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Clarksburg GRW Treatments

Trial ID: 12S-THP-CTS-49 Protocol ID: 12S-THP-CTS-49
 Location: Throckmorton Study Director:
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact:

General Trial Information

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

Discipline: H herbicide
Trial Status: E established
Initiation Date: 5-4-2012

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 **E-mail:** mdwhite@purdue.edu
Phone No.: 765-494-0891
Investigator: Dr. Bill Johnson **Title:** Professor
Affiliation: Purdue University
Address: 915 W State Street
Location: West Lafayette, IN, USA
Postal Code: 47907 **E-mail:** wji@purdue.edu
Phone No.: 765-494-4656 **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
State/Prov: IN **Fax No.:** 765-538-3423
Postal Code: 47909 **E-mail:** jayyoung@purdue.edu
Country: USA United States

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow AG2931 **Description:** RR2
BBCH Scale: BSOY **Planting Date:** 5-14-2012
Planting Method: PLANTD planted **Rate, Unit:** 124000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN

Emergence Date: 5-22-2012

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:** IPOHE Ipomoea hederacea
Common Name: Ivyleaf morningglory

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Site and Design	
Plot Width, Unit: 10 FT Plot Length, Unit: 30 FT Plot Area, Unit: 300 FT2 Replications: 4	Site Type: FIELD field Experimental Unit: 1 PLOT plot Tillage Type: CONTIL conventional-till Study Design: RACOBL 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	C	D	E	F
Application Date:	6-7-2012	6-14-2012	6-20-2012	6-20-2012	6-27-2012	7-5-2012
Time of Day:	8:30 AM		7 AM	7 AM	8:20 AM	8 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	MIPOWE	A+7DAYS	A+14DAYS	LAPOWE	D+7DAYS	D+14DAYS
Application Placement:	FOLIAR	FOLIAR	FOLIAR	FOLIAR	FOLIAR	FOLIAR
Applied By:	MW	MW	MW	MW	BM	GT
Air Temperature, Unit:	68 F	56 F	79 F	79 F	84 F	89 F
% Relative Humidity:	61	65	63	63	42	65
Wind Velocity, Unit:	2.5 MPH	6 MPH	4 MPH	4 MPH	6.5 MPH	2 MPH
Wind Direction:	N	NE	S	S	S	SW
Dew Presence (Y/N):	N no	N no	N no	N no	N no	N no
Soil Temperature, Unit:	69 F		78 F	78 F	79 F	88 F
Soil Moisture:	DRY	DRY	DRY	DRY	DRY	DRY
% Cloud Cover:	0	0	0	0	0	0

Crop Stage At Each Application						
	A	B	C	D	E	F
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	V3	V4	V5	V5	V7	V10
Height, Unit:			11 IN	11 IN	14 IN	26 IN

Pest Stage At Each Application						
	A	B	C	D	E	F
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W	AMBTR W	AMBTR W	AMBTR W
Height, Unit:						1 IN
Height Minimum, Maximum:	1.5 6	3.5 11	4 16		2 5	
Density, Unit:	11 YD2	15 YD2	10 YD2		2 YD2	5 YD2
Pest 2 Code, Type, Scale:	SETFA W	SETFA W	SETFA W	SETFA W	SETFA W	SETFA W
Height Minimum, Maximum:	2.5 4	3 11	3 10		0.5 4	0.5 5
Density, Unit:	8 YD2	10 YD2	12 YD2		7 YD2	37 YD2
Pest 3 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W	IPOHE W	IPOHE W	IPOHE W
Height, Unit:					0.5 IN	2.5 IN
Density, Unit:					8 YD2	3 YD2

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Application Equipment						
	A	B	C	D	E	F
Appl. Equipment:	CO2 FORD	CO2 FORD	CO2 FORD	CO2 FORD	DOWTIP BKPK	CO2 BKPK
Equipment Type:	SPTRMO	SPTRMO	SPTRMO	SPTRMO	SPRBAC	SPRBAC
Operation Pressure, Unit:					17 PSI	17 PSI
Nozzle Type:	FLAT FAN	FLAT FAN	FLAT FAN	FLAT FAN	AIXR	FLAT FAN
Nozzle Size:	XR 100 02	XR 100 02	XR 100 02	XR 100 02	110 02 VP	XR 110 02
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	20 IN	15 IN	15 IN
Nozzles/Row:	6	6	6	6	8	8
Boom Length, Unit:	10 FT	10 FT	10 FT	10 FT	10 FT	10 FT
Boom Height, Unit:	20 IN	20 IN	20 IN	20 IN	18 IN	18 IN
Ground Speed, Unit:	2.1 MPH	2.1 MPH	2.1 MPH	2.1 MPH	3 MPH	3 MPH
Carrier:	MEIGS	MEIGS	MEIGS	MEIGS	MEIGS	H20
Water Hardness (ppm CaCO3):					150	150
Spray Volume, Unit:	20 gal/ac	20 gal/ac	20 gal/ac	20 gal/ac	15 gal/ac	15 gal/ac
Mix Size, Unit:	2.5 liters	2.5 liters	2.5 liters	2.5 liters	1.8 liters	1.8 liters
Propellant:	CO2	CO2	CO2	CO2	CO2	CO2
Tank Mix (Y/N):					N no	N no

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Trial ID: 12S-THP-CTS-49 Protocol ID: 12S-THP-CTS-49
 Location: Throckmorton Study Director:
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	AMBTR	SETFA	AMARE	CHEAL	SETFA	AMBTR	AMARE			
Pest Scientific Name	Ambrosia trifi>	Setaria faberi	Amaranthus ret>	Chenopodium al>	Setaria faberi	Ambrosia trifi>	Amaranthus ret>			
Pest Name	Giant ragweed	Giant foxtail	Redroot pigweed	Common lambsqu>	Giant foxtail	Giant ragweed	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			
Rating Date	6-20-2012	6-20-2012	6-20-2012	6-20-2012	7-24-2012	7-24-2012	7-24-2012			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Scale										
Pest Stage Majority					36 IN	48 IN	36 IN			
Pest Density, Unit					15 FT2	5 YD2	10 YD2			
Assessed By	MW	MW	MW	MW	MW	MW	MW			
Days After First/Last Applic.	13 6	13 6	13 6	13 6	47 19	47 19	47 19			
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	37 DP-1	71 DP-1	71 DP-1	71 DP-1			
Days After Emergence	29 DE-1	29 DE-1	29 DE-1	29 DE-1	63 DE-1	63 DE-1	63 DE-1			
Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6	7
1	Roundup PowerMax 4.5 SL AMS - Liquid	1.5 lb ae/a A 2.5 % v/v A	A	92.3 ab	96.0 b	99.0 a	99.0 a	87.5 de	90.0 ab	82.5 c
2	Roundup PowerMax 4.5 SL Flexstar (1.88 L) MSO AMS - Liquid	1.5 lb ae/a A 0.305 lb ai/a A 1 % v/v A 2.5 % v/v A	A	85.0 c	98.5 a	99.0 a	99.0 a	88.8 de	87.5 ab	87.3 abc
3	Roundup PowerMax 4.5 SL Cobra COC AMS - Liquid	1.5 lb ae/a A 0.195 lb ai/a A 1 % v/v A 2.5 % v/v A	A	91.8 ab	98.5 a	99.0 a	99.0 a	86.3 e	92.5 a	88.8 abc
4	Roundup PowerMax 4.5 SL AMS - Liquid Flexstar (1.88 L) MSO AMS - Liquid	1.5 lb ae/a A 2.5 % v/v A 0.305 lb ai/a B 1 % v/v B 2.5 % v/v B	A	97.0 ab	99.0 a	99.0 a	99.0 a	95.5 ab	98.0 a	98.0 a
5	Roundup PowerMax 4.5 SL AMS - Liquid Flexstar (1.88 L) MSO AMS - Liquid	1.5 lb ae/a A 2.5 % v/v A 0.305 lb ai/a C 1 % v/v C 2.5 % v/v C	A	94.8 ab	98.5 a	99.0 a	99.0 a	95.0 ab	98.0 a	95.5 abc
6	Roundup PowerMax 4.5 SL AMS - Liquid Cobra COC	1.5 lb ae/a A 2.5 % v/v A 0.195 lb ai/a B 1 % v/v B	A	99.0 a	99.0 a	99.0 a	99.0 a	88.8 de	94.5 a	92.3 abc
7	Roundup PowerMax 4.5 SL AMS - Liquid Cobra COC	1.5 lb ae/a A 2.5 % v/v A 0.195 lb ai/a C 1 % v/v C	A	92.8 ab	99.0 a	99.0 a	99.0 a	88.8 de	93.5 a	88.8 abc

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	W Weed	W Weed				
Pest Code	AMBTR	SETFA	AMARE	CHEAL	SETFA	AMBTR	AMARE				
Pest Scientific Name	Ambrosia trifi>	Setaria fabri>	Amaranthus ret>	Chenopodium al>	Setaria fabri>	Ambrosia trifi>	Amaranthus ret>				
Pest Name	Giant ragweed	Giant foxtail	Redroot pigweed	Common lambsqu>	Giant foxtail	Giant ragweed	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				
Rating Date	6-20-2012	6-20-2012	6-20-2012	6-20-2012	7-24-2012	7-24-2012	7-24-2012				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Scale											
Pest Stage Majority					36 IN	48 IN	36 IN				
Pest Density, Unit					15 FT2	5 YD2	10 YD2				
Assessed By	MW	MW	MW	MW	MW	MW	MW				
Days After First/Last Applic.	13 6	13 6	13 6	13 6	47 19	47 19	47 19				
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	37 DP-1	71 DP-1	71 DP-1	71 DP-1				
Days After Emergence	29 DE-1	29 DE-1	29 DE-1	29 DE-1	63 DE-1	63 DE-1	63 DE-1				
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7
8	Roundup PowerMax 4.5 SL	1.5 lb ae/a	A	A	90.0 b	97.5 ab	98.0 a	99.0 a	86.3 e	95.5 a	90.0 abc
	Flexstar (1.88 L)	0.305 lb ai/a	A	A							
	MSO	1 % v/v	A	A							
	AMS - Liquid	2.5 % v/v	A	A							
	Cobra	0.125 lb ai/a	C	C							
	COC	1 % v/v	C	C							
9	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D	D	0.0 d	0.0 c	0.0 b	99.0 a	90.0 cde	98.0 a	83.8 bc
	AMS - Liquid	2.5 % v/v	D	D							
10	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D	D	0.0 d	0.0 c	0.0 b	99.0 a	95.5 ab	93.5 a	96.8 ab
	Flexstar (1.88 L)	0.305 lb ai/a	D	D							
	MSO	1 % v/v	D	D							
	AMS - Liquid	2.5 % v/v	D	D							
11	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D	D	0.0 d	0.0 c	0.0 b	74.3 a	88.8 de	82.5 b	86.3 abc
	Cobra	0.195 lb ai/a	D	D							
	COC	1 % v/v	D	D							
	AMS - Liquid	2.5 % v/v	D	D							
12	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D	D	0.0 d	0.0 c	0.0 b	24.8 a	98.0 a	98.0 a	99.0 a
	AMS - Liquid	2.5 % v/v	D	D							
	Flexstar (1.88 L)	0.305 lb ai/a	E	E							
	MSO	1 % v/v	E	E							
	AMS - Liquid	2.5 % v/v	E	E							
13	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D	D	0.0 d	0.0 c	0.0 b	49.5 a	94.3 abc	95.3 a	95.3 abc
	AMS - Liquid	2.5 % v/v	D	D							
	Flexstar (1.88 L)	0.305 lb ai/a	F	F							
	MSO	1 % v/v	F	F							
	AMS - Liquid	2.5 % v/v	F	F							
14	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D	D	0.0 d	0.0 c	24.8 b	74.3 a	95.5 ab	96.5 a	99.0 a
	AMS - Liquid	2.5 % v/v	D	D							
	Cobra	0.195 lb ai/a	E	E							
	COC	1 % v/v	E	E							
15	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D	D	0.0 d	0.0 c	24.8 b	74.3 a	92.5 bcd	97.0 a	95.8 abc
	AMS - Liquid	2.5 % v/v	D	D							
	Cobra	0.195 lb ai/a	F	F							
	COC	1 % v/v	F	F							
16	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D	D	0.0 d	0.0 c	0.0 b	24.8 a	94.3 abc	92.3 a	98.0 a
	Flexstar (1.88 L)	0.305 lb ai/a	D	D							
	MSO	1 % v/v	D	D							
	AMS - Liquid	2.5 % v/v	D	D							
	Cobra	0.125 lb ai/a	F	F							
	COC	1 % v/v	F	F							

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	
Pest Code	AMBTR	SETFA	AMARE	CHEAL	SETFA	AMBTR	AMARE	
Pest Scientific Name	Ambrosia trifi>	Setaria faberi	Amaranthus ret>	Chenopodium al>	Setaria faberi	Ambrosia trifi>	Amaranthus ret>	
Pest Name	Giant ragweed	Giant foxtail	Redroot pigweed	Common lambsqu>	Giant foxtail	Giant ragweed	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	
Rating Date	6-20-2012	6-20-2012	6-20-2012	6-20-2012	7-24-2012	7-24-2012	7-24-2012	
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit	%	%	%	%	%	%	%	
Number of Subsamples	1	1	1	1	1	1	1	
Crop Stage Scale								
Pest Stage Majority					36 IN	48 IN	36 IN	
Pest Density, Unit					15 FT2	5 YD2	10 YD2	
Assessed By	MW	MW	MW	MW	MW	MW	MW	
Days After First/Last Applic.	13 6	13 6	13 6	13 6	47 19	47 19	47 19	
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	37 DP-1	71 DP-1	71 DP-1	71 DP-1	
Days After Emergence	29 DE-1	29 DE-1	29 DE-1	29 DE-1	63 DE-1	63 DE-1	63 DE-1	
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
No. Name	Unit	Unit	Unit	Unit	Unit	Unit	Unit	
	Code	Code	Code	Code	Code	Code	Code	
	1	2	3	4	5	6	7	
17 Roundup PowerMax 4.5 SL	1.5 lb ae/a A	98.0 a	97.5 ab	99.0 a	99.0 a	88.8 de	96.8 a	82.5 c
AMS - Liquid	2.5 % v/v A							
Roundup PowerMax 4.5 SL	1.5 lb ae/a D							
AMS - Liquid	2.5 % v/v D							
LSD (P=.05)	4.93	1.28	23.48	42.02	3.23	6.60	7.82	
Standard Deviation	3.45	0.90	16.43	29.41	2.26	4.62	5.48	
CV	6.98	1.73	29.73	35.44	2.47	4.91	5.97	
Bartlett's X2	8.59	3.584	15.344	0.106	14.52	21.103	23.427	
P(Bartlett's X2)	0.283	0.611	0.001*	1.00	0.412	0.175	0.054	
Replicate F	0.308	1.829	2.165	1.944	3.417	1.327	3.098	
Replicate Prob(F)	0.8197	0.1544	0.1044	0.1350	0.0246	0.2766	0.0354	
Treatment F	778.153	12694.721	34.552	3.167	11.235	3.366	4.649	
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0010	0.0001	0.0006	0.0001	

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Pest Type	W Weed CHEAL	W Weed SETFA	W Weed AMBTR	W Weed AMARE	W Weed CHEAL					
Pest Code	Chenopodium al>	Setaria faberi	Ambrosia trifi>	Amaranthus ret>	Chenopodium al>					
Pest Scientific Name	Common lambsqu>	Giant foxtail	Giant ragweed	Redroot pigweed	Common lambsqu>					
Pest Name										
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA				
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max				
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean				
Rating Date	7-24-2012	7-31-2012	7-31-2012	7-31-2012	7-31-2012	10-17-2012				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	YIELD				
Rating Unit	%	%	%	%	%	bu/ac				
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Scale		R4	R4	R4	R4					
Pest Stage Majority	34 IN	37 IN	75 IN	36 IN	35 IN					
Pest Density, Unit	10 YD2	25 FT2	6 YD2	7 FT2	5 FT2					
Assessed By	MW	MW	MW	MW	MW					
Days After First/Last Applic.	47 19	54 26	54 26	54 26	54 26	132 104				
Plant-Eval Interval	71 DP-1	78 DP-1	78 DP-1	78 DP-1	78 DP-1	156 DP-1				
Days After Emergence	63 DE-1	70 DE-1	70 DE-1	70 DE-1	70 DE-1	148 DE-1				
Trt No.	Treatment	Rate	Appl Unit	Code	8	9	10	11	12	13
1	Roundup PowerMax 4.5 SL AMS - Liquid	1.5 lb ae/a 2.5 % v/v	A A		96.8 a	91.3 b	88.0 abc	85.0 b	98.0 a	57.80 a
2	Roundup PowerMax 4.5 SL Flexstar (1.88 L) MSO AMS - Liquid	1.5 lb ae/a 0.305 lb ai/a 1 % v/v 2.5 % v/v	A A A A		96.8 a	91.3 b	85.0 bc	92.3 ab	99.0 a	61.15 a
3	Roundup PowerMax 4.5 SL Cobra COC AMS - Liquid	1.5 lb ae/a 0.195 lb ai/a 1 % v/v 2.5 % v/v	A A A A		93.3 a	90.0 b	88.0 abc	91.3 ab	98.0 a	54.60 a
4	Roundup PowerMax 4.5 SL AMS - Liquid Flexstar (1.88 L) MSO AMS - Liquid	1.5 lb ae/a 2.5 % v/v 0.305 lb ai/a 1 % v/v 2.5 % v/v	A A B B B		98.0 a	95.0 ab	98.0 a	98.5 a	98.5 a	57.48 a
5	Roundup PowerMax 4.5 SL AMS - Liquid Flexstar (1.88 L) MSO AMS - Liquid	1.5 lb ae/a 2.5 % v/v 0.305 lb ai/a 1 % v/v 2.5 % v/v	A A C C C		98.5 a	95.5 ab	98.5 a	96.8 a	98.5 a	58.93 a
6	Roundup PowerMax 4.5 SL AMS - Liquid Cobra COC	1.5 lb ae/a 2.5 % v/v 0.195 lb ai/a 1 % v/v	A A B B		96.0 a	93.8 ab	95.8 a	94.0 ab	97.5 a	54.25 a
7	Roundup PowerMax 4.5 SL AMS - Liquid Cobra COC	1.5 lb ae/a 2.5 % v/v 0.195 lb ai/a 1 % v/v	A A C C		88.8 a	90.0 b	92.3 ab	93.8 ab	96.5 a	54.90 a

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	CHEAL	SETFA	AMBTR	AMARE	CHEAL					
Pest Scientific Name	Chenopodium ai>	Setaria faberi	Ambrosia trifi>	Amaranthus ret>	Chenopodium ai>					
Pest Name	Common lambsqu>	Giant foxtail	Giant ragweed	Redroot pigweed	Common lambsqu>					
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY					
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max					
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean					
Rating Date	7-24-2012	7-31-2012	7-31-2012	7-31-2012	7-31-2012					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Crop Stage Scale		R4	R4	R4	R4					
Pest Stage Majority	34 IN	37 IN	75 IN	36 IN	35 IN					
Pest Density, Unit	10 YD2	25 FT2	6 YD2	7 FT2	5 FT2					
Assessed By	MW	MW	MW	MW	MW					
Days After First/Last Applic.	47 19	54 26	54 26	54 26	54 26					
Plant-Eval Interval	71 DP-1	78 DP-1	78 DP-1	78 DP-1	78 DP-1					
Days After Emergence	63 DE-1	70 DE-1	70 DE-1	70 DE-1	70 DE-1					
Trt No.	Treatment Name	Rate	Appl Unit	Code	8	9	10	11	12	13
8	Roundup PowerMax 4.5 SL	1.5 lb ae/a	A		98.0 a	91.3 b	95.8 a	95.8 a	98.5 a	58.90 a
	Flexstar (1.88 L)	0.305 lb ai/a	A							
	MSO	1 % v/v	A							
	AMS - Liquid	2.5 % v/v	A							
	Cobra	0.125 lb ai/a	C							
	COC	1 % v/v	C							
9	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D		94.5 a	91.3 b	98.5 a	90.0 ab	96.5 a	52.53 a
	AMS - Liquid	2.5 % v/v	D							
10	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D		94.5 a	96.0 ab	95.8 a	99.0 a	97.0 a	56.33 a
	Flexstar (1.88 L)	0.305 lb ai/a	D							
	MSO	1 % v/v	D							
	AMS - Liquid	2.5 % v/v	D							
11	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D		94.5 a	91.3 b	81.3 c	92.5 ab	94.8 a	58.70 a
	Cobra	0.195 lb ai/a	D							
	COC	1 % v/v	D							
	AMS - Liquid	2.5 % v/v	D							
12	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D		98.5 a	98.0 a	99.0 a	99.0 a	99.0 a	61.05 a
	AMS - Liquid	2.5 % v/v	D							
	Flexstar (1.88 L)	0.305 lb ai/a	E							
	MSO	1 % v/v	E							
	AMS - Liquid	2.5 % v/v	E							
13	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D		95.8 a	95.0 ab	94.5 ab	98.0 a	97.5 a	53.78 a
	AMS - Liquid	2.5 % v/v	D							
	Flexstar (1.88 L)	0.305 lb ai/a	F							
	MSO	1 % v/v	F							
	AMS - Liquid	2.5 % v/v	F							
14	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D		93.0 a	96.5 ab	98.0 a	99.0 a	96.5 a	57.85 a
	AMS - Liquid	2.5 % v/v	D							
	Cobra	0.195 lb ai/a	E							
	COC	1 % v/v	E							
15	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D		91.0 a	92.5 ab	98.0 a	98.5 a	94.3 a	61.68 a
	AMS - Liquid	2.5 % v/v	D							
	Cobra	0.195 lb ai/a	F							
	COC	1 % v/v	F							
16	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D		94.0 a	96.0 ab	91.0 ab	98.5 a	97.5 a	57.28 a
	Flexstar (1.88 L)	0.305 lb ai/a	D							
	MSO	1 % v/v	D							
	AMS - Liquid	2.5 % v/v	D							
	Cobra	0.125 lb ai/a	F							
	COC	1 % v/v	F							

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	CHEAL	SETFA	AMBTR	AMARE	CHEAL					
Pest Scientific Name	Chenopodium al>	Setaria faberi	Ambrosia trifi>	Amaranthus ret>	Chenopodium al>					
Pest Name	Common lambsqu>	Giant foxtail	Giant ragweed	Redroot pigweed	Common lambsqu>					
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA				
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max				
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean				
Rating Date	7-24-2012	7-31-2012	7-31-2012	7-31-2012	7-31-2012	10-17-2012				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	YIELD				
Rating Unit	%	%	%	%	%	bu/ac				
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Scale		R4	R4	R4	R4					
Pest Stage Majority	34 IN	37 IN	75 IN	36 IN	35 IN					
Pest Density, Unit	10 YD2	25 FT2	6 YD2	7 FT2	5 FT2					
Assessed By	MW	MW	MW	MW	MW					
Days After First/Last Applic.	47 19	54 26	54 26	54 26	54 26	132 104				
Plant-Eval Interval	71 DP-1	78 DP-1	78 DP-1	78 DP-1	78 DP-1	156 DP-1				
Days After Emergence	63 DE-1	70 DE-1	70 DE-1	70 DE-1	70 DE-1	148 DE-1				
Trt No.	Treatment	Rate	Appl Unit	Code	8	9	10	11	12	13
17	Roundup PowerMax 4.5 SL	1.5 lb ae/a	A		93.8 a	91.3 b	96.8 a	90.5 ab	97.0 a	50.18 a
	AMS - Liquid	2.5 % v/v	A							
	Roundup PowerMax 4.5 SL	1.5 lb ae/a	D							
	AMS - Liquid	2.5 % v/v	D							
LSD (P=.05)		6.46	3.64	6.58	6.34	2.81	9.875			
Standard Deviation		4.52	2.55	4.60	4.44	1.97	6.910			
CV		4.75	2.73	4.91	4.68	2.02	12.14			
Bartlett's X2		26.88	20.321	29.835	31.187	9.7	11.844			
P(Bartlett's X2)		0.043*	0.087	0.013*	0.003*	0.784	0.755			
Replicate F		1.008	0.630	0.185	1.529	1.078	11.596			
Replicate Prob(F)		0.3976	0.5994	0.9061	0.2189	0.3673	0.0001			
Treatment F		1.416	4.053	5.391	3.464	1.877	0.850			
Treatment Prob(F)		0.1746	0.0001	0.0001	0.0004	0.0474	0.6255			

Purdue University

Clarksburg GRW Treatments

Trial ID: 12S-THP-CTS-49 Protocol ID: 12S-THP-CTS-49
Location: Throckmorton Study Director:
Project ID: Investigator: Dr. Bill Johnson
Sponsor Contact:

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, = US

SETFA, Setaria faberi, = US

AMARE, Amaranthus retroflexus, = US

CHEAL, Chenopodium album, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

CONTRO = control / burndown or knockdown

YIELD = yield

Rating Unit

% = percent

bu/ac = bushels per acre

FT2 = per square foot

YD2 = per square yard

Plant-Eval Interval

37 DP-1 = 1 GLXMA 5-14-2012

71 DP-1 = 1 GLXMA 5-14-2012

78 DP-1 = 1 GLXMA 5-14-2012

156 DP-1 = 1 GLXMA 5-14-2012