

Zidua Preemergence in Corn.

Trial ID: 11-DSO-ZiduaCN Location: De Soto, IL

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: De Soto IL 62924 USA
 Trial Status: FINAL Initiation Date: 5-20-11

Objectives: Evaluate glyphosate-resistant waterhemp control from Zidua compared with competitive standards.

Crop 1: ZEAMD Dent corn Variety: DKC 61-21 GENSS Description: RR2/LL
 Planting Method: SEEDED Planting Date: 5-20-11
 Rate, Unit: 28000 S/A Depth, Unit: 1.5 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common
 Pest Description: glyphosate-resistant waterhemp
 Pest 2 Type: W Code: PANDI Panicum dichotomiflorum Michx. panicum, fall

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 30 FT Tillage Type: NO-TILL
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year
 1. GLXMA 2010

Field Prep./Maintenance: N 177 LB/A, P205 69 LB/A, K20 90 LB/A

% Sand: 14 % OM: 2.2 Texture: SILT LOAM
 % Silt: 67 pH: 6.4 Soil Name: OKAW
 % Clay: 19 CEC: 11.3 Fert. Level: P1 33 LB/A, K 257 LB/A

Application Description

A
 Application Date: 5-20-11
 Time of Day: 14:45
 Application Method: Spray
 Application Timing: PRE
 Application Placement: BROSOI
 Applied By: LAH
 Air Temperature, Unit: 84 F
 % Relative Humidity: 44
 Wind Velocity, Unit: 5 MPH
 Wind Direction: SE
 Dew Presence (Y/N): N
 Soil Temperature, Unit: 75 F
 Soil Moisture: ABONOR
 % Cloud Cover: 50

20-5-11
 Crop stage at application: NA

Pest Stage At Each Application

Application Date: 5-20-11
 Weed Code: AMATA
 Stage Majority (leaves): NA
 Weed Code: PANDI
 Stage Majority (leaves): NA

Application Equipment

Appl. Equipment: CO2 sprayer
 Operating Pressure: 30 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 8002
 Boom Length, Unit: 6.67 FT
 Spray Volume, Unit: 15 GPA

Zidua Preemergence in Corn.

Trial ID: 11-DSO-ZiduaCN Location: De Soto, IL

Pest Code												AMATA-HR	AMATA-HR	AMATA-HR							
Crop Code												ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD					
Rating Date												9-30-11	9-30-11	9-30-11	6-1-11	6-22-11					
Rating Data Type												Moisture	Test wt.	Yield	Injury	Injury					
Rating Unit												Percent	lb/bu	bu/A	Percent	Percent					
Rating Timing												7 DAE		28 DAE		14 DAE		28 DAE		56 DAE	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code												
1	NONTREATED									16.6 a	58.5 a	68 b	0 a	0 a	0 b	0 c	0 c				
2	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A	17.8 a	58.1 a	131 a	0 a	0 a	99 a	98 a	97 a				
2	AATREX	4	SC	1.5	lb ai/a	1.5	qt/a	PRE	A												
3	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A	17.6 a	58.2 a	123 a	0 a	0 a	99 a	98 ab	97 ab				
3	AATREX	4	SC	1.5	lb ai/a	1.5	qt/a	PRE	A												
3	SHARPEN	2.85	SC	0.0557	lb ai/a	2.5	fl oz/a	PRE	A												
4	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	16.8 a	58.6 a	126 a	0 a	0 a	99 a	97 b	96 ab				
5	BICEP II MAGNUM	5.5	SC	3.3	lb ai/a	2.4	qt/a	PRE	A	17.6 a	58.2 a	131 a	0 a	0 a	99 a	97 ab	96 b				
LSD (P=.05)										2.40	0.93	21.0	0.0	0.0	0.0	1.1	1.2				
Replicate F										3.594	4.729	0.150	0.000	0.000	0.000	3.619	2.667				
Replicate Prob(F)										0.0770	0.0441	0.8632	1.0000	1.0000	1.0000	0.0760	0.1296				
Treatment F										0.563	0.554	17.425	0.000	0.000	0.000	16243.144	14018.751				
Treatment Prob(F)										0.6967	0.7024	0.0005	1.0000	1.0000	1.0000	0.0001	0.0001				

Means followed by same letter do not significantly differ (P=.05, LSD)

Zidua Preemergence in Corn.

Trial ID: 11-DSO-ZiduaCN

Location: De Soto, IL

Pest Code		PANDI	PANDI	PANDI
Crop Code				
Rating Date		6-8-11	6-22-11	7-20-11
Rating Data Type		Control	Control	Control
Rating Unit		Percent	Percent	Percent
Rating Timing				
Trt-Eval Interval		14 DAE	28 DAE	56 DAE

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED									0 b	0 b	0 b
2	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A	99 a	97 a	95 a
2	AATREX	4	SC	1.5	lb ai/a	1.5	qt/a	PRE	A			
3	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A	99 a	96 a	94 a
3	AATREX	4	SC	1.5	lb ai/a	1.5	qt/a	PRE	A			
3	SHARPEN	2.85	SC	0.0557	lb ai/a	2.5	fl oz/a	PRE	A			
4	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	99 a	96 a	93 a
5	BICEP II MAGNUM	5.5	SC	3.3	lb ai/a	2.4	qt/a	PRE	A	98 a	96 a	95 a
LSD (P=.05)										1.0	2.0	2.5
Replicate F										1.000	0.545	2.863
Replicate Prob(F)										0.4096	0.5997	0.1154
Treatment F										21979.002	5027.364	3147.412
Treatment Prob(F)										0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: BASF.
2. Ratings: CI at 5-7 DAE; WC 2, 4, 8 WAE.
3. Yield, plan to destroy grain in some plots.
4. Blanket application of Roundup WeatherMax (22 fl oz/A) + 2,4-D LV4 (1 pt/A) + NPAK AMS (2.5 %v/v) was applied to all plots on 4-2-11.
Blanket burndown application of Roundup WeatherMax (22 fl oz/A) was applied to all plots on 5-19-11.
Blanket burndown application of Gramoxone Inteon (3.5 pt/A) plus COC (1% v/v) was applied to all plots on 5-20-11.
5. AMATA-HR = Herbicide-resistant waterhemp (glyphosate).
6. Rainfall for the week prior to planting and the PRE application was 1.2 inch.
Rainfall (weekly totals) for the the next six weeks were 2.18, 0, 0, 0.75, 1.81, and 4.38 inch.
7. Harvested 9-30-11, (2) 30 inch rows by 26.5 ft.