

Southern Illinois University

Zidua Combinations with Dupont Herbicides in Soybean.

Trial ID: 13-51E-S70 Location: Belleville Res. Center Trial Year: 2013
Investigator: Bryan Young

Trial Status: F one-year/final Initiation Date: 7-12-13 Completion Date: 9-6-13		Trial Location
City: Belleville State/Prov.: Illinois IL Postal Code: 62221	Country: USA	

Objectives:
Evaluate the efficacy of Zidua applied in combination with Envive, Canopy or DPX-R5W13.

Study Director: Bryan Young Organization: Southern Illinois University Address: 1205 Lincoln Drive - AG 176 - MC 4415 City+State/Prov: Carbondale IL Postal Code: 62901 Country: USA		Title: Professor Phone No.: 618-453-7679 Mobile No.: 618-713-6471 E-mail: bgyoung@siu.edu
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Crop 1: GLXMA Glycine max Soybean Variety: AG3832 BBCH Scale: BSOY Description: RR2Y		Crop Description
Planting Rate, Unit: 75 LB/A Depth, Unit: 1 IN Row Spacing, Unit: 30 IN	Planting Date: 7-12-13 Planting Method: SEEDED	

Pest 1 Type: W Code: IPOHE Ipomoea hederacea (L.) Jacq. Common Name: morningglory, ivyleaf		Pest Description
Pest 2 Type: W Code: AMBTR Ambrosia trifida L. Common Name: ragweed, giant		
Pest 3 Type: W Code: AMATA Amaranthus rudis Sauer Common Name: waterhemp, common		

Treated Plot Width: 7.5 FT Total Plot Width: 10 FT Treated Plot Length: 27 FT Total Plot Length: 27 FT		Site and Design Site Type: FIELD Experimental Unit: 1 PLOT Tillage Type: REDTIL reduced-till Study Design: RACOB L Randomized Complete Block (RCB)						
Replications: 3 Untreated Arrangement: INCLUDED single control randomized in each block								
<table border="1"> <thead> <tr> <th>No.</th> <th>Previous Crop</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>ZEAMD</td> <td>2012</td> </tr> </tbody> </table>			No.	Previous Crop	Year	1.	ZEAMD	2012
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1.	ZEAMD	2012						

Maintenance					
<table border="1"> <thead> <tr> <th>No.</th> <th>Maintenance Product Name</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>N 0 LB/A, P2O5 0 LB/A, K2O 100 LB/A</td> </tr> </tbody> </table>	No.	Maintenance Product Name	1.	N 0 LB/A, P2O5 0 LB/A, K2O 100 LB/A	
No.	Maintenance Product Name				
1.	N 0 LB/A, P2O5 0 LB/A, K2O 100 LB/A				

% OM: 2.8 Texture: SIL silt loam pH: 6.1 Soil Name: Pierron CEC: 10		Soil Description									
<table border="1"> <thead> <tr> <th>Element</th> <th>Quantity</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>P1</td> <td>87</td> <td>lb/A</td> </tr> <tr> <td>K</td> <td>343</td> <td>lb/A</td> </tr> </tbody> </table>		Element	Quantity	Unit	P1	87	lb/A	K	343	lb/A	Additional Measured Elements
Element	Quantity	Unit									
P1	87	lb/A									
K	343	lb/A									

Overall Moisture Conditions: ABONOR Closest Weather Station: ICN - Belleville IL		Moisture and Weather Conditions 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.	6-2-13					7	DAY	50	80	F
2.	6-9-13					7	DAY	59	94	F
3.	6-10-13	0.48	IN	RAIN	rain	2	DAY			
4.	6-16-13					7	DAY	61	90	F
5.	6-17-13	2.16	IN	RAIN	rain	3	DAY			
6.	6-23-13					7	DAY	64	92	F
7.	6-23-13	5.33	IN	RAIN	rain	2	DAY			
8.	6-26-13	0.46	IN	RAIN	rain	1	DAY			
9.	6-29-13	0.19	IN	RAIN	rain	2	DAY			
10.	6-30-13					7	DAY	61	86	F
11.	7-2-13	2.08	IN	RAIN	rain	2	DAY			
12.	7-7-13					7	DAY	62	94	F
13.	7-10-13	0.2	IN	RAIN	rain	1	DAY			
14.	7-14-13					7	DAY	64	94	F
15.	7-15-13	0.03	IN	RAIN	rain	1	DAY			
16.	7-20-13	0.59	IN	RAIN	rain	1	DAY			
17.	7-21-13					7	DAY	56	91	F
18.	7-26-13	0.03	IN	RAIN	rain	1	DAY			
19.	7-28-13					7	DAY	52	87	F
20.	7-30-13	0.46	IN	RAIN	rain	1	DAY			
21.	8-2-13	0.24	IN	RAIN	rain	1	DAY			
22.	8-4-13					7	DAY	62	87	F
23.	8-8-13	0.03	IN	RAIN	rain	3	DAY			
24.	8-11-13					7	DAY	54	85	F
25.	8-12-13	0.57	IN	RAIN	rain	1	DAY			
26.	8-18-13	0.1	IN	RAIN	rain	1	DAY			
27.	8-18-13					7	DAY	61	91	F

Application Description

	A	B
Application Date:	7-13-13	8-7-13
Appl. Start Time:	6:30	10:30
Appl. Stop Time:	7:00	11:00
Application Method:	Spray	Spray
Application Timing:	PRE	POST
Application Placement:	BROSOI	BROFOL
Applied By:	NTH	NTH
Air Temperature, Unit:	70 F	74 F
% Relative Humidity:	81	94
Wind Velocity, Unit:	2 MPH	3 MPH
Wind Direction:	E	NE
Dew Presence (Y/N):	Y	N
Soil Temperature, Unit:	76 F	75 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	0	70
Next Moisture Occurred On:	7-20-13	8-8-13
Time to Next Moisture, Unit:	7 DAY	1 DAY

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	NA	V5
Stage Minimum, Percent:		V4
Stage Maximum, Percent:		V5
Height, Unit:		12 IN
Height Minimum, Maximum:		10 12

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Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	IPOHE W	IPOHE W
Stage Majority, Percent:	NA	6
Stage Minimum, Percent:		COTY
Stage Maximum, Percent:		25
Height, Unit:		5 IN
Height Minimum, Maximum:		0.5 18
Density, Unit:		1 FT2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:	NA	8
Stage Minimum, Percent:		2
Stage Maximum, Percent:		14
Height, Unit:		4 IN
Height Minimum, Maximum:		1 16
Density, Unit:		1 FT2
Pest 3 Code, Type, Scale:	AMATA W	AMATA W
Stage Majority, Percent:	NA	4
Stage Minimum, Percent:		COTY
Stage Maximum, Percent:		10
Height, Unit:		3 IN
Height Minimum, Maximum:		0.5 8
Density, Unit:		0.25 FT2

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	XR	XR
Nozzle Size:	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval										GLXMA 7-26-13 Injury Percent 14 DAP 13 DA-A	GLXMA 8-7-13 Injury Percent 26 DAP 0 DA-B	GLXMA 9-6-13 Injury Percent 30 DA-B	IPOHE 7-26-13 Control Percent 14 DAP 13 DA-A	IPOHE 8-7-13 Control Percent 26 DAP 0 DA-B	IPOHE 9-6-13 Control Percent 30 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	ENVIVE ZIDUA ABUNDIT EXTRA AMS	41.3 85 3 100	WG WG SL SG	0.09 0.08 0.75 2	lb ai/a lb ai/a lb ae/a lb/a	3.5 1.5 32 fl 2	oz/a oz/a oz/a lb/a	PRE PRE POST POST	A A B B	0 a	3 bc	0 a	92 a	95 a	95 a
2	ENVIVE ABUNDIT EXTRA AMS	41.3 3 100	WG SL SG	0.09 0.75 2	lb ai/a lb ae/a lb/a	3.5 32 fl 2	oz/a oz/a lb/a	PRE POST POST	A B B	0 a	3 bc	0 a	91 ab	96 a	95 a
3	CANOPY ZIDUA ABUNDIT EXTRA AMS	75 85 3 100	WG WG SL SG	0.188 0.08 0.75 2	lb ai/a lb ai/a lb ae/a lb/a	4 1.5 32 fl 2	oz/a oz/a oz/a lb/a	PRE PRE POST POST	A A B B	0 a	4 b	0 a	78 abc	94 a	93 ab
4	CANOPY FIERCE ABUNDIT EXTRA AMS	75 76 3 100	WG WG SL SG	0.188 0.095 0.75 2	lb ai/a lb ai/a lb ae/a lb/a	4 2 32 fl 2	oz/a oz/a oz/a lb/a	PRE PRE POST POST	A A B B	0 a	5 b	0 a	84 abc	95 a	94 ab
5	CANOPY CINCH ABUNDIT EXTRA AMS	75 7.64 3 100	WG SC SL SG	0.188 0.955 0.75 2	lb ai/a lb ai/a lb ae/a lb/a	4 1 32 fl 2	oz/a pt/a oz/a lb/a	PRE PRE POST POST	A A B B	0 a	1 cd	0 a	58 d	88 a	94 ab
6	CANOPY ABUNDIT EXTRA AMS	75 3 100	WG SL SG	0.188 0.75 2	lb ai/a lb ae/a lb/a	4 32 fl 2	oz/a oz/a lb/a	PRE POST POST	A B B	0 a	3 bc	0 a	76 bc	95 a	96 a
7	DPX-R5W13 ZIDUA ABUNDIT EXTRA AMS	61.3 85 3 100	WG WG SL SG	0.307 0.08 0.75 2	lb ai/a lb ai/a lb ae/a lb/a	8 1.5 32 fl 2	oz/a oz/a oz/a lb/a	PRE PRE POST POST	A A B B	0 a	4 b	0 a	92 a	97 a	97 a
8	DPX-R5W13 ABUNDIT EXTRA AMS	61.3 3 100	WG SL SG	0.307 0.75 2	lb ai/a lb ae/a lb/a	8 32 fl 2	oz/a oz/a lb/a	PRE POST POST	A B B	0 a	1 cd	0 a	87 abc	96 a	96 a
9	CANOPY ZIDUA ABUNDIT EXTRA AMS	75 85 3 100	WG WG SL SG	0.28 0.08 0.75 2	lb ai/a lb ai/a lb ae/a lb/a	6 1.5 32 fl 2	oz/a oz/a oz/a lb/a	PRE PRE POST POST	A A B B	0 a	10 a	0 a	85 abc	96 a	95 a
10	CANOPY CINCH ABUNDIT EXTRA AMS	75 7.64 3 100	WG SC SL SG	0.28 0.955 0.75 2	lb ai/a lb ai/a lb ae/a lb/a	6 1 32 fl 2	oz/a pt/a oz/a lb/a	PRE PRE POST POST	A A B B	0 a	4 bc	0 a	77 abc	95 a	96 a
11	CANOPY ABUNDIT EXTRA AMS	75 3 100	WG SL SG	0.28 0.75 2	lb ai/a lb ae/a lb/a	6 32 fl 2	oz/a oz/a lb/a	PRE POST POST	A B B	0 a	4 b	0 a	73 cd	90 a	90 b
12	ZIDUA ABUNDIT EXTRA AMS	85 3 100	WG SL SG	0.106 0.75 2	lb ai/a lb ae/a lb/a	2 32 fl 2	oz/a oz/a lb/a	PRE POST POST	A B B	0 a	0 d	0 a	0 e	25 b	68 c
13	FIERCE ABUNDIT EXTRA AMS	76 3 100	WG SL SG	0.143 0.75 2	lb ai/a lb ae/a lb/a	3 32 fl 2	oz/a oz/a lb/a	PRE POST POST	A B B	0 a	0 d	0 a	80 abc	87 a	97 a

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.

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Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit	Other Rate	Other Unit	Growth Stage	Appl Code	
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Pest Code										AMBTR	AMBTR	AMATA	AMATA
Crop Code										8-7-13	9-6-13	8-7-13	9-6-13
Rating Date										Control	Control	Control	Control
Rating Type										Percent	Percent	Percent	Percent
Rating Unit										26 DAP	30 DA-B	26 DAP	30 DA-B
Rating Timing										0 DA-B	30 DA-B	0 DA-B	30 DA-B
Trt-Eval Interval													
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit Unit	Other Rate	Other Rate	Growth Unit	Appl Stage	Code			
14	NONTREATED										0 c	0 b	0 c
LSD (P=.05)											14.6	0.5	2.5
Standard Deviation											8.7	0.3	1.5
CV											10.06	0.3	1.61
Replicate F											0.636	0.000	0.527
Replicate Prob(F)											0.5373	1.0000	0.5965
Treatment F											28.708	27261.146	958.892
Treatment Prob(F)											0.0001	0.0001	0.0001

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Trial Comments

1. Protocol: Dupont (13-116).
2. Ratings: CI/WC at 14 and 28 DAP (or prior to POST) and CI/WC at 28 DA-B.
3. No yield.
4. Following the PRE application the first rainfall event, beginning 7 days later, was 0.59 inch over 1 day.
5. Crop injury was stunting.
6. Not harvested.