

Bayer Integrated Products Portfolio - Liberty Link Corn.

Trial ID: 10-T2-S150

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: Evaluate seed treatments, herbicides, and foliar fungicides used in Liberty Link corn as an integrated approach to crop protection.

Crop 1: ZEAMD Dent corn **Description:** LL
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: 6 **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: 6.3 **Soil Name:** BETHALTO
CEC: 13 **Fert. Level:** P1: 79 LB/A, K: 387 LB/A

Application Description

	A	B	C	D	E
Application Date:	06-01-10	06-18-10	06-18-10	06-18-10	07-21-10
Time of Day:	11:00	13:00	13:00	13:00	10:30
Application Method:	SEEDTRT	Spray	Spray	Spray	Spray
Application Timing:	AT PLANT	PRE	IFNEEDED	V5	VT-R1
Application Placement:	SEED	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	JW	NVH	NVH	NVH	DKP
Air Temperature, Unit:	84 F	90 F	90 F	90 F	83 F
% Relative Humidity:	88	82	82	82	74
Wind Velocity, Unit:	0 MPH	5 MPH	5 MPH	5 MPH	2 MPH
Wind Direction:		S	S	S	SW
Dew Presence (Y/N):		N	N	N	N
Soil Moisture:		ABONOR	ABONOR	ABONOR	ABONOR
% Cloud Cover:		70	70	70	20

	06-01-10	06-18-10	06-18-10	06-18-10	07-21-10
Crop stage at application:	NA	V5	V5	VT-R1	
Height Min, Max (inch):		8	11	8	11 90 96

Pest Stage At Each Application

	06-01-10	06-18-10	06-18-10	07-21-10
Application Date:				
Stage Majority (leaves):	NA NA	NA	NA	NA

Application Equipment

	PLANTER	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Appl. Equipment:						
Operating Pressure:	30 PSI	30 PSI	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002	XR 8002	XR 8002	XR 8002	XR 8002
Boom Length, Unit:	10 FT	10 FT	10 FT	10 FT	10 FT	10 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA

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

ZEAMD ZEAMD ZEAMD ZEAMD ZEAMD
10-13-10 10-13-10 10-13-10 06-26-10 06-26-10
Moisture Test wt. Yield Plants Vigor
Percent lb/bu bu/A (000)/A 1-6
8 DA-D 21 DAE

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	14.6 a	60.6 a	168 a	28.1 b	2.2 b
1	PRO-IZED RED COLORANT					19.6	ml/100 kg	SEEDTRT	A					
1	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A					
1	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A					
1	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B					
1	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B					
1	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C					
1	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C					
1	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C					
2	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	14.4 a	60.8 a	155 ab	29.8 a	3.8 a
2	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A					
2	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A					
2	PONCHO VOTIVO					1	ml/1000 seed	SEEDTRT	A					
2	PRO-IZED GREEN COLORANT					19.6	ml/100 kg	SEEDTRT	A					
2	PRECISE S FINISHER 1006					260	ml/100 kg	SEEDTRT	A					
2	TALC					62.5	g/100 kg	SEEDTRT	A					
2	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B					
2	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B					
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C					
2	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C					
2	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C					
3	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	14.6 a	60.6 a	148 b	29.3 ab	2.7 b
3	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A					
3	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A					
3	PONCHO VOTIVO					1	ml/1000 seed	SEEDTRT	A					
3	PRO-IZED GREEN COLORANT					19.6	ml/100 kg	SEEDTRT	A					
3	PRECISE S FINISHER 1006					260	ml/100 kg	SEEDTRT	A					
3	TALC					62.5	g/100 kg	SEEDTRT	A					
3	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B					
3	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B					
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C					
3	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C					
3	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C					
3	STRATEGO PRO	4.17	SC	0.163	lb ai/a	5	fl oz/a	VT-R1	E					
3	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	VT-R1	E					
4	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	14.6 a	60.6 a	151 b	29.3 ab	2.3 b
4	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A					
4	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A					
4	PONCHO VOTIVO					1	ml/1000 seed	SEEDTRT	A					
4	PRO-IZED GREEN COLORANT					19.6	ml/100 kg	SEEDTRT	A					
4	PRECISE S FINISHER 1006					260	ml/100 kg	SEEDTRT	A					
4	TALC					62.5	g/100 kg	SEEDTRT	A					
4	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B					
4	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B					
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C					
4	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C					
4	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C					
4	STRATEGO PRO	4.17	SC	0.163	lb ai/a	5	fl oz/a	VT-R1	E					
4	SBF TEST CPD 10	5	L	16	fl oz/a	1	pt/a	VT-R1	E					
4	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	VT-R1	E					
5	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	14.6 a	60.6 a	149 b	29.1 ab	2.2 b
5	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A					
5	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A					
5	PONCHO FS					0.75	mg ai/seed	SEEDTRT	A					
5	PONCHO VOTIVO					1	ml/1000 seed	SEEDTRT	A					
5	PRO-IZED PURPLE COLORAN					32.7	ml/100 kg	SEEDTRT	A					
5	L1463-B					326	ml/100 kg	SEEDTRT	A					
5	L1273-B					39	ml/100 kg	SEEDTRT	A					
5	TALC					62.5	g/100 kg	SEEDTRT	A					
5	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B					
5	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B					
5	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C					
5	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C					
5	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C					
5	STRATEGO PRO	4.17	SC	0.163	lb ai/a	5	fl oz/a	VT-R1	E					
5	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	VT-R1	E					

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Rating Data Type
Rating Unit
Rating Timing
Trt-Eval Interval

ZEAMD ZEAMD ZEAMD ZEAMD ZEAMD
10-13-10 10-13-10 10-13-10 06-26-10 06-26-10
Moisture Test wt. Yield Plants Vigor
Percent lb/bu bu/A (000)/A 1-6
8 DA-D 21 DAE

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code										
6	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	14.6	a	60.6	a	154	b	29.7	ab	2.3	b
6	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A										
6	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A										
6	PONCHO VOTIVO					1	ml/1000 seed	SEEDTRT	A										
6	PRO-IZED GREEN COLORANT					19.6	ml/100 kg	SEEDTRT	A										
6	PRECISE S FINISHER 1006					260	ml/100 kg	SEEDTRT	A										
6	TALC					62.5	g/100 kg	SEEDTRT	A										
6	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B										
6	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B										
6	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C										
6	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C										
6	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C										
6	SEE COMMENT 4																		
6	STRATEGO PRO	4.17	SC	0.0815	lb ai/a	2.5	fl oz/a	V5	D										
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	V5	D										
6	STRATEGO PRO	4.17	SC	0.163	lb ai/a	5	fl oz/a	VT-R1	E										
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	VT-R1	E										

LSD (P=.05) 0.29 0.29 13.7 1.58 1.16

Replicate F 2.609 2.001 0.992 0.618 2.213
Replicate Prob(F) 0.0496 0.1133 0.4426 0.6871 0.0848
Treatment F 0.445 0.431 2.327 1.229 2.561
Treatment Prob(F) 0.8127 0.8228 0.0726 0.3249 0.0529

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

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Location: Belleville Res. Center

Pest Code		CERCZM				CERCZM				CERCZM			
Crop Code		ZEAMD				ZEAMD				ZEAMD			
Rating Date		07-09-10				07-09-10				09-01-10			
Rating Data Type		Incidence				Severity				Incidence			
Rating Unit		Percent				Percent				Percent			
Rating Timing		Percent				Percent				Percent			
Trt-Eval Interval		21 DA-D				21 DA-D				75 DA-D			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	0 a	0 a	90 a	15 a
1	PRO-IZED RED COLORANT					19.6	ml/100 kg	SEEDTRT	A				
1	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A				
1	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A				
1	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B				
1	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B				
1	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C				
1	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C				
1	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C				
2	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	0 a	0 a	90 a	15 a
2	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A				
2	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A				
2	PONCHO VOTIVO					1	ml/1000 seed	SEEDTRT	A				
2	PRO-IZED GREEN COLORANT					19.6	ml/100 kg	SEEDTRT	A				
2	PRECISE S FINISHER 1006					260	ml/100 kg	SEEDTRT	A				
2	TALC					62.5	g/100 kg	SEEDTRT	A				
2	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B				
2	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B				
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C				
2	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C				
2	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C				
3	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	0 a	0 a	90 a	5 b
3	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A				
3	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A				
3	PONCHO VOTIVO					1	ml/1000 seed	SEEDTRT	A				
3	PRO-IZED GREEN COLORANT					19.6	ml/100 kg	SEEDTRT	A				
3	PRECISE S FINISHER 1006					260	ml/100 kg	SEEDTRT	A				
3	TALC					62.5	g/100 kg	SEEDTRT	A				
3	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B				
3	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B				
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C				
3	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C				
3	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C				
3	STRATEGO PRO	4.17	SC	0.163	lb ai/a	5	fl oz/a	VT-R1	E				
3	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	VT-R1	E				
4	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	0 a	0 a	90 a	5 b
4	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A				
4	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A				
4	PONCHO VOTIVO					1	ml/1000 seed	SEEDTRT	A				
4	PRO-IZED GREEN COLORANT					19.6	ml/100 kg	SEEDTRT	A				
4	PRECISE S FINISHER 1006					260	ml/100 kg	SEEDTRT	A				
4	TALC					62.5	g/100 kg	SEEDTRT	A				
4	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B				
4	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B				
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C				
4	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C				
4	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C				
4	STRATEGO PRO	4.17	SC	0.163	lb ai/a	5	fl oz/a	VT-R1	E				
4	SBF TEST CPD 10	5	L	16	fl oz/a	1	pt/a	VT-R1	E				
4	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	VT-R1	E				
5	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	0 a	0 a	90 a	5 b
5	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A				
5	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A				
5	PONCHO FS					0.75	mg ai/seed	SEEDTRT	A				
5	PONCHO VOTIVO					1	ml/1000 seed	SEEDTRT	A				
5	PRO-IZED PURPLE COLORAN					32.7	ml/100 kg	SEEDTRT	A				
5	L1463-B					326	ml/100 kg	SEEDTRT	A				
5	L1273-B					39	ml/100 kg	SEEDTRT	A				
5	TALC					62.5	g/100 kg	SEEDTRT	A				
5	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B				
5	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B				
5	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C				
5	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C				
5	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C				
5	STRATEGO PRO	4.17	SC	0.163	lb ai/a	5	fl oz/a	VT-R1	E				
5	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	VT-R1	E				

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							ZEAMD	ZEAMD	ZEAMD	ZEAMD			
							07-09-10	07-09-10	09-01-10	09-01-10			
							Incidence	Severity	Incidence	Severity			
							Percent	Percent	Percent	Percent			
							21 DA-D	21 DA-D	75 DA-D	75 DA-D			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
6	MAXIM XL					4.96	g ai/100 kg	SEEDTRT	A	0 a	0 a	90 a	5 b
6	DYNASTY 100 FS					1	g ai/100 kg	SEEDTRT	A				
6	RAXIL 2.6 FS					2	g ai/100 kg	SEEDTRT	A				
6	PONCHO VOTIVO					1	ml/1000 seed	SEEDTRT	A				
6	PRO-IZED GREEN COLORANT					19.6	ml/100 kg	SEEDTRT	A				
6	PRECISE S FINISHER 1006					260	ml/100 kg	SEEDTRT	A				
6	TALC					62.5	g/100 kg	SEEDTRT	A				
6	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	B				
6	AATREX	4	SC	1.5	lb ai/a	3	pt/a	PRE	B				
6	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	IFNEEDED	C				
6	LAUDIS	3.5	SC	0.0547	lb ai/a	2	fl oz/a	IFNEEDED	C				
6	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C				
6	SEE COMMENT 4												
6	STRATEGO PRO	4.17	SC	0.0815	lb ai/a	2.5	fl oz/a	V5	D				
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	V5	D				
6	STRATEGO PRO	4.17	SC	0.163	lb ai/a	5	fl oz/a	VT-R1	E				
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	VT-R1	E				
LSD (P=.05)										0.0	0.0	0.0	0.0
Replicate F										0.000	0.000	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000
Treatment F										0.000	0.000	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000

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

Trial Comments

1. Protocol: Bayer (BLB).
2. Ratings: Stand count (2 rows by 17 ft 5 inch) plus vigor (1 = highly superior to market standard, 6 = unacceptable) at 21-28 DAE. DI/DS at 21 DA-D and prior to loss of green color/senesence.
3. Yield.
4. Application timing "C", IFNEEDED, monitor plots and determine if additional weed control is needed at crop stage V5. If yes then apply application "C" and tankmix application "D" but exclude the Induce from the tankmix. If no then record application "C" as not needed and apply application "D" at the planned V5, with the Induce.
5. CERCZM = Gray leaf spot (*Cercospora zeae-maydis*). ZEAMD Vigor, 1-6 (1 = highly superior to market standard, 6 = unacceptable).
6. Harvested 10-13-10, (2) 30 inch rows by 27 ft.