

Evaluation of Quilt Xcel Formulation in Corn.

Trial ID: 09-23M-S90

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: 06-24-09

Objectives: Evalaute Quilt versus Headline, Stratego and Twinline for activity
 on corn diseases, corn safety and yield.

Crop 1: ZEAMD Dent corn	Variety: DKC 61-69	Description: RR2 (VT3)
Planting Method: SEEDED	Planting Date: 06-24-09	
Rate, Unit: 28000 S/A	Depth, Unit: 1.5 IN	
Row Spacing, Unit: 30 IN	Seed Bed: MEDIUM/TRASHY	

Pest 1 Type: D	Code: CERCZM	Cercospora zeae-maydis	Gray leaf spot of corn
Pest 2 Type: D	Code: PUCCPY	Puccinia polysora	Southern rust of corn

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

Prior Crops, Year
 1. ZEAMD 2008

Field Prep./Maintenance: N 150 LB/A, P2O5 0 LB/A, K2O 100 LB/A

% OM: 1.8	Texture: SILT LOAM
pH: 6.5	Soil Name: CASEYVILLE
CEC: 8	Fert. Level: P1: 145 LB/A, K: 383 LB/A

Application Description

A
 Application Date: 08-21-09
 Time of Day: 11:45
 Application Method: Spray
 Application Timing: R1
 Application Placement: BROFOL
 Applied By: NVH
 Air Temperature, Unit: 78 F
 % Relative Humidity: 70
 Wind Velocity, Unit: 8 MPH
 Wind Direction: W
 Dew Presence (Y/N): N
 Soil Moisture: ABONOR
 % Cloud Cover: 20

08-21-09
 Crop stage at application: R1
 Height Min, Max (inch): 86 96

Pest Stage At Each Application

Application Date: 08-21-09
 Weed Code: CERCZM
 Stage Majority (leaves): NA
 Weed Code: PUCCPY
 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

Southern Illinois University

Evaluation of Quilt Xcel Formulation in Corn.

Trial ID: 09-23M-S90

Location: Belleville Res. Center

Pest Code
Crop Code
Rating Date
Rating Data Type
Rating Unit
Rating Timing
Trt-Eval Interval

ZEAMD ZEAMD ZEAMD
12-04-09 12-04-09 09-04-09
Moisture Yield Injury
Percent bu/A Percent
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									20.4 a	144 b	0 a
2	A13705	1.67	SC	0.183	lb ai/a	14	fl oz/a	R1	A	20.7 a	152 ab	0 a
3	QUILT XCEL	2.2	SC	0.18	lb ai/a	10.5	fl oz/a	R1	A	21.3 a	162 a	0 a
4	QUILT XCEL	2.2	SC	0.24	lb ai/a	14	fl oz/a	R1	A	21.1 a	155 ab	0 a
5	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R1	A	20.4 a	158 ab	0 a
6	STRATEGO	2.08	EC	0.163	lb ai/a	10	fl oz/a	R1	A	20.8 a	160 a	0 a
7	TWINLINE	1.75	EC	0.096	lb ai/a	7	fl oz/a	R1	A	20.3 a	161 a	0 a
LSD (P=.05)										1.15	13.5	0.0
Replicate F										2.087	10.508	0.000
Replicate Prob(F)										0.1378	0.0003	1.0000
Treatment F										1.058	1.786	0.000
Treatment Prob(F)										0.4222	0.1588	1.0000

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

Southern Illinois University

Evaluation of Quilt Xcel Formulation in Corn.

Trial ID: 09-23M-S90

Location: Belleville Res. Center

Pest Code
Crop Code
Rating Date
Rating Data Type
Rating Unit
Rating Timing
Trt-Eval Interval

CERCZM CERCZM CERCZM CERCZM CERCZM CERCZM CERCZM CERCZM
ZEAMD ZEAMD ZEAMD ZEAMD ZEAMD ZEAMD ZEAMD ZEAMD
08-21-09 08-21-09 09-11-09 09-11-09 09-24-09 09-24-09 10-09-09 10-09-09
Incidence Severity Incidence Severity Incidence Severity Incidence Severity
Percent Percent Percent Percent Percent Percent Percent Percent
0 DA-A 0 DA-A 21 DA-A 21 DA-A 34 DA-A 34 DA-A 49 DA-A 49 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	1.0 a	1.0 a	1.0 a	1.0 a	1.0 a	1.0 a
2	A13705	1.67	SC	0.183	lb ai/a	14	fl oz/a	R1	A	0 a	0 a	1.0 a	0.2 b	1.0 a	0.2 b	1.0 a	0.2 b
3	QUILT XCEL	2.2	SC	0.18	lb ai/a	10.5	fl oz/a	R1	A	0 a	0 a	1.0 a	0.2 b	1.0 a	0.2 b	1.0 a	0.2 b
4	QUILT XCEL	2.2	SC	0.24	lb ai/a	14	fl oz/a	R1	A	0 a	0 a	1.0 a	0.2 b	1.0 a	0.2 b	1.0 a	0.2 b
5	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R1	A	0 a	0 a	1.0 a	0.2 b	1.0 a	0.2 b	1.0 a	0.2 b
6	STRATEGO	2.08	EC	0.163	lb ai/a	10	fl oz/a	R1	A	0 a	0 a	1.0 a	0.2 b	1.0 a	0.2 b	1.0 a	0.2 b
7	TWINLINE	1.75	EC	0.096	lb ai/a	7	fl oz/a	R1	A	0 a	0 a	1.0 a	0.2 b	1.0 a	0.2 b	1.0 a	0.2 b
LSD (P=.05)										0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Replicate F										0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F										0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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

Evaluation of Quilt Xcel Formulation in Corn.

Trial ID: 09-23M-S90

Location: Belleville Res. Center

								PUCCPY	PUCCPY						
Pest Code								ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD
Crop Code								10-09-09	10-09-09	10-19-09	11-05-09	11-05-09	11-05-09	11-05-09	11-05-09
Rating Date								Incidence	Severity	Greenness	Stalk Rot	AbnormalEar	Lodging		
Rating Data Type								Percent	Percent	Percent	0-5	/6 plnts	Percent		
Rating Unit															
Rating Timing															
Trt-Eval Interval								49 DA-A	49 DA-A	59 DA-A	EOS	EOS	EOS		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NONTREATED									1.0 a	5.0 a	53 a	0.7 a	1.5 a	3 a
2	A13705	1.67	SC	0.183	lb ai/a	14	fl oz/a	R1	A	1.0 a	1.0 c	53 a	0.3 c	0.5 b	3 a
3	QUILT XCEL	2.2	SC	0.18	lb ai/a	10.5	fl oz/a	R1	A	1.0 a	1.0 c	63 a	0.3 c	0.5 b	8 a
4	QUILT XCEL	2.2	SC	0.24	lb ai/a	14	fl oz/a	R1	A	1.0 a	1.0 c	56 a	0.3 c	0.5 b	3 a
5	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	R1	A	1.0 a	1.0 c	64 a	0.5 ab	0.5 b	5 a
6	STRATEGO	2.08	EC	0.163	lb ai/a	10	fl oz/a	R1	A	1.0 a	3.0 b	65 a	0.4 bc	0.5 b	5 a
7	TWINLINE	1.75	EC	0.096	lb ai/a	7	fl oz/a	R1	A	1.0 a	1.0 c	63 a	0.3 c	0.3 b	10 a
LSD (P=.05)								0.00	1.30	12.6	0.22	0.94	10.8		
Replicate F								0.000	1.000	20.905	7.562	7.931	1.000		
Replicate Prob(F)								1.0000	0.4155	0.0001	0.0018	0.0014	0.4155		
Treatment F								0.000	13.000	1.609	4.687	1.634	0.636		
Treatment Prob(F)								1.0000	0.0001	0.2019	0.0049	0.1952	0.6999		

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

Trial Comments

1. Protocol: Syngenta (FAZ001A3).
2. Ratings: Many including disease present at application, CI, foliar disease severity, greenness at senescence, and pre-harvest stalk and ear evaluations.
3. Yield.
4. Blanket PRE application of Lumax + Atrazine was applied 6-24-09.
Blanket POST Touchdown Total if necessary, was not needed, not applied.
5. Inoculation at planting and/or V6-V8 corn stage, was at V6.
6. CERCZM = Gray leaf spot of corn (*Cercospora zeae-maydis*).
PUCCPY = Southern rust of corn (*Puccinia polysora*).
EOS = End of season.
7. Stalk Rot, 0-5 = University of Illinois stalk rot ratings scale (Hines-Shaw-White).
0 = no visible discoloration of the internal below ear stalk nodes or pith.
1 = internal discoloration at the stalk nodes below the ear.
2 = internal discoloration at the stalk nodes and in the pith below the ear.
3 = pith separation occurring below the ear.
4 = complete discoloration and decay of the pith between at least two nodes below the ear, but stalk still standing.
5 = stalk lodged below the ear due to stalk rot.
8. AbnormalEar, /6 plnts = The number of abnormal ears per 6 corn plants evaluated.
9. Harvested 12-4-09, (2) 30 inch rows by 27 ft.