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TO DETERMINE THE HERBICIDAL EFFICACY AND SELECTIVITY OF GLYFOS X-TRA+METRIBUZIN WHEN APPLIED EPP AND PRE TO SOYBEANS IN 2007

Trial ID: 07S-SEP-NTS-36_0702
Location: US

Protocol ID: HGLXMAMETR0702
Study Director: JAMES BARRENTINE
Investigator: Dr. William G. Johnson

General Trial Information

Study Director: JAMES BARRENTINE
Investigator: Dr. William G. Johnson **Title:** Associate Professor
Affiliation: Purdue University
Postal Code: 47909 **E-mail:** wgj@purdue.edu
Keywords: METRIBUZIN DF, GLYFOS X-TRA, BURNDOWN, PRE, SOYBEAN, TANK MIX

Trial Location

City: Butlerville
State/Prov.: IN
Postal Code: 47223
Country: USA
Directions:
Field U41

Cooperator/Landowner

Cooperator: Southeast Purdue Ag Center **Country:** USA
Organization: Purdue University **Phone No:** 812-458-6977
Address 1: 4425 E Co Rd 350 N **Fax No:** 812-458-6979
Address 2: PO Box 216
City: Butlerville
State/Prov: IN
Postal Code: 47223

Crop Description

Crop 1: GLXMA Glycine max **Soybean**
Variety: Pioneer 93M95 **Description:** RR; Bill planted
BBCH Scale: BSOY **Planting Date:** May/08/2007
Planting Method: DIRECT DRILLED **Rate, Unit:** 120000 S/A
Depth, Unit: 2 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 70 F
Soil Moisture: Moist **Emergence Date:** May/15/2007

Pest Description

Pest 1 Type: W **Code:** AMBEL **Ambrosia artemisiifolia**
Common Name: Hogweed
Description: Common ragweed

Pest 2 Type: W **Code:** RANAB **Ranunculus abortivus**
Common Name: Smallflower buttercup

Pest 3 Type: W **Code:** ALLVI **Allium vineale**
Common Name: Wild garlic

Pest 4 Type: W **Code:** POAAN **Poa annua**
Common Name: Annual bluegrass

Pest 5 Type: W **Code:** ERICA **Erigeron canadensis**
Common Name: Canada horseweed
Description: Horseweed

Pest 6 Type: W **Code:** SENGL **Senecio glabellus**
Common Name: Cressleaf groundsel

Site and Design

Plot Width, Unit: 10 FT
Plot Length, Unit: 30 FT **Tillage Type:** No-till
Replications: 4 **Study Design:** Randomized Complete Block

Soil Description

Description Name: SEPAC U41
% OM: 1.4 **Texture:** SILT LOAM
pH: 6 **Soil Name:** Avonburg
CEC: 5 **Fert. Level:** GOOD

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Additional Measured Elements

Element	Quantity	Unit
P	15	PPM
K	95	PPM
Mg	134	PPM
Ca	735	PPM

Moisture and Weather Conditions

Closest Weather Station: On research station Distance: 0.5 Unit: MI

Application Description

	A	B
Application Date:	Apr/27/2007	May/08/2007
Time of Day:	12:15 PM	3:00 PM
Application Method:	Spray	Spray
Application Timing:	A: EPP	B: PRE
Application Placement:	BROFOL	BROFOL
Applied By:	VMD GK	KW AW
Air Temperature, Unit:	72 F	83 F
% Relative Humidity:	75	86
Wind Velocity, Unit:	3 MPH	6 MPH
Wind Direction:	WSW	SW
Dew Presence (Y/N):	N	N
Water Hardness:	Hard	Hard
Soil Temperature, Unit:	58 F	70 F
Soil Moisture:	Wet	Dry
% Cloud Cover:	0	0

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY

Pest Stage At Each Application

	A	B
Pest 1 Code, Disc., Scale:	AMBEL W	AMBEL W
Height, Unit:		3 IN
Height Minimum, Maximum:		2 4
Density, Unit:		5 YD2
Pest 2 Code, Disc., Scale:	RANAB W	RANAB W
Height, Unit:	3 IN	2 IN
Height Minimum, Maximum:	2 5	1.5 3.5
Density, Unit:	8 YD2	8 YD2
Pest 3 Code, Disc., Scale:	ALLVI W	ALLVI W
Height, Unit:	15 IN	1.5 FT
Height Minimum, Maximum:	10 20	1 2
Density, Unit:	10 YD2	8 YD2
Pest 4 Code, Disc., Scale:	POAAN W	POAAN W
Height, Unit:	3 IN	4 IN
Height Minimum, Maximum:	2 5	3 5
Density, Unit:	8 YD2	35 YD2
Pest 5 Code, Disc., Scale:	ERICA W	ERICA W
Height, Unit:	1 IN	1 IN
Height Minimum, Maximum:	0.5 3	1 3
Density, Unit:	0.5 YD2	1 YD2
Pest 6 Code, Disc., Scale:	SENGL W	SENGL W
Height, Unit:	15 IN	17 IN
Height Minimum, Maximum:	12 18	10 22
Density, Unit:	2 YD2	3 YD2

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Application Equipment

	A	B
Appl. Equipment:	Back Pack	Back Pack
Operating Pressure, Unit:	17 PSI	17 PSI
Nozzle Type:	XR	XR
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	15 IN	15 IN
Nozzles/Row:	6	6
Boom Length, Unit:	7.5 FT	7.5 FT
Boom Height, Unit:	15 IN	15 IN
Ground Speed, Unit:	3 MPH	3 MPH
Incorporation Equip.:	None	None
Hours to Incorp.:	0	0
Incorp. Depth, Unit:	0 IN	0 IN
Carrier:	TPAC H2O	TPAC H2O
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	1.8 Liters	1.8 Liters
Propellant:	CO2	CO2

Trial Comments

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Trial ID: 07S-SEP-NTS-36_0702
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Protocol ID: HGLXMAMETR0702
Study Director: JAMES BARRENTINE
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								W Weed	W Weed	W Weed	W Weed	W Weed	W Weed		
								RANAB	ALLVI	POAAN	ERICA	SENGL	AMBEL		
								Smallflower>	Wild garlic	Annual blue>	Horseweed	Cressleaf g>	Common ragw>	GLXMA	
Pest Type	Pest Code	Pest Name	Crop Code	BBCH Scale	Crop Name	Crop Variety	Part Rated	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Crop Code	BBCH Scale	Crop Name	Crop Variety	Part Rated	Rating Date	Rating Data Type	Rating Unit	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	
Crop Name	Crop Variety	Part Rated	Rating Date	Rating Data Type	Rating Unit	Crop Stage	Crop Stage Scale	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	
Crop Variety	Part Rated	Rating Date	Rating Data Type	Rating Unit	Crop Stage	Crop Stage Scale	Pest Stage	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95	
Part Rated	Rating Date	Rating Data Type	Rating Unit	Crop Stage	Crop Stage Scale	Pest Stage	Pest Density, Unit	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA C	
Rating Date	Rating Data Type	Rating Unit	Crop Stage	Crop Stage Scale	Pest Stage	Pest Density, Unit	Footnote Number	May/15/2007	May/15/2007	May/15/2007	May/15/2007	May/15/2007	May/15/2007	May/29/2007	
Rating Data Type	Rating Unit	Crop Stage	Crop Stage Scale	Pest Stage	Pest Density, Unit	Footnote Number	Assessed By	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYDEF	
Rating Unit	Crop Stage	Crop Stage Scale	Pest Stage	Pest Density, Unit	Footnote Number	Assessed By	Days After First/Last Applic.	%	%	%	%	%	%	%	
Crop Stage	Crop Stage Scale	Pest Stage	Pest Density, Unit	Footnote Number	Assessed By	Days After First/Last Applic.	Plant-Eval Interval	VE	VE	VE	VE	VE	VE	V1-2	
Crop Stage Scale	Pest Stage	Pest Density, Unit	Footnote Number	Assessed By	Days After First/Last Applic.	Plant-Eval Interval		2-4"	1-3'	4-6"	1-3"	10-24"	2-4"		
Pest Stage	Pest Density, Unit	Footnote Number	Assessed By	Days After First/Last Applic.	Plant-Eval Interval			8 YD2	8 YD2	40 YD2	2 YD2	3 YD2	5 YD2		
Pest Density, Unit	Footnote Number	Assessed By	Days After First/Last Applic.	Plant-Eval Interval										1	
Footnote Number	Assessed By	Days After First/Last Applic.	Plant-Eval Interval					GK VM	GK VM	GK VM	GK VM	GK VM	GK VM	GK GN	
Assessed By	Days After First/Last Applic.	Plant-Eval Interval						18 7	18 7	18 7	18 7	18 7	18 7	32 21	
Days After First/Last Applic.	Plant-Eval Interval							7 DP-1	7 DP-1	7 DP-1	7 DP-1	7 DP-1	7 DP-1	21 DP-1	
Plant-Eval Interval															
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Plot	1	2	3	4	5	6	7
1	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	101	100.0	20.0	100.0	97.0	100.0	97.0	1.0
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A	304	100.0	55.0	100.0	100.0	100.0	95.0	1.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	704	100.0	40.0	100.0	100.0	100.0	100.0	3.0
								802	100.0	60.0	100.0	100.0	100.0	100.0	3.0
								Mean =	100.0	43.8	100.0	99.3	100.0	98.0	2.0
2	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	102	100.0	27.0	100.0	97.0	100.0	95.0	2.0
	METRIBUZIN	0.1875	lb ai/a	4	oz/a	EPP	A	305	100.0	75.0	100.0	100.0	100.0	97.0	3.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	703	98.0	40.0	98.0	100.0	100.0	96.0	1.0
								1001	100.0	83.0	100.0	100.0	100.0	90.0	3.0
								Mean =	99.5	56.3	99.5	99.3	100.0	94.5	2.3
3	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	103	100.0	15.0	97.0	100.0	100.0	97.0	2.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	EPP	A	303	100.0	65.0	100.0	97.0	98.0	98.0	1.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	801	100.0	70.0	100.0	100.0	100.0	100.0	3.0
								903	97.0	50.0	100.0	100.0	100.0	96.0	3.0
								Mean =	99.3	50.0	99.3	99.3	99.5	97.8	2.3
4	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	104	100.0	17.0	100.0	100.0	100.0	100.0	2.0
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A	401	100.0	75.0	100.0	100.0	100.0	100.0	5.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	603	100.0	65.0	100.0	100.0	100.0	100.0	3.0
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	PRE	B	805	100.0	85.0	100.0	100.0	100.0	100.0	3.0
								Mean =	100.0	60.5	100.0	100.0	100.0	100.0	3.3
5	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	105	100.0	0.0	50.0	100.0	95.0	97.0	0.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B	404	90.0	20.0	85.0	97.0	80.0	95.0	3.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B	705	85.0	10.0	90.0	97.0	65.0	90.0	1.0
								901	95.0	3.0	50.0	65.0	65.0	98.0	1.0
								Mean =	92.5	8.3	68.8	89.8	76.3	95.0	1.3
6	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	201	97.0	0.0	60.0	100.0	80.0	100.0	0.0
	METRIBUZIN	0.38	lb ai/a	8.1	oz/a	PRE	B	504	93.0	0.0	75.0	100.0	60.0	100.0	1.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B	605	77.0	20.0	90.0	75.0	97.0	100.0	0.0
								804	95.0	0.0	85.0	100.0	100.0	100.0	0.0
								Mean =	90.5	5.0	77.5	93.8	84.3	100.0	0.3
7	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	202	90.0	0.0	30.0	100.0	97.0	100.0	1.0
	METRIBUZIN	0.5	lb ai/a	10.7	oz/a	PRE	B	403	95.0	23.0	97.0	100.0	77.0	100.0	3.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B	701	80.0	0.0	55.0	100.0	100.0	100.0	2.0
								902	60.0	5.0	25.0	100.0	100.0	90.0	1.0
								Mean =	81.3	7.0	51.8	100.0	93.5	97.5	1.8

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							W Weed	W Weed	W Weed		W Weed	W Weed		
							ERICA	AMBEL	XANST		ERICA	AMBEL		
							Horseweed	Common ragw>	Common cock>		Horseweed	Common ragw>		
Pest Type	Pest Code	Pest Name	Crop Code	BBCH Scale	Crop Name	Crop Variety	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Part Rated	Rating Date	Rating Data Type	Rating Unit	Crop Stage	Crop Stage Scale	Pest Stage	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY		
Footnote Number	Assessed By	Days After First/Last Applic.	Plant-Eval Interval				Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
							P93M95	P93M95	P93M95	P93M95	P93M95	P93M95		
							PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA P		
							May/29/2007	May/29/2007	May/29/2007	Jun/04/2007	Jun/04/2007	Jun/04/2007		
							CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO		
							%	%	%	%	%	%		
							V1-2	V1-2	V1-2	V3	V3	V3		
										4-6"	4-6"	4-6"		
							2-4"	2-8"	0-5"		0-5"	2-20"		
							7 YD2	10 YD2	3 YD2		7 YD2	10 YD2		
							GK GN	GK GN	GK GN	VMD MK	VMD MK	VMD MK		
							32 21	32 21	32 21	38 27	38 27	38 27		
							21 DP-1	21 DP-1	21 DP-1	27 DP-1	27 DP-1	27 DP-1		
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Plot	8	9	10	11	12	13
1	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	101	99.0	80.0	50.0	5.0	90.0	80.0
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A	304	100.0	75.0	0.0	3.0	90.0	60.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	704	95.0	85.0	20.0	3.0	80.0	80.0
								802	75.0	85.0	20.0	5.0	88.0	88.0
	Mean =								92.3	81.3	22.5	4.0	87.0	77.0
2	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	102	100.0	80.0	65.0	5.0	95.0	75.0
	METRIBUZIN	0.1875	lb ai/a	4	oz/a	EPP	A	305	100.0	93.0	0.0	5.0	95.0	83.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	703	100.0	95.0	10.0	5.0	70.0	83.0
								1001	99.0	92.0	15.0	13.0	100.0	65.0
	Mean =								99.8	90.0	22.5	7.0	90.0	76.5
3	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	103	100.0	80.0	75.0	3.0	95.0	83.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	EPP	A	303	100.0	70.0	10.0	3.0	98.0	65.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	801	100.0	96.0	20.0	3.0	95.0	93.0
								903	98.0	95.0	30.0	10.0	97.0	70.0
	Mean =								99.5	85.3	33.8	4.8	96.3	77.8
4	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	104	100.0	100.0	10.0	3.0	100.0	95.0
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A	401	100.0	99.0	75.0	10.0	100.0	100.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	603	100.0	95.0	50.0	5.0	100.0	90.0
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	PRE	B	805	100.0	95.0	20.0	5.0	98.0	90.0
	Mean =								100.0	97.3	38.8	5.8	99.5	93.8
5	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	105	100.0	100.0	30.0	0.0	100.0	97.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B	404	100.0	100.0	50.0	5.0	100.0	93.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B	705	100.0	70.0	20.0	3.0	100.0	80.0
								901	100.0	99.0	75.0	3.0	100.0	97.0
	Mean =								100.0	92.3	43.8	2.8	100.0	91.8
6	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	201	100.0	100.0	90.0	3.0	100.0	100.0
	METRIBUZIN	0.38	lb ai/a	8.1	oz/a	PRE	B	504	100.0	95.0	30.0	5.0	100.0	93.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B	605	100.0	97.0	35.0	5.0	100.0	88.0
								804	100.0	95.0	50.0	3.0	98.0	95.0
	Mean =								100.0	96.8	51.3	4.0	99.5	94.0
7	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	202	100.0	100.0	95.0	3.0	100.0	100.0
	METRIBUZIN	0.5	lb ai/a	10.7	oz/a	PRE	B	403	100.0	95.0	60.0	3.0	100.0	97.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B	701	100.0	100.0	75.0	8.0	99.0	100.0
								902	100.0	100.0	97.0	3.0	100.0	99.0
	Mean =								100.0	98.8	81.8	4.3	99.8	99.0
8	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	203	100.0	100.0	98.0	8.0	100.0	100.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	501	100.0	100.0	96.0	8.0	100.0	100.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B	505	100.0	100.0	80.0	8.0	100.0	95.0
	PURSUIT	0.0313	lb ai/a	2	fl oz/a	PRE	B	803	100.0	100.0	95.0	3.0	100.0	100.0
	Mean =								100.0	100.0	92.3	6.8	100.0	98.8

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							W Weed	W Weed	W Weed		W Weed	W Weed	
Pest Type							ERICA	AMBEL	XANST		ERICA	AMBEL	
Pest Code							Horseweed	Common ragw>	Common cock>		Horseweed	Common ragw>	
Pest Name							GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Crop Code							BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	
BBCH Scale							Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	
Crop Name							P93M95	P93M95	P93M95	P93M95	P93M95	P93M95	
Crop Variety							PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA P	
Part Rated							May/29/2007	May/29/2007	May/29/2007	Jun/04/2007	Jun/04/2007	Jun/04/2007	
Rating Date							CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	
Rating Data Type							%	%	%	%	%	%	
Rating Unit							V1-2	V1-2	V1-2	V3	V3	V3	
Crop Stage										4-6"	4-6"	4-6"	
Crop Stage Scale							2-4"	2-8"	0-5"		0-5"	2-20"	
Pest Stage							7 YD2	10 YD2	3 YD2		7 YD2	10 YD2	
Pest Density, Unit							GK GN	GK GN	GK GN	VMD MK	VMD MK	VMD MK	
Footnote Number							32 21	32 21	32 21	38 27	38 27	38 27	
Assessed By							21 DP-1	21 DP-1	21 DP-1	27 DP-1	27 DP-1	27 DP-1	
Days After First/Last Applic.													
Plant-Eval Interval													
Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Growth Stage	Appl Code	Plot	8	9	10	11	12	13
9	GLYFOS X-TRA	1 lb ai/a	32 fl oz/a		EPP	A	204	100.0	100.0	98.0	3.0	100.0	98.0
	METRIBUZIN	0.25 lb ai/a	5.33 oz/a		PRE	B	502	100.0	98.0	97.0	10.0	99.0	95.0
	PURSUIT	0.0625 lb ai/a	4 fl oz/a		PRE	B	702	100.0	100.0	98.0	3.0	100.0	98.0
	Ammonium Sulfate	17 lb ai/100 gal	17 lb/100 gal		PRE	B	904	100.0	99.0	98.0	10.0	100.0	100.0
	Mean =							100.0	99.3	97.8	6.5	99.8	97.8
10	GLYFOS X-TRA	1 lb ai/a	32 fl oz/a		EPP	A	205	100.0	98.0	25.0	3.0	100.0	95.0
	Ammonium Sulfate	17 lb ai/100 gal	17 lb/100 gal		EPP	A	402	100.0	95.0	50.0	15.0	100.0	97.0
	METRIBUZIN	0.25 lb ai/a	5.33 oz/a		PRE	B	604	100.0	85.0	40.0	5.0	100.0	95.0
	PROWL H2O	1.07 lb ai/a	36 fl oz/a		PRE	B	1003	99.0	95.0	30.0	3.0	100.0	75.0
	Mean =							99.8	93.3	36.3	6.5	100.0	90.5
11	GLYFOS X-TRA	1 lb ai/a	32 fl oz/a		EPP	A	301	100.0	100.0	90.0	12.0	100.0	100.0
	Ammonium Sulfate	17 lb ai/100 gal	17 lb/100 gal		EPP	A	503	100.0	100.0	70.0	3.0	100.0	100.0
	METRIBUZIN	0.25 lb ai/a	5.33 oz/a		PRE	B	601	98.0	100.0	98.0	5.0	100.0	97.0
	REFLEX	0.25 lb ai/a	16 fl oz/a		PRE	B	905	100.0	100.0	.	8.0	100.0	88.0
	Mean =							99.5	100.0	86.0	7.0	100.0	96.3
12	UNTREATED						302	0.0	0.0	0.0	0.0	0.0	0.0
							405	0.0	0.0	0.0	0.0	0.0	0.0
							602	0.0	0.0	0.0	0.0	0.0	0.0
							1002	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

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							W Weed	W Weed		W Weed	W Weed	W Weed		
Pest Type							XANST	PANDI		ERICA	AMBEL	XANST		
Pest Code							Common cock>	Fall panicum		Horseweed	Common ragw>	Common cock>		
Pest Name							GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Code							BSOY	BSOY	BSOY	BSOY	BSOY	BSOY		
BBCH Scale							Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Crop Name							P93M95	P93M95	P93M95	P93M95	P93M95	P93M95		
Crop Variety							PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA P	PLAQUA P		
Part Rated							Jun/04/2007	Jun/04/2007	Jun/20/2007	Jun/20/2007	Jun/20/2007	Jun/20/2007		
Rating Date							CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO		
Rating Data Type							%	%	%	%	%	%		
Rating Unit							V3	V3	V3-5	V3-5	V3-5	V3-5		
Crop Stage							4-6"	4-6"	8-12"	8-12"	8-12"	8-12"		
Crop Stage Scale							1-12"	0-5"		2-16"	6-30"	2-20"		
Pest Stage							10 YD2	35 YD2		7 YD2	10 YD2	10 YD2		
Pest Density, Unit														
Footnote Number														
Assessed By							VMD MK	VMD MK	VMD VM	VMD VM	VMD VM	VMD VM		
Days After First/Last Applic.							38 27	38 27	54 43	54 43	54 43	54 43		
Plant-Eval Interval							27 DP-1	27 DP-1	43 DP-1	43 DP-1	43 DP-1	43 DP-1		
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Plot	14	15	16	17	18	19
1	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	101	65.0	20.0	0.0	85.0	75.0	55.0
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A	304	10.0	85.0	0.0	98.0	40.0	20.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	704	20.0	50.0	0.0	60.0	70.0	25.0
								802	33.0	80.0	0.0	65.0	90.0	40.0
								Mean =	32.0	58.8	0.0	77.0	68.8	35.0
2	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	102	70.0	25.0	0.0	93.0	60.0	35.0
	METRIBUZIN	0.1875	lb ai/a	4	oz/a	EPP	A	305	5.0	85.0	0.0	98.0	90.0	25.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	703	20.0	60.0	0.0	50.0	50.0	10.0
								1001	0.0	25.0	0.0	100.0	55.0	25.0
								Mean =	23.8	48.8	0.0	85.3	63.8	23.8
3	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	103	90.0	35.0	0.0	98.0	80.0	85.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	EPP	A	303	45.0	75.0	0.0	100.0	50.0	35.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	801	50.0	85.0	0.0	75.0	93.0	50.0
								903	25.0	83.0	0.0	98.0	75.0	20.0
								Mean =	52.5	69.5	0.0	92.8	74.5	47.5
4	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	104	45.0	40.0	0.0	100.0	93.0	20.0
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A	401	90.0	90.0	0.0	100.0	100.0	85.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	603	60.0	83.0	0.0	100.0	90.0	65.0
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	PRE	B	805	35.0	70.0	0.0	100.0	70.0	20.0
								Mean =	57.5	70.8	0.0	100.0	88.3	47.5
5	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	105	50.0	70.0	0.0	100.0	90.0	10.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B	404	70.0	95.0	0.0	100.0	88.0	50.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B	705	35.0	80.0	0.0	100.0	88.0	50.0
								901	75.0	90.0	0.0	100.0	95.0	75.0
								Mean =	57.5	83.8	0.0	100.0	90.3	46.3
6	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	201	90.0	97.0	0.0	100.0	99.0	90.0
	METRIBUZIN	0.38	lb ai/a	8.1	oz/a	PRE	B	504	65.0	88.0	0.0	100.0	90.0	60.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B	605	40.0	83.0	0.0	100.0	90.0	25.0
								804	50.0	90.0	0.0	100.0	88.0	75.0
								Mean =	61.3	89.5	0.0	100.0	91.8	62.5
7	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	202	90.0	95.0	0.0	100.0	100.0	90.0
	METRIBUZIN	0.5	lb ai/a	10.7	oz/a	PRE	B	403	80.0	95.0	0.0	100.0	98.0	50.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B	701	88.0	90.0	0.0	100.0	100.0	78.0
								902	93.0	99.0	0.0	100.0	97.0	97.0
								Mean =	87.8	94.8	0.0	100.0	98.8	78.8
8	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	203	99.0	99.0	0.0	100.0	100.0	98.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	501	93.0	98.0	0.0	100.0	100.0	93.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B	505	88.0	95.0	0.0	100.0	83.0	83.0
	PURSUIT	0.0313	lb ai/a	2	fl oz/a	PRE	B	803	95.0	99.0	0.0	100.0	100.0	98.0
								Mean =	93.8	97.8	0.0	100.0	95.8	93.0

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Pest Type	W Weed	W Weed		W Weed	W Weed	W Weed						
Pest Code	XANST	PANDI		ERICA	AMBEL	XANST						
Pest Name	Common cock->	Fall panicum		Horseweed	Common ragw->	Common cock->						
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Crop Variety	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95						
Part Rated	PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA P	PLAQUA P						
Rating Date	Jun/04/2007	Jun/04/2007	Jun/20/2007	Jun/20/2007	Jun/20/2007	Jun/20/2007						
Rating Data Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO						
Rating Unit	%	%	%	%	%	%						
Crop Stage	V3	V3	V3-5	V3-5	V3-5	V3-5						
Crop Stage Scale	4-6"	4-6"	8-12"	8-12"	8-12"	8-12"						
Pest Stage	1-12"	0-5"		2-16"	6-30"	2-20"						
Pest Density, Unit	10 YD2	35 YD2		7 YD2	10 YD2	10 YD2						
Footnote Number												
Assessed By	VMD MK	VMD MK	VMD VM	VMD VM	VMD VM	VMD VM						
Days After First/Last Applic.	38 27	38 27	54 43	54 43	54 43	54 43						
Plant-Eval Interval	27 DP-1	27 DP-1	43 DP-1	43 DP-1	43 DP-1	43 DP-1						
Trt Treatment	Rate	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Plot	14	15	16	17	18	19
9 GLYFOS X-TRA	1 lb ai/a	32 fl oz/a		EPP A		204	98.0	99.0	0.0	98.0	98.0	100.0
METRIBUZIN	0.25 lb ai/a	5.33 oz/a		PRE B		502	98.0	99.0	0.0	95.0	90.0	95.0
PURSUIT	0.0625 lb ai/a	4 fl oz/a		PRE B		702	97.0	99.0	0.0	100.0	100.0	98.0
Ammonium Sulfate	17 lb ai/100 gal	17 lb/100 gal		PRE B		904	97.0	99.0	0.0	100.0	97.0	98.0
						Mean =	97.5	99.0	0.0	98.3	96.3	97.8
10 GLYFOS X-TRA	1 lb ai/a	32 fl oz/a		EPP A		205	20.0	95.0	0.0	100.0	98.0	0.0
Ammonium Sulfate	17 lb ai/100 gal	17 lb/100 gal		EPP A		402	83.0	98.0	0.0	100.0	93.0	75.0
METRIBUZIN	0.25 lb ai/a	5.33 oz/a		PRE B		604	45.0	97.0	0.0	100.0	90.0	50.0
PROWL H20	1.07 lb ai/a	36 fl oz/a		PRE B		1003	0.0	93.0	0.0	100.0	75.0	20.0
						Mean =	37.0	95.8	0.0	100.0	89.0	36.3
11 GLYFOS X-TRA	1 lb ai/a	32 fl oz/a		EPP A		301	93.0	95.0	0.0	100.0	100.0	88.0
Ammonium Sulfate	17 lb ai/100 gal	17 lb/100 gal		EPP A		503	80.0	85.0	0.0	100.0	100.0	75.0
METRIBUZIN	0.25 lb ai/a	5.33 oz/a		PRE B		601	95.0	95.0	0.0	100.0	98.0	90.0
REFLEX	0.25 lb ai/a	16 fl oz/a		PRE B		905	25.0	95.0	0.0	100.0	95.0	.
						Mean =	73.3	92.5	0.0	100.0	98.3	84.3
12 UNTREATED						302	0.0	0.0	0.0	0.0	0.0	0.0
						405	0.0	0.0	0.0	0.0	0.0	0.0
						602	0.0	0.0	0.0	0.0	0.0	0.0
						1002	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

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Pest Type								W Weed	
Pest Code								PANDI	
Pest Name								Fall panicum	
Crop Code								GLXMA	
BBCH Scale								BSOY	
Crop Name								Soybean	
Crop Variety								P93M95	
Part Rated								PLAQUA P	
Rating Date								Jun/20/2007	
Rating Data Type								CONTRO	
Rating Unit								%	
Crop Stage								V3-5	
Crop Stage Scale								8-12"	
Pest Stage								4-20"	
Pest Density, Unit								35 YD2	
Footnote Number									
Assessed By								VMD VM	
Days After First/Last Applic.								54 43	
Plant-Eval Interval								43 DP-1	
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Plot	
9	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	204	98.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B	502	93.0
	PURSUIT	0.0625	lb ai/a	4	fl oz/a	PRE	B	702	99.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B	904	98.0
								Mean =	97.0
10	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	205	97.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	402	97.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B	604	90.0
	PROWL H20	1.07	lb ai/a	36	fl oz/a	PRE	B	1003	95.0
								Mean =	94.8
11	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	301	97.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A	503	85.0
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B	601	90.0
	REFLEX	0.25	lb ai/a	16	fl oz/a	PRE	B	905	93.0
								Mean =	91.3
12	UNTREATED							302	0.0
								405	0.0
								602	0.0
								1002	0.0
								Mean =	0.0

Footnote 1: Crop injury is puckering at leaf tips

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**TO DETERMINE THE HERBICIDAL EFFICACY AND SELECTIVITY OF GLYFOS X-TRA+METRIBUZIN
WHEN APPLIED EPP AND PRE TO SOYBEANS IN 2007**

Trial ID: 07S-SEP-NTS-36_0702
Location: US

Protocol ID: HGLXMAMETR0702
Study Director: JAMES BARRENTINE
Investigator: Dr. William G. Johnson

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed								
Pest Code	RANAB	ALLVI	POAAN	ERICA	SENGL	AMBEL								
Pest Name	Smallflower>	Wild garlic	Annual blue>	Horseweed	Cressleaf g>	Common ragw>								
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Crop Variety	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95							
Part Rated	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA C							
Rating Date	May/15/2007	May/15/2007	May/15/2007	May/15/2007	May/15/2007	May/15/2007	May/29/2007							
Rating Data Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYDEF							
Rating Unit	%	%	%	%	%	%	%							
Crop Stage	VE	VE	VE	VE	VE	VE	V1-2							
Crop Stage Scale														
Pest Stage	2-4"	1-3'	4-6"	1-3"	10-24"	2-4"								
Pest Density, Unit	8 YD2	8 YD2	40 YD2	2 YD2	3 YD2	5 YD2								
Footnote Number							1							
Assessed By	GK VM	GK VM	GK VM	GK VM	GK VM	GK VM	GK GN							
Days After First/Last Applic.	18 7	18 7	18 7	18 7	18 7	18 7	32 21							
Plant-Eval Interval	7 DP-1	7 DP-1	7 DP-1	7 DP-1	7 DP-1	7 DP-1	21 DP-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	1	2	3	4	5	6	7
1	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	100.0 a	43.8 a	100.0 a	99.3 a	100.0 a	98.0 ab	2.0 ab
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A							
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A							
2	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	99.5 a	56.3 a	99.5 a	99.3 a	100.0 a	94.5 b	2.3 ab
	METRIBUZIN	0.1875	lb ai/a	4	oz/a	EPP	A							
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A							
3	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	99.3 a	50.0 a	99.3 a	99.3 a	99.5 a	97.8 ab	2.3 ab
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	EPP	A							
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A							
4	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	100.0 a	60.5 a	100.0 a	100.0 a	100.0 a	100.0 a	3.3 a
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A							
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A							
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	PRE	B							
5	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	92.5 a	8.3 b	68.8 b	89.8 a	76.3 b	95.0 ab	1.3 abc
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B							
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B							
6	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	90.5 a	5.0 b	77.5 ab	93.8 a	84.3 ab	100.0 a	0.3 bc
	METRIBUZIN	0.38	lb ai/a	8.1	oz/a	PRE	B							
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B							
7	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	81.3 b	7.0 b	51.8 c	100.0 a	93.5 a	97.5 ab	1.8 abc
	METRIBUZIN	0.5	lb ai/a	10.7	oz/a	PRE	B							
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B							
8	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	100.0 a	48.5 a	98.8 a	100.0 a	100.0 a	99.8 a	2.3 ab
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A							
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B							
	PURSUIT	0.0313	lb ai/a	2	fl oz/a	PRE	B							
9	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	99.5 a	41.0 a	98.8 a	100.0 a	100.0 a	99.8 a	2.5 a
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B							
	PURSUIT	0.0625	lb ai/a	4	fl oz/a	PRE	B							
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B							
10	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	100.0 a	57.5 a	100.0 a	100.0 a	100.0 a	99.3 ab	2.8 a
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A							
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B							
	PROWL H2O	1.07	lb ai/a	36	fl oz/a	PRE	B							
11	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	100.0 a	59.3 a	99.8 a	100.0 a	100.0 a	100.0 a	3.0 a
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A							
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B							
	REFLEX	0.25	lb ai/a	16	fl oz/a	PRE	B							

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	
Pest Code	RANAB	ALLVI	POAAN	ERICA	SENGL	AMBEL	
Pest Name	Smallflower->	Wild garlic	Annual blue->	Horseweed	Cressleaf g->	Common ragw->	
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95
Part Rated	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA C
Rating Date	May/15/2007	May/15/2007	May/15/2007	May/15/2007	May/15/2007	May/15/2007	May/29/2007
Rating Data Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYDEF
Rating Unit	%	%	%	%	%	%	%
Crop Stage	VE	VE	VE	VE	VE	VE	V1-2
Crop Stage Scale							
Pest Stage	2-4"	1-3'	4-6"	1-3"	10-24"	2-4"	
Pest Density, Unit	8 YD2	8 YD2	40 YD2	2 YD2	3 YD2	5 YD2	
Footnote Number							1
Assessed By	GK VM	GK VM	GK VM	GK VM	GK VM	GK VM	GK GN
Days After First/Last Applic.	18 7	18 7	18 7	18 7	18 7	18 7	32 21
Plant-Eval Interval	7 DP-1	7 DP-1	7 DP-1	7 DP-1	7 DP-1	7 DP-1	21 DP-1
Trt Treatment	Rate	Other	Other	Growth	Appl		
No. Name	Rate	Unit	Rate	Rate	Unit	Stage	Code
12 UNTREATED	0.0 c		0.0 b		0.0 d		0.0 b
							0.0 c
							0.0 c
LSD (P=.05)	7.87	24.34	16.71	8.91	10.78	3.22	1.41
Standard Deviation	5.45	16.86	11.57	6.17	7.46	2.23	0.98
CV	6.15	46.29	13.97	6.85	8.5	2.48	49.82
Bartlett's X2	29.233	7.954	63.441	26.589	13.082	19.734	7.719
P(Bartlett's X2)	0.001*	0.633	0.001*	0.001*	0.004*	0.006*	0.656
Replicate F	1.430	5.426	2.004	0.493	1.012	0.830	3.355
Replicate Prob(F)	0.2516	0.0038	0.1325	0.6898	0.3999	0.4870	0.0305
Treatment F	109.259	8.081	27.899	85.740	59.178	648.989	4.289
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0005

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		W Weed	W Weed							
Pest Code	ERICA	AMBEL	XANST		ERICA	AMBEL							
Pest Name	Horseweed	Common ragw>	Common cock>		Horseweed	Common ragw>							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Crop Variety	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95							
Part Rated	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA P							
Rating Date	May/29/2007	May/29/2007	May/29/2007	Jun/04/2007	Jun/04/2007	Jun/04/2007							
Rating Data Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO							
Rating Unit	%	%	%	%	%	%							
Crop Stage	V1-2	V1-2	V1-2	V3	V3	V3							
Crop Stage Scale				4-6"	4-6"	4-6"							
Pest Stage	2-4"	2-8"	0-5"		0-5"	2-20"							
Pest Density, Unit	7 YD2	10 YD2	3 YD2		7 YD2	10 YD2							
Footnote Number													
Assessed By	GK GN	GK GN	GK GN	VMD MK	VMD MK	VMD MK							
Days After First/Last Applic.	32 21	32 21	32 21	38 27	38 27	38 27							
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	27 DP-1	27 DP-1	27 DP-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	8	9	10	11	12	13
1	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	92.3 a	81.3 b	22.5 cd	4.0 a	87.0 b	77.0 b
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A						
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A						
2	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	99.8 a	90.0 ab	22.5 cd	7.0 a	90.0 b	76.5 b
	METRIBUZIN	0.1875	lb ai/a	4	oz/a	EPP	A						
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A						
3	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	99.5 a	85.3 ab	33.8 cd	4.8 a	96.3 a	77.8 b
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	EPP	A						
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A						
4	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	100.0 a	97.3 a	38.8 cd	5.8 a	99.5 a	93.8 a
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A						
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A						
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	PRE	B						
5	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	100.0 a	92.3 ab	43.8 cd	2.8 a	100.0 a	91.8 a
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B						
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B						
6	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	100.0 a	96.8 a	51.3 bc	4.0 a	99.5 a	94.0 a
	METRIBUZIN	0.38	lb ai/a	8.1	oz/a	PRE	B						
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B						
7	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	100.0 a	98.8 a	81.8 ab	4.3 a	99.8 a	99.0 a
	METRIBUZIN	0.5	lb ai/a	10.7	oz/a	PRE	B						
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B						
8	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	100.0 a	100.0 a	92.3 a	6.8 a	100.0 a	98.8 a
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A						
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B						
	PURSUIT	0.0313	lb ai/a	2	fl oz/a	PRE	B						
9	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	100.0 a	99.3 a	97.8 a	6.5 a	99.8 a	97.8 a
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B						
	PURSUIT	0.0625	lb ai/a	4	fl oz/a	PRE	B						
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B						
10	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	99.8 a	93.3 ab	36.3 cd	6.5 a	100.0 a	90.5 ab
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A						
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B						
	PROWL H20	1.07	lb ai/a	36	fl oz/a	PRE	B						
11	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	99.5 a	100.0 a	86.0 ab	7.0 a	100.0 a	96.3 a
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A						
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B						
	REFLEX	0.25	lb ai/a	16	fl oz/a	PRE	B						
12	UNTREATED							0.0 b	0.0 c	0.0 d	0.0 a	0.0 c	0.0 c
LSD (P=.05)				4.85		9.50		28.99		4.61		5.88	10.61
Standard Deviation				3.36		6.58		20.08		3.19		4.07	7.35
CV				3.7		7.64		39.72		64.68		4.56	8.88
Bartlett's X2				41.63		27.266		25.111		11.516		49.261	21.138
P(Bartlett's X2)				0.001*		0.001*		0.005*		0.319		0.001*	0.02*

Purdue University

Pest Type	W Weed	W Weed	W Weed		W Weed	W Weed
Pest Code	ERICA	AMBEL	XANST		ERICA	AMBEL
Pest Name	Horseweed	Common ragw>	Common cock>		Horseweed	Common ragw>
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95
Part Rated	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA P
Rating Date	May/29/2007	May/29/2007	May/29/2007	Jun/04/2007	Jun/04/2007	Jun/04/2007
Rating Data Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Crop Stage	V1-2	V1-2	V1-2	V3	V3	V3
Crop Stage Scale				4-6"	4-6"	4-6"
Pest Stage	2-4"	2-8"	0-5"		0-5"	2-20"
Pest Density, Unit	7 YD2	10 YD2	3 YD2		7 YD2	10 YD2
Footnote Number						
Assessed By	GK GN	GK GN	GK GN	VMD MK	VMD MK	VMD MK
Days After First/Last Applic.	32 21	32 21	32 21	38 27	38 27	38 27
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	27 DP-1	27 DP-1	27 DP-1
Replicate F	1.350	0.496	1.566	0.890	1.725	0.881
Replicate Prob(F)	0.2750	0.6873	0.2168	0.4565	0.1808	0.4611
Treatment F	292.045	71.342	9.922	1.739	195.704	55.632
Treatment Prob(F)	0.0001	0.0001	0.0001	0.1077	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	W Weed	W Weed	W Weed													
Pest Code		XANST	PANDI		ERICA	AMBEL	XANST	PANDI													
Pest Name		Common cock->	Fall panicum		Horseweed	Common ragw->	Common cock->	Fall panicum													
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA													
BBCH Scale		BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY													
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean													
Crop Variety		P93M95	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95													
Part Rated		PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P													
Rating Date		Jun/04/2007	Jun/04/2007	Jun/20/2007	Jun/20/2007	Jun/20/2007	Jun/20/2007	Jun/20/2007													
Rating Data Type		CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO													
Rating Unit		%	%	%	%	%	%	%													
Crop Stage		V3	V3	V3-5	V3-5	V3-5	V3-5	V3-5													
Crop Stage Scale		4-6"	4-6"	8-12"	8-12"	8-12"	8-12"	8-12"													
Pest Stage		1-12"	0-5"		2-16"	6-30"	2-20"	4-20"													
Pest Density, Unit		10 YD2	35 YD2		7 YD2	10 YD2	10 YD2	35 YD2													
Footnote Number																					
Assessed By		VMD MK	VMD MK	VMD VM	VMD VM	VMD VM	VMD VM	VMD VM													
Days After First/Last Applic.		38 27	38 27	54 43	54 43	54 43	54 43	54 43													
Plant-Eval Interval		27 DP-1	27 DP-1	43 DP-1	43 DP-1	43 DP-1	43 DP-1	43 DP-1													
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	14	15	16	17	18	19	20							
1	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	32.0	bcd	58.8	bc	0.0	a	77.0	b	68.8	bc	35.0	cde	62.5	a
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A														
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A														
2	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	23.8	cd	48.8	c	0.0	a	85.3	ab	63.8	c	23.8	de	61.5	a
	METRIBUZIN	0.1875	lb ai/a	4	oz/a	EPP	A														
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A														
3	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	52.5	abc	69.5	abc	0.0	a	92.8	a	74.5	abc	47.5	b-e	63.3	a
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	EPP	A														
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A														
4	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	57.5	abc	70.8	abc	0.0	a	100.0	a	88.3	ab	47.5	b-e	62.0	a
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	EPP	A														
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A														
	METRIBUZIN	0.125	lb ai/a	2.67	oz/a	PRE	B														
5	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	57.5	abc	83.8	ab	0.0	a	100.0	a	90.3	ab	46.3	b-e	81.3	a
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B														
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B														
6	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	61.3	abc	89.5	a	0.0	a	100.0	a	91.8	ab	62.5	a-d	88.8	a
	METRIBUZIN	0.38	lb ai/a	8.1	oz/a	PRE	B														
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B														
7	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	PRE	B	87.8	a	94.8	a	0.0	a	100.0	a	98.8	a	78.8	abc	92.5	a
	METRIBUZIN	0.5	lb ai/a	10.7	oz/a	PRE	B														
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B														
8	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	93.8	a	97.8	a	0.0	a	100.0	a	95.8	a	93.0	ab	96.5	a
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A														
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B														
	PURSUIT	0.0313	lb ai/a	2	fl oz/a	PRE	B														
9	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	97.5	a	99.0	a	0.0	a	98.3	a	96.3	a	97.8	a	97.0	a
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B														
	PURSUIT	0.0625	lb ai/a	4	fl oz/a	PRE	B														
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	PRE	B														
10	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	37.0	bcd	95.8	a	0.0	a	100.0	a	89.0	ab	36.3	cde	94.8	a
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A														
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B														
	PROWL H20	1.07	lb ai/a	36	fl oz/a	PRE	B														
11	GLYFOS X-TRA	1	lb ai/a	32	fl oz/a	EPP	A	73.3	ab	92.5	a	0.0	a	100.0	a	98.3	a	84.3	abc	91.3	a
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EPP	A														
	METRIBUZIN	0.25	lb ai/a	5.33	oz/a	PRE	B														
	REFLEX	0.25	lb ai/a	16	fl oz/a	PRE	B														
12	UNTREATED							0.0	d	0.0	d	0.0	a	0.0	c	0.0	d	0.0	e	0.0	b
LSD (P=.05)				30.60				20.74		0.00		12.59		16.45		32.14		23.99			
Standard Deviation				21.19				14.37		0.00		8.72		11.39		22.26		16.61			
CV				37.74				19.14		0.0		9.94		14.31		40.93		22.37			
Bartlett's X2				32.204				38.37		0.0		9.924		30.751		21.702		47.453			
P(Bartlett's X2)				0.001*				0.001*		.		0.019*		0.001*		0.017*		0.001*			

Purdue University

Pest Type	W Weed	W Weed		W Weed	W Weed	W Weed	W Weed
Pest Code	XANST	PANDI		ERICA	AMBEL	XANST	PANDI
Pest Name	Common cock->	Fall panicum		Horseweed	Common ragw->	Common cock->	Fall panicum
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95	P93M95
Part Rated	PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P
Rating Date	Jun/04/2007	Jun/04/2007	Jun/20/2007	Jun/20/2007	Jun/20/2007	Jun/20/2007	Jun/20/2007
Rating Data Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%	%
Crop Stage	V3	V3	V3-5	V3-5	V3-5	V3-5	V3-5
Crop Stage Scale	4-6"	4-6"	8-12"	8-12"	8-12"	8-12"	8-12"
Pest Stage	1-12"	0-5"		2-16"	6-30"	2-20"	4-20"
Pest Density, Unit	10 YD2	35 YD2		7 YD2	10 YD2	10 YD2	35 YD2
Footnote Number							
Assessed By	VMD MK	VMD MK	VMD VM	VMD VM	VMD VM	VMD VM	VMD VM
Days After First/Last Applic.	38 27	38 27	54 43	54 43	54 43	54 43	54 43
Plant-Eval Interval	27 DP-1	27 DP-1	43 DP-1	43 DP-1	43 DP-1	43 DP-1	43 DP-1
Replicate F	2.668	3.548	0.000	2.414	0.435	0.071	3.018
Replicate Prob(F)	0.0637	0.0249	1.0000	0.0842	0.7294	0.9751	0.0436
Treatment F	7.783	16.092	0.000	43.072	23.550	7.110	11.065
Treatment Prob(F)	0.0001	0.0001	1.0000	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.

Footnote 1: Crop injury is puckering at leaf tips