w/w 0.25 % v/v	13 fl oz/a 6 fl oz/a 8.5 lb/100 gal 2 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	62 ef	72 def	83 ab	75 ef 87 cd 88 c
3	ROUNDUP POWERMAX SELECT MAX AMS USIEX2652012	4.5 0.97 100 100	SL EC SG SL	0.457 lb ae/a 0.0455 lb ai/a 1.02 % w/w 0.25 % v/v	13 fl oz/a 6 fl oz/a 8.5 lb/100 gal 2 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	63 e	76 b-e	84 ab	72 fg 87 bcd 92 abc
4	ROUNDUP POWERMAX SELECT MAX AMS USIEX2882012	4.5 0.97 100 100	SL EC SG SL	0.457 lb ae/a 0.0455 lb ai/a 1.02 % w/w 0.25 % v/v	13 fl oz/a 6 fl oz/a 8.5 lb/100 gal 2 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	65 de	78 bcd	87 ab	73 ef 88 a-d 90 bc
5	ROUNDUP POWERMAX SELECT MAX AMS USIEX2142012	4.5 0.97 100 100	SL EC SG SL	0.457 lb ae/a 0.0455 lb ai/a 1.02 % w/w 0.25 % v/v	13 fl oz/a 6 fl oz/a 8.5 lb/100 gal 2 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	60 ef	70 ef	86 ab	65 g 85 d 94 abc
6	ROUNDUP POWERMAX SELECT MAX AMS BETWEEN	4.5 0.97 100 100	SL EC SG SL	0.457 lb ae/a 0.0455 lb ai/a 1.02 % w/w 0.5 % v/v	13 fl oz/a 6 fl oz/a 8.5 lb/100 gal 4 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	62 ef	72 def	81 b	77 def 87 bcd 92 abc
7	ROUNDUP POWERMAX SELECT MAX AMS	4.5 0.97 100	SL EC SG	0.457 lb ae/a 0.0455 lb ai/a 1.02 % w/w	13 fl oz/a 6 fl oz/a 8.5 lb/100 gal	ae/a ai/a w/w	3-4"W 3-4"W 3-4"W	A A A	57 f	68 f	82 b	72 fg 89 a-d 92 abc
8	NONTREATED								0 g	0 g	0 c	0 h 0 e 0 d
9	FLEXSTAR GT 3.5 CLETHODIM AMS CHEMSURF 80	2.82 2 100 100	SL EC SG SL	0.617 lb ae/a 0.047 lb ai/a 1.02 % w/w 0.25 % v/v	1.75 pt/a 3 fl oz/a 8.5 lb/100 gal 2 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	72 bc	74 c-f	87 ab	86 bc 93 abc 95 ab
10	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2442012	2.82 2 100 100	SL EC SG SL	0.617 lb ae/a 0.047 lb ai/a 1.02 % w/w 0.25 % v/v	1.75 pt/a 3 fl oz/a 8.5 lb/100 gal 2 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	73 bc	80 abc	91 a	88 ab 90 a-d 96 a
11	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2652012	2.82 2 100 100	SL EC SG SL	0.617 lb ae/a 0.047 lb ai/a 1.02 % w/w 0.25 % v/v	1.75 pt/a 3 fl oz/a 8.5 lb/100 gal 2 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	77 b	81 ab	87 ab	87 b 94 ab 97 a
12	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2882012	2.82 2 100 100	SL EC SG SL	0.617 lb ae/a 0.047 lb ai/a 1.02 % w/w 0.25 % v/v	1.75 pt/a 3 fl oz/a 8.5 lb/100 gal 2 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	71 bcd	76 b-e	83 ab	80 cde 93 abc 94 abc
13	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2142012	2.82 2 100 100	SL EC SG SL	0.617 lb ae/a 0.047 lb ai/a 1.02 % w/w 0.25 % v/v	1.75 pt/a 3 fl oz/a 8.5 lb/100 gal 2 pt/100 gal	ae/a ai/a w/w v/v	3-4"W 3-4"W 3-4"W 3-4"W	A A A A	70 cd	77 b-e	88 ab	90 ab 94 abc 98 a

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Investigator: Bryan Young

Pest Code							IPOSS	IPOSS	IPOSS	ABUTH	ABUTH	ABUTH
Crop Code							6-29-12	7-6-12	7-20-12	6-29-12	7-6-12	7-20-12
Rating Date							Control	Control	Control	Control	Control	Control
Rating Type							Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit							7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A
Rating Timing												
Trt-Eval Interval												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code		
14	FLEXSTAR GT 3.5	2.82	SL	0.617	lb ae/a	1.75	pt/a		3-4"	W	A	83 a
	CLETHODIM	2	EC	0.047	lb ai/a	3	fl oz/a		3-4"	W	A	
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal		3-4"	W	A	
	BETWEEN	100	SL	0.5	% v/v	4	pt/100 gal		3-4"	W	A	94 abc
15	FLEXSTAR GT 3.5	2.82	SL	0.617	lb ae/a	1.75	pt/a		3-4"	W	A	73 bc
	CLETHODIM	2	EC	0.047	lb ai/a	3	fl oz/a		3-4"	W	A	72 def
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal		3-4"	W	A	85 ab
												83 bcd
												91 a-d
												96 a
16	NONTREATED											0 g
												0 g
												0 c
												0 h
												0 e
												0 d
	LSD (P=.05)											6.3
	Standard Deviation											6.7
	CV											3.8
												4.0
												4.7
												6.33
												6.04
												5.63
												4.5
	Replicate F											0.508
	Replicate Prob(F)											2.575
												3.051
												0.476
												0.117
												1.947
												0.6068
												0.0929
												0.0622
												0.6258
												0.8900
												0.1609
												122.640
												128.773
												115.184
												138.338
												145.630
												226.621
												0.0001
												0.0001
												0.0001
												0.0001

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval								AMBTR	AMBTR	AMBTR	SETFA	SETFA	SETFA		
								6-29-12 Control Percent	7-6-12 Control Percent	7-20-12 Control Percent	6-29-12 Control Percent	7-6-12 Control Percent	7-20-12 Control Percent		
								7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Unit	Growth Stage	Appl Code						
1	ROUNDUP POWERMAX SELECT MAX AMS CHEMSURF 80	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 2	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	94 abc	90 cd	96 ab	99 a	99 a	99 a
2	ROUNDUP POWERMAX SELECT MAX AMS USIEX2442012	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 2	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	94 abc	92 bcd	96 ab	99 a	99 a	99 a
3	ROUNDUP POWERMAX SELECT MAX AMS USIEX2652012	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 2	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	97 a	99 a	99 a	99 a	99 a	99 a
4	ROUNDUP POWERMAX SELECT MAX AMS USIEX2882012	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 2	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	96 a	99 a	99 a	98 a	99 a	98 b
5	ROUNDUP POWERMAX SELECT MAX AMS USIEX2142012	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 2	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	86 cde	95 a-d	97 ab	99 a	99 a	99 a
6	ROUNDUP POWERMAX SELECT MAX AMS BETWEEN	4.5 0.97 100 100	SL EC SG SL	0.457 0.0455 1.02 0.5	lb ae/a lb ai/a % w/w % v/v	13 6 8.5 4	fl oz/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	95 a	96 abc	98 a	99 a	99 a	99 a
7	ROUNDUP POWERMAX SELECT MAX AMS	4.5 0.97 100	SL EC SG	0.457 0.0455 1.02	lb ae/a lb ai/a % w/w	13 6 8.5	fl oz/a fl oz/a lb/100 gal	3-4" 3-4" 3-4"	A A A	95 ab	96 abc	98 ab	99 a	99 a	99 a
8	NONTREATED									0 g	0 e	0 c	0 c	0 c	0 c
9	FLEXSTAR GT 3.5 CLETHODIM AMS CHEMSURF 80	2.82 2 100 100	SL EC SG SL	0.617 0.047 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	1.75 3 8.5 2	pt/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	82 def	89 d	93 b	99 a	98 b	99 a
10	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2442012	2.82 2 100 100	SL EC SG SL	0.617 0.047 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	1.75 3 8.5 2	pt/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	89 a-d	95 a-d	96 ab	99 a	99 a	99 a
11	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2652012	2.82 2 100 100	SL EC SG SL	0.617 0.047 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	1.75 3 8.5 2	pt/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	80 ef	93 a-d	96 ab	99 a	99 a	99 a
12	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2882012	2.82 2 100 100	SL EC SG SL	0.617 0.047 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	1.75 3 8.5 2	pt/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	80 ef	91 bcd	95 ab	99 a	99 a	99 a
13	FLEXSTAR GT 3.5 CLETHODIM AMS USIEX2142012	2.82 2 100 100	SL EC SG SL	0.617 0.047 1.02 0.25	lb ae/a lb ai/a % w/w % v/v	1.75 3 8.5 2	pt/a fl oz/a lb/100 gal pt/100 gal	3-4" 3-4" 3-4" 3-4"	A A A A	77 f	90 cd	96 ab	98 a	99 a	99 a

Southern Illinois University

Glyphosate Tank-Mixture Adjuvant Trial in Soybean - United Suppliers.

Trial ID: 12-11B-E80

Location: Belleville Res. Center

Investigator: Bryan Young

Pest Code							AMBTR	AMBTR	AMBTR	SETFA	SETFA	SETFA
Crop Code							6-29-12	7-6-12	7-20-12	6-29-12	7-6-12	7-20-12
Rating Date							Control	Control	Control	Control	Control	Control
Rating Type							Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit							7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A
Rating Timing												
Trt-Eval Interval												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Unit	Growth Stage	Appl Code			
14	FLEXSTAR GT 3.5	2.82	SL	0.617 lb ae/a		1.75 pt/a		3-4"W	A	91 abc	96 ab	95 ab
	CLETHODIM	2	EC	0.047 lb ai/a		3 fl oz/a		3-4"W	A			
	AMS	100	SG	1.02 % w/w		8.5 lb/100 gal		3-4"W	A			
	BETWEEN	100	SL	0.5 % v/v		4 pt/100 gal		3-4"W	A			
15	FLEXSTAR GT 3.5	2.82	SL	0.617 lb ae/a		1.75 pt/a		3-4"W	A	86 b-e	91 bcd	95 ab
	CLETHODIM	2	EC	0.047 lb ai/a		3 fl oz/a		3-4"W	A			
	AMS	100	SG	1.02 % w/w		8.5 lb/100 gal		3-4"W	A			
16	NONTREATED									0 g	0 e	0 c
	LSD (P=.05)									8.6	6.1	5.0
	Standard Deviation									5.1	3.6	3.0
	CV									6.56	4.41	3.55
	Replicate F									1.355	1.229	0.362
	Replicate Prob(F)									0.2764	0.3097	0.6996
	Treatment F									110.713	237.490	363.781
	Treatment Prob(F)									0.0001	0.0001	0.0001
												8419.782
												41125.606
												41125.606

Glyphosate Tank-Mixture Adjuvant Trial in Soybean - United Suppliers.

Trial ID: 12-11B-E80

Location: Belleville Res. Center

Investigator: Bryan Young

Trial Comments

1. Protocol: United Suppliers.
2. Ratings: CI/WC at 7, 14, and 28 DAT.
3. Plant volunteer corn (DKC 61-06 RR2/LL) split rows in planter.
4. Rainfall following the 3-4"W application was 0.28 inch 16 days later, and 0.15 inch 37 days later.
5. Missing data for some weeds in some plots was due to low populations.
6. IPOSS = Morningglory species including IPOHE (ivyleaf morningglory) and IPOLA (pitted morningglory).
7. Not harvested.