

Bayer Integrated Products Portfolio - Roundup Ready Corn.

Trial ID: 10-T2-N150

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 Roundup Ready corn as an integrated approach to crop protection.

Crop 1: ZEAMD Dent corn **Description:** RR
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	11:00
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	DKP	DKP	DKP	DKP
Air Temperature, Unit:	84 F	90 F	90 F	85 F	85 F
% Relative Humidity:	88	82	82	72	72
Wind Velocity, Unit:	0 MPH	5 MPH	5 MPH	2 MPH	2 MPH
Wind Direction:		S	S	SW	SW
Dew Presence (Y/N):		N	N	N	N
Soil Moisture:	ABONOR	ABONOR	ABONOR	ABONOR	ABONOR
% Cloud Cover:		70	70	50	50

	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:	06-01-10	06-18-10	06-18-10	07-21-10
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 10-13-10 Moisture Percent	ZEAMD 10-13-10 Test wt. lb/bu	ZEAMD 10-13-10 Yield bu/A	ZEAMD 06-26-10 Plants (000)/A	ZEAMD 06-26-10 Vigor 1-6
			21 DAE	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					3.5	g ai/100 kg	SEEDTRT	A	13.6	b	61.5	a	2.3
1	APRON XL					1	g ai/100 kg	SEEDTRT	A			198	c	2.3
1	PRO-IZED RED COLORANT					19.6	ml/100 kg	SEEDTRT	A					
1	DYNASTY					1	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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C					
1	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	IFNEEDED	C					
1	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C					
2	VORTEX FL					2.5	g ai/100 kg	SEEDTRT	A	13.7	b	61.5	a	2.2
2	ALLEGIANCE FL					2	g ai/100 kg	SEEDTRT	A			200	c	2.2
2	TRILEX FLOWAB FUNGICIDE					2.5	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 ai/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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C					
2	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	IFNEEDED	C					
2	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C					
3	VORTEX FL					2.5	g ai/100 kg	SEEDTRT	A	14.0	a	61.1	b	2.7
3	ALLEGIANCE FL					2	g ai/100 kg	SEEDTRT	A			210	ab	2.7
3	TRILEX FLOWAB FUNGICIDE					2.5	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 ai/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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C					
3	LAUDIS	3.5	SC	0.082	lb ai/a	3	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	VORTEX FL					2.5	g ai/100 kg	SEEDTRT	A	14.2	a	60.9	b	2.3
4	ALLEGIANCE FL					2	g ai/100 kg	SEEDTRT	A			214	a	2.3
4	TRILEX FLOWAB FUNGICIDE					2.5	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 ai/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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C					
4	LAUDIS	3.5	SC	0.082	lb ai/a	3	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	VORTEX FL					2.5	g ai/100 kg	SEEDTRT	A	14.0	a	61.0	b	2.8
5	ALLEGIANCE FL					2	g ai/100 kg	SEEDTRT	A			201	bc	2.8
5	TRILEX FLOWAB FUNGICIDE					2.5	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	g ai/100 kg	SEEDTRT	A					
5	TALC					62.5	g ai/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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C					
5	LAUDIS	3.5	SC	0.082	lb ai/a	3	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 Unit
Rating Timing
Trt-Eval Interval

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

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
6	VORTEX FL					2.5	g ai/100 kg	SEEDTRT	A	14.2	a	60.9	b	205 abc
6	ALLEGIANCE FL					2	g ai/100 kg	SEEDTRT	A					29.9 a
6	TRILEX FLOWAB FUNGICIDE					2.5	g ai/100 kg	SEEDTRT	A					2.2 b
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 ai/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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C					
6	LAUDIS	3.5	SC	0.082	lb ai/a	3	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)	0.21	0.21	9.4	1.59	0.53
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Replicate F	2.849	2.939	1.219	0.707	1.610
Replicate Prob(F)	0.0361	0.0320	0.3293	0.6239	0.1939
Treatment F	12.976	14.667	3.589	0.875	2.288
Treatment Prob(F)	0.0001	0.0001	0.0139	0.5120	0.0765

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

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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				3.5	g ai/100 kg		SEEDTRT	A	0 a	0 a	90 a	30 a
1	APRON XL				1	g ai/100 kg		SEEDTRT	A				
1	PRO-IZED RED COLORANT				19.6	ml/100 kg		SEEDTRT	A				
1	DYNASTY				1	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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C				
1	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	IFNEEDED	C				
1	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C				
2	VORTEX FL				2.5	g ai/100 kg		SEEDTRT	A	0 a	0 a	90 a	28 a
2	ALLEGIANCE FL				2	g ai/100 kg		SEEDTRT	A				
2	TRILEX FLOWAB FUNGICIDE				2.5	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 ai/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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C				
2	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	IFNEEDED	C				
2	AMS	100	SG	1	% w/w	8.5	lb/100 gal	IFNEEDED	C				
3	VORTEX FL				2.5	g ai/100 kg		SEEDTRT	A	0 a	0 a	90 a	8 b
3	ALLEGIANCE FL				2	g ai/100 kg		SEEDTRT	A				
3	TRILEX FLOWAB FUNGICIDE				2.5	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 ai/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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C				
3	LAUDIS	3.5	SC	0.082	lb ai/a	3	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	VORTEX FL				2.5	g ai/100 kg		SEEDTRT	A	0 a	0 a	90 a	9 b
4	ALLEGIANCE FL				2	g ai/100 kg		SEEDTRT	A				
4	TRILEX FLOWAB FUNGICIDE				2.5	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 ai/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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C				
4	LAUDIS	3.5	SC	0.082	lb ai/a	3	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	VORTEX FL				2.5	g ai/100 kg		SEEDTRT	A	0 a	0 a	90 a	9 b
5	ALLEGIANCE FL				2	g ai/100 kg		SEEDTRT	A				
5	TRILEX FLOWAB FUNGICIDE				2.5	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	g ai/100 kg		SEEDTRT	A				
5	TALC				62.5	g ai/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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C				
5	LAUDIS	3.5	SC	0.082	lb ai/a	3	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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Pest Code	Crop Code	Rating Date	Rating Data Type	Rating Unit	Rating Timing	Trt-Eval Interval	CERCZM	CERCZM	CERCZM	CERCZM			
							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	VORTEX FL					2.5	g ai/100 kg	SEEDTRT	A	0 a	0 a	90 a	9 b
6	ALLEGIANCE FL					2	g ai/100 kg	SEEDTRT	A				
6	TRILEX FLOWAB FUNGICIDE					2.5	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 ai/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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	IFNEEDED	C				
6	LAUDIS	3.5	SC	0.082	lb ai/a	3	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	3.2
Replicate F										0.000	0.000	0.000	5.791
Replicate Prob(F)										1.0000	1.0000	1.0000	0.0011
Treatment F										0.000	0.000	0.000	93.300
Treatment Prob(F)										1.0000	1.0000	1.0000	0.0001

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

Trial Comments

1. Protocol: Bayer (BLA).
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.