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TO DETERMINE THE HERBICIDAL EFFICACY AND SELECTIVITY WHEN CRUSHER IS APPLIED PREPLANT TO SOYBEAN IN 2013

Trial ID: 13S-THP-NTS-71 Protocol ID: 13S-THP-NTS-71
Location: USA Study Director: Bill Johnson
Project ID: HGLXMARIMTHI1301 Investigator: Dr. Bill Johnson
Sponsor Contact: Cheminova - Jim Barrentine

General Trial Information

Study Director: Bill Johnson
Investigator: Dr. Bill Johnson **Title:** Professor

Discipline: H herbicide
Trial Status: E established
Initiation Date: Mar-18-2013

Trial Location

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

Keywords: SOYBEAN, CRUSHER (CHA-056), RIMSULFURON, THIFENSULFURON, GLYFOS X-TRA , LEADOFF, EFFICACY, CROP RESPONSE, BURNDOWN

Objectives:
COMPARE CRUSHER TO LEADOFF APPLIED PREPLANT/BURNDOWN TO SOYBEAN -EEFICACY & SELECTIVITY

Personnel

Study Director: Bill Johnson
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
Phone No.: 765-538-3422
City: Lafayette **Fax No.:** 765-538-3423
State/Prov: IN
Postal Code: 47909 **E-mail:** jayyoung@purdue.edu
Country: USA United States

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: ASGROW AG29-33 **Description:** RR2
BBCH Scale: BSOY **Planting Date:** May-13-2013
Planting Method: SEEDED seeded **Rate, Unit:** 130000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 59 F
Soil Moisture: SLIWET slightly wet

Pest Description

Pest 1 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Pest 2 Type: W **Code:** LACSE Lactuca serriola
Common Name: Prickly lettuce

Pest 3 Type: W **Code:** ERICA Conyza canadensis
Common Name: Canada horseweed

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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: NOTILL no-till
Study Design: RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	May-13-2013	Dual II	21	OZ/A
2.	May-23-2013	Canopy	6	OZ/A
3.	Jun-18-2013	BULK RUP	22	OZ/A
4.	Jul-18-2013	BULK RUP	22	OZ/A

Comment: BULK

Soil Description

Description Name: TPAC - Field 5
% OM: 2.3 **Texture:** SIL silt loam
pH: 6.6 **Soil Name:** Longlois
CEC: 9.9

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	SETFA W
Pest 2 Code, Type, Scale:	LACSE W
Pest 3 Code, Type, Scale:	ERICA W

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Reps: 4 Plots: 10 by 30 feet
Spray vol: 20 gal/ac Mix size: 2.5 liters (min 2.0856)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Appl Description	Amt Product to Measure	Rep 1	2	3	4
1	UNTREATED												101	402	603	801
2	CRUSHER	50	%W/W	WDG	0.0234	lb ai/a	0.75	oz/a	PREPLA	A	30 DAYS EPP	0.701 g/mx	102	303	503	902
	GLYFOS X-TRA	3	LBAE/GAL	SL	0.75	lb ae/a	32	fl oz/a	PREPLA	A	30 DAYS EPP	31.25 ml/mx				
	NIS			L	0.25	% v/v	0.25	% v/v	PREPLA	A	30 DAYS EPP	6.249 ml/mx				
3	CRUSHER	50	%W/W	WDG	0.0313	lb ai/a	1	oz/a	PREPLA	A	30 DAYS EPP	0.9376 g/mx	103	401	601	1001
	GLYFOS X-TRA	3	LBAE/GAL	SL	0.75	lb ae/a	32	fl oz/a	PREPLA	A	30 DAYS EPP	31.25 ml/mx				
	NIS			L	0.25	% v/v	0.25	% v/v	PREPLA	A	30 DAYS EPP	6.249 ml/mx				
4	CRUSHER	50	%W/W	WDG	0.0625	lb ai/a	2	oz/a	PREPLA	A	30 DAYS EPP	1.872 g/mx	201	302	702	901
	GLYFOS X-TRA	3	LBAE/GAL	SL	0.75	lb ae/a	32	fl oz/a	PREPLA	A	30 DAYS EPP	31.25 ml/mx				
	NIS			L	0.25	% v/v	0.25	% v/v	PREPLA	A	30 DAYS EPP	6.249 ml/mx				
5	LEADOFF	33.4	%W/W	WDG	0.0313	lb ai/a	1.5	oz/a	PREPLA	A	30 DAYS EPP	1.404 g/mx	202	502	701	803
	GLYFOS X-TRA	3	LBAE/GAL	SL	0.75	lb ae/a	32	fl oz/a	PREPLA	A	30 DAYS EPP	31.25 ml/mx				
	NIS			L	0.25	% v/v	0.25	% v/v	PREPLA	A	30 DAYS EPP	6.249 ml/mx				
6	GLYFOS X-TRA	3	LBAE/GAL	SL	0.75	lb ae/a	32	fl oz/a	PREPLA	A	30 DAYS EPP	31.25 ml/mx	203	403	703	903
	NIS			L	0.25	% v/v	0.25	% v/v	PREPLA	A	30 DAYS EPP	6.249 ml/mx				
7	GLYFOS X-TRA	3	LBAE/GAL	SL	0.75	lb ae/a	32	fl oz/a	PREPLA	A	30 DAYS EPP	31.25 ml/mx	301	501	602	802
	NIS			L	0.25	% v/v	0.25	% v/v	PREPLA	A	30 DAYS EPP	6.249 ml/mx				

Sort Order: Treatment

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Pest Type						W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code						STEME	LACSE	TAROF	BROTE	ERICA	STEME
Pest Scientific Name						Stellaria media	Lactuca serrio>	Taraxacum offi>	Bromus tectorum	Conyza canaden>	Stellaria media
Pest Name						Common chickwe>	Prickly lettuce	Common dandeli>	Downy brome	Canada horsewe>	Common chickwe>
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						Apr-22-2013	Apr-22-2013	Apr-22-2013	Apr-22-2013	Apr-22-2013	May-3-2013
Rating Type						CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit						%	%	%	%	%	%
Number of Subsamples						1	1	1	1	1	1
Crop Stage Majority											
Pest Stage Majority						2 IN	4 IN	3 IN	5 IN	2 IN	4 IN
Pest Density, Unit						20 FT2	5 YD2	3 YD2	2 YD2	3 YD2	
Assessed By						MW	MW	MW	MW	MW	MW
Plant-Eval Interval						-21 DP-1	-21 DP-1	-21 DP-1	-21 DP-1	-21 DP-1	-10 DP-1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	1	2	3	4	5	6
1	UNTREATED				101	0.0	0.0	0.0	0.0	0.0	0.0
					402	0.0	0.0	0.0	0.0	0.0	0.0
					603	0.0	0.0	0.0	0.0	0.0	0.0
					801	0.0	0.0	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	CRUSHER	0.0234	lb ai/a	A	102	91.7*	85.7*	67.8*	94.2*	83.5*	98.4*
	GLYFOS X-TRA	0.75	lb ae/a	A	303	95.0	70.0	50.0	90.0	85.0	99.0
	NIS	0.25	% v/v	A	503	90.0	90.0	85.0	90.0	90.0	95.0
					902	85.0	70.0	50.0	90.0	75.0	99.0
					Mean =	90.4	78.9	63.2	91.0	83.4	97.8
3	CRUSHER	0.0313	lb ai/a	A	103	85.0	50.0	60.0	80.0	30.0	99.0
	GLYFOS X-TRA	0.75	lb ae/a	A	401	90.0	30.0	40.0	50.0	30.0	99.0
	NIS	0.25	% v/v	A	601	90.0	50.0	50.0	50.0	80.0	99.0
					1001	80.0	50.0	40.0	60.0	80.0	99.0
					Mean =	86.3	45.0	47.5	60.0	55.0	99.0
4	CRUSHER	0.0625	lb ai/a	A	201	90.0	60.0	40.0	85.0	90.0	99.0
	GLYFOS X-TRA	0.75	lb ae/a	A	302	95.0	50.0	20.0	70.0	70.0	99.0
	NIS	0.25	% v/v	A	702	95.0	70.0	40.0	90.0	80.0	99.0
					901	85.0	50.0	60.0	85.0	90.0	99.0
					Mean =	91.3	57.5	40.0	82.5	82.5	99.0
5	LEADOFF	0.0313	lb ai/a	A	202	90.0	40.0	40.0	50.0	60.0	99.0
	GLYFOS X-TRA	0.75	lb ae/a	A	502	80.0	40.0	30.0	85.0	60.0	99.0
	NIS	0.25	% v/v	A	701	95.0	80.0	60.0	40.0	30.0	99.0
					803	70.0	60.0	20.0	60.0	63.1*	99.0
					Mean =	83.8	55.0	37.5	58.8	53.3	99.0
6	GLYFOS X-TRA	0.75	lb ae/a	A	203	80.0	80.0	50.0	70.0	40.0	99.0
	NIS	0.25	% v/v	A	403	80.0	50.0	30.0	70.0	20.0	90.0
					703	85.0	85.0	30.0	85.0	80.0	99.0
					903	70.0	40.0	30.0	75.0	80.0	99.0
					Mean =	78.8	63.8	35.0	75.0	55.0	96.8

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Pest Type						W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	
Pest Code						STEME	LACSE	TAROF	BROTE	ERICA	STEME	
Pest Scientific Name						Stellaria media	Lactuca serrio>	Taraxacum offi>	Bromus tectorum	Conyza canaden>	Stellaria media	
Pest Name						Common chickwe>	Prickly lettuce	Common dandeli>	Downy brome	Canada horsewe>	Common chickwe>	
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						Apr-22-2013	Apr-22-2013	Apr-22-2013	Apr-22-2013	Apr-22-2013	May-3-2013	
Rating Type						CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit						%	%	%	%	%	%	
Number of Subsamples						1	1	1	1	1	1	
Crop Stage Majority												
Pest Stage Majority						2 IN	4 IN	3 IN	5 IN	2 IN	4 IN	
Pest Density, Unit						20 FT2	5 YD2	3 YD2	2 YD2	3 YD2		
Assessed By						MW	MW	MW	MW	MW	MW	
Plant-Eval Interval						-21 DP-1	-21 DP-1	-21 DP-1	-21 DP-1	-21 DP-1	-10 DP-1	
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	1	2	3	4	5	6	
7	GLYFOS X-TRA	0.75	lb ae/a	A	301	90.0	85.0	30.0	70.0	80.0	99.0	
	NIS	0.25	% v/v	A	501	95.0	40.0	20.0	30.0	20.0	99.0	
					602	85.0	40.0	40.0	50.0	50.0	95.0	
					802	80.0	48.3*	40.0	90.0	63.1*	99.0	
					Mean =	87.5	53.3	32.5	60.0	53.3	98.0	

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	7	8	9	10	11	12
	Pest Type					W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code					TAROF	LACSE	ERICA	BROTE	BROTE	TAROF
	Pest Scientific Name					Taraxacum offi>	Lactuca serrio>	Conyza canaden>	Bromus tectorum	Bromus tectorum	Taraxacum offi>
	Pest Name					Common dandeli>	Prickly lettuce	Canada horsewe>	Downy brome	Downy brome	Common dandeli>
	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					May-3-2013	May-3-2013	May-3-2013	May-3-2013	May-13-2013	May-13-2013
	Rating Type					CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
	Rating Unit					%	%	%	%	%	%
	Number of Subsamples					1	1	1	1	1	1
	Crop Stage Majority										
	Pest Stage Majority					6 IN	5 IN	3 IN	8 IN	18 IN	10 IN
	Pest Density, Unit										
	Assessed By					MW	MW	MW	MW	MW	MW
	Plant-Eval Interval					-10 DP-1	-10 DP-1	-10 DP-1	-10 DP-1	0 DP-1	0 DP-1
1	UNTREATED				101	0.0	0.0	0.0	0.0	0.0	0.0
					402	0.0	0.0	0.0	0.0	0.0	0.0
					603	0.0	0.0	0.0	0.0	0.0	0.0
					801	0.0	0.0	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	CRUSHER	0.0234	lb ai/a	A	102	58.6*	82.2*	85.9*	98.3*	99.0	99.0
	GLYFOS X-TRA	0.75	lb ae/a	A	303	50.0	75.0	65.0	99.0	99.0	55.0
	NIS	0.25	% v/v	A	503	85.0	99.0	99.0	95.0	95.0	80.0
					902	50.0	99.0	99.0	99.0	99.0	45.0
					Mean =	60.9	88.8	87.2	97.8	98.0	69.8
3	CRUSHER	0.0313	lb ai/a	A	103	80.0	70.0	65.0	99.0	99.0	85.0
	GLYFOS X-TRA	0.75	lb ae/a	A	401	50.0	90.0	80.0	99.0	99.0	50.0
	NIS	0.25	% v/v	A	601	50.0	99.0	70.0	99.0	99.0	50.0
					1001	50.0	99.0	99.0	99.0	99.0	50.0
					Mean =	57.5	89.5	78.5	99.0	99.0	58.8
4	CRUSHER	0.0625	lb ai/a	A	201	60.0	80.0	90.0	99.0	99.0	55.0
	GLYFOS X-TRA	0.75	lb ae/a	A	302	35.0	99.0	75.0	90.0	99.0	50.0
	NIS	0.25	% v/v	A	702	70.0	85.0	80.0	99.0	99.0	80.0
					901	80.0	99.0	99.0	99.0	99.0	65.0
					Mean =	61.3	90.8	86.0	96.8	99.0	62.5
5	LEADOFF	0.0313	lb ai/a	A	202	35.0	99.0	70.0	99.0	99.0	55.0
	GLYFOS X-TRA	0.75	lb ae/a	A	502	75.0	99.0	80.0	99.0	99.0	70.0
	NIS	0.25	% v/v	A	701	75.0	99.0	70.0	97.0	99.0	85.0
					803	50.0	99.0	99.0	99.0	99.0	50.0
					Mean =	58.8	99.0	79.8	98.5	99.0	65.0
6	GLYFOS X-TRA	0.75	lb ae/a	A	203	30.0	85.0	70.0	99.0	99.0	60.0
	NIS	0.25	% v/v	A	403	40.0	65.0	70.0	99.0	99.0	50.0
					703	60.0	99.0	75.0	99.0	99.0	50.0
					903	60.0	99.0	90.0	99.0	99.0	60.0
					Mean =	47.5	87.0	76.3	99.0	99.0	55.0

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Pest Type						W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	
Pest Code						TAROF	LACSE	ERICA	BROTE	BROTE	TAROF	
Pest Scientific Name						Taraxacum offi>	Lactuca serrio>	Conyza canaden>	Bromus tectorum	Bromus tectorum	Taraxacum offi>	
Pest Name						Common dandeli>	Prickly lettuce	Canada horsewe>	Downy brome	Downy brome	Common dandeli>	
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						May-3-2013	May-3-2013	May-3-2013	May-3-2013	May-13-2013	May-13-2013	
Rating Type						CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit						%	%	%	%	%	%	
Number of Subsamples						1	1	1	1	1	1	
Crop Stage Majority												
Pest Stage Majority						6 IN	5 IN	3 IN	8 IN	18 IN	10 IN	
Pest Density, Unit												
Assessed By						MW	MW	MW	MW	MW	MW	
Plant-Eval Interval						-10 DP-1	-10 DP-1	-10 DP-1	-10 DP-1	0 DP-1	0 DP-1	
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	7	8	9	10	11	12	
7	GLYFOS X-TRA	0.75	lb ae/a	A	301	50.0	70.0	90.0	99.0	99.0	50.0	
	NIS	0.25	% v/v	A	501	45.0	70.0	60.0	99.0	99.0	50.0	
					602	40.0	70.0	60.0	99.0	99.0	55.0	
					802	40.0	99.0	80.0	99.0	95.0	40.0	
					Mean =	43.8	77.3	72.5	99.0	98.0	48.8	

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Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	13	14	15	16	17	18
	Pest Type					W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code					LACSE	STEME	ERICA	ERICA	SETFA	TAROF
	Pest Scientific Name					Lactuca serrio>	Stellaria media	Conyza canaden>	Conyza canaden>	Setaria faberi	Taraxacum offi>
	Pest Name					Prickly lettuce	Common chickwe>	Canada horsewe>	Canada horsewe>	Giant foxtail	Common dandeli>
	Crop Code										
	BBCH Scale										
	Crop Scientific Name										
	Crop Name										
	Rating Date					May-13-2013	May-13-2013	May-13-2013	May-29-2013	May-29-2013	May-29-2013
	Rating Type					CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
	Rating Unit					%	%	%	%	%	%
	Number of Subsamples					1	1	1	1	1	1
	Crop Stage Majority								V1	V1	V1
	Pest Stage Majority					15 IN	7 IN	6 IN	10 IN	1 IN	10 IN
	Pest Density, Unit								5 FT2	10 FT2	3 YD2
	Assessed By					MW	MW	MW	MW	MW	MW
	Plant-Eval Interval					0 DP-1	0 DP-1	0 DP-1	16 DP-1	16 DP-1	16 DP-1
1	UNTREATED				101	0.0	0.0	0.0	0.0	0.0	0.0
					402	0.0	0.0	0.0	0.0	0.0	0.0
					603	0.0	0.0	0.0	0.0	0.0	0.0
					801	0.0	0.0	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	CRUSHER	0.0234	lb ai/a	A	102	99.0	99.0	99.0	99.0	99.0	99.0
	GLYFOS X-TRA	0.75	lb ae/a	A	303	99.0	99.0	65.0	85.0	95.0	90.0
	NIS	0.25	% v/v	A	503	90.0	99.0	85.0	90.0	95.0	85.0
					902	99.0	99.0	99.0	99.0	95.0	70.0
					Mean =	96.8	99.0	87.0	93.3	96.0	86.0
3	CRUSHER	0.0313	lb ai/a	A	103	90.0	99.0	70.0	85.0	99.0	95.0
	GLYFOS X-TRA	0.75	lb ae/a	A	401	99.0	99.0	50.0	80.0	99.0	99.0
	NIS	0.25	% v/v	A	601	99.0	99.0	60.0	80.0	95.0	85.0
					1001	99.0	99.0	90.0	95.0	90.0	85.0
					Mean =	96.8	99.0	67.5	85.0	95.8	91.0
4	CRUSHER	0.0625	lb ai/a	A	201	99.0	99.0	70.0	95.0	99.0	99.0
	GLYFOS X-TRA	0.75	lb ae/a	A	302	99.0	99.0	90.0	95.0	97.0	95.0
	NIS	0.25	% v/v	A	702	99.0	99.0	65.0	85.0	95.0	99.0
					901	99.0	99.0	85.0	95.0	85.0	99.0
					Mean =	99.0	99.0	77.5	92.5	94.0	98.0
5	LEADOFF	0.0313	lb ai/a	A	202	99.0	99.0	75.0	90.0	99.0	99.0
	GLYFOS X-TRA	0.75	lb ae/a	A	502	99.0	99.0	75.0	85.0	97.0	90.0
	NIS	0.25	% v/v	A	701	99.0	99.0	45.0	75.0	95.0	90.0
					803	99.0	99.0	70.0	90.0	90.0	85.0
					Mean =	99.0	99.0	66.3	85.0	95.3	91.0
6	GLYFOS X-TRA	0.75	lb ae/a	A	203	80.0	99.0	65.0	90.0	97.0	80.0
	NIS	0.25	% v/v	A	403	99.0	99.0	55.0	85.0	99.0	85.0
					703	99.0	99.0	65.0	95.0	95.0	90.0
					903	99.0	99.0	85.0	99.0	95.0	95.0
					Mean =	94.3	99.0	67.5	92.3	96.5	87.5

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Pest Type						W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code						LACSE	STEME	ERICA	ERICA	SETFA	TAROF
Pest Scientific Name						Lactuca serrio>	Stellaria media	Conyza canaden>	Conyza canaden>	Setaria faberi	Taraxacum offi>
Pest Name						Prickly lettuce	Common chickwe>	Canada horsewe>	Canada horsewe>	Giant foxtail	Common dandeli>
Crop Code											
BBCH Scale											
Crop Scientific Name											
Crop Name											
Rating Date						May-13-2013	May-13-2013	May-13-2013	May-29-2013	May-29-2013	May-29-2013
Rating Type						CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit						%	%	%	%	%	%
Number of Subsamples						1	1	1	1	1	1
Crop Stage Majority									V1	V1	V1
Pest Stage Majority						15 IN	7 IN	6 IN	10 IN	1 IN	10 IN
Pest Density, Unit									5 FT2	10 FT2	3 YD2
Assessed By						MW	MW	MW	MW	MW	MW
Plant-Eval Interval						0 DP-1	0 DP-1	0 DP-1	16 DP-1	16 DP-1	16 DP-1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	13	14	15	16	17	18
7	GLYFOS X-TRA	0.75	lb ae/a	A	301	99.0	99.0	80.0	90.0	99.0	85.0
	NIS	0.25	% v/v	A	501	70.0	99.0	60.0	80.0	95.0	85.0
					602	99.0	99.0	50.0	75.0	90.0	90.0
					802	99.0	99.0	75.0	95.0	95.0	75.0
					Mean =	91.8	99.0	66.3	85.0	94.8	83.8

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code	AMBTR	ERICA	SETFA	AMBTR	TAROF		
Pest Scientific Name	Ambrosia trifi>	Conyza canaden>	Setaria faberi	Ambrosia trifi>	Taraxacum offi>		
Pest Name	Giant ragweed	Canada horsewe>	Giant foxtail	Giant ragweed	Common dandeli>		
Crop Code						GLXMA	GLXMA
BBCH Scale						BSOY	BSOY
Crop Scientific Name						Glycine max	Glycine max
Crop Name						Soybean	Soybean
Rating Date	May-29-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Sep-26-2013
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYLMA	YIELD
Rating Unit	%	%	%	%	%	%	bu/ac
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Majority	V1						
Pest Stage Majority	6 IN	18 IN	2 IN	4 IN	7 IN		
Pest Density, Unit	1 YD2	5 YD2	10 FT2	1 YD2	2 YD2		
Assessed By	MW	MW	MW	MW	MW	MW	
Plant-Eval Interval	16 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1	136 DP-1
Trt Treatment Name / No.	Rate	Rate Unit	Appl Code	Plot	19	20	21	22	23	24	25
1 UNTREATED				101	0.0	0.0	0.0	0.0	0.0	0.0	45.80
				402	0.0	0.0	0.0	0.0	0.0	0.0	0.40
				603	0.0	0.0	0.0	0.0	0.0	0.0	71.40
				801	0.0	0.0	0.0	0.0	0.0	0.0	86.20
				Mean =	0.0	0.0	0.0	0.0	0.0	0.0	50.95
2 CRUSHER	0.0234	lb ai/a	A	102	99.0	99.0	99.0	99.0	99.0	0.0	60.11*
GLYFOS X-TRA	0.75	lb ae/a	A	303	99.0	80.0	95.0	99.0	99.0	0.0	64.20
NIS	0.25	% v/v	A	503	95.0	85.0	95.0	95.0	99.0	3.0	89.50
				902	75.0	99.0	80.0	80.0	60.0	3.0	95.90
				Mean =	92.0	90.8	92.3	93.3	89.3	1.5	77.43
3 CRUSHER	0.0313	lb ai/a	A	103	99.0	80.0	97.0	99.0	85.0	3.0	56.70
GLYFOS X-TRA	0.75	lb ae/a	A	401	90.0	80.0	90.0	60.0	99.0	3.0	65.10
NIS	0.25	% v/v	A	601	80.0	75.0	90.0	70.0	99.0	5.0	76.70
				1001	80.0	99.0	80.0	20.0	80.0	5.0	94.90
				Mean =	87.3	83.5	89.3	62.3	90.8	4.0	73.35
4 CRUSHER	0.0625	lb ai/a	A	201	90.0	90.0	99.0	85.0	90.0	0.0	53.47*
GLYFOS X-TRA	0.75	lb ae/a	A	302	97.0	90.0	97.0	90.0	99.0	3.0	47.90
NIS	0.25	% v/v	A	702	80.0	70.0	90.0	70.0	99.0	3.0	86.60
				901	90.0	90.0	75.0	99.0	95.0	5.0	95.20
				Mean =	89.3	85.0	90.3	86.0	95.8	2.8	70.79
5 LEADOFF	0.0313	lb ai/a	A	202	85.0	85.0	97.0	90.0	80.0	0.0	46.60
GLYFOS X-TRA	0.75	lb ae/a	A	502	90.0	85.0	97.0	99.0	99.0	3.0	77.80
NIS	0.25	% v/v	A	701	85.0	60.0	90.0	90.0	99.0	5.0	83.20
				803	85.0	85.0	90.0	60.0	90.0	5.0	94.90
				Mean =	86.3	78.8	93.5	84.8	92.0	3.3	75.63
6 GLYFOS X-TRA	0.75	lb ae/a	A	203	99.0	75.0	95.0	99.0	90.0	5.0	63.60
NIS	0.25	% v/v	A	403	99.0	70.0	95.0	95.0	85.0	0.0	64.30
				703	99.0	95.0	85.0	99.0	99.0	7.0	100.10
				903	99.0	99.0	85.0	99.0	99.0	5.0	99.90
				Mean =	99.0	84.8	90.0	98.0	93.3	4.3	81.98

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Pest Type						W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code						AMBTR	ERICA	SETFA	AMBTR	TAROF		
Pest Scientific Name						Ambrosia trifi>	Conyza canaden>	Setaria faberi	Ambrosia trifi>	Taraxacum offi>		
Pest Name						Giant ragweed	Canada horsewe>	Giant foxtail	Giant ragweed	Common dandeli>		
Crop Code											GLXMA	GLXMA
BBCH Scale											BSOY	BSOY
Crop Scientific Name											Glycine max	Glycine max
Crop Name											Soybean	Soybean
Rating Date						May-29-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Sep-26-2013
Rating Type						CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYLMA	YIELD
Rating Unit						%	%	%	%	%	%	bu/ac
Number of Subsamples						1	1	1	1	1	1	1
Crop Stage Majority						V1						
Pest Stage Majority						6 IN	18 IN	2 IN	4 IN	7 IN		
Pest Density, Unit						1 YD2	5 YD2	10 FT2	1 YD2	2 YD2		
Assessed By						MW	MW	MW	MW	MW	MW	
Plant-Eval Interval						16 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1	136 DP-1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	19	20	21	22	23	24	25
7	GLYFOS X-TRA	0.75	lb ae/a	A	301	99.0	95.0	95.0	90.0	90.0	0.0	62.50
	NIS	0.25	% v/v	A	501	90.0	70.0	85.0	70.0	85.0	3.0	86.00
					602	85.0	70.0	95.0	80.0	95.0	3.0	83.80
					802	99.0	90.0	90.0	99.0	70.0	7.0	87.30
					Mean =	93.3	81.3	91.3	84.8	85.0	3.3	79.90

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TO DETERMINE THE HERBICIDAL EFFICACY AND SELECTIVITY WHEN CRUSHER IS APPLIED PREPLANT TO SOYBEAN IN 2013

Trial ID: 13S-THP-NTS-71
Location: USA
Project ID: HGLXMARIMTHI1301
Protocol ID: 13S-THP-NTS-71
Study Director: Bill Johnson
Investigator: Dr. Bill Johnson
Sponsor Contact: Cheminova - Jim Barrentine

Pest Type
W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop
Pest Code
STEME, Stellaria media, = US
LACSE, Lactuca serriola, = US
TAROF, Taraxacum officinale, = US
BROTE, Bromus tectorum, = US
ERICA, Conyza canadensis, = US
SETFA, Setaria faberi, = US
AMBTR, Ambrosia trifida, = US
Crop Code
GLXMA, BSOY, Glycine max, = US
Rating Type
CONTRO = control / burndown or knockdown
PHYLMA = phytotoxicity - leaf malformation
YIELD = yield
Rating Unit
% = percent
bu/ac = bushels per acre

FT2 = per square foot
YD2 = per square yard
Plant-Eval Interval
-21 DP-1 = 1 GLXMA May-13-2013
-10 DP-1 = 1 GLXMA May-13-2013
0 DP-1 = 1 GLXMA May-13-2013
16 DP-1 = 1 GLXMA May-13-2013
30 DP-1 = 1 GLXMA May-13-2013
136 DP-1 = 1 GLXMA May-13-2013

Purdue University

TO DETERMINE THE HERBICIDAL EFFICACY AND SELECTIVITY WHEN CRUSHER IS APPLIED PREPLANT TO SOYBEAN IN 2013

Trial ID: 13S-THP-NTS-71 Protocol ID: 13S-THP-NTS-71
Location: USA Study Director: Bill Johnson
Project ID: HGLXMARIMTHI1301 Investigator: Dr. Bill Johnson
Sponsor Contact: Cheminova - Jim Barrentine

Pest Type			W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code			STEME	LACSE	TAROF	BROTE	ERICA	STEME
Pest Scientific Name			Stellaria media	Lactuca serrio>	Taraxacum offi>	Bromus tectorum	Conyza canaden>	Stellaria media
Pest Name			Common chickwe>	Prickly lettuce	Common dandeli>	Downy brome	Canada horsewe>	Common chickwe>
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			Apr-22-2013	Apr-22-2013	Apr-22-2013	Apr-22-2013	Apr-22-2013	May-3-2013
Rating Type			CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit			%	%	%	%	%	%
Number of Subsamples			1	1	1	1	1	1
Crop Stage Majority								
Pest Stage Majority			2 IN	4 IN	3 IN	5 IN	2 IN	4 IN
Pest Density, Unit			20 FT2	5 YD2	3 YD2	2 YD2	3 YD2	
Assessed By			MW	MW	MW	MW	MW	MW
Plant-Eval Interval			-21 DP-1	-21 DP-1	-21 DP-1	-21 DP-1	-21 DP-1	-10 DP-1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4	5	6
1	UNTREATED				0.0 c	0.0 c	0.0 c	0.0 b	0.0 b	0.0 b
2	CRUSHER	0.0234	lb ai/a	A	90.4 a	78.9 a	63.2 a	91.0 a	83.4 a	97.8 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
3	CRUSHER	0.0313	lb ai/a	A	86.3 ab	45.0 b	47.5 ab	60.0 a	55.0 a	99.0 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
4	CRUSHER	0.0625	lb ai/a	A	91.3 a	57.5 ab	40.0 b	82.5 a	82.5 a	99.0 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
5	LEADOFF	0.0313	lb ai/a	A	83.8 ab	55.0 ab	37.5 b	58.8 a	53.3 a	99.0 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
6	GLYFOS X-TRA	0.75	lb ae/a	A	78.8 b	63.8 ab	35.0 b	75.0 a	55.0 a	96.8 a
	NIS	0.25	% v/v	A						
7	GLYFOS X-TRA	0.75	lb ae/a	A	87.5 ab	53.3 ab	32.5 b	60.0 a	53.3 a	98.0 a
	NIS	0.25	% v/v	A						
LSD (P=.05)					6.79	20.69	17.06	21.91	30.41	3.12
Standard Deviation					4.55	13.80	11.44	14.68	20.18	2.09
CV					6.15	27.33	31.31	24.06	36.94	2.48
Bartlett's X2					3.259	4.195	2.766	5.838	6.174	2.119
P(Bartlett's X2)					0.66	0.522	0.736	0.212	0.29	0.347
Replicate F					7.253	3.161	2.921	0.682	1.752	0.740
Replicate Prob(F)					0.0024	0.0535	0.0640	0.5752	0.1995	0.5424
Treatment F					209.175	12.741	11.199	16.352	7.517	1266.162
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0007	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.

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	7	8	9	10	11	12
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				TAROF	LACSE	ERICA	BROTE	BROTE	TAROF
	Pest Scientific Name				Taraxacum offi>	Lactuca serrio>	Conyza canaden>	Bromus tectorum	Bromus tectorum	Taraxacum offi>
	Pest Name				Common dandeli>	Prickly lettuce	Canada horsewe>	Downy brome	Downy brome	Common dandeli>
	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				May-3-2013	May-3-2013	May-3-2013	May-3-2013	May-13-2013	May-13-2013
	Rating Type				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Crop Stage Majority									
	Pest Stage Majority				6 IN	5 IN	3 IN	8 IN	18 IN	10 IN
	Pest Density, Unit									
	Assessed By				MW	MW	MW	MW	MW	MW
	Plant-Eval Interval				-10 DP-1	-10 DP-1	-10 DP-1	-10 DP-1	0 DP-1	0 DP-1
1	UNTREATED				0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b
2	CRUSHER	0.0234	lb ai/a	A	60.9 a	88.8 a	87.2 a	97.8 a	98.0 a	69.8 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
3	CRUSHER	0.0313	lb ai/a	A	57.5 a	89.5 a	78.5 a	99.0 a	99.0 a	58.8 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
4	CRUSHER	0.0625	lb ai/a	A	61.3 a	90.8 a	86.0 a	96.8 a	99.0 a	62.5 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
5	LEADOFF	0.0313	lb ai/a	A	58.8 a	99.0 a	79.8 a	98.5 a	99.0 a	65.0 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
6	GLYFOS X-TRA	0.75	lb ae/a	A	47.5 a	87.0 a	76.3 a	99.0 a	99.0 a	55.0 a
	NIS	0.25	% v/v	A						
7	GLYFOS X-TRA	0.75	lb ae/a	A	43.8 a	77.3 a	72.5 a	99.0 a	98.0 a	48.8 a
	NIS	0.25	% v/v	A						
	LSD (P=.05)				22.77	14.61	15.24	2.96	1.63	19.70
	Standard Deviation				15.26	9.79	10.22	1.98	1.10	13.26
	CV				32.41	12.87	14.89	2.35	1.3	25.81
	Bartlett's X2				4.859	0.697	1.576	5.211	0.0	7.502
	P(Bartlett's X2)				0.433	0.952	0.904	0.074	.	0.186
	Replicate F				0.816	3.705	4.861	0.675	0.632	1.966
	Replicate Prob(F)				0.5024	0.0322	0.0128	0.5791	0.6041	0.1553
	Treatment F				8.199	48.637	36.097	1408.353	4612.106	12.739
	Treatment Prob(F)				0.0003	0.0001	0.0001	0.0001	0.0001	0.0001

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13	14	15	16	17	18	19
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				LACSE	STEME	ERICA	ERICA	SETFA	TAROF	AMBTR
	Pest Scientific Name				Lactuca serrio>	Stellaria media	Conyza canaden>	Conyza canaden>	Setaria faberi	Taraxacum offi>	Ambrosia trifi>
	Pest Name				Prickly lettuce	Common chickwe>	Canada horsewe>	Canada horsewe>	Giant foxtail	Common dandeli>	Giant ragweed
	Crop Code										
	BBCH Scale										
	Crop Scientific Name										
	Crop Name										
	Rating Date				May-13-2013	May-13-2013	May-13-2013	May-29-2013	May-29-2013	May-29-2013	May-29-2013
	Rating Type				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
	Rating Unit				%	%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1	1
	Crop Stage Majority							V1	V1	V1	V1
	Pest Stage Majority				15 IN	7 IN	6 IN	10 IN	1 IN	10 IN	6 IN
	Pest Density, Unit							5 FT2	10 FT2	3 YD2	1 YD2
	Assessed By				MW	MW	MW	MW	MW	MW	MW
	Plant-Eval Interval				0 DP-1	0 DP-1	0 DP-1	16 DP-1	16 DP-1	16 DP-1	16 DP-1
1	UNTREATED				0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b
2	CRUSHER	0.0234	lb ai/a	A	96.8 a	99.0 a	87.0 a	93.3 a	96.0 a	86.0 a	92.0 a
	GLYFOS X-TRA	0.75	lb ae/a	A							
	NIS	0.25	% v/v	A							
3	CRUSHER	0.0313	lb ai/a	A	96.8 a	99.0 a	67.5 a	85.0 a	95.8 a	91.0 a	87.3 a
	GLYFOS X-TRA	0.75	lb ae/a	A							
	NIS	0.25	% v/v	A							
4	CRUSHER	0.0625	lb ai/a	A	99.0 a	99.0 a	77.5 a	92.5 a	94.0 a	98.0 a	89.3 a
	GLYFOS X-TRA	0.75	lb ae/a	A							
	NIS	0.25	% v/v	A							
5	LEADOFF	0.0313	lb ai/a	A	99.0 a	99.0 a	66.3 a	85.0 a	95.3 a	91.0 a	86.3 a
	GLYFOS X-TRA	0.75	lb ae/a	A							
	NIS	0.25	% v/v	A							
6	GLYFOS X-TRA	0.75	lb ae/a	A	94.3 a	99.0 a	67.5 a	92.3 a	96.5 a	87.5 a	99.0 a
	NIS	0.25	% v/v	A							
7	GLYFOS X-TRA	0.75	lb ae/a	A	91.8 a	99.0 a	66.3 a	85.0 a	94.8 a	83.8 a	93.3 a
	NIS	0.25	% v/v	A							
	LSD (P=.05)				10.71	0.00	16.23	6.86	4.02	9.75	9.27
	Standard Deviation				7.21	0.00	10.93	4.62	2.71	6.56	6.24
	CV				8.74	0.0	17.71	6.07	3.31	8.55	7.99
	Bartlett's X2				5.423	0.0	0.53	1.071	5.201	7.053	5.216
	P(Bartlett's X2)				0.143	.	0.991	0.957	0.392	0.217	0.266
	Replicate F				0.566	0.000	4.438	7.750	6.721	1.368	2.188
	Replicate Prob(F)				0.6446	1.0000	0.0168	0.0016	0.0031	0.2845	0.1248
	Treatment F				102.439	0.000	26.832	214.028	710.720	108.352	123.777
	Treatment Prob(F)				0.0001	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	20	21	22	23	24	25
	Pest Type				W Weed	W Weed	W Weed	W Weed		
	Pest Code				ERICA	SETFA	AMBTR	TAROF		
	Pest Scientific Name				Conyza canaden>	Setaria faberi	Ambrosia trifi>	Taraxacum offi>		
	Pest Name				Canada horsewe>	Giant foxtail	Giant ragweed	Common dandeli>		
	Crop Code								GLXMA	GLXMA
	BBCH Scale								BSOY	BSOY
	Crop Scientific Name								Glycine max	Glycine max
	Crop Name								Soybean	Soybean
	Rating Date				Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Jun-12-2013	Sep-26-2013
	Rating Type				CONTRO	CONTRO	CONTRO	CONTRO	PHYLMA	YIELD
	Rating Unit				%	%	%	%	%	bu/ac
	Number of Subsamples				1	1	1	1	1	1
	Crop Stage Majority									
	Pest Stage Majority				18 IN	2 IN	4 IN	7 IN		
	Pest Density, Unit				5 YD2	10 FT2	1 YD2	2 YD2		
	Assessed By				MW	MW	MW	MW	MW	
	Plant-Eval Interval				30 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1	136 DP-1
1	UNTREATED				0.0 b	0.0 b	0.0 c	0.0 b	0.0 b	50.95 a
2	CRUSHER	0.0234	lb ai/a	A	90.8 a	92.3 a	93.3 ab	89.3 a	1.5 ab	77.43 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
3	CRUSHER	0.0313	lb ai/a	A	83.5 a	89.3 a	62.3 b	90.8 a	4.0 a	73.35 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
4	CRUSHER	0.0625	lb ai/a	A	85.0 a	90.3 a	86.0 ab	95.8 a	2.8 ab	70.79 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
5	LEADOFF	0.0313	lb ai/a	A	78.8 a	93.5 a	84.8 ab	92.0 a	3.3 ab	75.63 a
	GLYFOS X-TRA	0.75	lb ae/a	A						
	NIS	0.25	% v/v	A						
6	GLYFOS X-TRA	0.75	lb ae/a	A	84.8 a	90.0 a	98.0 a	93.3 a	4.3 a	81.98 a
	NIS	0.25	% v/v	A						
7	GLYFOS X-TRA	0.75	lb ae/a	A	81.3 a	91.3 a	84.8 ab	85.0 a	3.3 ab	79.90 a
	NIS	0.25	% v/v	A						
	LSD (P=.05)				13.69	7.16	23.35	13.47	2.36	20.896
	Standard Deviation				9.22	4.82	15.72	9.07	1.59	13.939
	CV				12.8	6.18	21.62	11.63	58.53	19.13
	Bartlett's X2				0.707	3.631	15.277	6.732	2.928	4.373
	P(Bartlett's X2)				0.983	0.604	0.009*	0.241	0.711	0.626
	Replicate F				3.927	7.336	1.070	3.001	6.415	12.990
	Replicate Prob(F)				0.0256	0.0021	0.3864	0.0577	0.0038	0.0001
	Treatment F				48.109	204.292	18.682	58.084	3.547	2.215
	Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0170	0.0954

Purdue University

TO DETERMINE THE HERBICIDAL EFFICACY AND SELECTIVITY WHEN CRUSHER IS APPLIED PREPLANT TO SOYBEAN IN 2013

Trial ID: 13S-THP-NTS-71
Location: USA
Project ID: HGLXMARIMTHI1301
Protocol ID: 13S-THP-NTS-71
Study Director: Bill Johnson
Investigator: Dr. Bill Johnson
Sponsor Contact: Cheminova - Jim Barrentine

Pest Type
W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop
Pest Code
STEME, Stellaria media, = US
LACSE, Lactuca serriola, = US
TAROF, Taraxacum officinale, = US
BROTE, Bromus tectorum, = US
ERICA, Conyza canadensis, = US
SETFA, Setaria faberi, = US
AMBTR, Ambrosia trifida, = US
Crop Code
GLXMA, BSOY, Glycine max, = US
Rating Type
CONTRO = control / burndown or knockdown
PHYLMA = phytotoxicity - leaf malformation
YIELD = yield
Rating Unit
% = percent
bu/ac = bushels per acre

FT2 = per square foot
YD2 = per square yard
Plant-Eval Interval
-21 DP-1 = 1 GLXMA May-13-2013
-10 DP-1 = 1 GLXMA May-13-2013
0 DP-1 = 1 GLXMA May-13-2013
16 DP-1 = 1 GLXMA May-13-2013
30 DP-1 = 1 GLXMA May-13-2013
136 DP-1 = 1 GLXMA May-13-2013