

## Cooperative POST Soybean Glyphosate Tank-Mix Adjuvants - Site 2.

Trial ID: 08-51W-M90

Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu  
 City State Zip Country: Belleville IL 62221 USA  
 Trial Status: FINAL Initiation Date: 06-18-08

Objectives: Determine the role of adjuvants used in tank-mixtures  
 of broadleaf herbicides with glyphosate.

Crop 1: GLXMA Soybean Variety: AG 4404 RR/STS  
 Planting Method: SEEDD Planting Date: 06-18-08  
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN  
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: CYPES Cyperus esculentus L. nutsedge, yellow  
 Pest 2 Type: W Code: AMBTR Ambrosia trifida L. ragweed, giant  
 Pest 3 Type: W Code: IPOSS Ipomoea sp. morningglory, species  
 Pest 4 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common

Plot Width, Unit: 10 FT Site Type: FIELD  
 Plot Length, Unit: 27 FT Tillage Type: REDUCED-TILL  
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year  
 1. ZEAMD 2007

Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 100 LB/A

% OM: 2.2 Texture: SILT LOAM  
 pH: 6.5 Soil Name: PIERRON  
 CEC: 11 Fert. Level: P1: 94 LB/A, K: 396 LB/A

## Application Description

A  
 Application Date: 07-07-08  
 Time of Day: 16:30  
 Application Method: Spray  
 Application Timing: MPOST  
 Application Placement: BROFOL  
 Applied By: TGM  
 Air Temperature, Unit: 84 F  
 % Relative Humidity: 92  
 Wind Velocity, Unit: 4 MPH  
 Dew Presence (Y/N): N  
 Soil Temperature, Unit: 85 F  
 Soil Moisture: ABONOR  
 % Cloud Cover: 20

07-07-08  
 Crop stage at application: V1  
 Height Min, Max (inch): 3 6

## Pest Stage At Each Application

Application Date: 07-07-08  
 Weed Code: CYPES  
 Stage Majority (leaves): 6  
 Stage Min, Max: 3 9  
 Height Majority: 5 IN  
 Height Min, Max: 2 8  
 Density, Unit: 4 FT2  
 Weed Code: AMBTR  
 Stage Majority (leaves): 4  
 Stage Min, Max: COTY 6  
 Height Majority: 4 IN  
 Height Min, Max: 1 6  
 Density, Unit: 1 FT2  
 Weed Code: IPOSS  
 Stage Majority (leaves): 3  
 Stage Min, Max: COTY 4  
 Height Majority: 2 IN  
 Height Min, Max: 1 4  
 Density, Unit: 1 FT2  
 Weed Code: AMATA  
 Stage Majority (leaves): 5  
 Stage Min, Max: 3 8  
 Height Majority: 4 IN  
 Height Min, Max: 3 7  
 Density, Unit: 0.2 FT2

## Application Equipment

Appl. Equipment: CO2 sprayer  
 Operating Pressure: 30 PSI  
 Nozzle Type: Flat fan  
 Nozzle Size: XR 8002  
 Boom Length, Unit: 7.5 FT  
 Spray Volume, Unit: 15 GPA

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Pest Code																					
Crop Code																					
Rating Date		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA										
Rating Data Type		10-30-08	10-30-08	07-14-08	07-21-08	08-04-08	09-01-08														
Rating Unit		Yield	Moisture	Injury	Injury	Injury	Injury														
Rating Timing		bu/A	Percent	Percent	Percent	Percent	Percent														
Trt-Eval Interval				7 DA-A	14 DA-A	28 DA-A	56 DA-A														
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code												
1	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	38	c	11.6	a	0	g	0	d	0	a	0	a
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
2	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	51	ab	11.6	a	0	g	0	d	0	a	0	a
2	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A												
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
3	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	49	ab	11.5	a	0	g	0	d	0	a	0	a
3	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A												
3	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A												
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
4	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	55	a	11.5	a	0	g	0	d	0	a	0	a
4	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A												
4	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A												
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
5	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	52	ab	11.6	a	0	g	0	d	0	a	0	a
5	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A												
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A												
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
6	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	50	ab	11.6	a	0	g	0	d	0	a	0	a
6	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A												
6	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A												
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
7	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	47	abc	11.7	a	9	f	5	bc	0	a	0	a
7	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A												
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
8	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	44	bc	11.6	a	17	e	6	b	0	a	0	a
8	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A												
8	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A												
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
9	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	50	ab	11.6	a	11	f	4	c	0	a	0	a
9	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A												
9	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A												
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
10	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	50	ab	11.7	a	11	f	4	c	0	a	0	a
10	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A												
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A												
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
11	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	53	ab	11.6	a	17	e	4	c	0	a	0	a
11	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A												
11	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A												
11	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
12	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	54	a	11.6	a	24	ab	9	a	0	a	0	a
12	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A												
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
13	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	52	ab	11.5	a	26	a	9	a	0	a	0	a
13	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A												
13	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A												
13	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
14	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	52	ab	11.4	a	24	bc	9	a	0	a	0	a
14	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A												
14	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A												
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												
15	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	54	a	11.4	a	22	cd	9	a	0	a	0	a
15	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A												
15	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A												
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A												

Cooperative POST Soybean Glyphosate Tank-Mix Adjuvants - Site 2.

Trial ID: 08-51W-M90 Location: Belleville Res. Center

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

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Yield bu/A	Moisture Percent	Injury Percent	Injury Percent	Injury Percent	Injury Percent
16	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST A	A	51 ab	11.5 a	21 d	10 a	0 a	0 a
16	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST A	A						
16	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST A	A						
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST A	A						
17	NONTREATED									22 d	11.8 a	0 g	0 d	0 a	0 a
LSD (P=.05)										8.7	0.41	2.1	1.7	0.0	0.0
Replicate F										2.612	0.487	0.863	1.186	0.000	0.000
Replicate Prob(F)										0.0890	0.6188	0.4314	0.3185	1.0000	1.0000
Treatment F										6.891	0.566	207.720	47.334	0.000	0.000
Treatment Prob(F)										0.0001	0.8857	0.0001	0.0001	1.0000	1.0000

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

## Cooperative POST Soybean Glyphosate Tank-Mix Adjuvants - Site 2.

Trial ID: 08-51W-M90

Location: Belleville Res. Center

Pest Code	CYPES	CYPES	CYPES	CYPES	CYPES
Crop Code					
Rating Date	07-07-08	07-21-08	08-04-08	09-01-08	10-02-08
Rating Data Type	Plants	Control	Control	Control	Plants
Rating Unit	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Timing					
Trt-Eval Interval	0 DA-A	14 DA-A	28 DA-A	56 DA-A	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A	92	bc	88	d	99 a 0.0 a
2	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	92	c	90	cd	99 a 0.0 a
2	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A					
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
3	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	92	bc	97	a	99 a 0.0 a
3	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A					
3	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
4	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	93	abc	96	ab	99 a 0.0 a
4	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A					
4	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A					
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
5	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	95	abc	96	ab	99 a 0.0 a
5	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A					
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
6	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	93	abc	92	bcd	99 a 0.0 a
6	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A					
6	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
7	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	96	abc	93	abc	99 a 0.0 a
7	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A					
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
8	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	96	abc	91	bcd	99 a 0.0 a
8	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A					
8	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
9	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	97	a	95	abc	99 a 0.0 a
9	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A					
9	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A					
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
10	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	95	abc	92	bcd	99 a 0.0 a
10	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A					
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
11	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	96	ab	95	ab	99 a 0.0 a
11	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A					
11	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
11	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
12	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	97	a	95	abc	99 a 0.0 a
12	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A					
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
13	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	96	ab	95	abc	99 a 0.0 a
13	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A					
13	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
13	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
14	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	97	a	95	abc	99 a 0.0 a
14	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A					
14	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A					
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
15	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A	97	a	96	ab	66 b 0.0 a
15	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A					
15	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					

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Pest Code	CYPES	CYPES	CYPES	CYPES	CYPES
Crop Code					
Rating Date	07-07-08	07-21-08	08-04-08	09-01-08	10-02-08
Rating Data Type	Plants	Control	Control	Control	Plants
Rating Unit	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Timing					
Trt-Eval Interval	0 DA-A	14 DA-A	28 DA-A	56 DA-A	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
16	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		96	ab	94	abc
16	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A				99	a
16	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
17	NONTREATED									3.2	0	d	0	e
	LSD (P=.05)											4.1	5.0	23.1
	Replicate F											3.115	2.757	1.000
	Replicate Prob(F)											0.0581	0.0786	0.3791
	Treatment F											264.255	174.203	9.625
	Treatment Prob(F)											0.0001	0.0001	0.0001

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

## Cooperative POST Soybean Glyphosate Tank-Mix Adjuvants - Site 2.

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Location: Belleville Res. Center

Pest Code		AMBTR														
Crop Code		AMBTR														
Rating Date		07-07-08	07-21-08	08-04-08	09-01-08	10-02-08										
Rating Data Type		Plants	Control	Control	Control	Plants										
Rating Unit		0.5 m2	Percent	Percent	Percent	0.5 m2										
Rating Timing																
Trt-Eval Interval		0 DA-A	14 DA-A	28 DA-A	56 DA-A	EOS										
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
1	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
1	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A	94	f	68	f	73	f	3.3	b
2	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
2	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3 oz/a	MPOST	A	97	e	93	e	92	de	1.0	cde
2	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
3	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
3	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3 oz/a	MPOST	A	97	cde	96	a-d	95	a-d	0.3	de
3	PREFERENCE	100	SL	0.5	% v/v	0.5 % v/v	MPOST	A								
3	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
4	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
4	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3 oz/a	MPOST	A	97	de	97	abc	96	abc	1.7	cd
4	PRIME OIL COC	100	SL	1	% v/v	1 % v/v	MPOST	A								
4	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
5	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
5	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3 oz/a	MPOST	A	97	de	94	cde	94	b-e	0.7	cde
5	SUPERB HC	100	SL	0.5	% v/v	0.5 % v/v	MPOST	A								
5	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
6	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
6	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3 oz/a	MPOST	A	97	de	93	de	92	cde	2.0	bc
6	DESTINY HC	100	SL	0.5	% v/v	0.5 % v/v	MPOST	A								
6	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
7	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
7	FLEXSTAR	1.88	EC	0.147	lb ai/a	10 fl oz/a	MPOST	A	98	bcd	96	a-d	95	a-d	0.3	de
7	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
8	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
8	FLEXSTAR	1.88	EC	0.147	lb ai/a	10 fl oz/a	MPOST	A	97	cde	95	b-e	90	e	1.0	cde
8	PREFERENCE	100	SL	0.5	% v/v	0.5 % v/v	MPOST	A								
8	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
9	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
9	FLEXSTAR	1.88	EC	0.147	lb ai/a	10 fl oz/a	MPOST	A	97	cde	96	a-d	95	a-d	1.3	cde
9	PRIME OIL COC	100	SL	1	% v/v	1 % v/v	MPOST	A								
9	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
10	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
10	FLEXSTAR	1.88	EC	0.147	lb ai/a	10 fl oz/a	MPOST	A	97	de	96	a-d	93	cde	0.3	de
10	SUPERB HC	100	SL	0.5	% v/v	0.5 % v/v	MPOST	A								
10	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
11	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
11	FLEXSTAR	1.88	EC	0.147	lb ai/a	10 fl oz/a	MPOST	A	97	cde	95	cde	95	a-d	0.0	e
11	DESTINY HC	100	SL	0.5	% v/v	0.5 % v/v	MPOST	A								
11	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
12	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
12	FLEXSTAR	1.88	EC	0.294	lb ai/a	20 fl oz/a	MPOST	A	98	abc	98	a	98	ab	0.0	e
12	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
13	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
13	FLEXSTAR	1.88	EC	0.294	lb ai/a	20 fl oz/a	MPOST	A	98	abc	98	ab	98	ab	0.0	e
13	PREFERENCE	100	SL	0.5	% v/v	0.5 % v/v	MPOST	A								
13	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
14	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
14	FLEXSTAR	1.88	EC	0.294	lb ai/a	20 fl oz/a	MPOST	A	99	a	98	ab	99	a	0.0	e
14	PRIME OIL COC	100	SL	1	% v/v	1 % v/v	MPOST	A								
14	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								
15	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22 fl oz/a	MPOST	A								
15	FLEXSTAR	1.88	EC	0.294	lb ai/a	20 fl oz/a	MPOST	A	98	ab	98	a	99	a	0.0	e
15	SUPERB HC	100	SL	0.5	% v/v	0.5 % v/v	MPOST	A								
15	N-PAK AMS	100	SL	5	% v/v	5 % v/v	MPOST	A								

Cooperative POST Soybean Glyphosate Tank-Mix Adjuvants - Site 2.

Trial ID: 08-51W-M90 Location: Belleville Res. Center

Pest Code	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
Crop Code					
Rating Date	07-07-08	07-21-08	08-04-08	09-01-08	10-02-08
Rating Data Type	Plants	Control	Control	Control	Plants
Rating Unit	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Timing					
Trt-Eval Interval	0 DA-A	14 DA-A	28 DA-A	56 DA-A	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code									
16	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		98	ab	99	a	99	a	0.0	e
16	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A									
16	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A									
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A									
17	NONTREATED									14	0	g	0	g	0	g	11.0	a
LSD (P=.05)											0.9		3.2		4.6		1.64	
Replicate F											4.188		3.975		0.430		1.881	
Replicate Prob(F)											0.0242		0.0287		0.6543		0.1689	
Treatment F											5335.844		481.251		215.648		21.727	
Treatment Prob(F)											0.0001		0.0001		0.0001		0.0001	

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

## Cooperative POST Soybean Glyphosate Tank-Mix Adjuvants - Site 2.

Trial ID: 08-51W-M90

Location: Belleville Res. Center

Pest Code	IPOSS	IPOSS	IPOSS	IPOSS	IPOSS
Crop Code					
Rating Date	07-07-08	07-21-08	08-04-08	09-01-08	10-02-08
Rating Data Type	Plants	Control	Control	Control	Plants
Rating Unit	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Timing					
Trt-Eval Interval	0 DA-A	14 DA-A	28 DA-A	56 DA-A	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A	91	e	92	d	87 b 0.3 b
2	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
2	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A	96	cd	95	c	99 a 0.0 b
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
3	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
3	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A	96	cd	95	bc	99 a 0.0 b
3	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
4	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
4	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A	97	bcd	97	abc	96 a 0.3 b
4	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A					
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
5	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
5	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A	96	cd	96	abc	99 a 0.0 b
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
6	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
6	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A	96	cd	97	ab	94 a 0.0 b
6	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
7	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
7	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A	98	abc	97	abc	98 a 0.7 b
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
8	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
8	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A	96	d	97	abc	95 a 0.0 b
8	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
9	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
9	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A	97	a-d	96	abc	99 a 1.0 b
9	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A					
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
10	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
10	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A	98	ab	96	abc	96 a 0.7 b
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
11	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
11	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A	98	a-d	97	abc	98 a 0.3 b
11	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
11	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
12	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
12	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A	99	a	96	abc	99 a 0.0 b
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
13	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
13	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A	98	a-d	97	ab	99 a 1.0 b
13	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
13	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
14	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
14	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A	98	a-d	96	abc	96 a 0.7 b
14	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A					
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
15	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A					
15	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A	98	a-d	97	abc	96 a 0.0 b
15	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					



Cooperative POST Soybean Glyphosate Tank-Mix Adjuvants - Site 2.

Trial ID: 08-51W-M90 Location: Belleville Res. Center

Pest Code	IPOSS	IPOSS	IPOSS	IPOSS	IPOSS
Crop Code					
Rating Date	07-07-08	07-21-08	08-04-08	09-01-08	10-02-08
Rating Data Type	Plants	Control	Control	Control	Plants
Rating Unit	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Timing					
Trt-Eval Interval	0 DA-A	14 DA-A	28 DA-A	56 DA-A	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
16	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		98 abc	98 a	98 a	0.0 b
16	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A					
16	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
17	NONTREATED									8.5	0 f	0 e	0 c	3.0 a
LSD (P=.05)											1.9	2.4	5.8	1.77
Replicate F											1.588	5.248	2.079	0.052
Replicate Prob(F)											0.2199	0.0107	0.1416	0.9490
Treatment F											1236.792	767.610	136.712	1.489
Treatment Prob(F)											0.0001	0.0001	0.0001	0.1649

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

## Cooperative POST Soybean Glyphosate Tank-Mix Adjuvants - Site 2.

Trial ID: 08-51W-M90

Location: Belleville Res. Center

Pest Code	AMATA	AMATA	AMATA	AMATA	AMATA
Crop Code					
Rating Date	07-07-08	07-21-08	08-04-08	09-01-08	10-02-08
Rating Data Type	Plants	Control	Control	Control	Plants
Rating Unit	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Timing					
Trt-Eval Interval	0 DA-A	14 DA-A	28 DA-A	56 DA-A	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		98 ab	94 bc	88 c	0.0 b
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
2	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		97 bc	92 c	92 bc	0.7 ab
2	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A					
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
3	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		98 abc	93 c	94 b	1.0 a
3	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A					
3	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
4	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		96 c	95 bc	91 bc	0.0 b
4	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A					
4	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A					
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
5	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		97 bc	93 c	94 b	0.3 ab
5	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A					
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
6	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	97 ab	95 b	0.3 ab
6	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	MPOST	A					
6	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
7	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	99 a	99 a	0.0 b
7	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A					
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
8	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	99 a	99 a	0.0 b
8	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A					
8	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
9	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	99 a	99 a	0.0 b
9	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A					
9	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A					
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
10	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	99 a	99 a	0.0 b
10	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A					
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
11	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	99 a	99 a	0.0 b
11	FLEXSTAR	1.88	EC	0.147	lb ai/a	10	fl oz/a	MPOST	A					
11	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
11	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
12	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	99 a	99 a	0.0 b
12	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A					
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
13	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	99 a	99 a	0.0 b
13	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A					
13	PREFERENCE	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
13	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
14	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	99 a	99 a	0.0 b
14	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A					
14	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	MPOST	A					
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
15	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	99 a	99 a	0.0 b
15	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A					
15	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					

Cooperative POST Soybean Glyphosate Tank-Mix Adjuvants - Site 2.

Trial ID: 08-51W-M90 Location: Belleville Res. Center

Pest Code	AMATA	AMATA	AMATA	AMATA	AMATA
Crop Code					
Rating Date	07-07-08	07-21-08	08-04-08	09-01-08	10-02-08
Rating Data Type	Plants	Control	Control	Control	Plants
Rating Unit	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Timing					
Trt-Eval Interval	0 DA-A	14 DA-A	28 DA-A	56 DA-A	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
16	ROUNDUP P-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	MPOST	A		99 a	99 a	99 a	
16	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	MPOST	A				0.0 b	
16	DESTINY HC	100	SL	0.5	% v/v	0.5	% v/v	MPOST	A					
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	MPOST	A					
17	NONTREATED									0.3	0 d	0 d	0 d	
LSD (P=.05)											1.6	3.0	4.0	0.76
Replicate F											0.809	0.955	0.382	0.000
Replicate Prob(F)											0.4542	0.3956	0.6856	1.0000
Treatment F											1960.422	522.623	294.885	1.424
Treatment Prob(F)											0.0001	0.0001	0.0001	0.1924

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

Trial Comments

1. Protocol: SIU/UIUC/WIU/ISA.
2. Ratings: Visual crop response estimates at 7, 14, and 28 DAT.  
Visual estimates of control, by species, at 14 and 28 DAT; late-season rating of all plots at 56 DAT or at crop harvest.
3. MPOST = 3-5"W.
4. Take weed counts in nontreated at the MPOST application timing (No./0.5 m2).
5. Yield if possible.
6. At the Belleville Research Center the above normal rainfall in spring 2008 (no more than four consecutive rain-free days between March 22 and June 15) delayed corn and soybean planting until mid-June.
7. IPOSS = Morningglory species including IPOHE and IPOLA.
8. DA-A = Days after the MPOST application. 0.5 m2 = 0.5 square meter. EOS = End of season.
9. Harvested 10-30-08, (2) 30 inch rows by 24 ft.