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2012/SOYBEAN/AUTHORITY/ANTHEM/

Trial ID: 12S-THP-CTS-35 Protocol ID: 12S-THP-CTS-35
 Location: Throckmorton Study Director: White/Marquardt
 Project ID: SULF.SOY.12.JPR01 Investigator: Dr. Bill Johnson
 Sponsor Contact: FMC - Joe Reed

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: 3-23-2012

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:** wgj@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:** 4-24-2012
Planting Method: PLANTD planted **Rate, Unit:** 124000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 15 IN
Soil Moisture: DRY dry **Soil Temperature, Unit:** 60 F
Emergence Date: 5-7-2012

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:** CHEAL Chenopodium album
Common Name: Common lambsquarters
Pest 4 Type: W **Code:** ABUTH Abutilon theophrasti
Common Name: Velvetleaf

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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: RACOBL Randomized Complete Block (RCB) Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description
Description Name: TPAC - Field 4B % OM: 2.9 Texture: SIL silt loam pH: 6.2 Soil Name: Toronto-Millbrook CEC: 13.3

Application Description			
	A	B	C
Application Date:	4-24-2012	5-25-2012	6-19-2012
Time of Day:		8 AM	7:30 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	ATPLAN	EAPOWE	MIPOWE
Application Placement:	SOIL	FOLIAR	FOLIAR
Applied By:	MW	MW	MW
Air Temperature, Unit:	59 F	76 F	81 F
% Relative Humidity:	34	68	63
Wind Velocity, Unit:	6 MPH	3 MPH	7 MPH
Wind Direction:	W	SW	SW
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	60 F	74 F	79 F
Soil Moisture:	DRY	DRY	DRY
% Cloud Cover:	100	80	10

Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:		BBCH	
Stage Majority, Percent:		V2	
Height, Unit:		4 IN	11 IN

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Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Height, Unit:		2.5 IN	19 IN
Height Minimum, Maximum:		1 4	10 28
Density, Unit:		17 YD2	30 YD2
Pest 2 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Height, Unit:		4.5 IN	8 IN
Height Minimum, Maximum:		0.5 8.5	0.5 16
Density, Unit:		30 YD2	70 YD2
Pest 3 Code, Type, Scale:	CHEAL W	CHEAL W	CHEAL W
Height, Unit:		2 IN	9 IN
Height Minimum, Maximum:		0.5 3.5	2 16
Density, Unit:		25 YD2	40 YD2
Pest 4 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Height, Unit:		2.25 IN	
Height Minimum, Maximum:		1.5 3	
Density, Unit:		6 YD2	

Application Equipment

	A	B	C
Appl. Equipment:	CO2 FORD	CO2 FORD	CO2 FORD
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Nozzle Type:	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size:	XR 100 02	XR 100 02	XR 100 02
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Nozzles/Row:	6	6	6
Boom Length, Unit:	10 FT	10 FT	10 FT
Boom Height, Unit:	20 IN	20 IN	20 IN
Ground Speed, Unit:	2.1 MPH	2.1 MPH	2.1 MPH
Carrier:	MEIGS	MEIGS	MEIGS
Spray Volume, Unit:	20 gal/ac	20 gal/ac	20 gal/ac
Mix Size, Unit:	2.5 liters	2.5 liters	2.5 liters
Propellant:	CO2	CO2	CO2

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Trial ID: 12S-THP-CTS-35 Protocol ID: 12S-THP-CTS-35
 Location: Throckmorton Study Director: White/Marquardt
 Project ID: SULF.SOY.12.JPR01 Investigator: Dr. Bill Johnson
 Sponsor Contact: FMC - Joe Reed

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	AMBTR	SETFA	CHEAL	SETFA	AMBTR	CHEAL	ABUTH				
Pest Scientific Name	Ambrosia trifi>	Setaria faberi	Chenopodium al>	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Abutilon theop>				
Pest Name	Giant ragweed	Giant foxtail	Common lambsqu>	Giant foxtail	Giant ragweed	Common lambsqu>	Velvetleaf				
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	5-16-2012	5-16-2012	5-16-2012	5-24-2012	5-24-2012	5-24-2012	5-24-2012				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1	1				
Crop Stage Scale	VC	VC	VC	V2	V2	V2	V2				
Pest Stage Majority	5-30 IN	5-35 IN	2-25 IN	4 IN	6 IN	1.5 IN	2 IN				
Pest Density, Unit	4 M2	2 M2	1 M2	15 FT2	5 YD2	7 FT2	2 YD2				
Assessed By	JR/JS	JR/JS	JR/JS	MW	MW	MW	MW				
Days After First/Last Applic.	22 22	22 22	22 22	30 30	30 30	30 30	30 30				
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1				
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1				
Trt No.	Treatment Name	Rate	Appl Unit	Code	1	2	3	4	5	6	7
1	UNTREATED	0.0	c		0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	AUTHORITY FIRST DF SELECT MAX COC	6.4 oz/a 8 oz/a 1 % v/v	A C C		88.3	98.3	100.0	97.0	90.0	99.0	99.0
3	AUTHORITY XL SELECT MAX COC	6 oz/a 8 oz/a 1 % v/v	A C C		78.8	85.0	97.5	77.5	77.5	99.0	99.0
4	AUTHORITY MTZ SELECT MAX COC	16 oz/a 8 oz/a 1 % v/v	A C C		60.3	95.0	99.5	91.6	36.6	99.3	69.5
5	AUTHORITY XL ANTHEM ROUNDUP POWERMAX NIS	4 oz/a 6 oz/a 32 oz/a 0.25 % v/v	A B B B		85.8	92.5	100.0	88.8	71.3	98.0	99.0
6	ROUNDUP POWERMAX ANTHEM CLASSIC NIS ROUNDUP POWERMAX NIS	32 oz/a 6 oz/a 0.75 oz/a 0.25 % v/v 32 oz/a 0.25 % v/v	B B B B C C		0.0	0.0	0.0	70.0	25.0	38.8	44.8
7	AUTHORITY FIRST DF ANTHEM ROUNDUP POWERMAX NIS	4 oz/a 6 oz/a 32 oz/a 0.25 % v/v	A B B B		81.3	94.5	97.5	92.5	81.3	99.0	99.0
8	ROUNDUP POWERMAX ANTHEM FIRSTRATE NIS ROUNDUP POWERMAX NIS	32 oz/a 6 oz/a 0.30 oz/a 0.25 % v/v 32 oz/a 0.25 % v/v	B B B B C C		0.0	0.0	0.0	36.3	0.0	12.5	49.5

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 AMBTR	W Weed SETFA	W Weed ABUTH	W Weed CHEAL			W Weed AMBTR			
Pest Code			Ambrosia trifi>	Setaria faberi	Abutilon theop>	Chenopodium al>			Ambrosia trifi>			
Pest Scientific Name			Giant ragweed	Giant foxtail	Velvetleaf	Common lambsqu>			Giant ragweed			
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY			
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max			
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean			
Rating Date	5-24-2012	5-25-2012	5-25-2012	5-25-2012	5-25-2012	5-25-2012	5-25-2012	5-29-2012	5-29-2012			
Rating Type	PHYLMA	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO			
Rating Unit	%	%	%	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1	1	1	1			
Crop Stage Scale	V2	V2	V2	V2	V2	V2	V2	V4	V4			
Pest Stage Majority			1-10 IN	1-6 IN	1-4 IN	1-3 IN			1-15 IN			
Pest Density, Unit			15 M2	30 M2	5 M2	50 M2			20 M2			
Assessed By	MW	JS/PM	JS/PM	JS/PM	JS/PM	JS/PM	JS/PM	JS/GC	JS/GC			
Days After First/Last Applic.	30 30	31 31	31 31	31 31	31 31	31 31	31 31	35 4	35 4			
Plant-Eval Interval	30 DP-1	31 DP-1	31 DP-1	31 DP-1	31 DP-1	31 DP-1	31 DP-1	35 DP-1	35 DP-1			
Days After Emergence	17 DE-1	18 DE-1	18 DE-1	18 DE-1	18 DE-1	18 DE-1	18 DE-1	22 DE-1	22 DE-1			
Trt No.	Treatment Name	Rate	Appl Unit	Code	8	9	10	11	12	13	14	15
9	ROUNDUP POWERMAX	32 oz/a	B		0.0 b	0.0 a	23.8 bc	20.0 c	12.5 b	12.5 bc	30.0 a	67.5 ab
	ANTHEM	6 oz/a	B									
	FirstRate (84 WG)	0.3 oz/a	B									
	Python (80 WG)	0.12 oz/a	B									
	NIS	0.25 % v/v	B									
	ROUNDUP POWERMAX	32 oz/a	C									
	NIS	0.25 % v/v	C									
10	ANTHEM	5 oz/a	A		0.0 b	0.0 a	17.5 bc	92.0 a	82.5 a	86.3 a	32.5 a	45.0 bcd
	CADET	0.5 oz/a	B									
	CLASSIC	0.75 oz/a	B									
	NIS	0.25 % v/v	B									
11	ANTHEM	5 oz/a	A		0.0 b	0.0 a	46.3 abc	67.0 ab	70.0 a	93.8 a	16.8 b	57.5 abc
	CADET	0.5 oz/a	B									
	FIRSTRATE	0.30 oz/a	B									
	NIS	0.25 % v/v	B									
12	Sonic (70 WG)	4.3 oz/a	A		0.0 b	0.0 a	75.0 a	87.5 a	100.0 a	100.0 a	0.0 c	67.5 ab
	Durango DMA (4 SL)	24 oz/a	C									
	AMS - Liquid	2.5 % v/v	C									
13	Sonic (70 WG)	6.4 oz/a	A		0.0 b	0.0 a	95.0 a	97.3 a	100.0 a	100.0 a	0.0 c	86.3 a
	Durango DMA (4 SL)	24 oz/a	C									
	AMS - Liquid	2.5 % v/v	C									
14	Durango DMA (4 SL)	24 oz/a	B		0.0 b	0.0 a	20.0 bc	21.3 c	20.0 b	15.0 bc	4.8 c	62.5 ab
	FirstRate (84 WG)	0.3 oz/a	B									
	AMS - Liquid	2.5 % v/v	B									
	Durango DMA (4 SL)	24 oz/a	C									
	AMS - Liquid	2.5 % v/v	C									
15	ANTHEM	6 oz/a	A		0.0 b	0.0 a	48.8 abc	95.3 a	76.3 a	95.5 a	0.0 c	18.8 de
	ROUNDUP POWERMAX	22 oz/a	C									
	NIS	0.25 % v/v	C									
LSD (P=.05)		0.83		0.00		32.59	31.45	32.42		20.04	4.35	23.01
Standard Deviation		0.58		0.00		22.81	22.01	22.68		14.03	3.04	16.10
CV		386.27		0.0		43.61	33.01	34.28		20.32	22.02	27.32
Bartlett's X2		0.061		0.0		42.921	66.191	21.279		33.057	15.663	33.461
P(Bartlett's X2)		0.805		.		0.001*	0.001*	0.006*		0.001*	0.047*	0.001*
Replicate F		1.638		0.000		5.358	5.363	4.509		2.417	1.235	1.011
Replicate Prob(F)		0.1949		1.0000		0.0032	0.0032	0.0079		0.0797	0.3089	0.3974
Treatment F		2.106		0.000		8.214	10.687	12.151		35.593	91.757	10.197
Treatment Prob(F)		0.0317		1.0000		0.0001	0.0001	0.0001		0.0001	0.0001	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	AMBTR	CHEAL	ABUTH	SETFA	AMBTR	CHEAL				
Pest Scientific Name	Ambrosia trifi>	Chenopodium al>	Abutilon theop>	Setaria faberi	Ambrosia trifi>	Chenopodium al>				
Pest Name	Giant ragweed	Common lambsqu>	Velvetleaf	Giant foxtail	Giant ragweed	Common lambsqu>				
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	6-18-2012	6-18-2012	6-18-2012	6-26-2012	6-26-2012	6-26-2012	6-26-2012			
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Scale	V4	V4	V4	V7-R2	V7-R2	V7-R2	V7-R2			
Pest Stage Majority	24 IN	14 IN	18 IN	6-18 IN	6-36 IN	4-12 IN				
Pest Density, Unit	8 YD2	10 FT2	2 YD2	30 M2	20 M2	8 M2				
Assessed By	MW	MW	MW	JS/JR	JS/JR	JS/JR	JS/JR			
Days After First/Last Applic.	55 24	55 24	55 24	63 7	63 7	63 7	63 7			
Plant-Eval Interval	55 DP-1	55 DP-1	55 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1			
Days After Emergence	42 DE-1	42 DE-1	42 DE-1	50 DE-1	50 DE-1	50 DE-1	50 DE-1			
Trt No.	Treatment Name	Rate	Appl	23	24	25	26	27	28	29
Rate Unit	Code									
1	UNTREATED	0.0 e		0.0 b	0.0 b	0.0 a	0.0 c	0.0 d	0.0 b	
2	AUTHORITY FIRST DF SELECT MAX COC	6.4 oz/a A 8 oz/a C 1 % v/v C		72.5 a	99.0 a	99.0 a	0.0 a	74.5 a	35.0 cd	97.5 a
3	AUTHORITY XL SELECT MAX COC	6 oz/a A 8 oz/a C 1 % v/v C		32.5 cd	99.0 a	99.0 a	0.0 a	25.0 bc	7.5 d	50.0 a
4	AUTHORITY MTZ SELECT MAX COC	16 oz/a A 8 oz/a C 1 % v/v C		5.0 e	99.0 a	99.0 a	0.0 a	47.5 ab	0.0 d	0.0 b
5	AUTHORITY XL ANTHEM ROUNDUP POWERMAX NIS	4 oz/a A 6 oz/a B 32 oz/a B 0.25 % v/v B		90.0 a	99.0 a	99.0 a	0.3 a	99.5 a	86.3 a	100.0 a
6	ROUNDUP POWERMAX ANTHEM CLASSIC NIS ROUNDUP POWERMAX NIS	32 oz/a B 6 oz/a B 0.75 oz/a B 0.25 % v/v B 32 oz/a C 0.25 % v/v C		82.5 a	89.8 a	99.0 a	2.5 a	97.8 a	77.0 ab	87.5 a
7	AUTHORITY FIRST DF ANTHEM ROUNDUP POWERMAX NIS	4 oz/a A 6 oz/a B 32 oz/a B 0.25 % v/v B		93.0 a	99.0 a	99.0 a	0.0 a	77.0 a	91.5 a	100.0 a
8	ROUNDUP POWERMAX ANTHEM FIRSTRATE NIS ROUNDUP POWERMAX NIS	32 oz/a B 6 oz/a B 0.30 oz/a B 0.25 % v/v B 32 oz/a C 0.25 % v/v C		87.5 a	87.5 a	99.0 a	0.5 a	99.5 a	82.5 a	91.3 a

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Pest Type	W Weed AMBTR	W Weed CHEAL	W Weed ABUTH		W Weed SETFA	W Weed AMBTR	W Weed CHEAL	
Pest Code	Ambrosia trifi>	Chenopodium al>	Abutilon theop>		Setaria faberi	Ambrosia trifi>	Chenopodium al>	
Pest Scientific Name	Giant ragweed	Common lambsqu>	Velvetleaf		Giant foxtail	Giant ragweed	Common lambsqu>	
Pest Name	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Crop Code	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	
BBCH Scale	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	
Crop Scientific Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	
Crop Name	6-18-2012	6-18-2012	6-18-2012	6-26-2012	6-26-2012	6-26-2012	6-26-2012	
Rating Date	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	
Rating Type	%	%	%	%	%	%	%	
Rating Unit	1	1	1	1	1	1	1	
Number of Subsamples	V4	V4	V4	V7-R2	V7-R2	V7-R2	V7-R2	
Crop Stage Scale	24 IN	14 IN	18 IN		6-18 IN	6-36 IN	4-12 IN	
Pest Stage Majority	8 YD2	10 FT2	2 YD2		30 M2	20 M2	8 M2	
Pest Density, Unit	MW	MW	MW	JS/JR	JS/JR	JS/JR	JS/JR	
Assessed By	55 24	55 24	55 24	63 7	63 7	63 7	63 7	
Days After First/Last Applic.	55 DP-1	55 DP-1	55 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1	
Plant-Eval Interval	42 DE-1	42 DE-1	42 DE-1	50 DE-1	50 DE-1	50 DE-1	50 DE-1	
Days After Emergence								
Trt Treatment								
No. Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
	Unit	Unit	Unit	Unit	Unit	Unit	Unit	
	Code	Code	Code	Code	Code	Code	Code	
	23	24	25	26	27	28	29	
9 ROUNDUP POWERMAX	32 oz/a B	86.3 a	91.0 a	99.0 a	1.8 a	100.0 a	86.3 a	96.3 a
ANTHEM	6 oz/a B							
FirstRate (84 WG)	0.3 oz/a B							
Python (80 WG)	0.12 oz/a B							
NIS	0.25 % v/v B							
ROUNDUP POWERMAX	32 oz/a C							
NIS	0.25 % v/v C							
10 ANTHEM	5 oz/a A	40.0 cd	76.0 a	94.3 a	0.0 a	68.8 ab	5.0 d	62.5 a
CADET	0.5 oz/a B							
CLASSIC	0.75 oz/a B							
NIS	0.25 % v/v B							
11 ANTHEM	5 oz/a A	48.8 bc	75.8 a	99.0 a	0.0 a	67.5 ab	22.5 cd	41.3 a
CADET	0.5 oz/a B							
FIRSTRATE	0.30 oz/a B							
NIS	0.25 % v/v B							
12 Sonic (70 WG)	4.3 oz/a A	46.3 bc	99.0 a	99.0 a	0.0 a	80.0 a	48.8 bc	100.0 a
Durango DMA (4 SL)	24 oz/a C							
AMS - Liquid	2.5 % v/v C							
13 Sonic (70 WG)	6.4 oz/a A	68.8 ab	99.0 a	99.0 a	0.0 a	97.0 a	67.5 ab	100.0 a
Durango DMA (4 SL)	24 oz/a C							
AMS - Liquid	2.5 % v/v C							
14 Durango DMA (4 SL)	24 oz/a B	90.5 a	82.5 a	99.0 a	3.0 a	99.5 a	81.3 a	77.5 a
FirstRate (84 WG)	0.3 oz/a B							
AMS - Liquid	2.5 % v/v B							
Durango DMA (4 SL)	24 oz/a C							
AMS - Liquid	2.5 % v/v C							
15 ANTHEM	6 oz/a A	17.5 de	91.8 a	89.3 a	0.0 a	97.8 a	25.0 cd	100.0 a
ROUNDUP POWERMAX	22 oz/a C							
NIS	0.25 % v/v C							
LSD (P=.05)	19.48	15.28	8.08	1.73	34.84	23.88	33.87	
Standard Deviation	13.63	10.69	5.65	1.21	24.38	16.71	23.70	
CV	23.75	12.46	6.18	226.89	32.33	35.01	32.21	
Bartlett's X2	30.168	18.675	1.418	10.008	82.843	26.342	25.87	
P(Bartlett's X2)	0.004*	0.005*	0.234	0.04*	0.001*	0.01*	0.001*	
Replicate F	0.102	1.048	0.724	1.366	2.776	3.275	0.721	
Replicate Prob(F)	0.9583	0.3812	0.5434	0.2663	0.0529	0.0302	0.5452	
Treatment F	22.919	22.172	81.006	2.802	6.225	18.192	8.978	
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0050	0.0001	0.0001	0.0001	

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Pest Type	W Weed	W Weed	W Weed	W Weed				
Pest Code	SETFA	AMBTR	CHEAL	ABUTH				
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Abutilon theop>				
Pest Name	Giant foxtail	Giant ragweed	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				
Rating Date	7-17-2012	7-17-2012	7-17-2012	7-17-2012				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%				
Number of Subsamples	1	1	1	1				
Crop Stage Scale	R2	R2	R2	R2				
Pest Stage Majority	27 IN	30 IN	60 IN	24 IN				
Pest Density, Unit	30 FT2	10 YD2	15 YD2	1 YD2				
Assessed By	MW	MW	MW	MW				
Days After First/Last Applic.	84 28	84 28	84 28	84 28				
Plant-Eval Interval	84 DP-1	84 DP-1	84 DP-1	84 DP-1				
Days After Emergence	71 DE-1	71 DE-1	71 DE-1	71 DE-1				
Trt No.	Treatment Name	Rate	Appl Unit	Code	30	31	32	33
1	UNTREATED				0.0 c	0.0 f	0.0 b	0.0 b
2	AUTHORITY FIRST DF	6.4 oz/a	A		99.0 a	62.5 cd	99.0 a	99.0 a
	SELECT MAX	8 oz/a	C					
	COC	1 % v/v	C					
3	AUTHORITY XL	6 oz/a	A		99.0 a	32.5 e	99.0 a	99.0 a
	SELECT MAX	8 oz/a	C					
	COC	1 % v/v	C					
4	AUTHORITY MTZ	16 oz/a	A		99.0 a	12.5 f	99.0 a	99.0 a
	SELECT MAX	8 oz/a	C					
	COC	1 % v/v	C					
5	AUTHORITY XL	4 oz/a	A		99.0 a	86.3 ab	99.0 a	99.0 a
	ANTHEM	6 oz/a	B					
	ROUNDUP POWERMAX	32 oz/a	B					
	NIS	0.25 % v/v	B					
6	ROUNDUP POWERMAX	32 oz/a	B		99.0 a	94.0 ab	99.0 a	99.0 a
	ANTHEM	6 oz/a	B					
	CLASSIC	0.75 oz/a	B					
	NIS	0.25 % v/v	B					
	ROUNDUP POWERMAX	32 oz/a	C					
	NIS	0.25 % v/v	C					
7	AUTHORITY FIRST DF	4 oz/a	A		99.0 a	92.5 ab	95.5 a	99.0 a
	ANTHEM	6 oz/a	B					
	ROUNDUP POWERMAX	32 oz/a	B					
	NIS	0.25 % v/v	B					
8	ROUNDUP POWERMAX	32 oz/a	B		99.0 a	98.0 a	99.0 a	99.0 a
	ANTHEM	6 oz/a	B					
	FIRSTRATE	0.30 oz/a	B					
	NIS	0.25 % v/v	B					
	ROUNDUP POWERMAX	32 oz/a	C					
	NIS	0.25 % v/v	C					

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	SETFA	AMBTR	CHEAL	ABUTH
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Chenopodium al>	Abutilon theop>
Pest Name	Giant foxtail	Giant ragweed	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
Rating Date	7-17-2012	7-17-2012	7-17-2012	7-17-2012
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Crop Stage Scale	R2	R2	R2	R2
Pest Stage Majority	27 IN	30 IN	60 IN	24 IN
Pest Density, Unit	30 FT2	10 YD2	15 YD2	1 YD2
Assessed By	MW	MW	MW	MW
Days After First/Last Applic.	84 28	84 28	84 28	84 28
Plant-Eval Interval	84 DP-1	84 DP-1	84 DP-1	84 DP-1
Days After Emergence	71 DE-1	71 DE-1	71 DE-1	71 DE-1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	30	31
9 ROUNDUP POWERMAX	32 oz/a B		99.0 a	98.0 a
ANTHEM	6 oz/a B			
FirstRate (84 WG)	0.3 oz/a B			
Python (80 WG)	0.12 oz/a B			
NIS	0.25 % v/v B			
ROUNDUP POWERMAX	32 oz/a C			
NIS	0.25 % v/v C			
10 ANTHEM	5 oz/a A		94.5 b	35.0 e
CADET	0.5 oz/a B			
CLASSIC	0.75 oz/a B			
NIS	0.25 % v/v B			
11 ANTHEM	5 oz/a A		96.8 ab	46.3 de
CADET	0.5 oz/a B			
FIRSTRATE	0.30 oz/a B			
NIS	0.25 % v/v B			
12 Sonic (70 WG)	4.3 oz/a A		99.0 a	86.3 ab
Durango DMA (4 SL)	24 oz/a C			
AMS - Liquid	2.5 % v/v C			
13 Sonic (70 WG)	6.4 oz/a A		99.0 a	91.3 ab
Durango DMA (4 SL)	24 oz/a C			
AMS - Liquid	2.5 % v/v C			
14 Durango DMA (4 SL)	24 oz/a B		99.0 a	96.8 a
FirstRate (84 WG)	0.3 oz/a B			
AMS - Liquid	2.5 % v/v B			
Durango DMA (4 SL)	24 oz/a C			
AMS - Liquid	2.5 % v/v C			
15 ANTHEM	6 oz/a A		99.0 a	70.0 bc
ROUNDUP POWERMAX	22 oz/a C			
NIS	0.25 % v/v C			
LSD (P=.05)			2.48	17.13
Standard Deviation			1.74	11.99
CV			1.89	17.95
Bartlett's X2			0.061	45.293
P(Bartlett's X2)			0.805	0.001*
Replicate F			1.638	0.070
Replicate Prob(F)			0.1949	0.9756
Treatment F			858.702	31.101
Treatment Prob(F)			0.0001	0.0001
				8.54
				5.97
				6.62
				4.045
				0.40
				0.000
				1.0000
				0.000
				1.0000

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2012/SOYBEAN/AUTHORITY/ANTHEM/

Trial ID: 12S-THP-CTS-35 Protocol ID: 12S-THP-CTS-35
 Location: Throckmorton Study Director: White/Marquardt
 Project ID: SULF.SOY.12.JPR01 Investigator: Dr. Bill Johnson
 Sponsor Contact: FMC - Joe Reed

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, = US
 SETFA, Setaria faberi, = US
 CHEAL, Chenopodium album, = US
 ABUTH, Abutilon theophrasti, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

CONTRO = control / burndown or knockdown
 PHYLMA = phytotoxicity - leaf malformation
 PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

M2 = per square meter

FT2 = per square foot

YD2 = per square yard

Plant-Eval Interval

22 DP-1 = 1 GLXMA 4-24-2012
 30 DP-1 = 1 GLXMA 4-24-2012
 31 DP-1 = 1 GLXMA 4-24-2012
 35 DP-1 = 1 GLXMA 4-24-2012
 42 DP-1 = 1 GLXMA 4-24-2012
 55 DP-1 = 1 GLXMA 4-24-2012
 63 DP-1 = 1 GLXMA 4-24-2012
 84 DP-1 = 1 GLXMA 4-24-2012