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Control of Glyphosate and ALS resistant Giant Ragweed

Trial ID: 09S-THP-CTS-53 Protocol ID: 09S-THP-CTS-53
 Location: Throckmorton Study Director: Paul Marquardt/Melissa Kruger
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact:

General Trial Information

Study Director: Paul Marquardt/Melissa Kruger **Title:** Research Associate
Investigator: Dr. Bill Johnson **Title:** Professor

Discipline: H herbicide
Trial Status: E established
Initiation Date: 5/12/09

Trial Location

City: West Lafayette
State/Prov.: IN
Country: USA United States
Directions:
 TPAC Field 4A

Objectives:

Control of Glyphosate and ALS resistant Giant Ragweed.

Personnel

Study Director: Paul Marquardt/Melissa Kruger **Title:** Research Associate
Affiliation: Purdue University
Address: 915 W. State Street, Department of Botany & Plant Path.
Location: West Lafayette, IN
Postal Code: 47907 **E-mail:** pmarquar@purdue.edu/mmkruiger@purdue.edu
Phone No.: 765-494-4621 **Mobile No.:** 765-409-6369
Investigator: Dr. Bill Johnson **Title:** Professor
Affiliation: Purdue University
Address: 915 W. State Street, Department of Botany & Plant Path.
Location: West Lafayette, IN
Postal Code: 47907 **E-mail:** wgj@purdue.edu

Cooperator/Landowner

Cooperator: Throckmorton Purdue Ag Center **Role:** Farm Manager
Organization: Purdue University
Address 1: 8343 US 231 South
City: Lafayette
State/Prov: Indiana **Phone No.:** 765-538-3422
Postal Code: 47909 **Fax No.:** 765-538-3423
Country: USA United States **E-mail:** jayyoung@purdue.edu

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG3306 **Description:** roundup ready
BBCH Scale: BSOY **Planting Date:** 5/12/09
Planting Method: DIRDRI direct drilled **Rate, Unit:** 160000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 15 IN **Spacing Within Row, Unit:** 2.5 IN
Seed Bed: CLOTRA cloddy/trashy **Soil Temperature, Unit:** 64 F
Soil Moisture: ABONOR above normal
Harvested Width, Unit: 10 FT **Harvested Length, Unit:** 25 FT

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Pest Description

- Pest 1 Type:** W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail
- Pest 2 Type:** W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed
- Pest 3 Type:** W **Code:** ABUTH *Abutilon theophrasti*
Common Name: Velvetleaf
- Pest 4 Type:** W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters
- Pest 5 Type:** W **Code:** AMATA *Amaranthus tamariscinus*
Common Name: Common waterhemp
- Pest 6 Type:** W **Code:** TAROF *Taraxacum officinale*
Common Name: Common dandelion
- Pest 7 Type:** W **Code:** IPOSS *Ipomoea sp.*
Common Name: Morning glory

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 30 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 300 FT² **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB Randomized Complete Block (RCB)

Field Prep./Maintenance:

Blanket of PowerMax @ 20 oz/a over entire soybean block 1 week before planting.

Soil Description

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

Analyzed By:

A&L Great Lakes Laboratories, Inc. Report #: F04048-0006

Additional Measured Elements

Element	Quantity	Unit
P	53	ppm
K	208	ppm
Ca	325	ppm
Mg	1100	ppm

Application Description

	A	B	C	D	E
Application Date:	5/12/09	6/23/09	6/30/09	7/9/09	7/21/09
Time of Day:	3:30 PM	7:50-8:20	7:20-7:40		9:00 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POST1	POST2	POST3	POST4
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	AR	AR	AR+MH	PM	PM
Air Temperature, Unit:	73 F	77 F	70 F	66 F	72 F
% Relative Humidity:	36	77	88	86	76
Wind Velocity, Unit:	6 MPH	1.5 MPH	1.5 MPH	1.5 MPH	1 MPH
Wind Direction:	SSE	E	E	SE	W
Dew Presence (Y/N):	N no	Y yes	Y yes	Y yes	Y yes
Soil Temperature, Unit:	64 F	75 F	67 F	70 F	65
Soil Moisture:	ABONOR		DRY	MOIST	DRY
% Cloud Cover:	0	0	5	15	0
Next Rain Occurred On:	5/13/09				

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Crop Stage At Each Application					
	A	B	C	D	E
Crop 1 Code, BBCH Scale:	GLXMA BSOY				
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	00	14 90	16	65 90	66 90
Stage Minimum, Percent:		13 10	16	61 10	61 10
Stage Maximum, Percent:		14 90	61	65 90	66 90
Height, Unit:		7 IN	8 IN	14 IN	20 IN
Height Minimum, Maximum:		6 8	6 10	12 16	36 40

Pest Stage At Each Application					
	A	B	C	D	E
Pest 1 Code, Type, Scale:	SETFA W				
Stage Majority, Percent:					23
Stage Minimum, Percent:		33	32	33	22
Stage Maximum, Percent:		38	34	38	24
Height, Unit:		3.5 IN	11 IN	18 IN	29 IN
Height Minimum, Maximum:		1 6	4 18	6 30	18 40
Density, Unit:		60 YD2	11 YD2	13 YD2	15 YD2
Pest 2 Code, Type, Scale:	AMBTR W				
Stage Minimum, Percent:		13	14	13	34
Stage Maximum, Percent:		18	16	18	37
Height, Unit:		7 IN	14.5 IN	18 IN	42 IN
Height Minimum, Maximum:		2 12	5 24	6 30	36 48
Density, Unit:		5.5 YD2	4 YD2	13 YD2	7 YD2
Pest 3 Code, Type, Scale:	ABUTH W				
Stage Minimum, Percent:			10		
Stage Maximum, Percent:			32		
Height, Unit:			3 IN		
Height Minimum, Maximum:			2 4		
Density, Unit:			1 YD2		
Pest 4 Code, Type, Scale:	CHEAL W				
Stage Minimum, Percent:		32		34	
Stage Maximum, Percent:		33		39	
Height, Unit:		2.5 IN		11 IN	
Height Minimum, Maximum:		1 4		4 18	
Density, Unit:		1.5 YD2		2.5 YD2	
Pest 5 Code, Type, Scale:	AMATA W				
Stage Minimum, Percent:		32			
Stage Maximum, Percent:		33			
Height, Unit:		2.5 IN			
Height Minimum, Maximum:		1 4			
Density, Unit:		2 YD2			
Pest 6 Code, Type, Scale:	TAROF W				
Stage Minimum, Percent:		31			
Stage Maximum, Percent:		35			
Height, Unit:		2 IN			
Height Minimum, Maximum:		1 3			
Density, Unit:		1.5 YD2			
Pest 7 Code, Type, Scale:	IPOSS W				
Stage Minimum, Percent:				34	22
Stage Maximum, Percent:				39	24
Height, Unit:				14 IN	10 IN
Height Minimum, Maximum:				4 24	5 15
Density, Unit:				1 YD2	1 YD2

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Application Equipment					
	A	B	C	D	E
Appl. Equipment:	CO2 BACKPACK				
Equipment Type:	SPRBAC	SPRBAC	SPRBAC	SPRBAC	SPRBAC
Operating Pressure, Unit:	17 psi				
Nozzle Type:	FLAT FAN				
Nozzle Size:	XR11002	XR11002	XR11002	XR11002	XR11002
Nozzle Spacing, Unit:	15 IN				
Nozzles/Row:	8	8	8	8	8
Boom Length, Unit:	10 FT				
Boom Height, Unit:	18 IN				
Ground Speed, Unit:	3 MPH				
Carrier:	H2O	H2O	H2O	H2O	H2O
Water Hardness (ppm CaCO3):	150	150	150	150	150
Spray Volume, Unit:	15 gal/ac				
Mix Size, Unit:	1.8 liters				
Propellant:	CO2	CO2	CO2	CO2	CO2
Tank Mix (Y/N):	N no				

No. Date	By	Deviations
1.5/12/09	PM	No-till instead of conventional tillage
Reasons: Wet conditions forced us to abandon tillage operations and plant when the field was dry.		

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 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	AMBTR	SETFA	IPOSS	CHEAL	SETFA	AMBTR			
Pest Scientific Name	Ambrosia trifi>	Setaria faberi	Ipomoea sp.	Chenopodium al>	Setaria faberi	Ambrosia trifi>			
Pest Name	Giant ragweed	Giant foxtail	Morning glory	Common lambsqu>	Giant foxtail	Giant ragweed			
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			
Crop Variety	AG3402	AG3402	AG3402	AG3402	AG3402	AG3402			
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P			
Rating Date	7/9/09	7/9/09	7/9/09	7/9/09	7/20/09	7/20/09			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1			
Crop Stage Majority	R2/12-24	R2	R2	R2	R3	R3			
Pest Stage Majority	6-30"	5-18"	4-24"	4-18"	15-24"	15-24"			
Pest Density, Unit	13 YD2	42.5YD2	1 YD2	2.5 YD2	77.5YD2	13 YD2			
Assessed By	CB	CB	CB	CB	PM	PM			
Days After First/Last Applic.	58 9	58 9	58 9	58 9	69 11	69 11			
Plant-Eval Interval	58 DP-1	58 DP-1	58 DP-1	58 DP-1	69 DP-1	69 DP-1			
ARM Action Codes									
Number of Decimals									
Trt Treatment	Rate	Unit	Appl Code	1	2	3	4	5	6
1 Untreated Check				0.0 c	0.0 c	0.0 b	0.0 d	0.0 c	0.0 d
2 VALOR XLT 3.5 OZ			A	76.0 ab	84.0 ab	87.5 a	97.5 a	99.8 a	98.8 a
Valor SX	0.0653 lb ai/a		A						
Classic	0.0227 lb ai/a		A						
Flexstar	0.147 lb ai/a		B						
Select Max	0.0313 lb ai/a		B						
Destiny HC (MSO)	0.5 % v/v		B						
Ammonium Sulfate	2 % w/w		B						
Flexstar	0.147 lb ai/a		D						
Select Max	0.0313 lb ai/a		D						
Destiny HC (MSO)	0.5 % v/v		D						
Ammonium Sulfate	2 % w/w		D						
3 VALOR XLT 3.5 OZ			A	74.5 ab	86.0 ab	87.5 a	100.0 a	100.0 a	100.0 a
Valor SX	0.0653 lb ai/a		A						
Classic	0.0227 lb ai/a		A						
Flexstar	0.147 lb ai/a		B						
Roundup PowerMAX	0.38 lb ae/a		B						
Destiny HC (MSO)	0.5 % v/v		B						
Ammonium Sulfate	2 % w/w		B						
Flexstar	0.147 lb ai/a		D						
Roundup PowerMAX	0.38 lb ae/a		D						
Destiny HC (MSO)	0.5 % v/v		D						
Ammonium Sulfate	2 % w/w		D						
4 Flexstar	0.147 lb ai/a		B	87.8 a	85.8 ab	97.5 a	99.5 a	98.3 a	98.5 a
Roundup PowerMAX	0.38 lb ae/a		B						
Destiny HC (MSO)	0.5 % v/v		B						
Ammonium Sulfate	2 % w/w		B						
Flexstar	0.147 lb ai/a		D						
Roundup PowerMAX	0.38 lb ae/a		D						
Destiny HC (MSO)	0.5 % v/v		D						
Ammonium Sulfate	2 % w/w		D						
5 VALOR XLT 3.5 OZ			A	91.3 a	86.3 ab	100.0 a	100.0 a	96.8 a	97.8 a
Valor SX	0.0653 lb ai/a		A						
Classic	0.0227 lb ai/a		A						
Roundup PowerMAX	1.5 lb ae/a		C						
Ammonium Sulfate	2 % w/w		C						
Roundup PowerMAX	0.75 lb ae/a		E						
Ammonium Sulfate	2 % w/w		E						

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	AMBTR	SETFA	IPOSS	CHEAL	SETFA	AMBTR				
Pest Scientific Name	Ambrosia trifid	Setaria faberi	Ipomoea sp.	Chenopodium al	Setaria faberi	Ambrosia trifid				
Pest Name	Giant ragweed	Giant foxtail	Morning glory	Common lambsqu	Giant foxtail	Giant ragweed				
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				
Crop Variety	AG3402	AG3402	AG3402	AG3402	AG3402	AG3402				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P				
Rating Date	7/9/09	7/9/09	7/9/09	7/9/09	7/20/09	7/20/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority	R2/12-24	R2	R2	R2	R3	R3				
Pest Stage Majority	6-30"	5-18"	4-24"	4-18"	15-24"	15-24"				
Pest Density, Unit	13 YD2	42.5YD2	1 YD2	2.5 YD2	77.5YD2	13 YD2				
Assessed By	CB	CB	CB	CB	PM	PM				
Days After First/Last Applic.	58 9	58 9	58 9	58 9	69 11	69 11				
Plant-Eval Interval	58 DP-1	58 DP-1	58 DP-1	58 DP-1	69 DP-1	69 DP-1				
ARM Action Codes										
Number of Decimals										
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6
6	VALOR XLT 3.5 OZ			A	88.3 a	86.0 ab	100.0 a	100.0 a	97.8 a	99.0 a
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Roundup PowerMAX	1.5 lb ae/a		C						
	FirstRate	0.0158 lb ai/a		C						
	Ammonium Sulfate	2 % w/w		C						
	Roundup PowerMAX	0.75 lb ae/a		E						
	FirstRate	0.0158 lb ai/a		E						
	Ammonium Sulfate	2 % w/w		E						
7	VALOR XLT 3.5 OZ			A	76.3 ab	80.0 ab	100.0 a	87.5 a	95.3 a	73.8 abc
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.313 lb ai/a		C						
	Select Max	0.07 lb ai/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.094 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						
8	Flexstar	0.313 lb ai/a		C	58.8 ab	51.3 b	75.0 a	50.0 b	61.3 a	52.0 bc
	Select Max	0.07 lb ai/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.094 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						
9	VALOR XLT 3.5 OZ			A	96.3 a	90.3 ab	99.3 a	93.8 a	96.5 a	83.8 ab
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.313 lb ai/a		C						
	Select Max	0.07 lb ai/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.188 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						
10	VALOR XLT 3.5 OZ			A	93.3 a	87.8 ab	77.5 a	95.8 a	94.0 a	80.8 ab
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.392 lb ai/a		C						
	Select Max	0.07 lb ai/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.094 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						

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Pest Type Pest Code Pest Scientific Name	W Weed AMBTR Ambrosia trifi>	W Weed SETFA Setaria faberi	W Weed IPOSS Ipomoea sp.	W Weed CHEAL Chenopodium ai>	W Weed SETFA Setaria faberi	W Weed AMBTR Ambrosia trifi>				
Pest Name	Giant ragweed	Giant foxtail	Morning glory	Common lambsqu>	Giant foxtail	Giant ragweed				
Crop Code BBCH Scale Crop Scientific Name	GLXMA BSOY Glycine max	GLXMA BSOY Glycine max	GLXMA BSOY Glycine max	GLXMA BSOY Glycine max	GLXMA BSOY Glycine max	GLXMA BSOY Glycine max				
Crop Name Crop Variety Part Rated Rating Date Rating Type Rating Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Pest Density, Unit Assessed By Days After First/Last Applic. Plant-Eval Interval ARM Action Codes Number of Decimals	Soybean AG3402 PLOT P 7/9/09 CONTRO % 1 R2/12-24 6-30" 13 YD2 CB 58 9 58 DP-1	Soybean AG3402 PLOT P 7/9/09 CONTRO % 1 R2 5-18" 42.5YD2 CB 58 9 58 DP-1	Soybean AG3402 PLOT P 7/9/09 CONTRO % 1 R2 4-24" 1 YD2 CB 58 9 58 DP-1	Soybean AG3402 PLOT P 7/9/09 CONTRO % 1 R2 4-18" 2.5 YD2 CB 58 9 58 DP-1	Soybean AG3402 PLOT P 7/20/09 CONTRO % 1 R3 15-24" 77.5YD2 PM 69 11 69 DP-1	Soybean AG3402 PLOT P 7/20/09 CONTRO % 1 R3 15-24" 13 YD2 PM 69 11 69 DP-1				
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6
11	VALOR XLT 3.5 OZ			A	68.3 ab	87.8 ab	100.0 a	99.3 a	93.3 a	85.8 ab
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.392 lb ai/a		C						
	Select Max	0.07 lb ai/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.188 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						
12	VALOR XLT 3.5 OZ			A	98.0 a	99.8 a	100.0 a	100.0 a	98.5 a	95.3 a
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.31 lb ai/a		C						
	Roundup PowerMAX	0.75 lb ae/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	5 % w/w		C						
	Cobra	0.094 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						
13	VALOR XLT 3.5 OZ			A	99.3 a	99.3 a	100.0 a	100.0 a	99.5 a	99.5 a
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.31 lb ai/a		C						
	Roundup PowerMAX	0.75 lb ae/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.188 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						
14	VALOR XLT 3.5 OZ			A	94.3 a	99.8 a	100.0 a	100.0 a	99.8 a	98.8 a
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.31 lb ai/a		C						
	Roundup PowerMAX	0.75 lb ae/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.188 lb ai/a		E						
	Roundup PowerMAX	0.75 lb ae/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	AMBTR	SETFA	IPOSS	CHEAL	SETFA	AMBTR				
Pest Scientific Name	Ambrosia trifida	Setaria faberii	Ipomoea sp.	Chenopodium album	Setaria faberii	Ambrosia trifida				
Pest Name	Giant ragweed	Giant foxtail	Morning glory	Common lambsquarters	Giant foxtail	Giant ragweed				
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				
Crop Variety	AG3402	AG3402	AG3402	AG3402	AG3402	AG3402				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P				
Rating Date	7/9/09	7/9/09	7/9/09	7/9/09	7/20/09	7/20/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority	R2/12-24	R2	R2	R2	R3	R3				
Pest Stage Majority	6-30"	5-18"	4-24"	4-18"	15-24"	15-24"				
Pest Density, Unit	13 YD2	42.5YD2	1 YD2	2.5 YD2	77.5YD2	13 YD2				
Assessed By	CB	CB	CB	CB	PM	PM				
Days After First/Last Applic.	58 9	58 9	58 9	58 9	69 11	69 11				
Plant-Eval Interval	58 DP-1	58 DP-1	58 DP-1	58 DP-1	69 DP-1	69 DP-1				
ARM Action Codes										
Number of Decimals										
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6
15	VALOR XLT 3.5 OZ			A	90.0 a	90.5 ab	100.0 a	93.3 a	96.8 a	85.0 ab
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.235 lb ai/a		C						
	Basagran	0.5 lb ai/a		C						
	Select Max	0.07 lb ai/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.094 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						
16	VALOR XLT 3.5 OZ			A	92.0 a	87.3 ab	99.8 a	97.5 a	91.8 a	76.3 abc
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.235 lb ai/a		C						
	Basagran	0.5 lb ai/a		C						
	Select Max	0.07 lb ai/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.188 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						
17	VALOR XLT 3.5 OZ			A	92.3 a	87.0 ab	100.0 a	100.0 a	98.0 a	94.5 a
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.235 lb ai/a		C						
	Basagran	0.5 lb ai/a		C						
	Roundup PowerMAX	0.75 lb ae/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.094 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						
18	VALOR XLT 3.5 OZ			A	96.0 a	87.0 ab	99.3 a	100.0 a	98.5 a	92.5 a
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.235 lb ai/a		C						
	Basagran	0.5 lb ai/a		C						
	Roundup PowerMAX	0.75 lb ae/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
	Cobra	0.188 lb ai/a		E						
	Destiny HC (MSO)	0.5 % v/v		E						
	Ammonium Sulfate	2 % w/w		E						

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	AMBTR	SETFA	IPOSS	CHEAL	SETFA	AMBTR				
Pest Scientific Name	Ambrosia trifi>	Setaria faberi	Ipomoea sp.	Chenopodium al>	Setaria faberi	Ambrosia trifi>				
Pest Name	Giant ragweed	Giant foxtail	Morning glory	Common lambsqu>	Giant foxtail	Giant ragweed				
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				
Crop Variety	AG3402	AG3402	AG3402	AG3402	AG3402	AG3402				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P				
Rating Date	7/9/09	7/9/09	7/9/09	7/9/09	7/20/09	7/20/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority	R2/12-24	R2	R2	R2	R3	R3				
Pest Stage Majority	6-30"	5-18"	4-24"	4-18"	15-24"	15-24"				
Pest Density, Unit	13 YD2	42.5YD2	1 YD2	2.5 YD2	77.5YD2	13 YD2				
Assessed By	CB	CB	CB	CB	PM	PM				
Days After First/Last Applic.	58 9	58 9	58 9	58 9	69 11	69 11				
Plant-Eval Interval	58 DP-1	58 DP-1	58 DP-1	58 DP-1	69 DP-1	69 DP-1				
ARM Action Codes										
Number of Decimals										
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6
19	VALOR XLT 3.5 OZ			A	35.0 bc	50.8 b	100.0 a	97.5 a	31.3 b	46.3 c
	Valor SX	0.0653 lb ai/a		A						
	Classic	0.0227 lb ai/a		A						
	Flexstar	0.392 lb ai/a		C						
	Select Max	0.07 lb ai/a		C						
	Destiny HC (MSO)	0.5 % v/v		C						
	Ammonium Sulfate	2 % w/w		C						
20	Roundup PowerMAX	0.75 lb ae/a		C	28.8 bc	5.0 c	25.0 b	26.3 c	21.3 bc	10.0 d
	Ammonium Sulfate	2 % w/w		C						
	Roundup PowerMAX	0.75 lb ae/a		E						
	Ammonium Sulfate	2 % w/w		E						
LSD (P=.05)					32.58	25.52	27.24	22.08	21.74	24.44
Standard Deviation					23.04	18.05	19.26	15.62	15.37	17.28
CV					30.0	23.57	22.04	17.97	18.43	22.05
Bartlett's X2					78.563	67.415	65.18	63.974	171.139	84.815
P(Bartlett's X2)					0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Replicate F					1.255	1.738	2.078	1.736	2.493	3.783
Replicate Prob(F)					0.2986	0.1695	0.1133	0.1698	0.0692	0.0152
Treatment F					5.448	9.869	7.890	12.758	15.275	11.557
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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.

Purdue University

Pest Type	W Weed	W Weed	W Weed						
Pest Code	CHEAL	AMBTR	SETFA						
Pest Scientific Name	Chenopodium al>	Ambrosia trifi>	Setaria faberi						
Pest Name	Common lambsqu>	Giant ragweed	Giant foxtail						
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			
Crop Variety	AG3402	AG3402	AG3402	AG3402	AG3402	AG3402			
Part Rated									
Rating Date	7/20/09	10/7/09	10/7/09	10/15/09	10/15/09	10/15/09			
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	YIELD	YIELD			
Rating Unit	%	%	%	LB	BU	BU			
Number of Subsamples	1	1	1	1	1	1			
Crop Stage Majority	R3	R8	R8	R8	R8	R8			
Pest Stage Majority	15-24"								
Pest Density, Unit	2.5 YD2	13 YD2	62.5YD2						
Assessed By	PM			PM	PM	PM			
Days After First/Last Applic.	69 11	148 78	148 78	156 86	156 86	156 86			
Plant-Eval Interval	69 DP-1	148 DP-1	148 DP-1	156 DP-1	156 DP-1	156 DP-1			
ARM Action Codes					TY1	TY2			
Number of Decimals				1	1	1			
Trt No.	Treatment Name	Rate	Appl Code	7	8	9	10	11	12
1	Untreated Check	0.0 c		0.0 b	0.0 b	13.40 cd	39.1 a	39.1 cd	
2	VALOR XLT 3.5 OZ		A	100.0 a	100.0 a	100.0 a	18.08 a	52.8 a	52.7 a
	Valor SX	0.0653 lb ai/a	A						
	Classic	0.0227 lb ai/a	A						
	Flexstar	0.147 lb ai/a	B						
	Select Max	0.0313 lb ai/a	B						
	Destiny HC (MSO)	0.5 % v/v	B						
	Ammonium Sulfate	2 % w/w	B						
	Flexstar	0.147 lb ai/a	D						
	Select Max	0.0313 lb ai/a	D						
	Destiny HC (MSO)	0.5 % v/v	D						
	Ammonium Sulfate	2 % w/w	D						
3	VALOR XLT 3.5 OZ		A	100.0 a	100.0 a	100.0 a	17.73 ab	51.8 a	51.7 ab
	Valor SX	0.0653 lb ai/a	A						
	Classic	0.0227 lb ai/a	A						
	Flexstar	0.147 lb ai/a	B						
	Roundup PowerMAX	0.38 lb ae/a	B						
	Destiny HC (MSO)	0.5 % v/v	B						
	Ammonium Sulfate	2 % w/w	B						
	Flexstar	0.147 lb ai/a	D						
	Roundup PowerMAX	0.38 lb ae/a	D						
	Destiny HC (MSO)	0.5 % v/v	D						
	Ammonium Sulfate	2 % w/w	D						
4	Flexstar	0.147 lb ai/a	B	100.0 a	99.5 a	100.0 a	18.10 a	52.9 a	52.8 a
	Roundup PowerMAX	0.38 lb ae/a	B						
	Destiny HC (MSO)	0.5 % v/v	B						
	Ammonium Sulfate	2 % w/w	B						
	Flexstar	0.147 lb ai/a	D						
	Roundup PowerMAX	0.38 lb ae/a	D						
	Destiny HC (MSO)	0.5 % v/v	D						
	Ammonium Sulfate	2 % w/w	D						
5	VALOR XLT 3.5 OZ		A	100.0 a	100.0 a	100.0 a	16.30 abc	47.6 a	47.6 abc
	Valor SX	0.0653 lb ai/a	A						
	Classic	0.0227 lb ai/a	A						
	Roundup PowerMAX	1.5 lb ae/a	C						
	Ammonium Sulfate	2 % w/w	C						
	Roundup PowerMAX	0.75 lb ae/a	E						
	Ammonium Sulfate	2 % w/w	E						

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Pest Type	W Weed	W Weed	W Weed							
Pest Code	CHEAL	AMBTR	SETFA							
Pest Scientific Name	Chenopodium al>	Ambrosia trifi>	Setaria faberi							
Pest Name	Common lambsqu>	Giant ragweed	Giant foxtail							
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				
Crop Variety	AG3402	AG3402	AG3402	AG3402	AG3402	AG3402				
Part Rated										
Rating Date	7/20/09	10/7/09	10/7/09	10/15/09	10/15/09	10/15/09				
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	YIELD	YIELD				
Rating Unit	%	%	%	LB	BU	BU				
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority	R3	R8	R8	R8	R8	R8				
Pest Stage Majority	15-24"									
Pest Density, Unit	2.5 YD2	13 YD2	62.5YD2							
Assessed By	PM			PM	PM	PM				
Days After First/Last Applic.	69 11	148 78	148 78	156 86	156 86	156 86				
Plant-Eval Interval	69 DP-1	148 DP-1	148 DP-1	156 DP-1	156 DP-1	156 DP-1				
ARM Action Codes				TY1	TY1	TY2				
Number of Decimals				1	1	1				
Trt No.	Treatment Name	Rate	Unit	Appl Code	7	8	9	10	11	12
6	VALOR XLT 3.5 OZ		A		100.0 a	100.0 a	100.0 a	17.03 abc	49.7 a	49.7 abc
	Valor SX	0.0653 lb ai/a	A							
	Classic	0.0227 lb ai/a	A							
	Roundup PowerMAX	1.5 lb ae/a	C							
	FirstRate	0.0158 lb ai/a	C							
	Ammonium Sulfate	2 % w/w	C							
	Roundup PowerMAX	0.75 lb ae/a	E							
	FirstRate	0.0158 lb ai/a	E							
	Ammonium Sulfate	2 % w/w	E							
7	VALOR XLT 3.5 OZ		A		100.0 a	86.3 a	94.5 a	15.20 a-d	44.4 a	44.3 a-d
	Valor SX	0.0653 lb ai/a	A							
	Classic	0.0227 lb ai/a	A							
	Flexstar	0.313 lb ai/a	C							
	Select Max	0.07 lb ai/a	C							
	Destiny HC (MSO)	0.5 % v/v	C							
	Ammonium Sulfate	2 % w/w	C							
	Cobra	0.094 lb ai/a	E							
	Destiny HC (MSO)	0.5 % v/v	E							
	Ammonium Sulfate	2 % w/w	E							
8	Flexstar	0.313 lb ai/a	C		100.0 a	65.0 a	63.8 a	11.95 d	34.9 a	34.9 d
	Select Max	0.07 lb ai/a	C							
	Destiny HC (MSO)	0.5 % v/v	C							
	Ammonium Sulfate	2 % w/w	C							
	Cobra	0.094 lb ai/a	E							
	Destiny HC (MSO)	0.5 % v/v	E							
	Ammonium Sulfate	2 % w/w	E							
9	VALOR XLT 3.5 OZ		A		100.0 a	97.5 a	96.0 a	13.73 bcd	40.1 a	40.0 bcd
	Valor SX	0.0653 lb ai/a	A							
	Classic	0.0227 lb ai/a	A							
	Flexstar	0.313 lb ai/a	C							
	Select Max	0.07 lb ai/a	C							
	Destiny HC (MSO)	0.5 % v/v	C							
	Ammonium Sulfate	2 % w/w	C							
	Cobra	0.188 lb ai/a	E							
	Destiny HC (MSO)	0.5 % v/v	E							
	Ammonium Sulfate	2 % w/w	E							
10	VALOR XLT 3.5 OZ		A		100.0 a	97.5 a	95.3 a	14.85 a-d	43.4 a	43.3 a-d
	Valor SX	0.0653 lb ai/a	A							
	Classic	0.0227 lb ai/a	A							
	Flexstar	0.392 lb ai/a	C							
	Select Max	0.07 lb ai/a	C							
	Destiny HC (MSO)	0.5 % v/v	C							
	Ammonium Sulfate	2 % w/w	C							
	Cobra	0.094 lb ai/a	E							
	Destiny HC (MSO)	0.5 % v/v	E							
	Ammonium Sulfate	2 % w/w	E							

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Pest Type	W Weed	W Weed	W Weed							
Pest Code	CHEAL	AMBTR	SETFA							
Pest Scientific Name	Chenopodium al>	Ambrosia trifi>	Setaria faberi							
Pest Name	Common lambsqu>	Giant ragweed	Giant foxtail							
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				
Crop Variety	AG3402	AG3402	AG3402	AG3402	AG3402	AG3402				
Part Rated										
Rating Date	7/20/09	10/7/09	10/7/09	10/15/09	10/15/09	10/15/09				
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	YIELD	YIELD				
Rating Unit	%	%	%	LB	BU	BU				
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority	R3	R8	R8	R8	R8	R8				
Pest Stage Majority	15-24"									
Pest Density, Unit	2.5 YD2	13 YD2	62.5YD2							
Assessed By	PM			PM	PM	PM				
Days After First/Last Applic.	69 11	148 78	148 78	156 86	156 86	156 86				
Plant-Eval Interval	69 DP-1	148 DP-1	148 DP-1	156 DP-1	156 DP-1	156 DP-1				
ARM Action Codes				TY1	TY1	TY2				
Number of Decimals				1	1	1				
Trt No.	Treatment Name	Rate	Unit	Appl Code	7	8	9	10	11	12
11	VALOR XLT 3.5 OZ		A		100.0 a	98.8 a	95.8 a	14.10 a-d	41.2 a	41.1 a-d
	Valor SX	0.0653 lb ai/a	A							
	Classic	0.0227 lb ai/a	A							
	Flexstar	0.392 lb ai/a	C							
	Select Max	0.07 lb ai/a	C							
	Destiny HC (MSO)	0.5 % v/v	C							
	Ammonium Sulfate	2 % w/w	C							
	Cobra	0.188 lb ai/a	E							
	Destiny HC (MSO)	0.5 % v/v	E							
	Ammonium Sulfate	2 % w/w	E							
12	VALOR XLT 3.5 OZ		A		100.0 a	99.5 a	96.3 a	13.80 bcd	40.3 a	40.3 bcd
	Valor SX	0.0653 lb ai/a	A							
	Classic	0.0227 lb ai/a	A							
	Flexstar	0.31 lb ai/a	C							
	Roundup PowerMAX	0.75 lb ae/a	C							
	Destiny HC (MSO)	0.5 % v/v	C							
	Ammonium Sulfate	5 % w/w	C							
	Cobra	0.094 lb ai/a	E							
	Destiny HC (MSO)	0.5 % v/v	E							
	Ammonium Sulfate	2 % w/w	E							
13	VALOR XLT 3.5 OZ		A		100.0 a	92.5 a	100.0 a	12.80 cd	37.4 a	37.3 cd
	Valor SX	0.0653 lb ai/a	A							
	Classic	0.0227 lb ai/a	A							
	Flexstar	0.31 lb ai/a	C							
	Roundup PowerMAX	0.75 lb ae/a	C							
	Destiny HC (MSO)	0.5 % v/v	C							
	Ammonium Sulfate	2 % w/w	C							
	Cobra	0.188 lb ai/a	E							
	Destiny HC (MSO)	0.5 % v/v	E							
	Ammonium Sulfate	2 % w/w	E							
14	VALOR XLT 3.5 OZ		A		100.0 a	100.0 a	100.0 a	13.65 bcd	39.9 a	39.8 bcd
	Valor SX	0.0653 lb ai/a	A							
	Classic	0.0227 lb ai/a	A							
	Flexstar	0.31 lb ai/a	C							
	Roundup PowerMAX	0.75 lb ae/a	C							
	Destiny HC (MSO)	0.5 % v/v	C							
	Ammonium Sulfate	2 % w/w	C							
	Cobra	0.188 lb ai/a	E							
	Roundup PowerMAX	0.75 lb ae/a	E							
	Destiny HC (MSO)	0.5 % v/v	E							
	Ammonium Sulfate	2 % w/w	E							

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Pest Type	W Weed	W Weed	W Weed						
Pest Code	CHEAL	AMBTR	SETFA						
Pest Scientific Name	Chenopodium al>	Ambrosia trifi>	Setaria faberi						
Pest Name	Common lambsqu>	Giant ragweed	Giant foxtail						
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			
Crop Variety	AG3402	AG3402	AG3402	AG3402	AG3402	AG3402			
Part Rated									
Rating Date	7/20/09	10/7/09	10/7/09	10/15/09	10/15/09	10/15/09			
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	YIELD	YIELD			
Rating Unit	%	%	%	LB	BU	BU			
Number of Subsamples	1	1	1	1	1	1			
Crop Stage Majority	R3	R8	R8	R8	R8	R8			
Pest Stage Majority	15-24"								
Pest Density, Unit	2.5 YD2	13 YD2	62.5YD2						
Assessed By	PM			PM	PM	PM			
Days After First/Last Applic.	69 11	148 78	148 78	156 86	156 86	156 86			
Plant-Eval Interval	69 DP-1	148 DP-1	148 DP-1	156 DP-1	156 DP-1	156 DP-1			
ARM Action Codes				TY1	TY1	TY2			
Number of Decimals				1	1	1			
Trt No.	Treatment Name	Rate	Appl Code	7	8	9	10	11	12
15	VALOR XLT 3.5 OZ		A	100.0 a	98.8 a	98.0 a	14.03 a-d	41.0 a	40.9 a-d
	Valor SX	0.0653 lb ai/a	A						
	Classic	0.0227 lb ai/a	A						
	Flexstar	0.235 lb ai/a	C						
	Basagran	0.5 lb ai/a	C						
	Select Max	0.07 lb ai/a	C						
	Destiny HC (MSO)	0.5 % v/v	C						
	Ammonium Sulfate	2 % w/w	C						
	Cobra	0.094 lb ai/a	E						
	Destiny HC (MSO)	0.5 % v/v	E						
	Ammonium Sulfate	2 % w/w	E						
16	VALOR XLT 3.5 OZ		A	100.0 a	96.3 a	90.0 a	13.70 bcd	40.0 a	40.0 bcd
	Valor SX	0.0653 lb ai/a	A						
	Classic	0.0227 lb ai/a	A						
	Flexstar	0.235 lb ai/a	C						
	Basagran	0.5 lb ai/a	C						
	Select Max	0.07 lb ai/a	C						
	Destiny HC (MSO)	0.5 % v/v	C						
	Ammonium Sulfate	2 % w/w	C						
	Cobra	0.188 lb ai/a	E						
	Destiny HC (MSO)	0.5 % v/v	E						
	Ammonium Sulfate	2 % w/w	E						
17	VALOR XLT 3.5 OZ		A	100.0 a	97.0 a	99.5 a	15.80 a-d	46.1 a	46.1 a-d
	Valor SX	0.0653 lb ai/a	A						
	Classic	0.0227 lb ai/a	A						
	Flexstar	0.235 lb ai/a	C						
	Basagran	0.5 lb ai/a	C						
	Roundup PowerMAX	0.75 lb ae/a	C						
	Destiny HC (MSO)	0.5 % v/v	C						
	Ammonium Sulfate	2 % w/w	C						
	Cobra	0.094 lb ai/a	E						
	Destiny HC (MSO)	0.5 % v/v	E						
	Ammonium Sulfate	2 % w/w	E						
18	VALOR XLT 3.5 OZ		A	100.0 a	100.0 a	99.0 a	15.25 a-d	44.5 a	44.5 a-d
	Valor SX	0.0653 lb ai/a	A						
	Classic	0.0227 lb ai/a	A						
	Flexstar	0.235 lb ai/a	C						
	Basagran	0.5 lb ai/a	C						
	Roundup PowerMAX	0.75 lb ae/a	C						
	Destiny HC (MSO)	0.5 % v/v	C						
	Ammonium Sulfate	2 % w/w	C						
	Cobra	0.188 lb ai/a	E						
	Destiny HC (MSO)	0.5 % v/v	E						
	Ammonium Sulfate	2 % w/w	E						

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Pest Type	W Weed	W Weed	W Weed			
Pest Code	CHEAL	AMBTR	SETFA			
Pest Scientific Name	Chenopodium al>	Ambrosia trifi>	Setaria faberi			
Pest Name	Common lambsqu>	Giant ragweed	Giant foxtail			
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
Crop Variety	AG3402	AG3402	AG3402	AG3402	AG3402	AG3402
Part Rated						
Rating Date	7/20/09	10/7/09	10/7/09	10/15/09	10/15/09	10/15/09
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	YIELD	YIELD
Rating Unit	%	%	%	LB	BU	BU
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority	R3	R8	R8	R8	R8	R8
Pest Stage Majority	15-24"					
Pest Density, Unit	2.5 YD2	13 YD2	62.5YD2			
Assessed By	PM			PM	PM	PM
Days After First/Last Applic.	69 11	148 78	148 78	156 86	156 86	156 86
Plant-Eval Interval	69 DP-1	148 DP-1	148 DP-1	156 DP-1	156 DP-1	156 DP-1
ARM Action Codes				TY1	TY1	TY2
Number of Decimals				1	1	1
Trt Treatment	Rate	Appl Code				
No. Name	Rate	Unit	7	8	9	10
19 VALOR XLT 3.5 OZ		A	97.5 a	63.3 a	64.5 a	15.08 a-d
Valor SX	0.0653 lb ai/a	A				
Classic	0.0227 lb ai/a	A				
Flexstar	0.392 lb ai/a	C				
Select Max	0.07 lb ai/a	C				
Destiny HC (MSO)	0.5 % v/v	C				
Ammonium Sulfate	2 % w/w	C				
20 Roundup PowerMAX	0.75 lb ae/a	C	50.0 b	97.5 a	99.5 a	15.75 a-d
Ammonium Sulfate	2 % w/w	C				
Roundup PowerMAX	0.75 lb ae/a	E				
Ammonium Sulfate	2 % w/w	E				
LSD (P=.05)	18.28		21.56	19.87	2.397	45.46
Standard Deviation	12.92		15.24	14.05	1.695	32.15
CV	13.99		17.04	15.68	11.29	67.67
Bartlett's X2	10.477		83.239	76.229	18.145	188.688
P(Bartlett's X2)	0.001*		0.001*	0.001*	0.513	0.001*
Replicate F	1.105		1.267	2.426	7.255	0.843
Replicate Prob(F)	0.3546		0.2945	0.0748	0.0003	0.4758
Treatment F	14.297		9.646	11.321	4.299	1.139
Treatment Prob(F)	0.0001		0.0001	0.0001	0.0001	0.3404

Purdue University

Control of Glyphosate and ALS resistant Giant Ragweed

Trial ID: 09S-THP-CTS-53 Protocol ID: 09S-THP-CTS-53
 Location: Throckmorton Study Director: Paul Marquardt/Melissa Kruger
 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

IPOSS, Ipomoea sp., = US

CHEAL, Chenopodium album, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Part Rated

PLOT = plot

P = Pest is Part Rated

Rating Type

CONTRO = control / burndown or knockdown

YIELD = yield

Rating Unit

% = percent

LB = pound

BU = bushel

YD2 = per square yard

Plant-Eval Interval

58 DP-1 = 1 5/12/09

69 DP-1 = 1 5/12/09

148 DP-1 = 1 5/12/09

156 DP-1 = 1 5/12/09

ARM Action Codes

TY1 = 2.92069*[C11]

TY2 = 2.917352*10