

Evaluation of Endigo ZC for Control of Japanese Beetle Silk Clipping in Corn.

Trial ID: 10-18-E80

Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
City State Zip Country: Belleville IL 62221 USA
Trial Status: FINAL **Initiation Date:** 05-31-10

Objectives: To compare Endigo ZC to Warrior II for crop tolerance and control of silk clipping insects.

Crop 1: ZEAMD Dent corn **Variety:** DKC 64-82 **Description:** RR2
Planting Method: SEEDED **Planting Date:** 05-31-10
Rate, Unit: 28000 S/A **Depth, Unit:** 1.5 IN
Row Spacing, Unit: 30 IN

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

Prior Crops, Year
 1. GLXMA 2009

Field Prep./Maintenance: N 150 LB/A, P205 0 LB/A, K20 0 LB/A

% OM: 1.9 **Texture:** SILT LOAM
pH: 7 **Soil Name:** BETHALTO
CEC: 12 **Fert. Level:** P1 89 LB/A, K 359 LB/A

Application Description**A**

Application Date: 07-21-10
Time of Day: 12:30
Application Method: Spray
Application Timing: ESILK
Application Placement: BROFOL
Applied By: JRK
Air Temperature, Unit: 87 F
% Relative Humidity: 70
Wind Velocity, Unit: 4 MPH
Wind Direction: SW
Dew Presence (Y/N): N
Soil Moisture: ABONOR
% Cloud Cover: 60

Crop stage at application: 07-21-10
 SILK
Height Min, Max (inch): 96 98

Pest Stage At Each Application

Application Date: 07-21-10
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: 5 FT
Spray Volume, Unit: 20 GPA

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Pest Code	Crop Code	Rating Date	Rating Data Type	Rating Unit	Rating Timing	Trt-Eval Interval	ZEAMD 10-14-10	ZEAMD 10-14-10	ZEAMD 10-14-10	ZEAMD 07-28-10	ZEAMD 07-20-10	ZEAMD 07-24-10	ZEAMD 07-28-10	ZEAMD 08-04-10
							Moisture Percent	Test wt. lb/bu	Yield bu/A	Phytotoxic Percent	Insect /Plant	Insect /Plant	Insect /Plant	Insect /Plant
							7 DA-A	-1 DA-A	3 DA-A	7 DA-A	14 DA-A			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	NONTREATED									13.3 b	61.5 a	124 a	0 a	0 a
2	ENDIGO	2.06	ZC	0.0724	lb ai/a	4.5	fl oz/a	ESILK	A	13.5 b	61.3 a	120 a	0 a	0 a
2	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A					
3	WARRIOR II	2.09	CS	0.0314	lb ai/a	1.92	fl oz/a	ESILK	A	13.3 b	61.5 a	123 a	0 a	0 a
3	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A					
4	HERO	1.24	EC	0.068	lb ai/a	7	fl oz/a	ESILK	A	13.5 b	61.3 a	125 a	0 a	0 a
4	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A					
5	ENDIGO	2.06	ZC	0.0724	lb ai/a	4.5	fl oz/a	ESILK	A	14.7 a	60.2 b	137 a	0 a	0 a
5	QUILT XCEL	2.2	SC	0.18	lb ai/a	10.5	fl oz/a	ESILK	A					
5	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A					
6	WARRIOR II	2.09	CS	0.0314	lb ai/a	1.92	fl oz/a	ESILK	A	14.7 a	60.2 b	137 a	0 a	0 a
6	QUILT XCEL	2.2	SC	0.18	lb ai/a	10.5	fl oz/a	ESILK	A					
6	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A					
7	QUILT XCEL	2.2	SC	0.18	lb ai/a	10.5	fl oz/a	ESILK	A	14.5 a	60.3 b	124 a	0 a	0 a
7	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A					
LSD (P=.05)										0.38	0.30	24.7	0.0	0.0
Replicate F										5.372	6.455	0.512	0.000	0.000
Replicate Prob(F)										0.0081	0.0037	0.6793	1.0000	1.0000
Treatment F										27.341	40.252	0.651	0.000	0.000
Treatment Prob(F)										0.0001	0.0001	0.6894	1.0000	1.0000

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

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Pest Code		
Crop Code		
Rating Date	ZEAMD 07-28-10	ZEAMD 08-04-10
Rating Data Type	Silk Clip	Silk Clip
Rating Unit	Percent	Percent
Rating Timing		
Trt-Eval Interval	7 DA-A	14 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	NONTREATED									0 a	0 a
2	ENDIGO	2.06	ZC	0.0724	lb ai/a	4.5	fl oz/a	ESILK	A	0 a	0 a
2	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A		
3	WARRIOR II	2.09	CS	0.0314	lb ai/a	1.92	fl oz/a	ESILK	A	0 a	0 a
3	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A		
4	HERO	1.24	EC	0.068	lb ai/a	7	fl oz/a	ESILK	A	0 a	0 a
4	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A		
5	ENDIGO	2.06	ZC	0.0724	lb ai/a	4.5	fl oz/a	ESILK	A	0 a	0 a
5	QUILT XCEL	2.2	SC	0.18	lb ai/a	10.5	fl oz/a	ESILK	A		
5	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A		
6	WARRIOR II	2.09	CS	0.0314	lb ai/a	1.92	fl oz/a	ESILK	A	0 a	0 a
6	QUILT XCEL	2.2	SC	0.18	lb ai/a	10.5	fl oz/a	ESILK	A		
6	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A		
7	QUILT XCEL	2.2	SC	0.18	lb ai/a	10.5	fl oz/a	ESILK	A	0 a	0 a
7	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	ESILK	A		
LSD (P=.05)										0.0	0.0
Replicate F										0.000	0.000
Replicate Prob(F)										1.0000	1.0000
Treatment F										0.000	0.000
Treatment Prob(F)										1.0000	1.0000

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

Trial Comments

1. Protocol: Syngenta (TH002A).
2. Ratings: Insect counts at 1, 3, 7, and 14 DAT (evaluate 10 ears/plot);
Percent silk clipping at 3, 7, and 14 DAT; Percent phytotoxicity at 7 DAT.
3. Yield required.
4. Application timing should be early to mid-silk.
5. Blanket PRE application of Lumax (6 pt/A) and Aatrex 4L (2.5 pt/A) was applied on 6/1/10.
6. Harvested 10-14-10, (2) 30 inch rows by 27 ft.