

Southern Illinois University

Corn Fungicide and Insecticide Demonstration.

Trial ID: 14-15-N70 Location: Belleville Res. Center Trial Year: 2014
Investigator: Ronald F. Krausz

Trial Status: F one-year/final Initiation Date: 5-20-14 Completion Date: 10-8-14		Trial Location
City: Belleville	Country: USA	
State/Prov.: Illinois IL		
Postal Code: 62221		

Objectives:
Demonstrate the use of DuPont fungicides and insecticides in corn.

Study Director: Ronald F. Krausz Organization: Belleville Research Center - Southern Illinois Univ Carbondale Address: 2036 Charles Lane City+State/Prov: Belleville, IL Postal Code: 62221 Country: USA		Contacts Title: Researcher/Farm Manager Phone No.: 618-566-4761 E-mail: rkrausz@siu.edu
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Crop 1: ZEAMD Zea mays indentata Dent corn Variety: P1221 AMX BBCH Scale: BCOR Description: LL/RR2		Crop Description
Planting Rate, Unit: 28000 S/A	Planting Date: 5-20-14	
Depth, Unit: 1.5 IN	Planting Method: SEEDED	
Row Spacing, Unit: 30 IN		

Pest 1 Type: D Code: CERCZM Cercospora zeae-maydis Common Name: Grey leaf spot of maize	Pest Description
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Treated Plot Width: 5 FT Total Plot Width: 10 FT Treated Plot Length: 50 FT Total Plot Length: 50 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: 2 Untreated Arrangement: INCLUDED single control randomized in each block		
No.	Previous Crop	Year
1.	GLXMA	2013

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

% OM: 2.9 Texture: SIL silt loam pH: 6.6 Soil Name: Winfield CEC: 9		Soil Description	
Element Quantity Unit		Additional Measured Elements	
P1	54		lb/A
K	302		lb/A

Overall Moisture Conditions: NORMAL Closest Weather Station: ICN - Belleville IL		Moisture and Weather Conditions Distance, Unit: 0.5 MI
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No.	Date	Amount	Unit	Type	Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	5-6-14					7	DAY	56	86	F
2.	5-8-14	0.13	IN	RAIN	rain	2	DAY			
3.	5-12-14	0.88	IN	RAIN	rain	4	DAY			
4.	5-13-14					7	DAY	37	76	F
5.	5-20-14					7	DAY	55	87	F
6.	5-21-14	0.06	IN	RAIN	rain	1	DAY			
7.	5-25-14	0.49	IN	RAIN	rain	2	DAY			
8.	5-27-14	0.08	IN	RAIN	rain	2	DAY			
9.	5-27-14					7	DAY	60	86	F
10.	5-31-14	0.14	IN	RAIN	rain	1	DAY			
11.	6-1-14	0.13	IN	RAIN	rain	1	DAY			
12.	6-3-14					7	DAY	59	90	F
13.	6-4-14	0.67	IN	RAIN	rain	1	DAY			
14.	6-7-14	0.6	IN	RAIN	rain	1	DAY			
15.	6-9-14	1.38	IN	RAIN	rain	2	DAY			
16.	6-10-14					7	DAY	51	90	F
17.	6-12-14	0.07	IN	RAIN	rain	1	DAY			
18.	6-15-14	0.02	IN	RAIN	rain	1	DAY			
19.	6-17-14					7	DAY	67	92	F
20.	6-20-14	2.09	IN	RAIN	rain	5	DAY			
21.	6-24-14					7	DAY	65	91	F
22.	6-27-14	0.11	IN	RAIN	rain	2	DAY			
23.	7-1-14	0.01	IN	RAIN	rain	1	DAY			
24.	7-1-14					7	DAY	55	90	F
25.	7-7-14	0.79	IN	RAIN	rain	2	DAY			
26.	7-8-14					7	DAY	59	89	F
27.	7-12-14	0.49	IN	RAIN	rain	3	DAY			
28.	7-15-14					7	DAY	54	85	F
29.	7-22-14					7	DAY	57	98	F
30.	7-25-14	0.02	IN	RAIN	rain	1	DAY			
31.	7-29-14					7	DAY	52	89	F
32.	8-1-14	0.04	IN	RAIN	rain	1	DAY			
33.	8-5-14	4.04	IN	RAIN	rain	4	DAY			
34.	8-5-14					7	DAY	66	88	F
35.	8-12-14					7	DAY	57	84	F
36.	8-15-14	1.21	IN	RAIN	rain	3	DAY			
37.	8-19-14					7	DAY	67	95	F
38.	8-20-14	0.11	IN	RAIN	rain	1	DAY			
39.	8-27-14	1.56	IN	RAIN	rain	2	DAY			
40.	8-1-14	0.04	IN	RAIN	rain	1	DAY			
41.	8-5-14	4.04	IN	RAIN	rain	4	DAY			
42.	8-5-14					7	DAY	66	88	F
43.	8-12-14					7	DAY	57	84	F
44.	8-15-14	1.21	IN	RAIN	rain	3	DAY			
45.	8-19-14					7	DAY	67	95	F
46.	8-20-14	0.11	IN	RAIN	rain	1	DAY			
47.	8-26-14					7	DAY	68	95	F
48.	8-27-14	1.56	IN	RAIN	rain	2	DAY			
49.	9-1-14	2.21	IN	RAIN	rain	2	DAY			
50.	9-2-14					7	DAY	54	93	F
51.	9-5-14	0.24	IN	RAIN	rain	1	DAY			
52.	9-9-14					7	DAY	45	85	F
53.	9-10-14	1.06	IN	RAIN	rain	1	DAY			
54.	9-16-14					7	DAY	46	86	F
55.	9-23-14					7	DAY	46	86	F
56.	9-30-14					7	DAY	37	87	F
57.	10-1-14	0.99	IN	RAIN	rain	3	DAY			
58.	10-6-14	0.31	IN	RAIN	rain	2	DAY			
59.	10-7-14					7	DAY	46	77	F
60.	10-9-14	1.44	IN	RAIN	rain	2	DAY			

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Application Description

	A	B
Application Date:	6-9-14	7-16-14
Appl. Start Time:	8:00	11:00
Appl. Stop Time:	8:15	11:30
Application Method:	Spray	Spray
Application Timing:	V5	VT
Application Placement:	BROFOL	BROFOL
Applied By:	RJW	LXF
Air Temperature, Unit:	70 F	74 F
% Relative Humidity:	81	54
Wind Velocity, Unit:	4 MPH	3 MPH
Wind Direction:	E	E
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	71 F	73 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	75	60
Next Moisture Occurred On:	6-9-14	8-4-14
Time to Next Moisture, Unit:	11 HR	17 DAY

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMD	ZEAMD
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	V5	VT
Stage Minimum, Percent:	V5	VT
Stage Maximum, Percent:	V5	VT
Height, Unit:	12 IN	108 IN
Height Minimum, Maximum:	8 12	96 108

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	CERCZM D	CERCZM D

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	40 PSI	40 PSI
Nozzle Type:	XR	XR
Nozzle Size:	8002	8002
Boom Length, Unit:	5 FT	5 FT
Spray Volume, Unit:	20 GPA	20 GPA

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Pest Code										CERCZM	CERCZM	CERCZM	CERCZM
Crop Code							ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD
Rating Date							10-8-14	10-8-14	10-8-14	6-30-14	6-30-14	8-6-14	8-6-14
Rating Type							Moisture	Test wt.	Yield	Incidence	Severity	Incidence	Severity
Rating Unit							Percent	lb/bu	bu/A	Percent	Percen	Percen	Percen
Rating Timing													
Trt-Eval Interval										21 DA-A	21 DA-A	21 DA-B	21 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Unit	Stage	Appl Code				
1	APROACH	2.08	SC	0.0488 lb ai/a	3 fl oz/a		V5		A	18.5 a	56.9 a	230 a	0.0 a
2	APROACH	2.08	SC	0.0975 lb ai/a	6 fl oz/a		VT		B	18.6 a	56.8 a	233 a	0.0 a
3	APROACH	2.08	SC	0.0488 lb ai/a	3 fl oz/a		V5		A	18.2 a	57.0 a	230 a	0.0 a
	APROACH	2.08	SC	0.0975 lb ai/a	6 fl oz/a		VT		B				
4	APROACH	2.08	SC	0.0975 lb ai/a	6 fl oz/a		VT		B	18.7 a	56.8 a	232 a	0.0 a
	PREVATHON	0.43	SC	0.047 lb ai/a	14 fl oz/a		VT		B				
5	APROACH PRIMA	2.34	SC	0.124 lb ai/a	6.8 fl oz/a		VT		B	18.6 a	56.8 a	236 a	0.0 a
6	NO FUNGICIDE NO INSECTICIDE									19.0 a	56.7 a	229 a	0.0 a
LSD (P=.05)							1.41	0.59	9.9	0.00	0.00	0.00	0.00
Standard Deviation							0.55	0.23	3.8	0.00	0.00	0.00	0.00
CV							2.95	0.41	1.65	0.0	0.0	0.0	0.0
Replicate F							7.150	7.038	4.371	0.000	0.000	0.000	0.000
Replicate Prob(F)							0.0441	0.0453	0.0908	1.0000	1.0000	1.0000	1.0000
Treatment F							0.491	0.397	0.877	0.000	0.000	0.000	0.000
Treatment Prob(F)							0.7734	0.8331	0.5555	1.0000	1.0000	1.0000	1.0000

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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Pest Code											CERCZM	CERCZM
Crop Code											ZEAMD	ZEAMD
Rating Date											8-20-14	8-20-14
Rating Type											Incidence	Severity
Rating Unit											Percent	Percent
Rating Timing												
Trt-Eval Interval											35 DA-B	35 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Rate	Other Rate	Other Unit	Growth Stage	Appl Code		
1	APPROACH	2.08	SC	0.0488	lb ai/a		3 fl oz/a		V5	A	2.0 a	5.0 a
2	APPROACH	2.08	SC	0.0975	lb ai/a		6 fl oz/a		VT	B	1.0 b	2.0 b
3	APPROACH	2.08	SC	0.0488	lb ai/a		3 fl oz/a		V5	A	0.5 bc	1.0 bc
	APPROACH	2.08	SC	0.0975	lb ai/a		6 fl oz/a		VT	B		
4	APPROACH	2.08	SC	0.0975	lb ai/a		6 fl oz/a		VT	B	0.0 c	0.0 c
	PREVATHON	0.43	SC	0.047	lb ai/a		14 fl oz/a		VT	B		
5	APPROACH PRIMA	2.34	SC	0.124	lb ai/a		6.8 fl oz/a		VT	B	0.5 bc	1.0 bc
6	NO FUNGICIDE NO INSECTICIDE										1.0 b	2.0 b
LSD (P=.05)											0.94	1.88
Standard Deviation											0.37	0.73
CV											43.82	39.83
Replicate F											2.500	2.500
Replicate Prob(F)											0.1747	0.1747
Treatment F											7.000	11.125
Treatment Prob(F)											0.0261	0.0097

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Trial Comments

1. Protocol: DuPont (Corn Fung Demo).
2. Ratings: DI/DS at 21 DA-A; DI/DS at 21 DA-B (rate all plots).
3. Yield.
4. Blanket PRE application of Cinch ATZ (3 pt/A) to entire area.
Blanket POST application at V3 of Realm Q (4 oz/A) plus Aatrex (1 qt/A)
plus Abundit Extra (1 qt/A) to entire area.
5. CERCZM = *Cercospora zeae-maydis* (Grey leaf spot of maize).
6. Harvested 10-8-14, (2) 30 inch rows by 47 ft.