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ADAMA Soybean Metolachlor Crop Safety - Alone

Trial ID: 14S-THP-CTS-58 Protocol ID: 14S-THP-CTS-58
 Location: Throckmorton Study Director:
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact: ADAMA - Dario Narvaez

General Trial Information

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

Discipline: H herbicide
Trial Status: E established

Trial Location

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

Personnel

Investigator: Dr. Bill Johnson **Title:** Professor
Affiliation: Purdue University
Address: 915 W State Street
Location: West Lafayette, IN, USA
Postal Code: 47907 **E-mail:** wj@purdue.edu
Phone No.: 765-494-4656 **Mobile No.:** 765-404-9801

Cooperator/Landowner

Cooperator: Throckmorton Purdue Ag Center **Role:** Purdue Ag Center
Organization: Purdue University
Address 1: 8343 US 231 S

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

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 2933 **Description:** RR2
BBCH Scale: BSOY **Planting Date:** May-23-2014
Planting Method: SEEDED seeded **Rate, Unit:** 130000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Seed Bed: FINE fine
Soil Moisture: DRY dry **Emergence Date:** May-29-2014

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

Pest 2 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Pest 3 Type: W **Code:** CHEAL Chenopodium album
Common Name: Common lambsquarters

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 30 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 300 FT² **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

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Soil Description

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

Application Description

	A	B	C
Application Date:	Jun-6-2014	Jun-18-2014	Jun-26-2014
Time of Day:	AM	AM	AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	EAPOCR	MIPOCR	LAPOCR
Application Placement:	SOIL	FOLIAR	FOLIAR
Air Temperature, Unit:	72 F	68 F	68 F
% Relative Humidity:	66	70	82
Wind Velocity, Unit:	4.5 MPH	5.4 MPH	1.5 MPH
Wind Direction:	S	SW	NE
Dew Presence (Y/N):	Y yes	N no	Y yes
Soil Temperature, Unit:	70 F	70 F	78 F
% Cloud Cover:	0	40	100

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	BBCH	BBCH	BBCH
Stage Majority, Percent:	V1	V3	V5

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Height Minimum, Maximum:	1 2	1 3	3 30
Density, Unit:	1 YD2	3 YD2	2 FT2
Pest 2 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Height Minimum, Maximum:	1 2	1 4	1 12
Density, Unit:	1 YD2	1 YD2	6 FT2
Pest 3 Code, Type, Scale:	CHEAL W	CHEAL W	CHEAL W
Height Minimum, Maximum:			1 12
Density, Unit:			3 YD2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 FORD	CO2 FORD	CO2 FORD
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	25 PSI	25 PSI	25 PSI
Nozzle Type:	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size:	XR 100 02	XR 100 02	XR 100 02
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Nozzles/Row:	6	6	6
Boom Length, Unit:	10 FT	10 FT	10 FT
Ground Speed, Unit:	2.1 MPH	2.1 MPH	2.1 MPH
Carrier:	MEIGS	MEIGS	MEIGS
Spray Volume, Unit:	20 gal/ac	20 gal/ac	20 gal/ac
Mix Size, Unit:	2.5 liters	2.5 liters	2.5 liters
Propellant:	CO2	CO2	CO2

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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	Other Rate	Other Rate	Growth Unit	Other Stage	Appl Code	Appl Description	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check													101	405	703	907
2	Parallel (7.8 EC)	7.8 LBA/GAL		EC	20.7 oz ai/a	1.33 pt/a			EAPOCR A	V1		20.73 ml/mx		103	307	603	905
3	Parallel (7.8 EC)	7.8 LBA/GAL		EC	20.7 oz ai/a	1.33 pt/a			MIPOCR B	V3		20.73 ml/mx		105	501	701	1007
4	Parallel (7.8 EC)	7.8 LBA/GAL		EC	20.7 oz ai/a	1.33 pt/a			LAPOCR C	V5		20.73 ml/mx		107	403	605	1001
5	Dual II Magnum (7.64 EC)	7.64 LBA/GAL		EC	20.7 oz ai/a	1.33 pt/a			EAPOCR A	V1		21.17 ml/mx		201	507	803	1003
6	Dual II Magnum (7.64 EC)	7.64 LBA/GAL		EC	20.7 oz ai/a	1.33 pt/a			MIPOCR B	V3		21.17 ml/mx		203	407	601	903
7	Dual II Magnum (7.64 EC)	7.64 LBA/GAL		EC	20.7 oz ai/a	1.33 pt/a			LAPOCR C	V5		21.17 ml/mx		205	305	707	805
8	Pummel (5.25 ME)	5.25 LBA/GAL		ME	20.7 oz ai/a	2 pt/a			EAPOCR A	V1		30.8 ml/mx		207	505	607	901
9	Pummel (5.25 ME)	5.25 LBA/GAL		ME	20.7 oz ai/a	2 pt/a			MIPOCR B	V3		30.8 ml/mx		301	401	705	807
10	Pummel (5.25 ME)	5.25 LBA/GAL		ME	20.7 oz ai/a	2 pt/a			LAPOCR C	V5		30.8 ml/mx		303	503	801	1005
11	Vice (5.4 EC)	5.4 LBA/GAL		EC	25.2 oz ai/a	2.33 pt/a			EAPOCR A	V1		36.45 ml/mx		102	308	708	1002
12	Vice (5.4 EC)	5.4 LBA/GAL		EC	25.2 oz ai/a	2.33 pt/a			MIPOCR B	V3		36.45 ml/mx		104	408	702	904
13	Vice (5.4 EC)	5.4 LBA/GAL		EC	25.2 oz ai/a	2.33 pt/a			LAPOCR C	V5		36.45 ml/mx		106	406	602	902
14	Prefix (5.29 EC)	5.29 LBA/GAL		EC	24.7 oz ai/a	2.33 pt/a			EAPOCR A	V1		36.47 ml/mx		108	306	604	908
15	Prefix (5.29 EC)	5.29 LBA/GAL		EC	24.7 oz ai/a	2.33 pt/a			MIPOCR B	V3		36.47 ml/mx		202	506	608	808
16	Prefix (5.29 EC)	5.29 LBA/GAL		EC	24.7 oz ai/a	2.33 pt/a			LAPOCR C	V5		36.47 ml/mx		204	404	704	806
17	Warrant (3 SC)	3 LBA/GAL		SC	24 oz ai/a	2 qt/a			EAPOCR A	V1		62.49 ml/mx		206	402	804	906
18	Warrant (3 SC)	3 LBA/GAL		SC	24 oz ai/a	2 qt/a			MIPOCR B	V3		62.49 ml/mx		208	504	706	1006
19	Warrant (3 SC)	3 LBA/GAL		SC	24 oz ai/a	2 qt/a			LAPOCR C	V5		62.49 ml/mx		302	508	802	1004
20	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		12.4 oz ae/a	22 oz/a			EAPOCR A	V1		21.53 ml/mx		304	502	606	1008
	NIS	100 %	SL		0.25 % v/v	0.25 % v/v			EAPOCR A	V1		6.249 ml/mx					
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		12.4 oz ae/a	22 oz/a			MIPOCR B	V3		21.53 ml/mx					
	NIS	100 %	SL		0.25 % v/v	0.25 % v/v			MIPOCR B	V3		6.249 ml/mx					
	Roundup PowerMax 4.5 SL	4.5 LBAE/GAL	SL		12.4 oz ae/a	22 oz/a			LAPOCR C	V5		21.53 ml/mx					
	NIS	100 %	SL		0.25 % v/v	0.25 % v/v			LAPOCR C	V5		6.249 ml/mx					

Sort Order: Treatment

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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		
Description	3 DAT A	3 DAT A	7 DAT A	7 DAT A	7 DAT A	14 DAT A	14 DAT A		
Rating Date	Jun-9-2014	Jun-9-2014	Jun-13-2014	Jun-13-2014	Jun-13-2014	Jun-20-2014	Jun-20-2014		
Rating Type	PHYNEC	PHYLMA	PHYLMA	PHYSTU	PHYNEC	PHYSTU	PHYLMA		
Rating Unit	%	%	%	%	%	%	%		
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1		
Crop Stage Majority	V1	V1	V2	V2	V2	V3	V3		
Days After First/Last Applic.	3 3	3 3	7 7	7 7	7 7	14 2	14 2		
Plant-Eval Interval	17 DP-1	17 DP-1	21 DP-1	21 DP-1	21 DP-1	28 DP-1	28 DP-1		
Days After Emergence	11 DE-1	11 DE-1	15 DE-1	15 DE-1	15 DE-1	22 DE-1	22 DE-1		
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7
1 Untreated Check		101	0.0	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	0.0
		703	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		907	0.0	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	0.0
2 Parallel (7.8 EC)	20.7 oz ai/a	A 103	5.0	10.0	13.0	0.0	10.0	0.0	5.0
		307	5.0	10.0	12.0	3.0	5.0	0.0	7.0
		603	10.0	5.0	10.0	5.0	10.0	3.0	8.0
		905	10.0	7.0	13.0	3.0	10.0	3.0	7.0
		Mean =	7.5	8.0	12.0	2.8	8.8	1.5	6.8
3 Parallel (7.8 EC)	20.7 oz ai/a	B 105							
		501							
		701							
		1007							
		Mean =	.	.	.	.	.	.	.
4 Parallel (7.8 EC)	20.7 oz ai/a	C 107							
		403							
		605							
		1001							
		Mean =	.	.	.	.	.	.	.
5 Dual II Magnum (7.64 EC)	20.7 oz ai/a	A 201	5.0	10.0	20.0	7.0	10.0	3.0	8.0
		507	10.0	7.0	10.0	5.0	13.0	3.0	10.0
		803	15.0	13.0	18.0	3.0	14.0	10.0	10.0
		1003	15.0	12.0	20.0	4.0	15.0	0.0	8.0
		Mean =	11.3	10.5	17.0	4.8	13.0	4.0	9.0
6 Dual II Magnum (7.64 EC)	20.7 oz ai/a	B 203							
		407							
		601							
		903							
		Mean =

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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		
Description	3 DAT A	3 DAT A	7 DAT A	7 DAT A	7 DAT A	14 DAT A	14 DAT A	14 DAT A		
Rating Date	Jun-9-2014	Jun-9-2014	Jun-13-2014	Jun-13-2014	Jun-13-2014	Jun-20-2014	Jun-20-2014	Jun-20-2014		
Rating Type	PHYNEC	PHYLMA	PHYLMA	PHYSTU	PHYNEC	PHYSTU	PHYLMA	PHYLMA		
Rating Unit	%	%	%	%	%	%	%	%		
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1		
Crop Stage Majority	V1	V1	V2	V2	V2	V3	V3	V3		
Days After First/Last Applic.	3 3	3 3	7 7	7 7	7 7	14 2	14 2	14 2		
Plant-Eval Interval	17 DP-1	17 DP-1	21 DP-1	21 DP-1	21 DP-1	28 DP-1	28 DP-1	28 DP-1		
Days After Emergence	11 DE-1	11 DE-1	15 DE-1	15 DE-1	15 DE-1	22 DE-1	22 DE-1	22 DE-1		
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code	Plot	1	2	3	4	5	6	7
7 Dual II Magnum (7.64 EC)	20.7 oz ai/a	C	205 305 707 805							
			Mean =	.	.	.	.	.	.	.
8 Pummel (5.25 ME)	20.7 oz ai/a	A	207 505 607 901	7.0 10.0 5.0 10.0	5.0 5.0 5.0 5.0	10.0 7.0 10.0 7.0	0.0 0.0 3.0 7.0	7.0 10.0 10.0 0.0	3.0 3.0 3.0 5.0	5.0 5.0 5.0 3.0
			Mean =	8.0	5.0	8.5	2.5	6.8	3.5	4.5
9 Pummel (5.25 ME)	20.7 oz ai/a	B	301 401 705 807							
			Mean =	.	.	.	.	.	.	.
10 Pummel (5.25 ME)	20.7 oz ai/a	C	303 503 801 1005							
			Mean =	.	.	.	.	.	.	.
11 Vice (5.4 EC)	25.2 oz ai/a	A	102 308 708 1002	15.0 20.0 15.0 10.0	15.0 17.0 15.0 15.0	17.0 15.0 15.0 17.0	10.0 10.0 3.0 5.0	10.0 12.0 10.0 10.0	0.0 12.0 5.0 12.0	7.0 10.0 8.0 9.0
			Mean =	15.0	15.5	16.0	7.0	10.5	7.3	8.5
12 Vice (5.4 EC)	25.2 oz ai/a	B	104 408 702 904							
			Mean =	.	.	.	.	.	.	.
13 Vice (5.4 EC)	25.2 oz ai/a	C	106 406 602 902							
			Mean =	.	.	.	.	.	.	.
14 Prefix (5.29 EC)	24.7 oz ai/a	A	108 306 604 908	10.0 13.0 7.0 17.0	15.0 15.0 10.0 20.0	20.0 25.0 17.0 17.0	10.0 15.0 5.0 10.0	15.0 15.0 9.0 12.0	10.0 10.0 5.0 10.0	3.0 12.0 10.0 10.0
			Mean =	11.8	15.0	19.8	10.0	12.8	8.8	8.8

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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			
Description	3 DAT A	3 DAT A	7 DAT A	7 DAT A	7 DAT A	14 DAT A	14 DAT A			
Rating Date	Jun-9-2014	Jun-9-2014	Jun-13-2014	Jun-13-2014	Jun-13-2014	Jun-20-2014	Jun-20-2014			
Rating Type	PHYNEC	PHYLMA	PHYLMA	PHYSTU	PHYNEC	PHYSTU	PHYLMA			
Rating Unit	%	%	%	%	%	%	%			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Majority	V1	V1	V2	V2	V2	V3	V3			
Days After First/Last Applic.	3 3	3 3	7 7	7 7	7 7	14 2	14 2			
Plant-Eval Interval	17 DP-1	17 DP-1	21 DP-1	21 DP-1	21 DP-1	28 DP-1	28 DP-1			
Days After Emergence	11 DE-1	11 DE-1	15 DE-1	15 DE-1	15 DE-1	22 DE-1	22 DE-1			
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code	Plot	1	2	3	4	5	6	7
15 Prefix (5.29 EC)	24.7 oz ai/a	B	202 506 608 808							
			Mean =	.	.	.	.	.	.	.
16 Prefix (5.29 EC)	24.7 oz ai/a	C	204 404 704 806							
			Mean =	.	.	.	.	.	.	.
17 Warrant (3 SC)	24 oz ai/a	A	206 402 804 906	0.0 0.0 0.0 0.0	5.0 5.0 5.0 5.0	8.0 6.0 8.0 10.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 5.0 0.0	7.0 5.0 5.0 7.0
			Mean =	0.0	5.0	8.0	0.0	0.0	1.3	6.0
18 Warrant (3 SC)	24 oz ai/a	B	208 504 706 1006							
			Mean =	.	.	.	.	.	.	.
19 Warrant (3 SC)	24 oz ai/a	C	302 508 802 1004							
			Mean =	.	.	.	.	.	.	.
20 Roundup PowerMax 4.5 SL	12.4 oz ae/a	A	304	0.0	0.0	3.0	0.0	0.0	0.0	0.0
NIS	0.25 % v/v	A	502	0.0	0.0	4.0	0.0	0.0	0.0	0.0
Roundup PowerMax 4.5 SL	12.4 oz ae/a	B	606	0.0	3.0	5.0	0.0	0.0	0.0	5.0
NIS	0.25 % v/v	B	1008	0.0	3.0	0.0	0.0	0.0	0.0	7.0
Roundup PowerMax 4.5 SL	12.4 oz ae/a	C								
NIS	0.25 % v/v	C								
			Mean =	0.0	1.5	3.0	0.0	0.0	0.0	3.0

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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			
Description	14 DAT A	14 DAT A	21 DAT A	21 DAT A	3 DAT B	3 DAT B	3 DAT B			
Rating Date	Jun-20-2014	Jun-20-2014	Jun-26-2014	Jun-26-2014	Jun-20-2014	Jun-20-2014	Jun-20-2014			
Rating Type	PHYNEC	PHYCHL	PHYSTU	PHYLMA	PHYLMA	PHYNEC	PHYCHL			
Rating Unit	%	%	%	%	%	%	%			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Majority	V3	V3	V3	V3	V3	V3	V3			
Days After First/Last Applic.	14 2	14 2	20 8	20 8	14 2	14 2	14 2			
Plant-Eval Interval	28 DP-1	28 DP-1	34 DP-1	34 DP-1	28 DP-1	28 DP-1	28 DP-1			
Days After Emergence	22 DE-1	22 DE-1	28 DE-1	28 DE-1	22 DE-1	22 DE-1	22 DE-1			
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code Plot	8	9	10	11	12	13	14	
1 Untreated Check		101	0.0	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	0.0	
		703	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		907	0.0	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	0.0
2 Parallel (7.8 EC)	20.7 oz ai/a	A	103	0.0	0.0	0.0	3.0			
			307	0.0	0.0	0.0	2.0			
			603	0.0	0.0	0.0	3.0			
			905	0.0	5.0	3.0	4.0			
			Mean =		0.0	1.3	0.8	3.0	.	.
3 Parallel (7.8 EC)	20.7 oz ai/a	B	105					3.0	3.0	0.0
			501					3.0	0.0	3.0
			701					5.0	3.0	5.0
			1007					3.0	5.0	5.0
			Mean =		3.5	2.8	3.3
4 Parallel (7.8 EC)	20.7 oz ai/a	C	107							
			403							
			605							
			1001							
			Mean =	
5 Dual II Magnum (7.64 EC)	20.7 oz ai/a	A	201	0.0	0.0	3.0	4.0			
			507	0.0	3.0	5.0	4.0			
			803	0.0	0.0	0.0	4.0			
			1003	0.0	0.0	5.0	3.0			
			Mean =		0.0	0.8	3.3	3.8	.	.
6 Dual II Magnum (7.64 EC)	20.7 oz ai/a	B	203					3.0	5.0	0.0
			407					5.0	7.0	0.0
			601					5.0	5.0	3.0
			903					3.0	5.0	5.0
			Mean =		4.0	5.5

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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		
Description	14 DAT A	14 DAT A	21 DAT A	21 DAT A	3 DAT B	3 DAT B	3 DAT B		
Rating Date	Jun-20-2014	Jun-20-2014	Jun-26-2014	Jun-26-2014	Jun-20-2014	Jun-20-2014	Jun-20-2014		
Rating Type	PHYNEC	PHYCHL	PHYSTU	PHYLMA	PHYLMA	PHYNEC	PHYCHL		
Rating Unit	%	%	%	%	%	%	%		
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1		
Crop Stage Majority	V3	V3	V3	V3	V3	V3	V3		
Days After First/Last Applic.	14 2	14 2	20 8	20 8	14 2	14 2	14 2		
Plant-Eval Interval	28 DP-1	28 DP-1	34 DP-1	34 DP-1	28 DP-1	28 DP-1	28 DP-1		
Days After Emergence	22 DE-1	22 DE-1	28 DE-1	28 DE-1	22 DE-1	22 DE-1	22 DE-1		
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot	8	9	10	11	12	13	14
7 Dual II Magnum (7.64 EC)	20.7 oz ai/a	C 205 305 707 805							
		Mean =	.	.	.	.	.	.	.
8 Pummel (5.25 ME)	20.7 oz ai/a	A 207 505 607 901	5.0 0.0 3.0 0.0	0.0 5.0 3.0 3.0	3.0 0.0 0.0 5.0	2.0 3.0 3.0 3.0			
		Mean =	2.0	2.8	2.0	2.8	.	.	.
9 Pummel (5.25 ME)	20.7 oz ai/a	B 301 401 705 807					0.0 0.0 5.0 5.0	0.0 0.0 3.0 3.0	7.0 5.0 7.0 7.0
		Mean =	.	.	.	.	2.5	1.5	6.5
10 Pummel (5.25 ME)	20.7 oz ai/a	C 303 503 801 1005							
		Mean =	.	.	.	.	.	.	.
11 Vice (5.4 EC)	25.2 oz ai/a	A 102 308 708 1002	0.0 0.0 5.0 0.0	5.0 3.0 3.0 5.0	5.0 10.0 5.0 10.0	3.0 5.0 2.0 5.0			
		Mean =	1.3	4.0	7.5	3.8	.	.	.
12 Vice (5.4 EC)	25.2 oz ai/a	B 104 408 702 904					0.0 7.0 5.0 5.0	9.0 10.0 10.0 15.0	0.0 3.0 0.0 5.0
		Mean =	.	.	.	.	4.3	11.0	2.0
13 Vice (5.4 EC)	25.2 oz ai/a	C 106 406 602 902							
		Mean =	.	.	.	.	.	.	.
14 Prefix (5.29 EC)	24.7 oz ai/a	A 108 306 604 908	10.0 5.0 0.0 10.0	0.0 0.0 3.0 0.0	7.0 5.0 5.0 10.0	3.0 5.0 3.0 5.0			
		Mean =	6.3	0.8	6.8	4.0	.	.	.

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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		
Description	14 DAT A	14 DAT A	21 DAT A	21 DAT A	3 DAT B	3 DAT B	3 DAT B		
Rating Date	Jun-20-2014	Jun-20-2014	Jun-26-2014	Jun-26-2014	Jun-20-2014	Jun-20-2014	Jun-20-2014		
Rating Type	PHYNEC	PHYCHL	PHYSTU	PHYLMA	PHYLMA	PHYNEC	PHYCHL		
Rating Unit	%	%	%	%	%	%	%		
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1		
Crop Stage Majority	V3	V3	V3	V3	V3	V3	V3		
Days After First/Last Applic.	14 2	14 2	20 8	20 8	14 2	14 2	14 2		
Plant-Eval Interval	28 DP-1	28 DP-1	34 DP-1	34 DP-1	28 DP-1	28 DP-1	28 DP-1		
Days After Emergence	22 DE-1	22 DE-1	28 DE-1	28 DE-1	22 DE-1	22 DE-1	22 DE-1		
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code Plot	8	9	10	11	12	13	14
15 Prefix (5.29 EC)	24.7 oz ai/a	B 202					10.0	10.0	5.0
		506					5.0	8.0	0.0
		608					3.0	10.0	0.0
		808					5.0	10.0	0.0
		Mean =	.	.	.	.	5.8	9.5	1.3
16 Prefix (5.29 EC)	24.7 oz ai/a	C 204							
		404							
		704							
		806							
		Mean =	.	.	.	.	.	.	.
17 Warrant (3 SC)	24 oz ai/a	A 206	0.0	0.0	0.0	0.0			
		402	0.0	0.0	3.0	3.0			
		804	0.0	3.0	5.0	5.0			
		906	0.0	3.0	0.0	4.0			
		Mean =	0.0	1.5	2.0	3.0	.	.	.
18 Warrant (3 SC)	24 oz ai/a	B 208					3.0	0.0	0.0
		504					0.0	0.0	0.0
		706					0.0	0.0	0.0
		1006					0.0	0.0	0.0
		Mean =	.	.	.	.	0.8	0.0	0.0
19 Warrant (3 SC)	24 oz ai/a	C 302							
		508							
		802							
		1004							
		Mean =	.	.	.	.	.	.	.
20 Roundup PowerMax 4.5 SL	12.4 oz ae/a	A 304	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NIS	0.25 % v/v	A 502	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Roundup PowerMax 4.5 SL	12.4 oz ae/a	B 606	0.0	0.0	0.0	0.0	5.0	0.0	0.0
NIS	0.25 % v/v	B 1008	0.0	0.0	0.0	5.0	7.0	0.0	0.0
Roundup PowerMax 4.5 SL	12.4 oz ae/a	C							
NIS	0.25 % v/v	C							
		Mean =	0.0	0.0	0.0	1.3	3.0	0.0	0.0

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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			
Description	7 DAT B	7 DAT B	7 DAT B	14 DAT B	14 DAT B	14 DAT B	21 DAT B			
Rating Date	Jun-26-2014	Jun-26-2014	Jun-26-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014	Jul-10-2014			
Rating Type	PHYSTU	PHYLMA	PHYNEC	PHYSTU	PHYLMA	PHYNEC	PHYSTU			
Rating Unit	%	%	%	%	%	%	%			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Majority	V3	V3	V3	V8	V8	V8	R2			
Days After First/Last Applic.	20 8	20 8	20 8	27 7	27 7	27 7	34 14			
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	41 DP-1	41 DP-1	41 DP-1	48 DP-1			
Days After Emergence	28 DE-1	28 DE-1	28 DE-1	35 DE-1	35 DE-1	35 DE-1	42 DE-1			
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code Plot	15	16	17	18	19	20	21	
1 Untreated Check		101	0.0	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	0.0	
		703	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		907	0.0	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	0.0
2 Parallel (7.8 EC)	20.7 oz ai/a	A	103							
			307							
			603							
			905							
			Mean =	.	.	.	.	.	.	.
3 Parallel (7.8 EC)	20.7 oz ai/a	B	105	0.0	3.0	0.0	0.0	0.0	0.0	0.0
			501	0.0	3.0	2.0	0.0	0.0	0.0	0.0
			701	5.0	4.0	5.0	0.0	0.0	0.0	0.0
			1007	0.0	5.0	4.0	0.0	2.0	0.0	0.0
			Mean =	1.3	3.8	2.8	0.0	0.5	0.0	0.0
4 Parallel (7.8 EC)	20.7 oz ai/a	C	107							
			403							
			605							
			1001							
			Mean =	.	.	.	.	.	.	.
5 Dual II Magnum (7.64 EC)	20.7 oz ai/a	A	201							
			507							
			803							
			1003							
			Mean =	.	.	.	.	.	.	.
6 Dual II Magnum (7.64 EC)	20.7 oz ai/a	B	203	0.0	3.0	5.0	0.0	0.0	0.0	0.0
			407	0.0	6.0	7.0	0.0	4.0	0.0	0.0
			601	6.0	5.0	5.0	0.0	2.0	0.0	0.0
			903	0.0	5.0	5.0	0.0	4.0	0.0	2.0
			Mean =	1.5	4.8	5.5	0.0	2.5	0.0	0.5

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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			
Description	7 DAT B	7 DAT B	7 DAT B	14 DAT B	14 DAT B	14 DAT B	21 DAT B			
Rating Date	Jun-26-2014	Jun-26-2014	Jun-26-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014	Jul-10-2014			
Rating Type	PHYSTU	PHYLMA	PHYNEC	PHYSTU	PHYLMA	PHYNEC	PHYSTU			
Rating Unit	%	%	%	%	%	%	%			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Majority	V3	V3	V3	V8	V8	V8	R2			
Days After First/Last Applic.	20 8	20 8	20 8	27 7	27 7	27 7	34 14			
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	41 DP-1	41 DP-1	41 DP-1	48 DP-1			
Days After Emergence	28 DE-1	28 DE-1	28 DE-1	35 DE-1	35 DE-1	35 DE-1	42 DE-1			
Trt Treatment	Rate	Appl	Plot	15	16	17	18	19	20	21
No. Name	Rate Unit	Code	Plot							
7 Dual II Magnum (7.64 EC)	20.7 oz ai/a	C	205 305 707 805							
			Mean =	.	.	.	.	.	.	.
8 Pummel (5.25 ME)	20.7 oz ai/a	A	207 505 607 901							
			Mean =	.	.	.	.	.	.	.
9 Pummel (5.25 ME)	20.7 oz ai/a	B	301 401 705 807	5.0 5.0 7.0 5.0	9.0 7.0 10.0 10.0	0.0 3.0 0.0 4.0	6.0 8.0 12.0 8.0	12.0 10.0 12.0 12.0	0.0 0.0 3.0 0.0	15.0 15.0 10.0 12.0
			Mean =	5.5	9.0	1.8	8.5	11.5	0.8	13.0
10 Pummel (5.25 ME)	20.7 oz ai/a	C	303 503 801 1005							
			Mean =	.	.	.	.	.	.	.
11 Vice (5.4 EC)	25.2 oz ai/a	A	102 308 708 1002							
			Mean =	.	.	.	.	.	.	.
12 Vice (5.4 EC)	25.2 oz ai/a	B	104 408 702 904	0.0 7.0 4.0 5.0	6.0 10.0 8.0 8.0	5.0 10.0 9.0 7.0	0.0 2.0 0.0 3.0	0.0 4.0 2.0 5.0	0.0 0.0 0.0 0.0	0.0 2.0 2.0 2.0
			Mean =	4.0	8.0	7.8	1.3	2.8	0.0	1.5
13 Vice (5.4 EC)	25.2 oz ai/a	C	106 406 602 902							
			Mean =
14 Prefix (5.29 EC)	24.7 oz ai/a	A	108 306 604 908							
			Mean =

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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			
Description	7 DAT B	7 DAT B	7 DAT B	14 DAT B	14 DAT B	14 DAT B	21 DAT B			
Rating Date	Jun-26-2014	Jun-26-2014	Jun-26-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014	Jul-10-2014			
Rating Type	PHYSTU	PHYLMA	PHYNEC	PHYSTU	PHYLMA	PHYNEC	PHYSTU			
Rating Unit	%	%	%	%	%	%	%			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Majority	V3	V3	V3	V8	V8	V8	R2			
Days After First/Last Applic.	20 8	20 8	20 8	27 7	27 7	27 7	34 14			
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	41 DP-1	41 DP-1	41 DP-1	48 DP-1			
Days After Emergence	28 DE-1	28 DE-1	28 DE-1	35 DE-1	35 DE-1	35 DE-1	42 DE-1			
Trt Treatment	Rate	Appl	Plot	15	16	17	18	19	20	21
No. Name	Rate Unit	Code	Plot							
15 Prefix (5.29 EC)	24.7 oz ai/a	B	202	0.0	6.0	5.0	2.0	3.0	0.0	1.0
			506	0.0	7.0	5.0	3.0	2.0	0.0	1.0
			608	6.0	8.0	6.0	4.0	4.0	0.0	4.0
			808	5.0	9.0	7.0	3.0	3.0	0.0	3.0
			Mean =	2.8	7.5	5.8	3.0	3.0	0.0	2.3
16 Prefix (5.29 EC)	24.7 oz ai/a	C	204							
			404							
			704							
			806							
			Mean =	.	.	.	.	.	.	.
17 Warrant (3 SC)	24 oz ai/a	A	206							
			402							
			804							
			906							
			Mean =	.	.	.	.	.	.	.
18 Warrant (3 SC)	24 oz ai/a	B	208	0.0	0.0	6.0	0.0	0.0	0.0	0.0
			504	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			706	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			1006	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	1.5	0.0	0.0	0.0	0.0
19 Warrant (3 SC)	24 oz ai/a	C	302							
			508							
			802							
			1004							
			Mean =	.	.	.	.	.	.	.
20 Roundup PowerMax 4.5 SL	12.4 oz ae/a	A	304	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NIS	0.25 % v/v	A	502	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Roundup PowerMax 4.5 SL	12.4 oz ae/a	B	606	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NIS	0.25 % v/v	B	1008	0.0	5.0	0.0	0.0	6.0	0.0	0.0
Roundup PowerMax 4.5 SL	12.4 oz ae/a	C								
NIS	0.25 % v/v	C								
			Mean =	0.0	1.3	0.0	0.0	1.5	0.8	0.0

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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			
Description	21 DAT B	3 DAT C	3 DAT C	3 DAT C	7 DAT C	7 DAT C	7 DAT C			
Rating Date	Jul-10-2014	Jun-30-2014	Jun-30-2014	Jun-30-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014			
Rating Type	PHYLMA	PHYCHL	PHYNEC	PHYLMA	PHYSTU	PHYLMA	PHYNEC			
Rating Unit	%	%	%	%	%	%	%			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Majority	R2	V8	V8	V8	V8	V8	V8			
Days After First/Last Applic.	34 14	24 4	24 4	24 4	27 7	27 7	27 7			
Plant-Eval Interval	48 DP-1	38 DP-1	38 DP-1	38 DP-1	41 DP-1	41 DP-1	41 DP-1			
Days After Emergence	42 DE-1	32 DE-1	32 DE-1	32 DE-1	35 DE-1	35 DE-1	35 DE-1			
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code	Plot	22	23	24	25	26	27	28
1 Untreated Check			101	0.0	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	0.0
			703	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			907	0.0	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	0.0
2 Parallel (7.8 EC)	20.7 oz ai/a	A	103							
			307							
			603							
			905							
			Mean =	.	.	.	.	.	.	.
3 Parallel (7.8 EC)	20.7 oz ai/a	B	105	0.0						
			501	0.0						
			701	0.0						
			1007	0.0						
			Mean =	0.0	.	.	.	.	.	.
4 Parallel (7.8 EC)	20.7 oz ai/a	C	107		0.0	2.0	0.0	0.0	0.0	0.0
			403		0.0	0.0	0.0	0.0	0.0	0.0
			605		0.0	2.0	0.0	0.0	0.0	1.0
			1001		0.0	1.0	1.0	0.0	0.0	2.0
			Mean =	.	0.0	1.3	0.3	0.0	0.0	0.8
5 Dual II Magnum (7.64 EC)	20.7 oz ai/a	A	201							
			507							
			803							
			1003							
			Mean =
6 Dual II Magnum (7.64 EC)	20.7 oz ai/a	B	203	0.0						
			407	0.0						
			601	0.0						
			903	0.0						
			Mean =	0.0

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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			
Description	21 DAT B	3 DAT C	3 DAT C	3 DAT C	7 DAT C	7 DAT C	7 DAT C			
Rating Date	Jul-10-2014	Jun-30-2014	Jun-30-2014	Jun-30-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014			
Rating Type	PHYLMA	PHYCHL	PHYNEC	PHYLMA	PHYSTU	PHYLMA	PHYNEC			
Rating Unit	%	%	%	%	%	%	%			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Majority	R2	V8	V8	V8	V8	V8	V8			
Days After First/Last Applic.	34 14	24 4	24 4	24 4	27 7	27 7	27 7			
Plant-Eval Interval	48 DP-1	38 DP-1	38 DP-1	38 DP-1	41 DP-1	41 DP-1	41 DP-1			
Days After Emergence	42 DE-1	32 DE-1	32 DE-1	32 DE-1	35 DE-1	35 DE-1	35 DE-1			
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code	Plot	22	23	24	25	26	27	28
7 Dual II Magnum (7.64 EC)	20.7 oz ai/a	C	205		0.0	3.0	0.0	0.0	0.0	0.0
			305		0.0	2.0	0.0	0.0	0.0	2.0
			707		0.0	3.0	0.0	0.0	0.0	1.0
			805		0.0	2.0	0.0	0.0	0.0	3.0
			Mean =	.	0.0	2.5	0.0	0.0	0.0	1.5
8 Pummel (5.25 ME)	20.7 oz ai/a	A	207							
			505							
			607							
			901							
			Mean =	.	.	.	.	.	.	.
9 Pummel (5.25 ME)	20.7 oz ai/a	B	301	12.0						
			401	10.0						
			705	15.0						
			807	14.0						
			Mean =	12.8	.	.	.	.	.	.
10 Pummel (5.25 ME)	20.7 oz ai/a	C	303		0.0	4.0	0.0	0.0	0.0	5.0
			503		2.0	4.0	0.0	0.0	0.0	5.0
			801		0.0	3.0	0.0	2.0	0.0	4.0
			1005		0.0	3.0	0.0	0.0	0.0	5.0
			Mean =	.	0.5	3.5	0.0	0.5	0.0	4.8
11 Vice (5.4 EC)	25.2 oz ai/a	A	102							
			308							
			708							
			1002							
			Mean =	.	.	.	.	.	.	.
12 Vice (5.4 EC)	25.2 oz ai/a	B	104	1.0						
			408	0.0						
			702	0.0						
			904	0.0						
			Mean =	0.3	.	.	.	.	.	.
13 Vice (5.4 EC)	25.2 oz ai/a	C	106		5.0	3.0	3.0	2.0	3.0	3.0
			406		5.0	5.0	3.0	0.0	3.0	4.0
			602		7.0	4.0	3.0	0.0	3.0	5.0
			902		6.0	7.0	5.0	5.0	3.0	5.0
			Mean =	.	5.8	4.8	3.5	1.8	3.0	4.3
14 Prefix (5.29 EC)	24.7 oz ai/a	A	108							
			306							
			604							
			908							
			Mean =

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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			
Description	21 DAT B	3 DAT C	3 DAT C	3 DAT C	7 DAT C	7 DAT C	7 DAT C			
Rating Date	Jul-10-2014	Jun-30-2014	Jun-30-2014	Jun-30-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014			
Rating Type	PHYLMA	PHYCHL	PHYNEC	PHYLMA	PHYSTU	PHYLMA	PHYNEC			
Rating Unit	%	%	%	%	%	%	%			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Stage Majority	R2	V8	V8	V8	V8	V8	V8			
Days After First/Last Applic.	34 14	24 4	24 4	24 4	27 7	27 7	27 7			
Plant-Eval Interval	48 DP-1	38 DP-1	38 DP-1	38 DP-1	41 DP-1	41 DP-1	41 DP-1			
Days After Emergence	42 DE-1	32 DE-1	32 DE-1	32 DE-1	35 DE-1	35 DE-1	35 DE-1			
Trt Treatment	Rate	Appl	Plot	22	23	24	25	26	27	28
No. Name	Rate Unit	Code	Plot							
15 Prefix (5.29 EC)	24.7 oz ai/a	B	202	0.0						
			506	0.0						
			608	0.0						
			808	0.0						
			Mean =	0.0	.	.	.	.	.	.
16 Prefix (5.29 EC)	24.7 oz ai/a	C	204		0.0	4.0	2.0	0.0	3.0	3.0
			404		3.0	2.0	2.0	0.0	0.0	5.0
			704		4.0	3.0	3.0	0.0	3.0	3.0
			806		3.0	3.0	0.0	0.0	2.0	3.0
			Mean =	.	2.5	3.0	1.8	0.0	2.0	3.5
17 Warrant (3 SC)	24 oz ai/a	A	206							
			402							
			804							
			906							
			Mean =	.	.	.	.	.	.	.
18 Warrant (3 SC)	24 oz ai/a	B	208	0.0						
			504	0.0						
			706	0.0						
			1006	2.0						
			Mean =	0.5	.	.	.	.	.	.
19 Warrant (3 SC)	24 oz ai/a	C	302		0.0	0.0	0.0	0.0	0.0	0.0
			508		0.0	0.0	0.0	0.0	0.0	0.0
			802		0.0	0.0	0.0	0.0	0.0	0.0
			1004		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
20 Roundup PowerMax 4.5 SL	12.4 oz ae/a	A	304	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NIS	0.25 % v/v	A	502	0.0	0.0	2.0	0.0	0.0	0.0	3.0
Roundup PowerMax 4.5 SL	12.4 oz ae/a	B	606	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NIS	0.25 % v/v	B	1008	0.0	0.0	1.0	3.0	0.0	6.0	0.0
Roundup PowerMax 4.5 SL	12.4 oz ae/a	C								
NIS	0.25 % v/v	C								
			Mean =	0.0	0.0	0.8	0.8	0.0	1.5	0.8

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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			
Description	7 DAT C	14 DAT C	21 DAT C				
Rating Date	Jul-3-2014	Jul-10-2014	Jul-17-2014	Sep-30-2014			
Rating Type	PHYCHL	PHYLMA	PHYSTU	YIELD			
Rating Unit	%	%	%	bu/ac			
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT				
Number of Subsamples	1	1	1	1			
Crop Stage Majority	V8	R1	R2				
Days After First/Last Applic.	27 7	34 14	41 21	116 96			
Plant-Eval Interval	41 DP-1	48 DP-1	55 DP-1	130 DP-1			
Days After Emergence	35 DE-1	42 DE-1	49 DE-1	124 DE-1			
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	29	30	31	32	
1 Untreated Check		101	0.0	0.0	0.0	76.00	
		405	0.0	0.0	0.0	73.70	
		703	0.0	0.0	0.0	69.40	
		907	0.0	0.0	0.0	66.20	
		Mean =		0.0	0.0	0.0	71.33
2 Parallel (7.8 EC)	20.7 oz ai/a	A	103			68.60	
			307			63.20	
			603			75.50	
			905			71.30	
			Mean =	.	.	.	69.65
3 Parallel (7.8 EC)	20.7 oz ai/a	B	105			66.10	
			501			67.30	
			701			64.00	
			1007			72.80	
			Mean =	.	.	.	67.55
4 Parallel (7.8 EC)	20.7 oz ai/a	C	107	0.0	0.0	0.0	66.80
			403	0.0	0.0	0.0	82.00
			605	0.0	0.0	0.0	70.10
			1001	0.0	0.0	0.0	76.20
			Mean =	0.0	0.0	0.0	73.78
5 Dual II Magnum (7.64 EC)	20.7 oz ai/a	A	201			79.20	
			507			69.20	
			803			75.00	
			1003			70.30	
			Mean =	.	.	.	73.43
6 Dual II Magnum (7.64 EC)	20.7 oz ai/a	B	203			77.10	
			407			69.20	
			601			64.70	
			903			66.30	
			Mean =	.	.	.	69.33

Purdue University

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		
Description	7 DAT C	14 DAT C	21 DAT C			
Rating Date	Jul-3-2014	Jul-10-2014	Jul-17-2014	Sep-30-2014		
Rating Type	PHYCHL	PHYLMA	PHYSTU	YIELD		
Rating Unit	%	%	%	bu/ac		
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1		
Crop Stage Majority	V8	R1	R2			
Days After First/Last Applic.	27 7	34 14	41 21	116 96		
Plant-Eval Interval	41 DP-1	48 DP-1	55 DP-1	130 DP-1		
Days After Emergence	35 DE-1	42 DE-1	49 DE-1	124 DE-1		
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code Plot	29	30	31	32
7 Dual II Magnum (7.64 EC)	20.7 oz ai/a	C 205	0.0	1.0	0.0	76.40
		305	0.0	0.0	0.0	75.40
		707	0.0	0.0	2.0	66.90
		805	0.0	0.0	0.0	65.00
		Mean =	0.0	0.3	0.5	70.93
8 Pummel (5.25 ME)	20.7 oz ai/a	A 207				69.70
		505				69.50
		607				71.30
		901				73.50
		Mean =	.	.	.	71.00
9 Pummel (5.25 ME)	20.7 oz ai/a	B 301				76.50
		401				74.60
		705				66.80
		807				65.70
		Mean =	.	.	.	70.90
10 Pummel (5.25 ME)	20.7 oz ai/a	C 303	0.0	3.0	2.0	73.00
		503	0.0	0.0	0.0	69.50
		801	0.0	0.0	0.0	75.20
		1005	3.0	0.0	3.0	68.80
		Mean =	0.8	0.8	1.3	71.63
11 Vice (5.4 EC)	25.2 oz ai/a	A 102				70.00
		308				65.30
		708				64.30
		1002				67.00
		Mean =	.	.	.	66.65
12 Vice (5.4 EC)	25.2 oz ai/a	B 104				67.90
		408				76.70
		702				62.10
		904				68.00
		Mean =	.	.	.	68.68
13 Vice (5.4 EC)	25.2 oz ai/a	C 106	5.0	5.0	2.0	71.80
		406	10.0	3.0	0.0	77.80
		602	7.0	2.0	0.0	56.80
		902	6.0	4.0	5.0	55.00
		Mean =	7.0	3.5	1.8	65.35
14 Prefix (5.29 EC)	24.7 oz ai/a	A 108				76.00
		306				73.90
		604				75.50
		908				66.10
		Mean =	.	.	.	72.88

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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
Description	7 DAT C	14 DAT C	21 DAT C	
Rating Date	Jul-3-2014	Jul-10-2014	Jul-17-2014	Sep-30-2014
Rating Type	PHYCHL	PHYLMA	PHYSTU	YIELD
Rating Unit	%	%	%	bu/ac
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1
Crop Stage Majority	V8	R1	R2	
Days After First/Last Applic.	27 7	34 14	41 21	116 96
Plant-Eval Interval	41 DP-1	48 DP-1	55 DP-1	130 DP-1
Days After Emergence	35 DE-1	42 DE-1	49 DE-1	124 DE-1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	29	30
15 Prefix (5.29 EC)	24.7 oz ai/a	B 202		
		506		
		608		
		808		
		Mean =	.	.
16 Prefix (5.29 EC)	24.7 oz ai/a	C 204	4.0	3.0
		404	4.0	4.0
		704	3.0	0.0
		806	3.0	3.0
		Mean =	3.5	2.5
17 Warrant (3 SC)	24 oz ai/a	A 206		
		402		
		804		
		906		
		Mean =	.	.
18 Warrant (3 SC)	24 oz ai/a	B 208		
		504		
		706		
		1006		
		Mean =	.	.
19 Warrant (3 SC)	24 oz ai/a	C 302	0.0	0.0
		508	0.0	0.0
		802	0.0	0.0
		1004	3.0	0.0
		Mean =	0.8	0.0
20 Roundup PowerMax 4.5 SL	12.4 oz ae/a	A 304	0.0	0.0
NIS	0.25 % v/v	A 502	0.0	0.0
Roundup PowerMax 4.5 SL	12.4 oz ae/a	B 606	0.0	0.0
NIS	0.25 % v/v	B 1008	0.0	0.0
Roundup PowerMax 4.5 SL	12.4 oz ae/a	C		
NIS	0.25 % v/v	C		
		Mean =	0.0	0.0

Purdue University

ADAMA Soybean Metolachlor Crop Safety - Alone

Trial ID: 14S-THP-CTS-58 Protocol ID: 14S-THP-CTS-58
Location: Throckmorton Study Director:
Project ID: Investigator: Dr. Bill Johnson
Sponsor Contact: ADAMA - Dario Narvaez

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

PHYNEC = phytotoxicity - necrosis /burn

PHYLMA = phytotoxicity - leaf malformation

PHYSTU = phytotoxicity - stunting

PHYCHL = phytotoxicity - chlorosis

YIELD = yield

Rating Unit

% = percent

bu/ac = bushels per acre

PLOT = total plot

Plant-Eval Interval

17 DP-1 = 1 GLXMA May-23-2014

21 DP-1 = 1 GLXMA May-23-2014

28 DP-1 = 1 GLXMA May-23-2014

34 DP-1 = 1 GLXMA May-23-2014

41 DP-1 = 1 GLXMA May-23-2014

48 DP-1 = 1 GLXMA May-23-2014

38 DP-1 = 1 GLXMA May-23-2014

55 DP-1 = 1 GLXMA May-23-2014

130 DP-1 = 1 GLXMA May-23-2014

Purdue University

ADAMA Soybean Metolachlor Crop Safety - Alone

Trial ID: 14S-THP-CTS-58 Protocol ID: 14S-THP-CTS-58
 Location: Throckmorton Study Director:
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact: ADAMA - Dario Narvaez

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		
Description	3 DAT A	3 DAT A	7 DAT A	7 DAT A	7 DAT A	14 DAT A	14 DAT A	14 DAT A		
Rating Date	Jun-9-2014	Jun-9-2014	Jun-13-2014	Jun-13-2014	Jun-13-2014	Jun-20-2014	Jun-20-2014	Jun-20-2014		
Rating Type	PHYNEC	PHYLMA	PHYLMA	PHYSTU	PHYNEC	PHYSTU	PHYLMA	PHYNEC		
Rating Unit	%	%	%	%	%	%	%	%		
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1		
Crop Stage Majority	V1	V1	V2	V2	V2	V3	V3	V3		
Days After First/Last Applic.	3 3	3 3	7 7	7 7	7 7	14 2	14 2	14 2		
Plant-Eval Interval	17 DP-1	17 DP-1	21 DP-1	21 DP-1	21 DP-1	28 DP-1	28 DP-1	28 DP-1		
Days After Emergence	11 DE-1	11 DE-1	15 DE-1	15 DE-1	15 DE-1	22 DE-1	22 DE-1	22 DE-1		
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code	1	2	3	4	5	6	7	8
1 Untreated Check	0.0 c		0.0 c	0.0 e	0.0 c	0.0 c	0.0 c	0.0 c	0.0 c	0.0 b
2 Parallel (7.8 EC)	20.7 oz ai/a A		7.5 b	8.0 bc	12.0 b	2.8 bc	8.8 ab	1.5 bc	6.8 ab	0.0 b
3 Parallel (7.8 EC)	20.7 oz ai/a B									
4 Parallel (7.8 EC)	20.7 oz ai/a C									
5 Dual II Magnum (7.64 EC)	20.7 oz ai/a A		11.3 ab	10.5 b	17.0 a	4.8 bc	13.0 a	4.0 abc	9.0 a	0.0 b
6 Dual II Magnum (7.64 EC)	20.7 oz ai/a B									
7 Dual II Magnum (7.64 EC)	20.7 oz ai/a C									
8 Pummel (5.25 ME)	20.7 oz ai/a A		8.0 b	5.0 cd	8.5 b	2.5 bc	6.8 b	3.5 abc	4.5 b	2.0 b
9 Pummel (5.25 ME)	20.7 oz ai/a B									
10 Pummel (5.25 ME)	20.7 oz ai/a C									
11 Vice (5.4 EC)	25.2 oz ai/a A		15.0 a	15.5 a	16.0 a	7.0 ab	10.5 ab	7.3 ab	8.5 a	1.3 b
12 Vice (5.4 EC)	25.2 oz ai/a B									
13 Vice (5.4 EC)	25.2 oz ai/a C									
14 Prefix (5.29 EC)	24.7 oz ai/a A		11.8 ab	15.0 a	19.8 a	10.0 a	12.8 a	8.8 a	8.8 a	6.3 a
15 Prefix (5.29 EC)	24.7 oz ai/a B									
16 Prefix (5.29 EC)	24.7 oz ai/a C									
17 Warrant (3 SC)	24 oz ai/a A		0.0 c	5.0 cd	8.0 b	0.0 c	0.0 c	1.3 bc	6.0 ab	0.0 b
18 Warrant (3 SC)	24 oz ai/a B									
19 Warrant (3 SC)	24 oz ai/a C									

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

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	
Description	3 DAT A	3 DAT A	7 DAT A	7 DAT A	7 DAT A	14 DAT A	14 DAT A	14 DAT A	14 DAT A	
Rating Date	Jun-9-2014	Jun-9-2014	Jun-13-2014	Jun-13-2014	Jun-13-2014	Jun-20-2014	Jun-20-2014	Jun-20-2014	Jun-20-2014	
Rating Type	PHYNEC	PHYLMA	PHYLMA	PHYSTU	PHYNEC	PHYSTU	PHYLMA	PHYNEC	PHYNEC	
Rating Unit	%	%	%	%	%	%	%	%	%	
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1	1	1	1	1	
Crop Stage Majority	V1	V1	V2	V2	V2	V3	V3	V3	V3	
Days After First/Last Applic.	3 3	3 3	7 7	7 7	7 7	14 2	14 2	14 2	14 2	
Plant-Eval Interval	17 DP-1	17 DP-1	21 DP-1	21 DP-1	21 DP-1	28 DP-1	28 DP-1	28 DP-1	28 DP-1	
Days After Emergence	11 DE-1	11 DE-1	15 DE-1	15 DE-1	15 DE-1	22 DE-1	22 DE-1	22 DE-1	22 DE-1	
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code	1	2	3	4	5	6	7	8
20 Roundup PowerMax 4.5 SL NIS	12.4 oz ae/a 0.25 % v/v	A A	0.0 c	1.5 de	3.0 c	0.0 c	0.0 c	0.0 c	3.0 b	0.0 b
Roundup PowerMax 4.5 SL NIS	12.4 oz ae/a 0.25 % v/v	B B								
Roundup PowerMax 4.5 SL NIS	12.4 oz ae/a 0.25 % v/v	C C								
LSD (P=.05)	4.40	3.09	3.83	3.65	3.56	4.40	2.93	3.19		
Standard Deviation	2.99	2.10	2.60	2.48	2.42	2.99	1.99	2.17		
CV	44.76	27.81	24.73	73.58	37.4	91.22	34.23	182.73		
Bartlett's X2	1.713	5.51	10.015	2.889	6.151	10.009	12.913	1.857		
P(Bartlett's X2)	0.788	0.239	0.124	0.577	0.188	0.075	0.044*	0.395		
Replicate F	1.056	0.612	0.459	0.703	0.247	0.673	1.884	0.469		
Replicate Prob(F)	0.3888	0.6145	0.7136	0.5610	0.8623	0.5781	0.1632	0.7070		
Treatment F	16.080	30.262	28.402	8.734	22.376	4.787	10.155	4.047		
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0024	0.0001	0.0059		

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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
Description	14 DAT A	21 DAT A	21 DAT A	3 DAT B	3 DAT B	3 DAT B	7 DAT B	7 DAT B	7 DAT B
Rating Date	Jun-20-2014	Jun-26-2014	Jun-26-2014	Jun-20-2014	Jun-20-2014	Jun-20-2014	Jun-26-2014	Jun-26-2014	Jun-26-2014
Rating Type	PHYCHL	PHYSTU	PHYLMA	PHYLMA	PHYNEC	PHYCHL	PHYSTU	PHYLMA	PHYLMA
Rating Unit	%	%	%	%	%	%	%	%	%
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1	1	1
Crop Stage Majority	V3	V3	V3	V3	V3	V3	V3	V3	V3
Days After First/Last Applic.	14 2	20 8	20 8	14 2	14 2	14 2	20 8	20 8	20 8
Plant-Eval Interval	28 DP-1	34 DP-1	34 DP-1	28 DP-1	28 DP-1	28 DP-1	34 DP-1	34 DP-1	34 DP-1
Days After Emergence	22 DE-1	28 DE-1	28 DE-1	22 DE-1	22 DE-1	22 DE-1	28 DE-1	28 DE-1	28 DE-1
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
No. Name	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit
	Code								
	9	10	11	12	13	14	15	16	
20 Roundup PowerMax 4.5 SL	12.4 oz ae/a A	0.0 b	0.0 b	1.3 ab	3.0 a	0.0 c	0.0 b	0.0 b	1.3 c
NIS	0.25 % v/v A								
Roundup PowerMax 4.5 SL	12.4 oz ae/a B								
NIS	0.25 % v/v B								
Roundup PowerMax 4.5 SL	12.4 oz ae/a C								
NIS	0.25 % v/v C								
LSD (P=.05)		2.28	2.83	1.88	3.53	1.96	2.59	2.70	1.78
Standard Deviation		1.55	1.93	1.28	2.40	1.33	1.76	1.84	1.21
CV		112.5	69.25	47.61	80.91	35.3	94.01	97.89	28.34
Bartlett's X2		2.129	1.189	12.559	7.632	4.257	2.565	3.614	3.316
P(Bartlett's X2)		0.831	0.946	0.051	0.266	0.372	0.633	0.461	0.651
Replicate F		1.080	2.097	2.571	0.525	2.310	0.992	3.438	3.249
Replicate Prob(F)		0.3792	0.1311	0.0814	0.6696	0.1057	0.4156	0.0354	0.0423
Treatment F		3.194	9.096	4.702	2.444	43.927	6.299	5.004	36.033
Treatment Prob(F)		0.0183	0.0001	0.0026	0.0533	0.0001	0.0005	0.0019	0.0001

Purdue University

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	
Description	7 DAT B	14 DAT B	14 DAT B	14 DAT B	21 DAT B	21 DAT B	3 DAT C	3 DAT C	3 DAT C	
Rating Date	Jun-26-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014	Jul-10-2014	Jul-10-2014	Jun-30-2014	Jun-30-2014	Jun-30-2014	
Rating Type	PHYNEC	PHYSTU	PHYLMA	PHYNEC	PHYSTU	PHYLMA	PHYCHL	PHYNEC	PHYNEC	
Rating Unit	%	%	%	%	%	%	%	%	%	
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1	1	1	1	1	
Crop Stage Majority	V3	V8	V8	V8	R2	R2	V8	V8	V8	
Days After First/Last Applic.	20 8	27 7	27 7	27 7	34 14	34 14	24 4	24 4	24 4	
Plant-Eval Interval	34 DP-1	41 DP-1	41 DP-1	41 DP-1	48 DP-1	48 DP-1	38 DP-1	38 DP-1	38 DP-1	
Days After Emergence	28 DE-1	35 DE-1	35 DE-1	35 DE-1	42 DE-1	42 DE-1	32 DE-1	32 DE-1	32 DE-1	
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code	17	18	19	20	21	22	23	24
1 Untreated Check			0.0 c	0.0 c	0.0 b	0.0 a	0.0 b	0.0 b	0.0 c	0.0 d
2 Parallel (7.8 EC)	20.7 oz ai/a	A								
3 Parallel (7.8 EC)	20.7 oz ai/a	B	2.8 bc	0.0 c	0.5 b	0.0 a	0.0 b	0.0 b		
4 Parallel (7.8 EC)	20.7 oz ai/a	C							0.0 c	1.3 cd
5 Dual II Magnum (7.64 EC)	20.7 oz ai/a	A								
6 Dual II Magnum (7.64 EC)	20.7 oz ai/a	B	5.5 ab	0.0 c	2.5 b	0.0 a	0.5 b	0.0 b		
7 Dual II Magnum (7.64 EC)	20.7 oz ai/a	C							0.0 c	2.5 bc
8 Pummel (5.25 ME)	20.7 oz ai/a	A								
9 Pummel (5.25 ME)	20.7 oz ai/a	B	1.8 c	8.5 a	11.5 a	0.8 a	13.0 a	12.8 a		
10 Pummel (5.25 ME)	20.7 oz ai/a	C							0.5 c	3.5 ab
11 Vice (5.4 EC)	25.2 oz ai/a	A								
12 Vice (5.4 EC)	25.2 oz ai/a	B	7.8 a	1.3 c	2.8 b	0.0 a	1.5 b	0.3 b		
13 Vice (5.4 EC)	25.2 oz ai/a	C							5.8 a	4.8 a
14 Prefix (5.29 EC)	24.7 oz ai/a	A								
15 Prefix (5.29 EC)	24.7 oz ai/a	B	5.8 ab	3.0 b	3.0 b	0.0 a	2.3 b	0.0 b		
16 Prefix (5.29 EC)	24.7 oz ai/a	C							2.5 b	3.0 b
17 Warrant (3 SC)	24 oz ai/a	A								
18 Warrant (3 SC)	24 oz ai/a	B	1.5 c	0.0 c	0.0 b	0.0 a	0.0 b	0.5 b		
19 Warrant (3 SC)	24 oz ai/a	C							0.0 c	0.0 d

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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	
Description	7 DAT B	14 DAT B	14 DAT B	14 DAT B	21 DAT B	21 DAT B	3 DAT C	3 DAT C	3 DAT C	
Rating Date	Jun-26-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014	Jul-10-2014	Jul-10-2014	Jun-30-2014	Jun-30-2014	Jun-30-2014	
Rating Type	PHYNEC	PHYSTU	PHYLMA	PHYNEC	PHYSTU	PHYLMA	PHYCHL	PHYNEC	PHYNEC	
Rating Unit	%	%	%	%	%	%	%	%	%	
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1	1	1	1	1	
Crop Stage Majority	V3	V8	V8	V8	R2	R2	V8	V8	V8	
Days After First/Last Applic.	20 8	27 7	27 7	27 7	34 14	34 14	24 4	24 4	24 4	
Plant-Eval Interval	34 DP-1	41 DP-1	41 DP-1	41 DP-1	48 DP-1	48 DP-1	38 DP-1	38 DP-1	38 DP-1	
Days After Emergence	28 DE-1	35 DE-1	35 DE-1	35 DE-1	42 DE-1	42 DE-1	32 DE-1	32 DE-1	32 DE-1	
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code	17	18	19	20	21	22	23	24
20 Roundup PowerMax 4.5 SL NIS	12.4 oz ae/a	A	0.0 c	0.0 c	1.5 b	0.8 a	0.0 b	0.0 b	0.0 c	0.8 d
Roundup PowerMax 4.5 SL NIS	12.4 oz ae/a	B								
Roundup PowerMax 4.5 SL NIS	12.4 oz ae/a	C								
LSD (P=.05)			2.72	1.55	2.06	1.13	1.76	1.28	1.12	1.36
Standard Deviation			1.85	1.06	1.40	0.77	1.19	0.87	0.76	0.92
CV			59.25	66.24	51.49	409.41	55.34	51.52	69.56	46.9
Bartlett's X2			5.289	3.331	7.598	0.0	3.413	5.78	1.391	5.199
P(Bartlett's X2)			0.382	0.189	0.18	.	0.332	0.056	0.499	0.392
Replicate F			0.292	1.299	3.333	0.636	0.197	1.157	1.494	0.134
Replicate Prob(F)			0.8309	0.3009	0.0391	0.5999	0.8969	0.3494	0.2452	0.9385
Treatment F			9.688	32.039	28.699	0.818	55.922	105.898	29.607	14.194
Treatment Prob(F)			0.0001	0.0001	0.0001	0.5828	0.0001	0.0001	0.0001	0.0001

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Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
BCH 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	
Description	3 DAT C	7 DAT C	7 DAT C	7 DAT C	7 DAT C	7 DAT C	14 DAT C	21 DAT C	Sep-30-2014	
Rating Date	Jun-30-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014	Jul-10-2014	Jul-17-2014		
Rating Type	PHYLMA	PHYSTU	PHYLMA	PHYNEC	PHYCHL	PHYLMA	PHYSTU	PHYSTU	YIELD	
Rating Unit	%	%	%	%	%	%	%	%	bu/ac	
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1	1	
Crop Stage Majority	V8	V8	V8	V8	V8	V8	R1	R2		
Days After First/Last Applic.	24 4	27 7	27 7	27 7	27 7	27 7	34 14	41 21	116 96	
Plant-Eval Interval	38 DP-1	41 DP-1	41 DP-1	41 DP-1	41 DP-1	41 DP-1	48 DP-1	55 DP-1	130 DP-1	
Days After Emergence	32 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1	42 DE-1	49 DE-1	124 DE-1	
Trt Treatment	Rate	Appl								
No. Name	Rate Unit	Code	25	26	27	28	29	30	31	32
1 Untreated Check			0.0 b	0.0 a	0.0 b	0.0 b	0.0 c	0.0 b	0.0 a	71.33 a
2 Parallel (7.8 EC)	20.7 oz ai/a	A								69.65 a
3 Parallel (7.8 EC)	20.7 oz ai/a	B								67.55 a
4 Parallel (7.8 EC)	20.7 oz ai/a	C	0.3 b	0.0 a	0.0 b	0.8 b	0.0 c	0.0 b	0.0 a	73.78 a
5 Dual II Magnum (7.64 EC)	20.7 oz ai/a	A								73.43 a
6 Dual II Magnum (7.64 EC)	20.7 oz ai/a	B								69.33 a
7 Dual II Magnum (7.64 EC)	20.7 oz ai/a	C	0.0 b	0.0 a	0.0 b	1.5 b	0.0 c	0.3 b	0.5 a	70.93 a
8 Pummel (5.25 ME)	20.7 oz ai/a	A								71.00 a
9 Pummel (5.25 ME)	20.7 oz ai/a	B								70.90 a
10 Pummel (5.25 ME)	20.7 oz ai/a	C	0.0 b	0.5 a	0.0 b	4.8 a	0.8 c	0.8 b	1.3 a	71.63 a
11 Vice (5.4 EC)	25.2 oz ai/a	A								66.65 a
12 Vice (5.4 EC)	25.2 oz ai/a	B								68.68 a
13 Vice (5.4 EC)	25.2 oz ai/a	C	3.5 a	1.8 a	3.0 a	4.3 a	7.0 a	3.5 a	1.8 a	65.35 a
14 Prefix (5.29 EC)	24.7 oz ai/a	A								72.88 a
15 Prefix (5.29 EC)	24.7 oz ai/a	B								73.25 a
16 Prefix (5.29 EC)	24.7 oz ai/a	C	1.8 b	0.0 a	2.0 ab	3.5 a	3.5 b	2.5 a	1.3 a	69.75 a
17 Warrant (3 SC)	24 oz ai/a	A								70.70 a
18 Warrant (3 SC)	24 oz ai/a	B								72.90 a
19 Warrant (3 SC)	24 oz ai/a	C	0.0 b	0.0 a	0.0 b	0.0 b	0.8 c	0.0 b	1.3 a	70.43 a

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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		
Description	3 DAT C	7 DAT C	7 DAT C	7 DAT C	7 DAT C	14 DAT C	21 DAT C				
Rating Date	Jun-30-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014	Jul-3-2014	Jul-10-2014	Jul-17-2014	Sep-30-2014			
Rating Type	PHYLMA	PHYSTU	PHYLMA	PHYNEC	PHYCHL	PHYLMA	PHYSTU				
Rating Unit	%	%	%	%	%	%	%	%	YIELD bu/ac		
Sample Size, Unit	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Crop Stage Majority	V8	V8	V8	V8	V8	R1	R2				
Days After First/Last Applic.	24 4	27 7	27 7	27 7	27 7	34 14	41 21	116 96			
Plant-Eval Interval	38 DP-1	41 DP-1	41 DP-1	41 DP-1	41 DP-1	48 DP-1	55 DP-1	130 DP-1			
Days After Emergence	32 DE-1	35 DE-1	35 DE-1	35 DE-1	35 DE-1	42 DE-1	49 DE-1	124 DE-1			
Trt No.	Treatment Name	Rate	Appl	25	26	27	28	29	30	31	32
		Rate Unit	Code								
20	Roundup PowerMax 4.5 SL NIS	12.4 oz ae/a	A	0.8 b	0.0 a	1.5 ab	0.8 b	0.0 c	0.0 b	0.0 a	74.55 a
	Roundup PowerMax 4.5 SL NIS	12.4 oz ae/a	B								
	Roundup PowerMax 4.5 SL NIS	12.4 oz ae/a	C								
	LSD (P=.05)			1.20	1.37	1.72	1.28	1.61	1.25	1.74	7.807
	Standard Deviation			0.81	0.93	1.17	0.87	1.10	0.85	1.18	5.520
	CV			104.16	330.61	144.32	44.88	73.1	97.39	157.36	7.8
	Bartlett's X2			3.158	1.973	1.545	3.381	4.103	3.816	2.196	27.403
	P(Bartlett's X2)			0.368	0.16	0.214	0.641	0.251	0.282	0.70	0.096
	Replicate F			0.676	0.614	1.000	2.260	0.901	2.869	2.573	0.969
	Replicate Prob(F)			0.5762	0.6132	0.4123	0.1112	0.4572	0.0608	0.0813	0.4135
	Treatment F			9.539	1.771	4.143	19.819	21.089	10.230	1.436	0.775
	Treatment Prob(F)			0.0001	0.1466	0.0052	0.0001	0.0001	0.0001	0.2436	0.7248

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ADAMA Soybean Metolachlor Crop Safety - Alone

Trial ID: 14S-THP-CTS-58 Protocol ID: 14S-THP-CTS-58
Location: Throckmorton Study Director:
Project ID: Investigator: Dr. Bill Johnson
Sponsor Contact: ADAMA - Dario Narvaez

Crop Code

GLXMA, BSOY, Glycine max, = US

Rating Type

PHYNEC = phytotoxicity - necrosis /burn

PHYLMA = phytotoxicity - leaf malformation

PHYSTU = phytotoxicity - stunting

PHYCHL = phytotoxicity - chlorosis

YIELD = yield

Rating Unit

% = percent

bu/ac = bushels per acre

PLOT = total plot

Plant-Eval Interval

17 DP-1 = 1 GLXMA May-23-2014

21 DP-1 = 1 GLXMA May-23-2014

28 DP-1 = 1 GLXMA May-23-2014

34 DP-1 = 1 GLXMA May-23-2014

41 DP-1 = 1 GLXMA May-23-2014

48 DP-1 = 1 GLXMA May-23-2014

38 DP-1 = 1 GLXMA May-23-2014

55 DP-1 = 1 GLXMA May-23-2014

130 DP-1 = 1 GLXMA May-23-2014