Purdue University

Controlling volunteer glyphosate-resistant corn in Roundup Ready soybean

Trial ID: 07S-THP-CTS-54 Protocol ID: 07S-SEP-CTS-51
Location: Throckmorton Study Director: Vince Davis / Kevin Westerfeld
Investigator: Dr. William G. Johnson

General Trial Information

Study Director: Vince Davis / Kevin Westerfeld **Title:** Research Associate
Affiliation: Purdue University
Postal Code: 47907 **E-mail:** davisv@purdue.edu/kwesterf@purdue.edu
Investigator: Dr. William G. Johnson **Title:** Associate Professor
Affiliation: Purdue University
Postal Code: 47907 **E-mail:** wgj@purdue.edu

Trial Location

City: Lafayette
State/Prov.: IN
Postal Code: 47909
Country: USA
Directions:
Field 4A

Objectives:
Controlling volunteer glyphosate-resistant corn in Roundup Ready soybeans.

Cooperator/Landowner

Cooperator: Throckmorton-Purdue Ag Center (TPAC) **Country:** USA
Organization: Purdue University **Phone No:** (765) 538-3422
Address 1: 8343 US 231 South **Fax No:** (765) 538-3423
City: Lafayette
State/Prov: IN
Postal Code: 47909

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG3305 **Description:** RR
BBCH Scale: BSOY **Planting Date:** May/01/2007
Planting Method: Direct drilled **Rate, Unit:** 150000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 60 F
Emergence Date: May/09/2007

Pest Description

Pest 1 Type: W **Code:** ZEAMX Zea mays
Common Name: Corn
Description: Corn

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed
Description: Giant Ragweed

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory
Description: Morning Glory

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

Pest 5 Type: W **Code:** CHEAL Chenopodium album
Common Name: Common lambsquarters
Description: Common Lambsquarter

Pest 6 Type: W **Code:** AMARE Amaranthus retroflexus
Common Name: Redroot pigweed
Description: Redroot Pigweed

Pest 7 Type: W **Code:** SOLPT Solanum ptycanthum
Common Name: Eastern black nightshade
Description: Eastern Black Nightshade

Pest 8 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail
Description: Giant Foxtail

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Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD
Plot Length, Unit: 30 FT **Tillage Type:** Conventional
Replications: 4 **Study Design:** Randomized Complete Block

Field Prep./Maintenance:
Field disked on 4/21/07

Soil Description

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

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

Additional Measured Elements

Element	Quantity	Unit
K	208	PPM
Mg	325	PPM
Ca	1100	PPM

Moisture and Weather Conditions

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

Application Description

	A	B
Application Date:	Jun/06/2007	Jun/21/2007
Time of Day:	3:00 PM	7:20-7:50
Application Method:	Spray	SPRAY
Application Timing:	A: EAPOWE	B: LAPOWE
Application Placement:	BROFOL	BROFOL
Applied By:	KW VM	KW VM
Air Temperature, Unit:	82 F	67 F
% Relative Humidity:	55	90
Wind Velocity, Unit:	5 MPH	CALM
Wind Direction:	W	
Dew Presence (Y/N):	N	Y
Water Hardness:	TPAC Hard	TPAC Hard
Soil Temperature, Unit:	72 F	71 F
Soil Moisture:	Moist	Dry
% Cloud Cover:	80	10

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	V3-4	R1
Height, Unit:	6 IN	11 IN
Height Minimum, Maximum:		10 12

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Pest Stage At Each Application

	A	B
Pest 1 Code, Disc., Scale:	ZEAMX W	ZEAMX W
Stage Majority, Percent:	V6	
Height, Unit:	7 IN	16 IN
Height Minimum, Maximum:	2 12	8 24
Density, Unit:	16 YD2	16 YD2
Pest 2 Code, Disc., Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:	2-5nod	2-7nod
Height, Unit:	7 IN	14 IN
Height Minimum, Maximum:	2 12	4 24
Density, Unit:	2 YD2	2 YD2
Pest 3 Code, Disc., Scale:	IPOSS W	IPOSS W
Stage Majority, Percent:	2-10lf	
Height, Unit:	6 IN	9 IN
Height Minimum, Maximum:	1 13	2 16
Density, Unit:	9 YD2	7.5 YD2
Pest 4 Code, Disc., Scale:	ABUTH W	ABUTH W
Stage Majority, Percent:	4-6 lf	
Height, Unit:	3 IN	6 IN
Height Minimum, Maximum:	1 6	2 10
Density, Unit:	1 YD2	1 YD2
Pest 5 Code, Disc., Scale:	CHEAL W	CHEAL W
Stage Majority, Percent:	4-8nod	
Height, Unit:	3 IN	8 IN
Height Minimum, Maximum:	1 6	2 14
Density, Unit:	2 YD2	1.5 YD2
Pest 6 Code, Disc., Scale:	AMARE W	AMARE W
Stage Majority, Percent:	3-7nod	
Height, Unit:	2 IN	6 IN
Height Minimum, Maximum:	1 4	2 10
Density, Unit:	1 YD2	1 YD2
Pest 7 Code, Disc., Scale:	SOLPT W	SOLPT W
Stage Majority, Percent:	5-10lf	
Height, Unit:	2 IN	3 IN
Height Minimum, Maximum:	1 3	1 5
Density, Unit:	2 YD2	1 YD2
Pest 8 Code, Disc., Scale:	SETFA W	SETFA W
Height, Unit:		10 IN
Height Minimum, Maximum:		4 16
Density, Unit:		15 YD2

Application Equipment

	A	B
Appl. Equipment:	Backpack	Backpack
Operating Pressure, Unit:	17 PSI	17 PSI
Nozzle Type:	XR11002	XR11002
Nozzle Spacing, Unit:	15 IN	15 IN
Nozzles/Row:	8	8
Boom Length, Unit:	10 FT	7.5 FT
Boom Height, Unit:	25 IN	30 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	TPAC H2O	TPAC H2O
Spray Volume, Unit:	15 GPA	15 GPA
Mix Size, Unit:	1.8 L	1.8 L
Propellant:	CO2	CO2

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Trial Comments

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Pest Type								W Weed		W Weed	W Weed	W Weed
Pest Code								ZEAMX		ZEAMX	ZEAMX	ZEAMX
Pest Name								Corn		Corn	Corn	Corn
Crop Code								GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale								BSOY	BSOY	BSOY	BSOY	BSOY
Crop Name								Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety								AG3305	AG3305	AG3305	AG3305	AG3305
Rating Date								Jun/18/2007	Jun/18/2007	Jul/02/2007	Jul/19/2007	Aug/07/2007
Rating Data Type								CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit								%	%	%	%	%
Crop Stage								V7-R1	V7-R1	R1	R3-R4	R5-R6
Crop Stage Scale								8-12"	8-12"	16-20"	20-24"	36-42"
Pest Stage								V6-V7		12-48"	24-60"	Tassel
Pest Density, Unit								9 YD2		9 YD2	9 YD2	9 YD2
Rating Timing								0 DAT	0 DAT	14 DAT	28 DAT	56 DAT
Days After First/Last Applic.								12 12	12 12	26 11	43 28	62 47
Plant-Eval Interval								48 DP-1	48 DP-1	62 DP-1	79 DP-1	98 DP-1
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Plot	1	2	3	4	5
1	Fusilade EX 2 EC	0.094	lb ai/a	6	fl oz/a	EAPOWE	A	101	75.0	0.0	90.0	90.0	95.0
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	EAPOWE	A	304	80.0	0.0	95.0	95.0	95.0
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A	603	80.0	0.0	93.0	93.0	90.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A	1002	70.0	0.0	90.0	98.0	98.0
								Mean =	76.3	0.0	92.0	94.0	94.5
2	Select Max	0.094	lb ai/a	12	fl oz/a	EAPOWE	A	102	85.0	0.0	97.0	100.0	100.0
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	EAPOWE	A	306	80.0	0.0	93.0	97.0	95.0
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A	703	85.0	0.0	95.0	95.0	95.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A	1005	70.0	0.0	90.0	97.0	99.0
								Mean =	80.0	0.0	93.8	97.3	97.3
3	Extreme	0.81	lb ai/a	3	pt/a	EAPOWE	A	103	40.0	0.0	25.0	20.0	25.0
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A	401	0.0	0.0	35.0	25.0	20.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A	604	40.0	0.0	35.0	20.0	20.0
								905	40.0	0.0	50.0	50.0	20.0
								Mean =	30.0	0.0	36.3	28.8	21.3
4	Raptor	0.039	lb ai/a	5	fl oz/a	EAPOWE	A	104	85.0	0.0	88.0	88.0	95.0
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	EAPOWE	A	305	70.0	0.0	90.0	93.0	95.0
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A	602	80.0	0.0	93.0	95.0	94.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A	1004	65.0	0.0	83.0	97.0	93.0
								Mean =	75.0	0.0	88.5	93.3	94.3
5	Assure II	0.0413	lb ai/a	6	fl oz/a	EAPOWE	A	105	80.0	0.0	98.0	98.0	99.0
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	EAPOWE	A	307	70.0	0.0	90.0	90.0	95.0
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A	701	80.0	0.0	88.0	75.0	80.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A	805	0.0	0.0	90.0	85.0	90.0
								Mean =	57.5	0.0	91.5	87.0	91.0
6	Extreme	0.81	lb ai/a	3	pt/a	EAPOWE	A	106	60.0	0.0	80.0	85.0	93.0
	Fusilade EX 2 EC	0.094	lb ai/a	6	fl oz/a	EAPOWE	A	402	0.0	0.0	90.0	88.0	90.0
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A	601	65.0	0.0	85.0	80.0	83.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A	906	65.0	0.0	83.0	80.0	75.0
								Mean =	47.5	0.0	84.5	83.3	85.3
7	Extreme	0.81	lb ai/a	3	pt/a	EAPOWE	A	107	60.0	0.0	80.0	80.0	95.0
	Select Max	0.094	lb ai/a	12	fl oz/a	EAPOWE	A	505	55.0	0.0	90.0	85.0	90.0
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A	706	70.0	0.0	85.0	75.0	85.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A	907	65.0	0.0	90.0	95.0	90.0
								Mean =	62.5	0.0	86.3	83.8	90.0

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Pest Type								W Weed		W Weed	W Weed	W Weed
Pest Code								ZEAMX		ZEAMX	ZEAMX	ZEAMX
Pest Name								Corn		Corn	Corn	Corn
Crop Code								GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale								BSOY	BSOY	BSOY	BSOY	BSOY
Crop Name								Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety								AG3305	AG3305	AG3305	AG3305	AG3305
Rating Date								Jun/18/2007	Jun/18/2007	Jul/02/2007	Jul/19/2007	Aug/07/2007
Rating Data Type								CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit								%	%	%	%	%
Crop Stage								V7-R1	V7-R1	R1	R3-R4	R5-R6
Crop Stage Scale								8-12"	8-12"	16-20"	20-24"	36-42"
Pest Stage								V6-V7		12-48"	24-60"	Tassel
Pest Density, Unit								9 YD2		9 YD2	9 YD2	9 YD2
Rating Timing								0 DAT	0 DAT	14 DAT	28 DAT	56 DAT
Days After First/Last Applic.								12 12	12 12	26 11	43 28	62 47
Plant-Eval Interval								48 DP-1	48 DP-1	62 DP-1	79 DP-1	98 DP-1
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Plot	1	2	3	4	5
8	Extreme	0.81	lb ai/a	3	pt/a	EAPOWE	A	201	70.0	0.0	90.0	98.0	95.0
	Assure II	0.0413	lb ai/a	6	fl oz/a	EAPOWE	A	501	65.0	0.0	90.0	95.0	98.0
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A	507	70.0	0.0	88.0	95.0	95.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A	806	0.0	0.0	85.0	90.0	99.0
								Mean =	51.3	0.0	88.3	94.5	96.8
9	Fusilade EX 2 EC	0.094	lb ai/a	6	fl oz/a	LAPOWE	B	202	0.0	0.0	70.0	90.0	95.0
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	LAPOWE	B	506	0.0	0.0	50.0	75.0	80.0
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B	802	50.0	0.0	60.0	88.0	90.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B	904	0.0	0.0	75.0	90.0	85.0
								Mean =	12.5	0.0	63.8	85.8	87.5
10	Select Max	0.094	lb ai/a	12	fl oz/a	LAPOWE	B	203	0.0	0.0	75.0	88.0	90.0
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	LAPOWE	B	504	0.0	0.0	75.0	78.0	80.0
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B	702	0.0	0.0	73.0	80.0	85.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B	803	80.0	0.0	70.0	80.0	90.0
								Mean =	20.0	0.0	73.3	81.5	86.3
11	Extreme	0.81	lb ai/a	3	pt/a	LAPOWE	B	204	0.0	0.0	10.0	40.0	55.0
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B	407	40.0	0.0	20.0	20.0	40.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B	606	0.0	0.0	15.0	20.0	30.0
								1001	70.0	0.0	18.0	30.0	40.0
								Mean =	27.5	0.0	15.8	27.5	41.3
12	Raptor	0.039	lb ai/a	5	fl oz/a	LAPOWE	B	205	0.0	0.0	25.0	75.0	85.0
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	LAPOWE	B	406	65.0	0.0	30.0	40.0	50.0
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B	704	0.0	0.0	35.0	55.0	60.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B	902	0.0	0.0	23.0	65.0	69.0
								Mean =	16.3	0.0	28.3	58.8	66.0
13	Assure II	0.0413	lb ai/a	6	fl oz/a	LAPOWE	B	206	0.0	0.0	35.0	80.0	85.0
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	LAPOWE	B	405	0.0	0.0	75.0	90.0	93.0
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B	607	0.0	0.0	35.0	78.0	80.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B	807	0.0	0.0	45.0	80.0	90.0
								Mean =	0.0	0.0	47.5	82.0	87.0
14	Extreme	0.81	lb ai/a	3	pt/a	LAPOWE	B	207	0.0	0.0	25.0	70.0	85.0
	Fusilade EX 2 EC	0.094	lb ai/a	6	fl oz/a	LAPOWE	B	403	0.0	0.0	50.0	78.0	80.0
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B	605	0.0	0.0	35.0	83.0	88.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B	901	0.0	0.0	30.0	80.0	69.0
								Mean =	0.0	0.0	35.0	77.8	80.5
15	Extreme	0.81	lb ai/a	3	pt/a	LAPOWE	B	301	0.0	0.0	35.0	85.0	90.0
	Select Max	0.094	lb ai/a	12	fl oz/a	LAPOWE	B	502	0.0	0.0	60.0	80.0	90.0
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B	707	0.0	0.0	70.0	90.0	95.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B	804	0.0	0.0	60.0	88.0	90.0
								Mean =	0.0	0.0	56.3	85.8	91.3

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Pest Type								W Weed		W Weed	W Weed	W Weed
Pest Code								ZEAMX		ZEAMX	ZEAMX	ZEAMX
Pest Name								Corn		Corn	Corn	Corn
Crop Code								GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale								BSOY	BSOY	BSOY	BSOY	BSOY
Crop Name								Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety								AG3305	AG3305	AG3305	AG3305	AG3305
Rating Date								Jun/18/2007	Jun/18/2007	Jul/02/2007	Jul/19/2007	Aug/07/2007
Rating Data Type								CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit								%	%	%	%	%
Crop Stage								V7-R1	V7-R1	R1	R3-R4	R5-R6
Crop Stage Scale								8-12"	8-12"	16-20"	20-24"	36-42"
Pest Stage								V6-V7		12-48"	24-60"	Tassel
Pest Density, Unit								9 YD2		9 YD2	9 YD2	9 YD2
Rating Timing								0 DAT	0 DAT	14 DAT	28 DAT	56 DAT
Days After First/Last Applic.								12 12	12 12	26 11	43 28	62 47
Plant-Eval Interval								48 DP-1	48 DP-1	62 DP-1	79 DP-1	98 DP-1
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	Plot	1	2	3	4	5
16	Extreme	0.81	lb ai/a	3	pt/a	LAPOWE	B	302	0.0	0.0	25.0	90.0	90.0
	Assure II	0.0413	lb ai/a	6	fl oz/a	LAPOWE	B	503	0.0	0.0	50.0	75.0	80.0
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B	801	0.0	0.0	40.0	85.0	88.0
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B	1003	0.0	0.0	35.0	93.0	94.0
								Mean =	0.0	0.0	37.5	85.8	88.0
17	Untreated Check							303	0.0	0.0	0.0	0.0	0.0
								404	0.0	0.0	0.0	0.0	0.0
								705	0.0	0.0	0.0	0.0	0.0
								903	0.0	0.0	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0	0.0	0.0

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Location: Throckmorton Study Director: Vince Davis / Kevin Westerfeld
Investigator: Dr. William G. Johnson

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Pest Code								ZEAMX		ZEAMX	ZEAMX	ZEAMX
Pest Name								Corn		Corn	Corn	Corn
Crop Code								GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale								BSOY	BSOY	BSOY	BSOY	BSOY
Crop Name								Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety								AG3305	AG3305	AG3305	AG3305	AG3305
Rating Date								Jun/18/2007	Jun/18/2007	Jul/02/2007	Jul/19/2007	Aug/07/2007
Rating Data Type								CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit								%	%	%	%	%
Crop Stage								V7-R1	V7-R1	R1	R3-R4	R5-R6
Crop Stage Scale								8-12"	8-12"	16-20"	20-24"	36-42"
Pest Stage								V6-V7		12-48"	24-60"	Tassel
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Days After First/Last Applic.								12 12	12 12	26 11	43 28	62 47
Plant-Eval Interval								48 DP-1	48 DP-1	62 DP-1	79 DP-1	98 DP-1
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	1	2	3	4	5
1	Fusilade EX 2 EC	0.094	lb ai/a	6	fl oz/a	EAPOWE	A	76.3 a	0.0 a	92.0 a	94.0 ab	94.5 ab
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	EAPOWE	A					
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A					
2	Select Max	0.094	lb ai/a	12	fl oz/a	EAPOWE	A	80.0 a	0.0 a	93.8 a	97.3 a	97.3 a
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	EAPOWE	A					
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A					
3	Extreme	0.81	lb ai/a	3	pt/a	EAPOWE	A	30.0 abc	0.0 a	36.3 fg	28.8 d	21.3 e
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A					
4	Raptor	0.039	lb ai/a	5	fl oz/a	EAPOWE	A	75.0 a	0.0 a	88.5 ab	93.3 ab	94.3 ab
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	EAPOWE	A					
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A					
5	Assure II	0.0413	lb ai/a	6	fl oz/a	EAPOWE	A	57.5 ab	0.0 a	91.5 a	87.0 ab	91.0 ab
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	EAPOWE	A					
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A					
6	Extreme	0.81	lb ai/a	3	pt/a	EAPOWE	A	47.5 abc	0.0 a	84.5 ab	83.3 ab	85.3 ab
	Fusilade EX 2 EC	0.094	lb ai/a	6	fl oz/a	EAPOWE	A					
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A					
7	Extreme	0.81	lb ai/a	3	pt/a	EAPOWE	A	62.5 ab	0.0 a	86.3 ab	83.8 ab	90.0 ab
	Select Max	0.094	lb ai/a	12	fl oz/a	EAPOWE	A					
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A					
8	Extreme	0.81	lb ai/a	3	pt/a	EAPOWE	A	51.3 abc	0.0 a	88.3 ab	94.5 ab	96.8 a
	Assure II	0.0413	lb ai/a	6	fl oz/a	EAPOWE	A					
	NIS	0.25	% v/v	0.25	% v/v	EAPOWE	A					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	EAPOWE	A					
9	Fusilade EX 2 EC	0.094	lb ai/a	6	fl oz/a	LAPOWE	B	12.5 bc	0.0 a	63.8 cd	85.8 ab	87.5 ab
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	LAPOWE	B					
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B					
10	Select Max	0.094	lb ai/a	12	fl oz/a	LAPOWE	B	20.0 bc	0.0 a	73.3 bc	81.5 ab	86.3 ab
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	LAPOWE	B					
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B					
11	Extreme	0.81	lb ai/a	3	pt/a	LAPOWE	B	27.5 abc	0.0 a	15.8 h	27.5 d	41.3 d
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B					

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Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	1	2	3	4	5
	Pest Type							W Weed		W Weed	W Weed	W Weed
	Pest Code							ZEAMX		ZEAMX	ZEAMX	ZEAMX
	Pest Name							Corn		Corn	Corn	Corn
	Crop Code							GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
	BBCH Scale							BSOY	BSOY	BSOY	BSOY	BSOY
	Crop Name							Soybean	Soybean	Soybean	Soybean	Soybean
	Crop Variety							AG3305	AG3305	AG3305	AG3305	AG3305
	Rating Date							Jun/18/2007	Jun/18/2007	Jul/02/2007	Jul/19/2007	Aug/07/2007
	Rating Data Type							CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
	Rating Unit							%	%	%	%	%
	Crop Stage							V7-R1	V7-R1	R1	R3-R4	R5-R6
	Crop Stage Scale							8-12"	8-12"	16-20"	20-24"	36-42"
	Pest Stage							V6-V7		12-48"	24-60"	Tassel
	Pest Density, Unit							9 YD2		9 YD2	9 YD2	9 YD2
	Rating Timing							0 DAT	0 DAT	14 DAT	28 DAT	56 DAT
	Days After First/Last Applic.							12 12	12 12	26 11	43 28	62 47
	Plant-Eval Interval							48 DP-1	48 DP-1	62 DP-1	79 DP-1	98 DP-1
12	Raptor	0.039	lb ai/a	5	fl oz/a	LAPOWE	B	16.3 bc	0.0 a	28.3 g	58.8 c	66.0 c
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	LAPOWE	B					
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B					
13	Assure II	0.0413	lb ai/a	6	fl oz/a	LAPOWE	B	0.0 c	0.0 a	47.5 ef	82.0 ab	87.0 ab
	Touchdown Total	0.78	lb ae/a	24	fl oz/a	LAPOWE	B					
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B					
14	Extreme	0.81	lb ai/a	3	pt/a	LAPOWE	B	0.0 c	0.0 a	35.0 fg	77.8 b	80.5 b
	Fusilade EX 2 EC	0.094	lb ai/a	6	fl oz/a	LAPOWE	B					
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B					
15	Extreme	0.81	lb ai/a	3	pt/a	LAPOWE	B	0.0 c	0.0 a	56.3 de	85.8 ab	91.3 ab
	Select Max	0.094	lb ai/a	12	fl oz/a	LAPOWE	B					
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B					
16	Extreme	0.81	lb ai/a	3	pt/a	LAPOWE	B	0.0 c	0.0 a	37.5 fg	85.8 ab	88.0 ab
	Assure II	0.0413	lb ai/a	6	fl oz/a	LAPOWE	B					
	NIS	0.25	% v/v	0.25	% v/v	LAPOWE	B					
	Ammonium Sulfate	17	lb ai/100 gal	17	lb/100 gal	LAPOWE	B					
17	Untreated Check							0.0 c	0.0 a	0.0 i	0.0 e	0.0 f
	LSD (P=.05)							33.12	0.00	11.34	10.23	8.44
	Standard Deviation							23.17	0.00	7.93	7.16	5.91
	CV							70.82	0.0	13.25	9.77	7.74
	Bartlett's X2							24.317	0.0	35.649	24.037	32.584
	P(Bartlett's X2)							0.011*	.	0.002*	0.064	0.005*
	Replicate F							0.220	0.000	2.857	2.657	4.413
	Replicate Prob(F)							0.8822	1.0000	0.0467	0.0589	0.0081
	Treatment F							6.615	0.000	58.276	61.128	92.405
	Treatment Prob(F)							0.0001	1.0000	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.