General Soybean Programs.

Trial ID: 13-COL-SOYprog Location: Collinsville, IL Trial Year: 2013
Investigator: Bryan Young

Trial Status: F one-year/final
Initiation Date: 6-5-13
Completion Date: 10-10-13

Trial Location

City: Collinsville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62234

Objectives:
Evalaute herbicide programs for Palmer amaranth control in soybean.

Contacts

Study Director: Bryan Young **Title:** Professor
Organization: Southern Illinois University
Address: 1205 Lincoln Drive - AG 176 - MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale IL **Mobile No.:** 618-713-6471
Postal Code: 62901 **E-mail:** bgyoung@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG3832 **BBCH Scale:** BSOY
Description: RR2Y
Planting Date: 6-5-13
Planting Rate, Unit: 145000 S/A **Planting Method:** SEEDED
Depth, Unit: 1.25 IN
Row Spacing, Unit: 30 IN

Pest Description

Pest 1 Type: W **Code:** AMAPA Amaranthus palmeri S.Wats.
Common Name: amaranth, Palmer
Description: glyphosate-resistant Palmer amaranth

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: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2012

Maintenance

No.	Maintenance Product Name
1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

% Sand: 5.26 **% OM:** 1.95 **Texture:** SIL silt loam
% Silt: 84.13 **pH:** 5.7 **Soil Name:** Worthen/Littleton
% Clay: 10.61 **CEC:** 11.77

Additional Measured Elements

Element	Quantity	Unit
P1	88	lb/A
K	338	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: ABONOR
Closest Weather Station: On-site Watch Dog Station **Distance, Unit:** 0.25 MI

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No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	6-2-13					7	DAY	50	80	F
2.	6-4-13	0.24	IN	RAIN	rain					
3.	6-5-13	0.04	IN	RAIN	rain					
4.	6-7-13	0.06	IN	RAIN	rain					
5.	6-9-13					7	DAY	59	94	F
6.	6-9-13	0.17	IN	RAIN	rain	2	DAY			
7.	6-16-13					7	DAY	61	90	F
8.	6-17-13	2.35	IN	RAIN	rain	3	DAY			
9.	6-23-13					7	DAY	64	92	F
10.	6-23-13	3.31	IN	RAIN	rain	2	DAY			
11.	6-26-13	0.67	IN	RAIN	rain	1	DAY			
12.	6-30-13	0.53	IN	RAIN	rain	2	DAY			
13.	6-30-13					7	DAY	61	86	F
14.	7-2-13	1.42	IN	RAIN	rain	2	DAY			
15.	7-6-13	0.92	IN	RAIN	rain	1	DAY			
16.	7-7-13					7	DAY	62	94	F
17.	7-10-13	0.14	IN	RAIN	rain	1	DAY			
18.	7-14-13					7	DAY	64	94	F
19.	7-19-13	0.03	IN	RAIN	rain	1	DAY			
20.	7-21-13	0.47	IN	RAIN	rain	2	DAY			
21.	7-21-13					7	DAY	56	91	F
22.	7-26-13	0.03	IN	RAIN	rain	1	DAY			
23.	7-30-13	0.5	IN	RAIN	rain	2	DAY			

Application Description

	A	B	C	D
Application Date:	6-5-13	6-25-13	7-4-13	7-20-13
Appl. Start Time:	17:00	7:05	17:00	11:00
Appl. Stop Time:	17:50	7:20	17:15	11:30
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	V2-V3	POST1	POST2
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	EJM	LXF	RJW	RJW
Air Temperature, Unit:	84 F	80 F	80 F	90 F
% Relative Humidity:	43	80	81	59
Wind Velocity, Unit:	3 MPH	5 MPH	6 MPH	4 MPH
Wind Direction:	E	S	E	W
Dew Presence (Y/N):	N	N	N	N
Soil Temperature, Unit:	75 F	76 F	78 F	86 F
Soil Moisture:	NORMAL	ABONOR	NORMAL	BELNOR
% Cloud Cover:	60	10	25	40
Next Moisture Occurred On:	6-5-13	6-26-13	7-6-13	7-21-13
Time to Next Moisture, Unit:	3 HR	24 HR	2 DAY	30 HR

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	V2	V5	R2
Stage Minimum, Percent:		V2	V4	R2
Stage Maximum, Percent:		V3	V5	R2
Height, Unit:		10 IN	12 IN	28 IN
Height Minimum, Maximum:		8 12	10 12	24 28

General Soybean Programs.

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Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Stage Majority, Percent:	NA	2	4	50+
Stage Minimum, Percent:		COTY	COTY	20
Stage Maximum, Percent:		8	6	50+
Height, Unit:		0.3 IN	2 IN	30 IN
Height Minimum, Maximum:		0.1 2	0.25 3	20 36
Density, Unit:		0.03 FT2	0.1 FT2	0.01 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

General Soybean Programs.

Trial ID: 13-COL-SOYprog Location: Collinsville, IL Trial Year: 2013
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
	Pest Code									
	Crop Code									GLXMA
	Rating Date									10-10-13
	Rating Type									Yield
	Rating Unit									bu/A
	Rating Timing									
	Trt-Eval Interval									Estimated
1	NONTREATED									33 c
2	BOUNDARY	6.5	EC	1.42	lb ai/a	1.75	pt/a	PRE	A	55 ab
	FLEXSTAR GT 3.5	2.82	SL	1.41	lb ae/a	4	pt/a	POST1	C	
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
3	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	59 ab
	SEQUENCE	5.25	SL	1.97	lb ae/a	3	pt/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
4	BOUNDARY	6.5	EC	1.42	lb ai/a	1.75	pt/a	PRE	A	71 ab
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	POST1	C	
	TOUCHDOWN TOTAL	4.17	SL	0.78	lb ae/a	24	fl oz/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
5	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	52 b
	WARRANT	3	CS	0.94	lb ai/a	1.25	qt/a	POST1	C	
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
6	VALOR XLT	40.3	WG	0.101	lb ai/a	4	oz/a	PRE	A	65 ab
	WARRANT	3	CS	0.94	lb ai/a	1.25	qt/a	POST1	C	
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
7	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A	65 ab
	SEQUENCE	5.25	SL	1.64	lb ae/a	2.5	pt/a	V2-V3	B	
	FLEXSTAR GT 3.5	2.82	SL	1.41	lb ae/a	4	pt/a	POST2	D	
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	POST2	D	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D	
8	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	73 a
	ZIDUA	85	WG	0.106	lb ai/a	2	oz/a	PRE	A	
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	D	
	ULTRA BLAZER 2 EC	2	EC	0.375	lb ai/a	24	fl oz/a	POST2	D	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D	
9	ENVIVE	41.3	WG	0.09	lb ai/a	3.5	oz/a	PRE	A	68 ab
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A	
	ABUNDIT EXTRA	3	SL	0.75	lb ae/a	32	fl oz/a	POST2	D	
	ULTRA BLAZER 2 EC	2	EC	0.375	lb ai/a	24	fl oz/a	POST2	D	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D	
10	AUTHORITY ELITE	7	SC	1.75	lb ai/a	32	fl oz/a	PRE	A	67 ab
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C	
	ANTHEM	2.15	SE	0.151	lb ai/a	9	fl oz/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
11	AUTHORITY FIRST	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	66 ab
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C	
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	POST1	C	
	FLEXSTAR	1.88	EC	0.353	lb ai/a	24	fl oz/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
12	FIERCE	76	WG	0.178	lb ai/a	3.75	oz/a	PRE	A	66 ab
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C	
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	POST1	C	
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	POST1	C	
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	

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.

General Soybean Programs.

Trial ID: 13-COL-SOYprog Location: Collinsville, IL Trial Year: 2013
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
	Pest Code									
	Crop Code									GLXMA
	Rating Date									10-10-13
	Rating Type									Yield
	Rating Unit									bu/A
	Rating Timing									
	Trt-Eval Interval									Estimated
13	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	67 ab
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	POST2	D	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D	
	LSD (P=.05)									19.0
	Standard Deviation									11.3
	CV									18.15
	Replicate F									11.302
	Replicate Prob(F)									0.0003
	Treatment F									2.660
	Treatment Prob(F)									0.0199

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Trial ID: 13-COL-SOYprog Location: Collinsville, IL Trial Year: 2013
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 6-19-13 Injury Percent 14 DA-A	GLXMA 7-3-13 Injury Percent 28 DA-A	GLXMA 7-18-13 Injury Percent -2 DA-D 14 DA-C	GLXMA 8-1-13 Injury Percent 12 DA-D 28 DA-C	GLXMA 8-15-13 Injury Percent 26 DA-D 42 DA-C	GLXMA 8-31-13 Injury Percent 42 DA-D
1	NONTREATED									0 h	0 f	0 d	0 f	0 c	0 a
2	BOUNDARY	6.5	EC	1.42	lb ai/a	1.75	pt/a	PRE	A	2 gh	0 f	5 bc	2 ef	0 c	0 a
	FLEXSTAR GT 3.5	2.82	SL	1.41	lb ae/a	4	pt/a	POST1	C						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	POST1	C						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C						
3	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	0 h	0 f	5 bc	3 def	2 c	0 a
	SEQUENCE	5.25	SL	1.97	lb ae/a	3	pt/a	POST1	C						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C						
4	BOUNDARY	6.5	EC	1.42	lb ai/a	1.75	pt/a	PRE	A	3 gh	2 ef	7 b	3 def	2 bc	0 a
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	POST1	C						
	TOUCHDOWN TOTAL	4.17	SL	0.78	lb ae/a	24	fl oz/a	POST1	C						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C						
5	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	12 ef	7 cde	3 cd	0 f	0 c	0 a
	WARRANT	3	CS	0.94	lb ai/a	1.25	qt/a	POST1	C						
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C						
6	VALOR XLT	40.3	WG	0.101	lb ai/a	4	oz/a	PRE	A	23 bc	15 a	7 b	6 cd	1 c	0 a
	WARRANT	3	CS	0.94	lb ai/a	1.25	qt/a	POST1	C						
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C						
7	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A	7 fg	3 def	0 d	9 bc	7 a	0 a
	SEQUENCE	5.25	SL	1.64	lb ae/a	2.5	pt/a	V2-V3	B						
	FLEXSTAR GT 3.5	2.82	SL	1.41	lb ae/a	4	pt/a	POST2	D						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	POST2	D						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D						
8	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	23 bc	8 bcd	0 d	10 b	9 a	0 a
	ZIDUA	85	WG	0.106	lb ai/a	2	oz/a	PRE	A						
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	D						
	ULTRA BLAZER 2 EC	2	EC	0.375	lb ai/a	24	fl oz/a	POST2	D						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D						
9	ENVIVE	41.3	WG	0.09	lb ai/a	3.5	oz/a	PRE	A	28 ab	14 a	2 d	10 b	8 a	0 a
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A						
	ABUNDIT EXTRA	3	SL	0.75	lb ae/a	32	fl oz/a	POST2	D						
	ULTRA BLAZER 2 EC	2	EC	0.375	lb ai/a	24	fl oz/a	POST2	D						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D						
10	AUTHORITY ELITE	7	SC	1.75	lb ai/a	32	fl oz/a	PRE	A	13 de	6 de	6 bc	4 de	0 c	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C						
	ANTHEM	2.15	SE	0.151	lb ai/a	9	fl oz/a	POST1	C						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C						
11	AUTHORITY FIRST	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	18 cd	13 ab	6 b	4 de	1 c	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C						
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	POST1	C						
	FLEXSTAR	1.88	EC	0.353	lb ai/a	24	fl oz/a	POST1	C						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C						
12	FIERCE	76	WG	0.178	lb ai/a	3.75	oz/a	PRE	A	30 a	12 abc	22 a	18 a	6 ab	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C						
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	POST1	C						
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	POST1	C						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	POST1	C						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C						

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 6-19-13 Injury Percent 14 DA-A	GLXMA 7-3-13 Injury Percent 28 DA-A	GLXMA 7-18-13 Injury Percent -2 DA-D 14 DA-C	GLXMA 8-1-13 Injury Percent 12 DA-D 28 DA-C	GLXMA 8-15-13 Injury Percent 26 DA-D 42 DA-C	GLXMA 8-31-13 Injury Percent 42 DA-D
13	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	22 c	12 abc	2 d	1 ef	0 c	0 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	POST2	D						
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D						
LSD (P=.05)										5.0	5.4	3.1	3.6	3.8	0.0
Standard Deviation										3.0	3.2	1.9	2.1	2.3	0.0
CV										21.47	45.24	37.47	38.38	81.38	0.0
Replicate F										2.694	0.282	1.574	0.435	2.241	0.000
Replicate Prob(F)										0.0880	0.7566	0.2279	0.6521	0.1281	1.0000
Treatment F										39.495	9.678	28.615	18.028	6.994	0.000
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	1.0000

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMAPA-HR 6-19-13 Control Percent 14 DA-A	AMAPA-HR 7-3-13 Control Percent 28 DA-A	AMAPA-HR 7-18-13 Control Percent -2 DA-D 14 DA-C	AMAPA-HR 8-1-13 Control Percent 12 DA-D 28 DA-C	AMAPA-HR 8-15-13 Control Percent 26 DA-D 42 DA-C
1	NONTREATED									0 c	0 d	0 d	0 d	0 d
2	BOUNDARY	6.5	EC	1.42	lb ai/a	1.75	pt/a	PRE	A	99 a	96 b	99 a	99 a	99 a
	FLEXSTAR GT 3.5	2.82	SL	1.41	lb ae/a	4	pt/a	POST1	C					
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	POST1	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C					
3	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	99 a	97 ab	97 ab	96 a	96 a
	SEQUENCE	5.25	SL	1.97	lb ae/a	3	pt/a	POST1	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C					
4	BOUNDARY	6.5	EC	1.42	lb ai/a	1.75	pt/a	PRE	A	98 a	96 b	98 a	98 a	98 a
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	POST1	C					
	TOUCHDOWN TOTAL	4.17	SL	0.78	lb ae/a	24	fl oz/a	POST1	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C					
5	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	89 b	75 c	75 c	58 c	48 c
	WARRANT	3	CS	0.94	lb ai/a	1.25	qt/a	POST1	C					
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C					
6	VALOR XLT	40.3	WG	0.101	lb ai/a	4	oz/a	PRE	A	99 a	97 ab	97 ab	96 a	94 a
	WARRANT	3	CS	0.94	lb ai/a	1.25	qt/a	POST1	C					
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C					
7	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A	99 a	97 ab	97 ab	97 a	97 a
	SEQUENCE	5.25	SL	1.64	lb ae/a	2.5	pt/a	V2-V3	B					
	FLEXSTAR GT 3.5	2.82	SL	1.41	lb ae/a	4	pt/a	POST2	D					
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	POST2	D					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D					
8	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	99 a	97 ab	97 ab	97 a	97 a
	ZIDUA	85	WG	0.106	lb ai/a	2	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	D					
	ULTRA BLAZER 2 EC	2	EC	0.375	lb ai/a	24	fl oz/a	POST2	D					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D					
9	ENVIVE	41.3	WG	0.09	lb ai/a	3.5	oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A					
	ABUNDIT EXTRA	3	SL	0.75	lb ae/a	32	fl oz/a	POST2	D					
	ULTRA BLAZER 2 EC	2	EC	0.375	lb ai/a	24	fl oz/a	POST2	D					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D					
10	AUTHORITY ELITE	7	SC	1.75	lb ai/a	32	fl oz/a	PRE	A	99 a	97 ab	99 a	98 a	98 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C					
	ANTHEM	2.15	SE	0.151	lb ai/a	9	fl oz/a	POST1	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C					
11	AUTHORITY FIRST	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	99 a	96 b	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	POST1	C					
	FLEXSTAR	1.88	EC	0.353	lb ai/a	24	fl oz/a	POST1	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C					
12	FIERCE	76	WG	0.178	lb ai/a	3.75	oz/a	PRE	A	99 a	98 ab	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C					
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	POST1	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	POST1	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	POST1	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C					

General Soybean Programs.

Trial ID: 13-COL-SOYprog Location: Collinsville, IL Trial Year: 2013
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR
Pest Code										AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR
Crop Code														
Rating Date										6-19-13	7-3-13	7-18-13	8-1-13	8-15-13
Rating Type										Control	Control	Control	Control	Control
Rating Unit										Percent	Percent	Percent	Percent	Percent
Rating Timing												-2 DA-D	12 DA-D	26 DA-D
Trt-Eval Interval										14 DA-A	28 DA-A	14 DA-C	28 DA-C	42 DA-C
13	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	99 a	96 b	95 b	87 b	85 b
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	POST2	D					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D					
LSD (P=.05)										1.9	2.7	2.7	8.9	8.8
Standard Deviation										1.1	1.6	1.6	5.3	5.2
CV										1.25	1.81	1.79	6.11	6.11
Replicate F										1.520	0.163	1.144	1.746	2.074
Replicate Prob(F)										0.2390	0.8508	0.3354	0.1960	0.1477
Treatment F										1749.210	873.217	894.569	85.954	93.811
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001

General Soybean Programs.

Trial ID: 13-COL-SOYprog Location: Collinsville, IL Trial Year: 2013
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
	Pest Code									AMAPA-HR
	Crop Code									
	Rating Date									8-31-13
	Rating Type									Control
	Rating Unit									Percent
	Rating Timing									
	Trt-Eval Interval									42 DA-D
1	NONTREATED									0 d
2	BOUNDARY	6.5	EC	1.42	lb ai/a	1.75	pt/a	PRE	A	99 a
	FLEXSTAR GT 3.5	2.82	SL	1.41	lb ae/a	4	pt/a	POST1	C	
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
3	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	96 ab
	SEQUENCE	5.25	SL	1.97	lb ae/a	3	pt/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
4	BOUNDARY	6.5	EC	1.42	lb ai/a	1.75	pt/a	PRE	A	98 a
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	POST1	C	
	TOUCHDOWN TOTAL	4.17	SL	0.78	lb ae/a	24	fl oz/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
5	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	52 c
	WARRANT	3	CS	0.94	lb ai/a	1.25	qt/a	POST1	C	
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
6	VALOR XLT	40.3	WG	0.101	lb ai/a	4	oz/a	PRE	A	94 ab
	WARRANT	3	CS	0.94	lb ai/a	1.25	qt/a	POST1	C	
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
7	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A	97 a
	SEQUENCE	5.25	SL	1.64	lb ae/a	2.5	pt/a	V2-V3	B	
	FLEXSTAR GT 3.5	2.82	SL	1.41	lb ae/a	4	pt/a	POST2	D	
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	POST2	D	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D	
8	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	97 a
	ZIDUA	85	WG	0.106	lb ai/a	2	oz/a	PRE	A	
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST2	D	
	ULTRA BLAZER 2 EC	2	EC	0.375	lb ai/a	24	fl oz/a	POST2	D	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D	
9	ENVIVE	41.3	WG	0.09	lb ai/a	3.5	oz/a	PRE	A	98 a
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A	
	ABUNDIT EXTRA	3	SL	0.75	lb ae/a	32	fl oz/a	POST2	D	
	ULTRA BLAZER 2 EC	2	EC	0.375	lb ai/a	24	fl oz/a	POST2	D	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D	
10	AUTHORITY ELITE	7	SC	1.75	lb ai/a	32	fl oz/a	PRE	A	97 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C	
	ANTHEM	2.15	SE	0.151	lb ai/a	9	fl oz/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
11	AUTHORITY FIRST	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C	
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	POST1	C	
	FLEXSTAR	1.88	EC	0.353	lb ai/a	24	fl oz/a	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	
12	FIERCE	76	WG	0.178	lb ai/a	3.75	oz/a	PRE	A	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	POST1	C	
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	POST1	C	
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	POST1	C	
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	POST1	C	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST1	C	

General Soybean Programs.

Trial ID: 13-COL-SOYprog Location: Collinsville, IL Trial Year: 2013
Investigator: Bryan Young

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMAPA-HR
	Pest Code									AMAPA-HR
	Crop Code									
	Rating Date									8-31-13
	Rating Type									Control
	Rating Unit									Percent
	Rating Timing									
	Trt-Eval Interval									42 DA-D
13	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	87 b
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	POST2	D	
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST2	D	
	LSD (P=.05)									9.1
	Standard Deviation									5.4
	CV									6.31
	Replicate F									1.386
	Replicate Prob(F)									0.2695
	Treatment F									84.900
	Treatment Prob(F)									0.0001

Southern Illinois University

General Soybean Programs.

Trial ID: 13-COL-SOYprog Location: Collinsville, IL Trial Year: 2013
Investigator: Bryan Young

Trial Comments

1. Protocol: Syngenta, SIU.
2. Ratings: CI\WC 14 DA-A; 28 DA-A or at C, 14, 28, and 42 DA-C.
3. Estimate yield using harvest index values.
4. Weed size at POST1 application varied by treatment with treatment 5 having larger weeds (up to 20 leaves and 10 inch tall).
   The POST2 application was delayed to allow for new weed emergence, with few new emerged weeds at application, the few weeds present at application were large.
5. Rainfall following the PRE application was 0.27 inch within 4 days, then 2.35 inch 12 days after the PRE.
   Following the V2-V3 application the first rainfall event, beginning 1 day later, was 0.67 inch over 1 day.
   Following the POST1 application the first rainfall event, beginning 2 days later, was 0.92 inch over 1 day.
6. AMAPA-HR = Herbicide-resistant Palmer amaranth (glyphosate).
7. Yield estimations, per plot, on 10-10-13 were based on plant counts in 2 meters of row, number of pods per 6 plants, 2.2 seeds per pod, and weight of 200 seeds.