

Engenia Herbicide Impact to RR2 Soybean.

Trial ID: 15-26B Location: Belleville Res. Center Trial Year: 2015
Investigator: Ronald F. Krausz

Trial Status: F one-year/final
Initiation Date: 6-12-15
Completion Date: 10-17-15

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Objectives:

Demonstrate level of injury from improperly cleaned equipment and length of time since application.

Contacts

Study Director: Ronald F. Krausz **Title:** Researcher/Farm Manager
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Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG3832 **BBCH Scale:** BSOY
Description: RR2Y
Planting Date: 6-12-15
Planting Rate, Unit: 140000 S/A **Planting Method:** SEEDED
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN

Pest Description

Pest 1 Type: W **Code:** NA
Common Name: crop tolerance only

Site and Design

Treated Plot Width: 10 FT **Total Plot Width:** 20 FT **Site Type:** FIELD
Treated Plot Length: 50 FT **Total Plot Length:** 50 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 1 **Study Design:** NONRAN Non-Randomized
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2014

Maintenance

No.	Maintenance Product Name
1.	N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A

Soil Description

Description Name: 26B 2013
% OM: 2.7 **Texture:** SIL silt loam
pH: 6.8 **Soil Name:** Pierron
CEC: 7

Additional Measured Elements

Element	Quantity	Unit
P1	59	lb/A
K	282	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: ABONOR
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

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No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-29-15					7	DAY	36	84	F
2.	5-6-15					7	DAY	49	85	F
3.	5-8-15	4.09	IN	RAIN	rain	4	DAY			
4.	5-13-15					7	DAY	45	83	F
5.	5-14-15	0.33	IN	RAIN	rain	4	DAY			
6.	5-20-15					7	DAY	44	85	F
7.	5-20-15	0.16	IN	RAIN	rain	1	DAY			
8.	5-24-15	0.89	IN	RAIN	rain	1	DAY			
9.	5-26-15	0.59	IN	RAIN	rain	2	DAY			
10.	5-27-15					7	DAY	55	84	F
11.	5-29-15	2.15	IN	RAIN	rain	2	DAY			
12.	6-3-15					7	DAY	53	89	F
13.	6-5-15	0.17	IN	RAIN	rain	1	DAY			
14.	6-8-15	0.66	IN	RAIN	rain	1	DAY			
15.	6-10-15					7	DAY	64	91	F
16.	6-14-15	0.16	IN	RAIN	rain	1	DAY			
17.	6-15-15	0.11	IN	RAIN	rain	1	DAY			
18.	6-16-15	2.25	IN	RAIN	rain	1	DAY			
19.	6-17-15					7	DAY	69	91	F
20.	6-17-15	0.09	IN	RAIN	rain	1	DAY			
21.	6-18-15	0.14	IN	RAIN	rain	1	DAY			
22.	6-19-15	3.29	IN	RAIN	rain	1	DAY			
23.	6-20-15	0.2	IN	RAIN	rain	2	DAY			
24.	6-24-15					7	DAY	62	93	F
25.	6-25-15	1.66	IN	RAIN	rain	2	DAY			
26.	6-28-15	0.6	IN	RAIN	rain	2	DAY			
27.	7-1-15					7	DAY	63	88	F
28.	7-1-15	0.64	IN	RAIN	rain	2	DAY			
29.	7-7-15	1.33	IN	RAIN	rain	2	DAY			
30.	7-8-15					7	DAY	59	97	F
31.	7-10-15	0.26	IN	RAIN	rain	1	DAY			
32.	7-15-15					7	DAY	69	93	F
33.	7-19-15	0.35	IN	RAIN	rain	2	DAY			
34.	7-22-15					7	DAY	65	95	F
35.	7-26-15	1.21	IN	RAIN	rain	3	DAY			
36.	7-29-15					7	DAY	65	93	F
37.	8-5-15					7	DAY	64	88	F
38.	8-5-15	2.25	IN	RAIN	rain	1	DAY			
39.	8-9-15	0.47	IN	RAIN	rain	1	DAY			
40.	8-12-15					7	DAY	63	89	F
41.	8-18-15	2.23	IN	RAIN	rain	2	DAY			
42.	8-19-15					7	DAY	52	82	F
43.	8-22-15	0.18	IN	RAIN	rain	1	DAY			
44.	8-26-15					7	DAY	54	91	F
45.	9-2-15					7	DAY	68	94	F
46.	9-8-15	1.93	IN	RAIN	rain	2	DAY			
47.	9-9-15					7	DAY	47	83	F
48.	9-11-15	0.4	IN	RAIN	rain	1	DAY			
49.	9-16-15					7	DAY	51	90	F
50.	9-19-15	0.14	IN	RAIN	rain	1	DAY			
51.	9-23-15					7	DAY	54	85	F
52.	9-28-15	0.13	IN	RAIN	rain	1	DAY			

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Application Description

	A	B	C
Application Date:	7-10-15	7-17-15	7-21-15
Appl. Start Time:	16:00	7:45	14:00
Appl. Stop Time:	16:30	8:00	14:30
Application Method:	Spray	Spray	Spray
Application Timing:	V3-V4	V6	R2
Application Placement:	BROFOL	BROFOL	BROFOL
Applied By:	RFK	KNW	EAE
Air Temperature, Unit:	79 F	84 F	83 F
% Relative Humidity:	77	80	55
Wind Velocity, Unit:	2 MPH	8 MPH	5 MPH
Wind Direction:	E	S	N
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	76 F	79 F	80 F
Soil Moisture:	ABONOR	NORMAL	NORMAL
% Cloud Cover:	50	20	25
Next Moisture Occurred On:	7-19-15	7-19-15	7-26-15
Time to Next Moisture, Unit:	9 DAY	2 DAY	5 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	V4	V6	R2
Stage Minimum, Percent:	V3	V5	R2
Stage Maximum, Percent:	V4	V6	R2
Height, Unit:	7 IN	12 IN	14 IN
Height Minimum, Maximum:	6 7	10 12	12 14

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	NA W	NA W	NA W
Stage Majority, Percent:	NA	NA	NA

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	35 PSI	35 PSI	35 PSI
Nozzle Type:	TTI	TTI	TTI
Nozzle Size:	11002	11002	11002
Boom Length, Unit:	10 FT	10 FT	10 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval							GLXMA 10-17-15 Moisture Percent	GLXMA 10-17-15 Test wt. lb/bu	GLXMA 10-17-15 Yield bu/A	GLXMA Stunt Percent 14 DAT	GLXMA Malform. Percent 14 DAT	GLXMA Stunt Percent 21 DAT	GLXMA Malform. Percent 21 DAT				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Unit	Appl Stage	Code								
1	NONTREATED									10.2	58.5	55	0	0	0	0	
2	ENGENIA NIS (ACTIVATOR 90)	5 SL 100 SL		0.128 fl oz/a 0.25 % v/v	5.6 g ai/ha 0.25 % v/v		V3-V4 V3-V4	A A		9.7	58.9	58	35	75	45	50	
3	ENGENIA NIS (ACTIVATOR 90)	5 SL 100 SL		0.0128 fl oz/a 0.25 % v/v	0.56 g ai/ha 0.25 % v/v		V3-V4 V3-V4	A A		10.1	58.6	61	10	10	10	5	
4	ENGENIA NIS (ACTIVATOR 90)	5 SL 100 SL		0.128 fl oz/a 0.25 % v/v	5.6 g ai/ha 0.25 % v/v		V6 V6	B B		10.1	58.6	48	50	50	50	10	
5	ENGENIA NIS (ACTIVATOR 90)	5 SL 100 SL		0.0128 fl oz/a 0.25 % v/v	0.56 g ai/ha 0.25 % v/v		V6 V6	B B		10.0	58.6	61	25	10	10	10	
6	ENGENIA NIS (ACTIVATOR 90)	5 SL 100 SL		0.128 fl oz/a 0.25 % v/v	5.6 g ai/ha 0.25 % v/v		R2 R2	C C		10.3	58.4	37	10	10	25	10	
7	ENGENIA NIS (ACTIVATOR 90)	5 SL 100 SL		0.0128 fl oz/a 0.25 % v/v	0.56 g ai/ha 0.25 % v/v		R2 R2	C C		10.4	58.3	58	10	5	10	5	
LSD P=.05																	
Standard Deviation																	
CV																	

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Could not calculate LSD (% mean diff) for columns 6,7,9,10,11,12,13 because error mean square = 0.

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Trial Comments

1. Protocol: BASF (MKD-H-2015-US-D0J-A-01).
2. Ratings:
CI 14 and 21 DAT (days after A, B, and C). No WC ratings, weedfree.
3. Yield not requested, destroy grain from treated plots.
4. Blanket PRE application of Authority First (6.4 oz/A) plus Dual Magnum (1.33 pt/A) to all plots.
Blanket POST application of Roundup Powermax as needed, to all plots, keep weedfree.
5. Photos 14 and 21 DA-C.
6. DAT = Days after various applications.
Ratings at 14 days after applications at V3-V4, V6, and R2 were on 7-24-15, 7-31-15, and 8-4-15, respectively.
Ratings at 21 days after applications at V3-V4, V6, and R2 were on 7-31-15, 8-7-15, and 8-11-15, respectively.
7. Rainfall following the V3-V4 application 0.35 inch over 2 days beginning 9 days later.
Rainfall following the V6 application 0.35 inch over 2 days beginning 2 days later.
Rainfall following the R2 application 1.21 inch over 3 days beginning 5 days later.
8. GLXMA, Malform. = Soybean leaf malformation, mostly cupping.
9. Harvested 10-17-15, (2) 30 inch rows by 47 ft.