

FBS 1030 and 1039 Evaluation in Corn.

Trial ID: 09-20A-E50

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: 06-26-09

Objectives: Evaluate FBS 1030 and FBS 1039 and fertilizer for grain yield and quality
 on field corn applied with starter, sidedress, and foliar fungicides.

Crop 1: ZEAMD Dent corn Variety: DKC 61-69 Description: RR2(VT3)
 Planting Method: SEEDED Planting Date: 06-26-09
 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: 25 FT Tillage Type: REDUCED-TILL
 Replications: 4 Study Design: Randomized Complete Block

Prior Crops, Year

1. GLXMA 2008

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

% OM: 2.6 Texture: SILT LOAM
 pH: 6.1 Soil Name: BETHALTO
 CEC: 13 Fert. Level: P1 78 LB/A, K 423 LB/A

Application Description

	A	B	C
Application Date:	06-26-09	07-18-09	08-21-09
Time of Day:	19:30	9:00	10:30
Application Method:	Planter	Spray	Spray
Application Timing:	START	SIDE	VT
Application Placement:	IN-FURROW	SIDEDRESS	BROFOL
Applied By:	NVH	NVH	NVH
Air Temperature, Unit:	89 F	67 F	76 F
% Relative Humidity:	70	90	80
Wind Velocity, Unit:	3 MPH	6 MPH	8 MPH
Wind Direction:	W	N	W
Dew Presence (Y/N):	N	N	N
Soil Moisture:	NORMAL	NORMAL	ABONOR
% Cloud Cover:	50	60	20

	06-26-09	07-18-09	08-21-09
Crop stage at application:	NA	V5	VT-R1
Height Min, Max (inch):		10 12	90 96

Pest Stage At Each Application

	06-26-09	07-18-09	08-21-09
Application Date:	06-26-09	07-18-09	08-21-09
Weed Code:	NA	NA	NA

Application Equipment

	CO2 sprayer	CO2 sprayer	CO2 sprayer
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8003	XR 8003	XR 8002
Boom Length, Unit:		7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA

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

ZEAMD 12-16-09 Moisture Percent	ZEAMD 12-16-09 Test wt. lb/bu	ZEAMD 12-16-09 Yield bu/A	ZEAMD 07-24-09 Vigor 0-9	ZEAMD 07-24-09 V Stage	ZEAMD 07-24-09 Height Inch 5 Plants	ZEAMD 07-24-09 Height Inch Overall
				28 DAP	28 DAP	28 DAP

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code													
1	10-34-0	100	SL	5	gal/a	5	gal/a	START	A	22.4	abc	50.1	a	171	ab	8.0	b					
1	28% UAN	100	SL	20	gal/a	20	gal/a	SIDE	B							7.0	a					
1	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	C							53.0	a					
1	NIS (ACTIVATOR 90)	100	SL	0.125	% v/v	0.125	% v/v	VT	C							53.5	a					
2	10-34-0	100	SL	5	gal/a	5	gal/a	START	A	22.2	bc	50.4	a	166	abc	7.8	b					
2	28% UAN	100	SL	20	gal/a	20	gal/a	SIDE	B							7.0	a					
2	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	C							53.1	a					
2	FBS 1030	100	SL	6	fl oz/a	6	fl oz/a	VT	C							53.3	a					
2	NIS (ACTIVATOR 90)	100	SL	0.125	% v/v	0.125	% v/v	VT	C													
3	10-34-0	100	SL	5	gal/a	5	gal/a	START	A	22.5	abc	50.6	a	154	bc	8.0	b					
3	FBS 1039	100	SL	6	fl oz/a	6	fl oz/a	START	A							7.0	a					
3	28% UAN	100	SL	20	gal/a	20	gal/a	SIDE	B							53.5	a					
3	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	C							53.8	a					
3	NIS (ACTIVATOR 90)	100	SL	0.125	% v/v	0.125	% v/v	VT	C													
4	10-34-0	100	SL	5	gal/a	5	gal/a	START	A	21.7	c	50.3	a	167	abc	8.0	b					
4	FBS 1039	100	SL	6	fl oz/a	6	fl oz/a	START	A							7.0	a					
4	28% UAN	100	SL	20	gal/a	20	gal/a	SIDE	B							53.8	a					
4	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	C							54.3	a					
4	FBS 1030	100	SL	6	fl oz/a	6	fl oz/a	VT	C													
4	NIS (ACTIVATOR 90)	100	SL	0.125	% v/v	0.125	% v/v	VT	C													
5	10-34-0	100	SL	5	gal/a	5	gal/a	START	A	23.1	ab	49.4	a	148	c	8.8	a					
5	28% UAN	100	SL	20	gal/a	20	gal/a	SIDE	B							7.0	a					
5	FBS 1039	100	SL	8	fl oz/a	8	fl oz/a	SIDE	B							53.8	a					
5	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	C							54.5	a					
5	NIS (ACTIVATOR 90)	100	SL	0.125	% v/v	0.125	% v/v	VT	C													
6	10-34-0	100	SL	5	gal/a	5	gal/a	START	A	22.3	abc	50.1	a	169	ab	8.0	b					
6	28% UAN	100	SL	20	gal/a	20	gal/a	SIDE	B							7.0	a					
6	FBS 1039	100	SL	8	fl oz/a	8	fl oz/a	SIDE	B							53.2	a					
6	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	C							54.3	a					
6	FBS 1030	100	SL	6	fl oz/a	6	fl oz/a	VT	C													
6	NIS (ACTIVATOR 90)	100	SL	0.125	% v/v	0.125	% v/v	VT	C													
7	10-34-0	100	SL	5	gal/a	5	gal/a	START	A	23.4	a	49.6	a	162	abc	7.5	b					
7	FBS 1039	100	SL	6	fl oz/a	6	fl oz/a	START	A							7.0	a					
7	28% UAN	100	SL	20	gal/a	20	gal/a	SIDE	B							53.8	a					
7	FBS 1039	100	SL	8	fl oz/a	8	fl oz/a	SIDE	B							53.5	a					
7	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	C													
7	NIS (ACTIVATOR 90)	100	SL	0.125	% v/v	0.125	% v/v	VT	C													
8	10-34-0	100	SL	5	gal/a	5	gal/a	START	A	22.5	abc	49.7	a	175	a	7.5	b					
8	FBS 1039	100	SL	6	fl oz/a	6	fl oz/a	START	A							6.3	b					
8	28% UAN	100	SL	20	gal/a	20	gal/a	SIDE	B							53.3	a					
8	FBS 1039	100	SL	8	fl oz/a	8	fl oz/a	SIDE	B							53.3	a					
8	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	C													
8	FBS 1030	100	SL	6	fl oz/a	6	fl oz/a	VT	C													
8	NIS (ACTIVATOR 90)	100	SL	0.125	% v/v	0.125	% v/v	VT	C													
LSD (P=.05)										1.10		1.46		18.7		0.57		0.26		2.23		2.30
Replicate F										4.577		0.314		1.119		0.840		1.000		2.388		2.407
Replicate Prob(F)										0.0128		0.8152		0.3637		0.4872		0.4123		0.0977		0.0958
Treatment F										1.905		0.689		1.907		4.200		9.000		0.185		0.394
Treatment Prob(F)										0.1196		0.6802		0.1193		0.0049		0.0001		0.9855		0.8953

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

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Rating Date
Rating Data Type
Rating Unit
Rating Timing
Trt-Eval Interval

ZEAMD ZEAMD
12-14-09 12-14-09
Stalk Rot AbnormalEar
0-5 /6 plnts

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code		
1	10-34-0	100	SL	5 gal/a		5 gal/a		START	A	1.5 a	0.3 a
1	28% UAN	100	SL	20 gal/a		20 gal/a		SIDE	B		
1	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		VT	C		
1	NIS (ACTIVATOR 90)	100	SL	0.125 % v/v		0.125 % v/v		VT	C		
2	10-34-0	100	SL	5 gal/a		5 gal/a		START	A	1.0 bc	0.3 a
2	28% UAN	100	SL	20 gal/a		20 gal/a		SIDE	B		
2	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		VT	C		
2	FBS 1030	100	SL	6 fl oz/a		6 fl oz/a		VT	C		
2	NIS (ACTIVATOR 90)	100	SL	0.125 % v/v		0.125 % v/v		VT	C		
3	10-34-0	100	SL	5 gal/a		5 gal/a		START	A	0.9 c	0.5 a
3	FBS 1039	100	SL	6 fl oz/a		6 fl oz/a		START	A		
3	28% UAN	100	SL	20 gal/a		20 gal/a		SIDE	B		
3	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		VT	C		
3	NIS (ACTIVATOR 90)	100	SL	0.125 % v/v		0.125 % v/v		VT	C		
4	10-34-0	100	SL	5 gal/a		5 gal/a		START	A	1.4 ab	0.5 a
4	FBS 1039	100	SL	6 fl oz/a		6 fl oz/a		START	A		
4	28% UAN	100	SL	20 gal/a		20 gal/a		SIDE	B		
4	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		VT	C		
4	FBS 1030	100	SL	6 fl oz/a		6 fl oz/a		VT	C		
4	NIS (ACTIVATOR 90)	100	SL	0.125 % v/v		0.125 % v/v		VT	C		
5	10-34-0	100	SL	5 gal/a		5 gal/a		START	A	1.0 bc	0.5 a
5	28% UAN	100	SL	20 gal/a		20 gal/a		SIDE	B		
5	FBS 1039	100	SL	8 fl oz/a		8 fl oz/a		SIDE	B		
5	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		VT	C		
5	NIS (ACTIVATOR 90)	100	SL	0.125 % v/v		0.125 % v/v		VT	C		
6	10-34-0	100	SL	5 gal/a		5 gal/a		START	A	1.0 bc	0.8 a
6	28% UAN	100	SL	20 gal/a		20 gal/a		SIDE	B		
6	FBS 1039	100	SL	8 fl oz/a		8 fl oz/a		SIDE	B		
6	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		VT	C		
6	FBS 1030	100	SL	6 fl oz/a		6 fl oz/a		VT	C		
6	NIS (ACTIVATOR 90)	100	SL	0.125 % v/v		0.125 % v/v		VT	C		
7	10-34-0	100	SL	5 gal/a		5 gal/a		START	A	1.1 abc	0.0 a
7	FBS 1039	100	SL	6 fl oz/a		6 fl oz/a		START	A		
7	28% UAN	100	SL	20 gal/a		20 gal/a		SIDE	B		
7	FBS 1039	100	SL	8 fl oz/a		8 fl oz/a		SIDE	B		
7	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		VT	C		
7	NIS (ACTIVATOR 90)	100	SL	0.125 % v/v		0.125 % v/v		VT	C		
8	10-34-0	100	SL	5 gal/a		5 gal/a		START	A	1.0 bc	0.3 a
8	FBS 1039	100	SL	6 fl oz/a		6 fl oz/a		START	A		
8	28% UAN	100	SL	20 gal/a		20 gal/a		SIDE	B		
8	FBS 1039	100	SL	8 fl oz/a		8 fl oz/a		SIDE	B		
8	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		VT	C		
8	FBS 1030	100	SL	6 fl oz/a		6 fl oz/a		VT	C		
8	NIS (ACTIVATOR 90)	100	SL	0.125 % v/v		0.125 % v/v		VT	C		
LSD (P=.05)										0.42	0.75
Replicate F										0.380	0.636
Replicate Prob(F)										0.7682	0.5999
Treatment F										2.191	0.818
Treatment Prob(F)										0.0777	0.5828

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

Trial Comments

1. Protocol: Floratine BioSciences.
2. Ratings: Plant height, vigor and leaf count (growth stage) at 28 DAP.
3. Yield, moisture and test weight at harvest.
4. Blanket PRE application of Bicep II Magnum (2.4 qt/A) to entire area was applied 6-26-09.

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5. Blanket preplant broadcast nitrogen application of 120 lb N/Acre.
6. Side dress application B at corn stage V6-V8 (BBCH 16-18).
7. Corn height; 5 Plants is average height of 5 random plants per plot, Overall is looking across the top of the plants.
Corn vigor scale is 0-9, 0 = dead, 9 = very vigorous. Corn V Stage = Vegetative stage of corn.
8. 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.
9. AbnormalEar, /6 plnts = The number of abnormal ears per 6 corn plants evaluated.
10. Harvested 12-16-09, (2) 30 inch rows by 22 ft.