Purdue University

BASF Soybean residual treatments fb glyphosate v. glyphosate post in soybeans and Cheminova CHA-010 v. Flexstar applied POST to soybean

Trial ID: 08S-THP-CTS-43 Protocol ID: 08S-THP-CTS-43
Location: Throckmorton Study Director: Melissa Kruger
Project ID: Investigator: Dr. Bill Johnson
Sponsor Contact:

General Trial Information

Study Director: Melissa Kruger **Title:** Lab Technician VII
Investigator: Dr. William G. Johnson **Title:** Associate Professor

Discipline: H herbicide
Initiation Date: 4/23/2008

Trial Location
City: Lafayette
State/Prov.: IN
Postal Code: 47909
Country: USA

Objectives:

The objective of the trial is to evaluate the BASF soybean residual treatments followed by glyphosate v. glyphosate POST in soybeans and to evaluate Cheminova CHA-010 v. Flexstar applied POST to soybean.

Personnel

Study Director: Melissa Kruger **Title:** Lab Technician VII
Affiliation: Purdue University
Address: 915 W. State St.
Location: West Lafayette, IN USA
Postal Code: 47907 **E-mail:** mmkruger@purdue.edu
Phone No.: 765-494-4621
Investigator: Dr. William G. Johnson **Title:** Associate Professor
Affiliation: Purdue University
Address: 915 W. State St.
Location: West Lafayette, IN USA
Postal Code: 47907 **E-mail:** wgj@purdue.edu
Phone No.: 765-494-4656

Cooperator/Landowner

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

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 3306 **Description:** JD 7200; RR
BBCH Scale: BSOY **Planting Date:** 4/23/2008
Planting Method: DIRDRI direct drilled **Rate, Unit:** 130000 S/A
Depth, Unit: 2 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 64 F
Soil Moisture: DRY dry **Emergence Date:** 5/9/2008

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:** CHEAL Chenopodium album
Common Name: Common lambsquarters

Pest 4 Type: W **Code:** ABUTH Abutilon theophrasti
Common Name: Velvetleaf

Site and Design

Plot Width, Unit: 10 FT
Plot Length, Unit: 30 FT
Plot Area, Unit: 300 FT2
Replications: 4
Site Type: FIELD field
Tillage Type: CONTIL conventional-till
Study Design: RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Comment: -1869F

Field Prep./Maintenance:

Fall field was cultivated once

Spring field was disked twice and cultivated once

Soil Description

Description Name: TPAC Field 4B
% OM: 2.9 **Texture:** SIL silt loam
pH: 6.2 **Soil Name:** Toronto-Millbrook
CEC: 13.3 **Fert. Level:** G good

Analyzed By:

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

Additional Measured Elements

Element	Quantity	Unit
P	34	ppm
K	124	ppm
Mg	430	ppm
Ca	1400	ppm

Moisture and Weather Conditions

Closest Weather Station: On research farm **Distance, Unit:** 0.5 MI

Comment:

Rain:
4/23-4/30: 0.24 in
5/1-5/7: 0.14 in
5/8-5/14: 1 in

Application Description

	A	B	C
Application Date:	4/23/2008	6/11/2008	7/2/2008
Time of Day:	6:30 PM	10:40 AM	8:30 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPLA	MIPOWE	POSPOS
Application Placement:	BROSOL	BROFOL	BROFOL
Applied By:	GK VM	PM	AR MK
Air Temperature, Unit:	80 F	77 F	69 F
% Relative Humidity:	50	73	70
Wind Velocity, Unit:	3 MPH	3 MPH	3 MPH
Wind Direction:	E	S	SW
Dew Presence (Y/N):	N no	N no	Y yes
Soil Temperature, Unit:	64 F	67 F	63 F
Soil Moisture:	Dry	Moist	Dry
% Cloud Cover:	30	10	5

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC

Stage Majority, Percent:	N/A	V4	R2
Stage Minimum, Percent:			R1
Stage Maximum, Percent:			R2
Height, Unit:		7 IN	17 IN
Height Minimum, Maximum:		6 8	16 18

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:	N/A	6 lf	Tiller
Stage Minimum, Percent:		5 lf	2 lf
Stage Maximum, Percent:		7 lf	Tiller
Height, Unit:		7 IN	16 IN
Height Minimum, Maximum:		3 10	6 24
Density, Unit:		125 FT2	200 YD2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	N/A	3 node	6 node
Stage Minimum, Percent:		1 node	5 node
Stage Maximum, Percent:		5 node	8 node
Height, Unit:		12 IN	30 IN
Height Minimum, Maximum:		2 18	18 40
Density, Unit:		8 YD2	25 YD2
Pest 3 Code, Type, Scale:	CHEAL W	CHEAL W	CHEAL W
Stage Majority, Percent:	N/A	5 node	30 lf
Stage Minimum, Percent:		1 node	15 lf
Stage Maximum, Percent:		8 node	50 lf
Height, Unit:		5 IN	24 IN
Height Minimum, Maximum:		1 8	8 24
Density, Unit:		5 YD2	7 YD2
Pest 4 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:	N/A	1 node	2 node
Stage Minimum, Percent:		1 node	2 node
Stage Maximum, Percent:		2 node	4 node
Height, Unit:		3 IN	16 IN
Height Minimum, Maximum:		1 6	8 24
Density, Unit:		2 YD2	2 YD2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 Backpack	CO2 Backpack	CO2 Backpack
Operating Pressure, Unit:	17 PSI	17 PSI	17 PSI
Nozzle Type:	Flat Fan	Flat Fan	Flat Fan
Nozzle Size:	XR11002	XR11002	XR11002
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN
Nozzles/Row:	8	8	8
Boom Length, Unit:	10 FT	10 FT	10 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Carrier:	H2O	H2O	H2O
Water Hardness (ppm CaCO3):	150	150	150
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	1.8 Liters	1.8 Liters	1.8 Liters
Propellant:	CO2	CO2	CO2
Tank Mix (Y/N):	N no	N no	N no

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BASF Soybean residual treatments fb glyphosate v. glyphosate post in soybeans and Cheminova CHA-010 v. Flexstar applied POST to soybean

Trial ID: 08S-THP-CTS-43 Protocol ID: 08S-THP-CTS-43
Location: Throckmorton Study Director: Melissa Kruger
Project ID: Investigator: Dr. Bill Johnson
Sponsor Contact:

Pest Type			W Weed	W Weed		W Weed	W Weed		W Weed
Pest Code			SETFA	AMBTR		SETFA	AMBTR		SETFA
Pest Scientific Name			Setaria faberi	Ambrosia trifi>		Setaria faberi	Ambrosia trifi>		Setaria faberi
Pest Name			Giant foxtail	Giant ragweed		Giant foxtail	Giant ragweed		Giant foxtail
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale		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
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety		AG3306	AG3306	AG3306	AG3306	AG3306	AG3306	AG3306	AG3306
Description		JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR
Part Rated		PLOT C	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P	PLOT C	PLOT P
Rating Date		5/9/2008	5/9/2008	5/9/2008	5/16/2008	5/16/2008	5/16/2008	5/29/2008	5/29/2008
Rating Type		PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit		%	%	%	%	%	%	%	%
Sample Size, Unit									
Number of Subsamples		1	1	1	1	1	1	1	1
Crop Stage Majority		VC	VC	VC	VC	VC	VC	V1	V1
Crop Stage Minimum/Maximum								3-4"	3-4"
Pest Stage Majority			COTY	C-2 LF					
Pest Stage Minimum/Maximum						1-2"	2-3"		
Pest Density, Unit			120 FT2	3 YD2		120 FT2	3 YD2		3 YD2
Footnote Number									
Assessed By		WGJ	WGJ	WGJ	PM AR MK	PM AR MK	PM AR MK	PM GK	PM GK
Days After First/Last Applic.		16 16	16 16	16 16	23 23	23 23	23 23	36 36	36 36
Plant-Eval Interval		16 DP-1	16 DP-1	16 DP-1	23 DP-1	23 DP-1	23 DP-1	36 DP-1	36 DP-1
Days After Emergence		0 DE-1	0 DE-1	0 DE-1	7 DE-1	7 DE-1	7 DE-1	20 DE-	20 DE-
ARM Action Codes									
Number of Decimals									

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4	5	6	7	8
1	Untreated				0.0 b	0.0 c	0.0 b	0.0 a	0.0 b	0.0 b	0.0 a	0.0 c
2	Prowl H2O	0.95	lb ai/a	A	20.0 a	90.8 a	96.3 a	11.3 a	96.5 a	85.3 a	2.5 a	96.5 a
	Roundup PowerMAX	0.77	lb ae/a	B								
	Ammonium Sulfate	2	% w/w	B								
3	Roundup PowerMAX	0.77	lb ae/a	B								
	Ammonium Sulfate	2	% w/w	B								
4	Prowl H2O	0.95	lb ai/a	A	13.8 a	91.3 a	98.9 a	4.3 a	98.5 a	87.8 a	1.3 a	97.5 a
	Roundup PowerMAX	0.77	lb ae/a	B								
	Ammonium Sulfate	2	% w/w	B								
	Headline	0.098	lb ai/a	C								
	NIS	0.25	% v/v	C								
5	Roundup PowerMAX	0.77	lb ae/a	B								
	Ammonium Sulfate	2	% w/w	B								
	Roundup PowerMAX	0.77	lb ae/a	C								
	Ammonium Sulfate	2	% w/w	C								
6	Scepter	0.00197	lb ai/a	A	8.8 ab	68.8 b	98.8 a	7.5 a	98.8 a	89.3 a	4.0 a	84.3 b
	Roundup PowerMAX	0.77	lb ae/a	B								
	Ammonium Sulfate	2	% w/w	B								
7	Extreme	0.81	lb ai/a	B								
	Roundup PowerMAX	0.77	lb ae/a	C								
	Ammonium Sulfate	2	% w/w	C								
8	Prowl H2O	0.95	lb ai/a	A				7.5 a	94.5 a	80.5 a	1.3 a	97.5 a
	Extreme	0.81	lb ai/a	B								
9	CHA-010	0.147	lb ai/a	B								
10	CHA-010	0.294	lb ai/a	B								

Pest Type					W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code					AMBTR	SETFA	AMBTR	ABUTH	CHEAL	AMBTR	ABUTH
Pest Scientific Name					Ambrosia trifi>	Setaria faberi	Ambrosia trifi>	Abutilon theop>	Chenopodium al>	Ambrosia trifi>	Abutilon theop>
Pest Name					Giant ragweed	Giant foxtail	Giant ragweed	Velvetleaf	Common lambsqu>	Giant ragweed	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
Crop Variety					AG3306	AG3306	AG3306	AG3306	AG3306	AG3306	AG3306
Description					JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR
Part Rated					PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date					5/29/2008	6/26/2008	6/26/2008	6/26/2008	6/26/2008	7/16/2008	7/16/2008
Rating Type					CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit					%	%	%	%	%	%	%
Sample Size, Unit											
Number of Subsamples					1	1	1	1	1	1	1
Crop Stage Majority					V1	V7	V7	V7	V7	R2	R2
Crop Stage Minimum/Maximum					3-4"	10-12"	10-12"	10-12"	10-12"	18-24"	18-24"
Pest Stage Majority											
Pest Stage Minimum/Maximum						3-24"	8-44"	4-10"	4-18"	24-60"	12-18"
Pest Density, Unit					72 FT2	126 YD2	26 YD2	3 YD2	5 YD2	26 YD2	3 YD2
Footnote Number							1				
Assessed By					PM GK	MK	MK	MK	MK	JM AR	JM AR
Days After First/Last Applic.					36 36	64 15	64 15	64 15	64 15	84 14	84 14
Plant-Eval Interval					36 DP-1	64 DP-1	64 DP-1	64 DP-1	64 DP-1	84 DP-1	84 DP-1
Days After Emergence					20 DE-	48 DE-	48 DE-	48 DE-	48 DE-	68 DE-	68 DE-
ARM Action Codes											
Number of Decimals											
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	9	10	11	12	13	14	15
1	Untreated				0.0 b	0.0 c	0.0 b	0.0 b	0.0 d	0.0 c	0.0 c
2	Prowl H2O	0.95	lb ai/a	A	84.0 a	99.8 a	94.3 a	100.0 a	100.0 a	93.3 a	97.5 a
	Roundup PowerMAX	0.77	lb ae/a	B							
	Ammonium Sulfate	2	% w/w	B							
3	Roundup PowerMAX	0.77	lb ae/a	B		99.3 a	99.8 a	100.0 a	98.8 a	91.3 ab	100.0 a
	Ammonium Sulfate	2	% w/w	B							
4	Prowl H2O	0.95	lb ai/a	A	95.6 a	100.0 a	99.8 a	100.0 a	100.0 a	98.3 a	98.8 a
	Roundup PowerMAX	0.77	lb ae/a	B							
	Ammonium Sulfate	2	% w/w	B							
	Headline	0.098	lb ai/a	C							
	NIS	0.25	% v/v	C							
5	Roundup PowerMAX	0.77	lb ae/a	B		99.8 a	99.8 a	100.0 a	100.0 a	100.0 a	100.0 a
	Ammonium Sulfate	2	% w/w	B							
	Roundup PowerMAX	0.77	lb ae/a	C							
	Ammonium Sulfate	2	% w/w	C							
6	Scepter	0.00197	lb ai/a	A	97.5 a	99.3 a	99.3 a	100.0 a	100.0 a	97.5 a	98.8 a
	Roundup PowerMAX	0.77	lb ae/a	B							
	Ammonium Sulfate	2	% w/w	B							
7	Extreme	0.81	lb ai/a	B		99.5 a	94.8 a	98.5 a	100.0 a	95.8 a	100.0 a
	Roundup PowerMAX	0.77	lb ae/a	C							
	Ammonium Sulfate	2	% w/w	C							
8	Prowl H2O	0.95	lb ai/a	A	85.0 a	100.0 a	97.5 a	100.0 a	100.0 a	88.8 ab	100.0 a
	Extreme	0.81	lb ai/a	B							
9	CHA-010	0.147	lb ai/a	B		21.1 bc	76.3 a	90.0 a	20.0 cd	80.5 ab	61.8 b
10	CHA-010	0.294	lb ai/a	B		35.0 b	95.0 a	88.8 a	33.8 bcd	97.5 a	70.8 b

Pest Type					W Weed	W Weed	W Weed	W Weed		
Pest Code					CHEAL	AMBTR	ABUTH	CHEAL		
Pest Scientific Name					Chenopodium al>	Ambrosia trifi>	Abutilon theop>	Chenopodium al>		
Pest Name					Common lambsqu>	Giant ragweed	Velvetleaf	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
Crop Variety					AG3306	AG3306	AG3306	AG3306	AG3306	AG3306
Description					JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR
Part Rated					PLOT P	PLOT P	PLOT P	PLOT P	PLOT	PLOT
Rating Date					7/16/2008	8/4/2008	8/4/2008	8/4/2008	9/25/2008	9/25/2008
Rating Type					CONTRO	CONTRO	CONTRO	CONTRO	YIELD	YIELD
Rating Unit					%	%	%	%	lb/ac	BU
Sample Size, Unit									2 row	2 row
Number of Subsamples					1	1	1	1	1	1
Crop Stage Majority					R2	R5	R5	R5	HARVEST	HARVEST
Crop Stage Minimum/Maximum					18-24"	34-36"	34-36"	34-36"		
Pest Stage Majority										
Pest Stage Minimum/Maximum					2-36"	30-78"	12-48"	20-55"		
Pest Density, Unit					5 YD2	26 YD2	3 YD2	5 YD2		
Footnote Number										
Assessed By					JM AR	MK	MK	MK	PM	PM
Days After First/Last Applic.					84 14	103 33	103 33	103 33	155 85	155 85
Plant-Eval Interval					84 DP-1	103 DP-1	103 DP-1	103 DP-1	155 DP-1	155 DP-1
Days After Emergence					68 DE-	87 DE-	87 DE-	87 DE-	139 DE	139 DE
ARM Action Codes										TY1
Number of Decimals										1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	16	17	18	19	20	21
1	Untreated				0.0 d	0.0 b	0.0 d	0.0 d	18.35 a	54.5 a
2	Prowl H2O	0.95	lb ai/a	A	99.5 a	96.3 a	100.0 a	100.0 a	19.95 a	59.3 a
	Roundup PowerMAX	0.77	lb ae/a	B						
	Ammonium Sulfate	2	% w/w	B						
3	Roundup PowerMAX	0.77	lb ae/a	B	95.5 a	93.8 a	100.0 a	95.0 a	20.18 a	59.9 a
	Ammonium Sulfate	2	% w/w	B						
4	Prowl H2O	0.95	lb ai/a	A	100.0 a	97.5 a	100.0 a	100.0 a	23.20 a	68.9 a
	Roundup PowerMAX	0.77	lb ae/a	B						
	Ammonium Sulfate	2	% w/w	B						
	Headline	0.098	lb ai/a	C						
	NIS	0.25	% v/v	C						
5	Roundup PowerMAX	0.77	lb ae/a	B	97.3 a	100.0 a	100.0 a	100.0 a	23.50 a	69.8 a
	Ammonium Sulfate	2	% w/w	B						
	Roundup PowerMAX	0.77	lb ae/a	C						
	Ammonium Sulfate	2	% w/w	C						
6	Scepter	0.00197	lb ai/a	A	98.5 a	97.5 a	100.0 a	100.0 a	23.00 a	68.3 a
	Roundup PowerMAX	0.77	lb ae/a	B						
	Ammonium Sulfate	2	% w/w	B						
7	Extreme	0.81	lb ai/a	B	98.8 a	99.3 a	100.0 a	100.0 a	20.63 a	61.3 a
	Roundup PowerMAX	0.77	lb ae/a	C						
	Ammonium Sulfate	2	% w/w	C						
8	Prowl H2O	0.95	lb ai/a	A	99.3 a	96.3 a	100.0 a	100.0 a	21.80 a	64.8 a
	Extreme	0.81	lb ai/a	B						
9	CHA-010	0.147	lb ai/a	B	45.0 bc	87.5 a	62.5 bc	36.3 bcd	18.23 a	54.1 a
10	CHA-010	0.294	lb ai/a	B	22.5 cd	96.8 a	57.5 c	26.3 cd	20.18 a	59.9 a

Pest Type		W Weed	W Weed		W Weed	W Weed		W Weed	W Weed
Pest Code		SETFA	AMBTR		SETFA	AMBTR		SETFA	AMBTR
Pest Scientific Name		Setaria faberi	Ambrosia trifi>		Setaria faberi	Ambrosia trifi>		Setaria faberi	Ambrosia trifi>
Pest Name		Giant foxtail	Giant ragweed		Giant foxtail	Giant ragweed		Giant foxtail	Giant ragweed
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
Crop Variety	AG3306	AG3306	AG3306	AG3306	AG3306	AG3306	AG3306	AG3306	AG3306
Description	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR
Part Rated	PLOT C	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P
Rating Date	5/9/2008	5/9/2008	5/9/2008	5/16/2008	5/16/2008	5/16/2008	5/29/2008	5/29/2008	5/29/2008
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%	%	%	%
Sample Size, Unit									
Number of Subsamples	1	1	1	1	1	1	1	1	1
Crop Stage Majority	VC	VC	VC	VC	VC	VC	V1	V1	V1
Crop Stage Minimum/Maximum							3-4"	3-4"	3-4"
Pest Stage Majority		COTY	C-2 LF						
Pest Stage Minimum/Maximum					1-2"	2-3"			
Pest Density, Unit		120 FT2	3 YD2		120 FT2	3 YD2		3 YD2	72 FT2
Footnote Number									
Assessed By	WGJ	WGJ	WGJ	PM AR MK	PM AR MK	PM AR MK	PM GK	PM GK	PM GK
Days After First/Last Applic.	16 16	16 16	16 16	23 23	23 23	23 23	36 36	36 36	36 36
Plant-Eval Interval	16 DP-1	16 DP-1	16 DP-1	23 DP-1	23 DP-1	23 DP-1	36 DP-1	36 DP-1	36 DP-1
Days After Emergence	0 DE-1	0 DE-1	0 DE-1	7 DE-1	7 DE-1	7 DE-1	20 DE-	20 DE-	20 DE-
ARM Action Codes									
Number of Decimals									
Trt Treatment Rate Appl No. Name Rate Unit Code	1	2	3	4	5	6	7	8	9
11 CHA-010 0.59 lb ai/a B									
12 CHA-011 0.375 lb ai/a B NIS 0.25 % v/v B									
13 Flexstar 0.147 lb ai/a B									
14 Flexstar 0.294 lb ai/a B									
15 Untreated	0.0 b	0.0 c	0.0 b	0.0 a	0.0 b	0.0 b	0.0 a	0.0 c	0.0 b
LSD (P=.05)	9.77	11.86	4.11	7.58	5.91	12.83	4.03	3.84	19.51
Standard Deviation	6.34	7.70	2.64	5.03	3.87	8.52	2.68	2.55	12.77
CV	74.6	15.35	4.49	99.01	5.98	14.91	178.47	4.07	21.16
Bartlett's X2	0.421	6.703	3.821	4.433	7.685	4.965	1.215	4.46	7.294
P(Bartlett's X2)	0.517	0.035*	0.148	0.218	0.021*	0.174	0.749	0.216	0.026*
Replicate F	1.699	1.313	0.747	1.757	3.757	1.579	0.419	1.874	2.925
Replicate Prob(F)	0.2200	0.3156	0.5461	0.1985	0.0384	0.2361	0.7423	0.1774	0.0737
Treatment F	7.570	147.085	1654.026	3.224	671.705	108.482	1.326	1466.699	54.319
Treatment Prob(F)	0.0028	0.0001	0.0001	0.0357	0.0001	0.0001	0.3060	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.

Pest Type					W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code					SETFA	AMBTR	ABUTH	CHEAL	AMBTR	ABUTH	CHEAL
Pest Scientific Name					Setaria faberi	Ambrosia trifi>	Abutilon theop>	Chenopodium al>	Ambrosia trifi>	Abutilon theop>	Chenopodium al>
Pest Name					Giant foxtail	Giant ragweed	Velvetleaf	Common lambsqu>	Giant ragweed	Velvetleaf	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
Crop Variety					AG3306	AG3306	AG3306	AG3306	AG3306	AG3306	AG3306
Description					JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR
Part Rated					PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date					6/26/2008	6/26/2008	6/26/2008	6/26/2008	7/16/2008	7/16/2008	7/16/2008
Rating Type					CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit					%	%	%	%	%	%	%
Sample Size, Unit											
Number of Subsamples					1	1	1	1	1	1	1
Crop Stage Majority					V7	V7	V7	V7	R2	R2	R2
Crop Stage Minimum/Maximum					10-12"	10-12"	10-12"	10-12"	18-24"	18-24"	18-24"
Pest Stage Majority											
Pest Stage Minimum/Maximum					3-24"	8-44"	4-10"	4-18"	24-60"	12-18"	2-36"
Pest Density, Unit					126 YD2	26 YD2	3 YD2	5 YD2	26 YD2	3 YD2	5 YD2
Footnote Number						1					
Assessed By					MK	MK	MK	MK	JM AR	JM AR	JM AR
Days After First/Last Applic.					64 15	64 15	64 15	64 15	84 14	84 14	84 14
Plant-Eval Interval					64 DP-1	64 DP-1	64 DP-1	64 DP-1	84 DP-1	84 DP-1	84 DP-1
Days After Emergence					48 DE-	48 DE-	48 DE-	48 DE-	68 DE-	68 DE-	68 DE-
ARM Action Codes											
Number of Decimals											
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	10	11	12	13	14	15	16
11	CHA-010	0.59	lb ai/a	B	53.8 b	82.5 a	100.0 a	7.3 d	58.8 b	95.5 a	25.0 cd
12	CHA-011	0.375	lb ai/a	B	41.3 b	68.8 a	95.8 a	13.8 d	87.5 ab	73.8 ab	48.8 bc
	NIS	0.25	% v/v	B							
13	Flexstar	0.147	lb ai/a	B	50.0 b	99.0 a	99.2 a	50.0 bc	87.5 ab	82.0 ab	58.8 b
14	Flexstar	0.294	lb ai/a	B	42.5 b	85.0 a	100.0 a	63.8 ab	81.3 ab	98.0 a	62.5 b
15	Untreated				0.0 c	0.0 b	0.0 b	0.0 d	0.0 c	0.0 c	0.0 d
LSD (P=.05)					23.09	26.58	6.73	26.79	21.74	15.97	22.84
Standard Deviation					16.16	18.60	4.71	18.75	15.21	11.17	15.99
CV					25.75	23.42	5.55	31.69	19.71	14.24	25.21
Bartlett's X2					91.528	87.204	7.06	25.94	26.833	40.254	57.153
P(Bartlett's X2)					0.001*	0.001*	0.07	0.001*	0.005*	0.001*	0.001*
Replicate F					1.135	1.193	1.993	2.322	0.780	2.262	1.970
Replicate Prob(F)					0.3462	0.3242	0.1305	0.0893	0.5118	0.0956	0.1331
Treatment F					23.009	13.062	216.476	20.826	18.795	37.537	22.751
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Pest Type						W Weed	W Weed	W Weed		
Pest Code						AMBTR	ABUTH	CHEAL		
Pest Scientific Name						Ambrosia trifi>	Abutilon theop>	Chenopodium al>		
Pest Name						Giant ragweed	Velvetleaf	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
Crop Variety						AG3306	AG3306	AG3306	AG3306	AG3306
Description						JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR	JD 7200; RR
Part Rated						PLOT P	PLOT P	PLOT P	PLOT	PLOT
Rating Date						8/4/2008	8/4/2008	8/4/2008	9/25/2008	9/25/2008
Rating Type						CONTRO	CONTRO	CONTRO	YIELD	YIELD
Rating Unit						%	%	%	lb/ac	BU
Sample Size, Unit									2 row	2 row
Number of Subsamples						1	1	1	1	1
Crop Stage Majority						R5	R5	R5	HARVEST	HARVEST
Crop Stage Minimum/Maximum						34-36"	34-36"	34-36"		
Pest Stage Majority										
Pest Stage Minimum/Maximum						30-78"	12-48"	20-55"		
Pest Density, Unit						26 YD2	3 YD2	5 YD2		
Footnote Number										
Assessed By						MK	MK	MK	PM	PM
Days After First/Last Applic.						103 33	103 33	103 33	155 85	155 85
Plant-Eval Interval						103 DP-1	103 DP-1	103 DP-1	155 DP-1	155 DP-1
Days After Emergence						87 DE-	87 DE-	87 DE-	139 DE	139 DE
ARM Action Codes										TY1
Number of Decimals										1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code		17	18	19	20	21
11	CHA-010	0.59	lb ai/a	B		87.5 a	97.5 a	27.5 cd	18.05 a	53.6 a
12	CHA-011	0.375	lb ai/a	B		86.3 a	80.0 ab	65.0 ab	19.05 a	56.6 a
	NIS	0.25	% v/v	B						
13	Flexstar	0.147	lb ai/a	B		97.5 a	82.5 ab	46.3 bc	19.20 a	57.0 a
14	Flexstar	0.294	lb ai/a	B		87.5 a	97.5 a	65.0 ab	19.48 a	57.9 a
15	Untreated					0.0 b	0.0 d	0.0 d	19.38 a	57.6 a
LSD (P=.05)						12.94	17.09	26.12	3.552	10.55
Standard Deviation						9.05	11.96	18.27	2.486	7.38
CV						11.1	15.23	28.52	12.26	12.26
Bartlett's X2						28.383	10.216	8.202	24.717	24.716
P(Bartlett's X2)						0.003*	0.069	0.224	0.037*	0.037*
Replicate F						0.230	3.057	2.101	9.113	9.113
Replicate Prob(F)						0.8748	0.0389	0.1146	0.0001	0.0001
Treatment F						54.591	33.959	17.772	2.123	2.123
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0303	0.0303

Purdue University

BASF Soybean residual treatments fb glyphosate v. glyphosate post in soybeans and Cheminova CHA-010 v. Flexstar applied POST to soybean

Trial ID:	08S-THP-CTS-43	Protocol ID:	08S-THP-CTS-43
Location:	Throckmorton	Study Director:	Melissa Kruger
Project ID:		Investigator:	Dr. Bill Johnson
		Sponsor Contact:	

Pest Type
W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop
Pest Code
SETFA, Setaria faberi, = US
AMBTR, Ambrosia trifida, = US
CHEAL, Chenopodium album, = GB

C = Crop is Part Rated
P = Pest is Part Rated
Rating Type
PHYGEN = phytotoxicity - general / injury
CONTRO = control / burndown or knockdown
YIELD = yield
Rating Unit
% = percent
lb/ac = pounds per acre
BU = bushel

FT2 = per square foot
YD2 = per square yard
Plant-Eval Interval
16 DP-1 = 1 4/23/2008
23 DP-1 = 1 4/23/2008
36 DP-1 = 1 4/23/2008
64 DP-1 = 1 4/23/2008
84 DP-1 = 1 4/23/2008
103 DP-1 = 1 4/23/2008
155 DP-1 = 1 4/23/2008
ARM Action Codes
TY1 = 2.970759*20

Footnote 1: Roundup drift into 1/3 to 1/2 of plots 204, 206, 504, 701, 703, 806, 904, 1001, 1005, and 1006 on south end of plots toward the north; only rated unaffected areas