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Control of glyphosate resistant weeds in soybeans

Trial ID: 11S-THP-CTS-52

Protocol ID: 11S-THP-CTS-52

Location: Throckmorton
Project ID: BLZR 15 US IN 11 04PWRStudy Director: White/Marquardt
Investigator: Dr. Bill Johnson

Sponsor Contact: United Phosphorus - Phil Robinson

General Trial Information

Study Director: White/Marquardt Title: Research Associate
Investigator: Dr. Bill Johnson Title: Professor

Discipline: H herbicide

Trial Status: Established
Initiation Date: 5-4-2011

Trial Location

City: Lafayette

State/Prov.: IN
Postal Code: 47909
Country: USA

Personnel

Study Director: White/Marquardt Title: Research Associate

Affiliation: Purdue University

Address: 915 W State Street
Location: West Lafayette, IN, USA

Postal Code: 47907

Phone No.: 765-494-0891

E-mail: mdwhite@purdue.edu

Investigator: Dr. Bill Johnson

Title: Professor

Affiliation: Purdue University

Address: 915 W State Street
Location: West Lafayette, IN, USA

Postal Code: 47907

Phone No.: 765-494-4656

E-mail: wji@purdue.edu
Mobile No.: 765-404-9801

Cooperator/Landowner

Cooperator: Throckmorton Purdue Ag Center

Role: Purdue Ag Center

Organization: Purdue University
Address 1: 8343 US 231 S

City: Lafayette

Phone No.: 765-538-3422
Fax No.: 765-538-3423

State/Prov.: IN

Postal Code: 47909

Country: USA

United States

E-mail: jayyoung@purdue.edu

Crop Description

Crop 1: GLXMA Glycine max Soybean

Variety: Asgrow AG2931

Description: RR2

BBCH Scale: BSOY

Planting Date: 5-10-2011

Planting Method: PLANTD planted

Rate, Unit: 124000 S/A

Depth, Unit: 1 IN

Row Spacing, Unit: 15 IN

Emergence Date: 5-16-2011

Pest Description

Pest 1 Type: W Code: AMBTR Ambrosia trifida

Common Name: Giant ragweed

Pest 2 Type: W Code: SETFA Setaria faberi

Common Name: Giant foxtail

Pest 3 Type: W Code: ABUTH Abutilon theophrasti

Common Name: Velvetleaf

Pest 4 Type: W Code: CHEAL Chenopodium album

Common Name: Common lambsquarters

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Site and Design	
Plot Width, Unit: 10 FT Plot Length, Unit: 30 FT Plot Area, Unit: 300 FT ² Replications: 4	Site Type: FIELD field Experimental Unit: 1 PLOT plot Tillage Type: CONTIL conventional-till Study Design: RACOB1 Randomized Complete Block (RCB) Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description
Description Name: TPAC -Field 4A % OM: 3.1 Texture: SIL silt loam pH: 6 Soil Name: Toronto-Millbrook CEC: 11.1

Application Description		
	A	B
Application Date:	6-1-2011	6-8-2011
Time of Day:	8:30 AM	8-8:10 AM
Application Method:	SPRAY	SPRAY
Application Timing:	EAPOWE	MIPOWE
Application Placement:	FOLIAR	FOLIAR
Applied By:	MH	BM
Air Temperature, Unit:	74.2 F	79 F
% Relative Humidity:	47	66
Wind Velocity, Unit:	1.8 MPH	4.4 MPH
Wind Direction:	SE	SW
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	70 F	77 F
Soil Moisture:	SLIWET	DRY
% Cloud Cover:	20	10

Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	V1	V2
Height, Unit:	2.5 IN	4.5 IN
Height Minimum, Maximum:		4 5

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Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W
Height, Unit:	3.5 IN	4 IN
Height Minimum, Maximum:	2 5	2 6
Density, Unit:	5 YD2	23 YD2
Pest 2 Code, Type, Scale:	SETFA W	SETFA W
Height, Unit:	2.5 IN	
Height Minimum, Maximum:	1 4	
Density, Unit:	40 YD2	
Pest 3 Code, Type, Scale:	ABUTH W	ABUTH W
Height, Unit:	21 IN	2.5 IN
Height Minimum, Maximum:		1 4
Density, Unit:	2 YD2	5 YD2
Pest 4 Code, Type, Scale:	CHEAL W	CHEAL W
Height, Unit:		1.5 IN
Height Minimum, Maximum:		1 2
Density, Unit:		8 YD2

Application Equipment

	A	B
Appl. Equipment:	CO2 BKPK	CO2 BKPK
Equipment Type:	SPRBAC	SPRBAC
Operation Pressure, Unit:	17 PSI	17 PSI
Nozzle Type:	FLAT FAN	FLAT FAN
Nozzle Size:	XR 110 02	XR 110 02
Nozzle Spacing, Unit:	15 IN	15 IN
Nozzles/Row:	8	8
Boom Length, Unit:	10 FT	10 FT
Boom Height, Unit:	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	H2O	H2O
Water Hardness (ppm CaCO3):	150	150
Spray Volume, Unit:	15 gal/ac	15 gal/ac
Mix Size, Unit:	1.8 liters	1.8 liters
Propellant:	C02	C02
Tank Mix (Y/N):	N no	N no

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Trial ID: 11S-THP-CTS-52

Protocol ID: 11S-THP-CTS-52

Location: Throckmorton
Project ID: BLZR 15 US IN 11 04PWR

Study Director: White/Marquardt
Investigator: Dr. Bill Johnson

Sponsor Contact: United Phosphorus - Phil Robinson

Pest Type					W Weed AMBTR	W Weed ABUTH	W Weed CHEAL	
Pest Code					Ambrosia trifi>	Abutilon theop>	Chenopodium al>	
Pest Scientific Name					Giant ragweed	Velvetleaf	Common lambsqu>	
Pest Name					GLXMA	GLXMA	GLXMA	
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	
Description								
Rating Date	6-10-2011	6-10-2011	6-13-2011	6-13-2011	6-13-2011	6-13-2011	6-13-2011	
Rating Type	PHYLMA	PHYNLS	PHYLMA	PHYNLS	CONTRO	CONTRO	CONTRO	
Rating Unit	%	%	%	%	%	%	%	
Number of Subsamples	1	1	1	1	1	1	1	
Crop Stage Majority	V3	V3	V2	V2	V2	V2	V2	
Pest Stage Majority					10 IN	3 IN	2 IN	
Pest Density, Unit Assessed By					4 YD2	2 YD2	12 YD2	
Days After First/Last Applic.	9 2	9 2	12 5	12 5	12 5	12 5	12 5	
Plant-Eval Interval	31 DP-1	31 DP-1	34 DP-1	34 DP-1	34 DP-1	34 DP-1	34 DP-1	
Days After Emergence	25 DE-1	25 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	
Trt No.	1	2	3	4	5	6	7	
Treatment Name								
Rate								
Appl Unit								
Code								
1 SelectMax (0.97 EC)	0.091 lb ai/a	A	0.0 a	0.0 b	0.0 b	0.0 c	0.0 b	0.0 b
NIS	0.25 % v/v	A						
AMS - Liquid	3 lb ai/a	A						
2 SelectMax (0.97 EC)	0.091 lb ai/a	A	5.0 a	5.0 b	8.0 a	4.0 a	77.5 a	88.3 a
NIS	0.25 % v/v	A						
AMS - Liquid	3 lb ai/a	A						
Storm (4 SL)	0.75 lb ai/a	B						
Sulphate - Ammonia (21%)	2.5 % v/v	B						
3 SelectMax (0.97 EC)	0.091 lb ai/a	A	4.0 a	5.0 b	7.0 a	5.5 a	35.0 b	99.0 a
NIS	0.25 % v/v	A						
AMS - Liquid	3 lb ai/a	A						
Ultra Blazer (2 SL)	0.25 lb ai/a	B						
Sulphate - Ammonia (21%)	2.5 % v/v	B						
4 SelectMax (0.97 EC)	0.091 lb ai/a	A	5.5 a	11.3 a	9.8 a	7.3 a	65.0 a	99.0 a
NIS	0.25 % v/v	A						
AMS - Liquid	3 lb ai/a	A						
Ultra Blazer (2 SL)	0.125 lb ai/a	B						
Glyfos Xtra (3 SL)	0.75 lb ae/a	B						
Sulphate - Ammonia (21%)	2.5 % v/v	B						

Means followed by same letter do not significantly differ (P= .05, Student-Newman-Keuls)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type Pest Code Pest Scientific Name Pest Name					W Weed AMBTR Ambrosia trifi>	W Weed ABUTH Abutilon theop>	W Weed CHEAL Chenopodium al>				
					Giant ragweed	Velvetleaf	Common lambsqu>				
Crop Code BBCH Scale	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY				
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max				
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean				
Description											
Rating Date	6-10-2011	6-10-2011	6-13-2011	6-13-2011	6-13-2011	6-13-2011	6-13-2011				
Rating Type	PHYLMA	PHYNLS	PHYLMA	PHYNLS	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Majority	V3	V3	V2	V2	V2	V2	V2				
Pest Stage Majority					10 IN	3 IN	2 IN				
Pest Density, Unit					4 YD2	2 YD2	12 YD2				
Assessed By											
Days After First/Last Applic.	9 2	9 2	12 5	12 5	12 5	12 5	12 5				
Plant-Eval Interval	31 DP-1	31 DP-1	34 DP-1	34 DP-1	34 DP-1	34 DP-1	34 DP-1				
Days After Emergence	25 DE-1	25 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1	28 DE-1				
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7
5	SelectMax (0.97 EC)	0.091	lb ai/a	A	4.5 a	13.8 a	8.5 a	8.5 a	45.0 b	99.0 a	89.5 a
	NIS	0.25	% v/v	A							
	AMS - Liquid	3	lb ai/a	A							
	Ultra Blazer (2 SL)	0.125	lb ai/a	B							
	Glyfos Xtra (3 SL)	1	lb ae/a	B							
	Sulphate - Ammonia (21%)	2.5	% v/v	B							
LSD (P=.05)		3.76				5.01	5.34	3.66	12.74	13.04	34.49
Standard Deviation		2.44				3.25	3.46	2.38	8.27	8.46	22.38
CV		64.28				46.42	52.09	47.07	18.58	10.99	36.63
Bartlett's X2		3.449				7.539	2.462	7.787	3.728	0.0	5.54
P(Bartlett's X2)		0.327				0.057	0.482	0.051	0.292	.	0.136
Replicate F		0.693				0.846	0.382	0.646	3.927	1.000	3.391
Replicate Prob(F)		0.5739				0.4948	0.7679	0.6002	0.0364	0.4262	0.0539
Treatment F		3.235				11.425	4.933	7.708	52.390	104.781	10.546
Treatment Prob(F)		0.0511				0.0005	0.0138	0.0026	0.0001	0.0001	0.0007

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Pest Type	W Weed		W Weed		W Weed	W Weed	W Weed				
Pest Code	SOLPT		AMBTR		AMBTR	CHEAL	AMARE				
Pest Scientific Name	Solanum ptycan>		Ambrosia trifi>		Ambrosia trifi>	Chenopodium al>	Amaranthus ret>				
Pest Name	Eastern black >		Giant ragweed		Giant ragweed	Common lambsqu>	Redroot pigweed				
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA				
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max				
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean				
Description				10-15 IN	10-15 IN	10-15 IN	10-15 IN				
Rating Date	6-13-2011	7-7-2011	7-7-2011	6-22-2011	6-22-2011	6-22-2011	6-22-2011				
Rating Type	CONTRO	PHYGEN	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Majority	V2	R2	R2	V5-V6	V5-V6	V5-V6	V5-V6				
Pest Stage Majority	1 IN		72 IN		4-56 IN	1-20 IN	1-8 IN				
Pest Density, Unit	1 YD2		12.5 YD2		7.5 YD2	9.5 YD2	9.5 YD2				
Assessed By		RT/RH	RT/RH	CB/PM	CB/PM	CB/PM	CB/PM				
Days After First/Last Applic.	12 5	36 29	36 29	21 14	21 14	21 14	21 14				
Plant-Eval Interval	34 DP-1	58 DP-1	58 DP-1	43 DP-1	43 DP-1	43 DP-1	43 DP-1				
Days After Emergence	28 DE-1	52 DE-1	52 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1				
Trt	Treatment	Rate	Appl								
No.	Name	Rate	Unit	Code	8	9	10	11	12	13	14
1	SelectMax (0.97 EC)	0.091 lb ai/a	A		0.0 b	0.0 a	0.0 c	0.0 b	0.0 c	0.0 c	0.0 b
	NIS	0.25 % v/v	A								
	AMS - Liquid	3 lb ai/a	A								
2	SelectMax (0.97 EC)	0.091 lb ai/a	A		27.5 b	0.0 a	38.8 bc	7.8 a	42.5 b	71.3 b	75.0 a
	NIS	0.25 % v/v	A								
	AMS - Liquid	3 lb ai/a	A								
	Storm (4 SL)	0.75 lb ai/a	B								
	Sulphate - Ammonia (21%)	2.5 % v/v	B								
3	SelectMax (0.97 EC)	0.091 lb ai/a	A		69.5 a	0.0 a	25.0 bc	7.5 a	58.8 b	62.5 b	79.8 a
	NIS	0.25 % v/v	A								
	AMS - Liquid	3 lb ai/a	A								
	Ultra Blazer (2 SL)	0.25 lb ai/a	B								
	Sulphate - Ammonia (21%)	2.5 % v/v	B								
4	SelectMax (0.97 EC)	0.091 lb ai/a	A		74.5 a	0.0 a	70.0 ab	7.5 a	87.5 a	94.5 a	94.0 a
	NIS	0.25 % v/v	A								
	AMS - Liquid	3 lb ai/a	A								
	Ultra Blazer (2 SL)	0.125 lb ai/a	B								
	Glyphos Xtra (3 SL)	0.75 lb ae/a	B								
	Sulphate - Ammonia (21%)	2.5 % v/v	B								

Means followed by same letter do not significantly differ (P= .05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type	W Weed		W Weed		W Weed	W Weed	W Weed
Pest Code	SOLPT		AMBTR		AMBTR	CHEAL	AMARE
Pest Scientific Name	Solanum ptycan>		Ambrosia trifi>		Ambrosia trifi>	Chenopodium al>	Amaranthus ret>
Pest Name	Eastern black >		Giant ragweed		Giant ragweed	Common lambsqu>	Redroot pigweed
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Description				10-15 IN	10-15 IN	10-15 IN	10-15 IN
Rating Date	6-13-2011	7-7-2011	7-7-2011	6-22-2011	6-22-2011	6-22-2011	6-22-2011
Rating Type	CONTRO	PHYGEN	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Majority	V2	R2	R2	V5-V6	V5-V6	V5-V6	V5-V6
Pest Stage Majority	1 IN		72 IN	4-56 IN	4-56 IN	1-20 IN	1-8 IN
Pest Density, Unit	1 YD2		12.5YD2	7.5 YD2	7.5 YD2	9.5 YD2	9.5 YD2
Assessed By		RT/RH	RT/RH	CB/PM	CB/PM	CB/PM	CB/PM
Days After First/Last Applic.	12 5	36 29	36 29	21 14	21 14	21 14	21 14
Plant-Eval Interval	34 DP-1	58 DP-1	58 DP-1	43 DP-1	43 DP-1	43 DP-1	43 DP-1
Days After Emergence	28 DE-1	52 DE-1	52 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1
Trt Treatment							
No. Name							
Rate							
Unit							
Appl Code							
5 SelectMax (0.97 EC)	0.091 lb ai/a						
NIS	0.25 % v/v						
AMS - Liquid	3 lb ai/a						
Ultra Blazer (2 SL)	0.125 lb ai/a						
Glyfos Xtra (3 SL)	1 lb ae/a						
Sulphate - Ammonia (21%)	2.5 % v/v						
LSD (P=.05)	36.94	0.00	38.52	4.83	22.38	15.31	16.25
Standard Deviation	23.97	0.00	25.00	3.13	14.53	9.94	10.55
CV	46.42	0.0	56.37	42.9	26.22	15.45	15.32
Bartlett's X2	1.783	0.0	7.459	2.796	5.011	3.954	7.5
P(Bartlett's X2)	0.619	.	0.059	0.424	0.171	0.266	0.058
Replicate F	0.963	0.000	0.648	0.333	0.760	1.104	1.969
Replicate Prob(F)	0.4418	1.0000	0.5993	0.8017	0.5378	0.3854	0.1726
Treatment F	9.262	0.000	7.897	9.703	25.382	60.139	56.096
Treatment Prob(F)	0.0012	1.0000	0.0023	0.0010	0.0001	0.0001	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	AMARE	CHEAL	ABUTH
Pest Scientific Name	Ambrosia trifi>	Amaranthus ret>	Chenopodium al>	Abutilon theop>
Pest Name	Giant ragweed	Redroot pigweed	Common lambsqu>	Velvetleaf
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean
Description				
Rating Date	7-19-2011	7-19-2011	7-19-2011	7-19-2011
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Crop Stage Majority				
Pest Stage Majority				
Pest Density, Unit				
Assessed By				
Days After First/Last Applic.	48 41	48 41	48 41	48 41
Plant-Eval Interval	70 DP-1	70 DP-1	70 DP-1	70 DP-1
Days After Emergence	64 DE-1	64 DE-1	64 DE-1	64 DE-1
Trt Treatment	Rate	Appl		
No. Name	Rate	Unit	Code	
			15	16
			17	18
1 SelectMax (0.97 EC)	0.091 lb ai/a	A	0.0 b	0.0 b
NIS	0.25 % v/v	A		
AMS - Liquid	3 lb ai/a	A		
2 SelectMax (0.97 EC)	0.091 lb ai/a	A	12.5 b	99.1 a
NIS	0.25 % v/v	A		
AMS - Liquid	3 lb ai/a	A		
Storm (4 SL)	0.75 lb ai/a	B		
Sulphate - Ammonia (21%)	2.5 % v/v	B		
3 SelectMax (0.97 EC)	0.091 lb ai/a	A	22.5 b	99.0 a
NIS	0.25 % v/v	A		
AMS - Liquid	3 lb ai/a	A		
Ultra Blazer (2 SL)	0.25 lb ai/a	B		
Sulphate - Ammonia (21%)	2.5 % v/v	B		
4 SelectMax (0.97 EC)	0.091 lb ai/a	A	83.8 a	98.0 a
NIS	0.25 % v/v	A		
AMS - Liquid	3 lb ai/a	A		
Ultra Blazer (2 SL)	0.125 lb ai/a	B		
Glyfos Xtra (3 SL)	0.75 lb ae/a	B		
Sulphate - Ammonia (21%)	2.5 % v/v	B		

Means followed by same letter do not significantly differ (P= .05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	AMARE	CHEAL	ABUTH
Pest Scientific Name	Ambrosia trifi>	Amaranthus ret>	Chenopodium al>	Abutilon theop>
Pest Name	Giant ragweed	Redroot pigweed	Common lambsqu>	Velvetleaf
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean
Description				
Rating Date	7-19-2011	7-19-2011	7-19-2011	7-19-2011
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Crop Stage Majority				
Pest Stage Majority				
Pest Density, Unit				
Assessed By				
Days After First/Last Applic.	48 41	48 41	48 41	48 41
Plant-Eval Interval	70 DP-1	70 DP-1	70 DP-1	70 DP-1
Days After Emergence	64 DE-1	64 DE-1	64 DE-1	64 DE-1
Trt No.	15	16	17	18
Treatment Name				
Rate				
Unit				
Appl Code				
5 SelectMax (0.97 EC)	0.091 lb ai/a			
NIS	0.25 % v/v			
AMS - Liquid	3 lb ai/a			
Ultra Blazer (2 SL)	0.125 lb ai/a			
Glyfos Xtra (3 SL)	1 lb ae/a			
Sulphate - Ammonia (21%)	2.5 % v/v			
LSD (P=.05)	22.75	1.45	6.74	1.45
Standard Deviation	14.76	0.93	4.33	0.93
CV	35.88	1.18	5.64	1.18
Bartlett's X2	12.203	0.0	5.237	0.0
P(Bartlett's X2)	0.007*	.	0.022*	.
Replicate F	2.755	0.978	1.090	0.978
Replicate Prob(F)	0.0885	0.4382	0.3938	0.4382
Treatment F	31.103	9000.468	394.015	9000.468
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

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Control of glyphosate resistant weeds in soybeans

Trial ID: 11S-THP-CTS-52

Protocol ID: 11S-THP-CTS-52

Location: Throckmorton
Project ID: BLZR 15 US IN 11 04PWRStudy Director: White/Marquardt
Investigator: Dr. Bill Johnson

Sponsor Contact: United Phosphorus - Phil Robinson

Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

Pest CodeAMBTR, Ambrosia trifida, = US
ABUTH, Abutilon theophrasti, = US
CHEAL, Chenopodium album, = US
SOLPT, Solanum ptycanthum, = US
AMARE, Amaranthus retroflexus, = USCrop Code

GLXMA, BSOY, Glycine max, = US

Rating TypePHYLMA = phytotoxicity - leaf malformation
PHYNLS = phytotoxicity - necrosis, leaf spot
CONTRO = control / burndown or knockdown
PHYGEN = phytotoxicity - general / injuryRating Unit

% = percent

YD2 = per square yard

Plant-Eval Interval31 DP-1 = 1 GLXMA 5-10-2011
34 DP-1 = 1 GLXMA 5-10-2011
58 DP-1 = 1 GLXMA 5-10-2011
43 DP-1 = 1 GLXMA 5-10-2011
70 DP-1 = 1 GLXMA 5-10-2011