

Southern Illinois University

DuPont Crop Protection Demonstration in Corn.

Trial ID: 12-5B
 Location: Belleville Res. Center
 Investigator: Bryan Young

General Trial Information	
Study Director: Bryan Young	Title: Professor
Investigator: Bryan Young	
Trial Status: F - one-year/final	
Initiation Date: 5-29-12	
Trial Location	
City: Belleville	
State/Prov.: IL	
Postal Code: 62221	
Country: USA	

Objectives: Demonstrate the performance of DuPont crop protection products in corn.

Personnel	
Study Director: Bryan Young	Title: Professor
Investigator: Bryan Young	
Affiliation: Southern Illinois University	
Address: 1205 Lincoln Drive - AG 176 - MC 4415	
Location: Carbondale IL	
Postal Code: 62901	E-mail: bgyoung@siu.edu
Phone No.: 618-453-7679	Mobile No.: 618-713-6471

Crop Description	
Crop 1: ZEAMD Zea mays indentata Dent corn	Description: LL/RR2
Variety: P1395HR	Planting Date: 5-29-12
BBCH Scale: BCOR	Rate, Unit: 28000 S/A
Planting Method: SEEDED Seeded	
Depth, Unit: 1.5 IN	
Row Spacing, Unit: 30 IN	

Pest Description	
Pest 1 Type: W	Code: NA
Common Name: yield only	

Site and Design	
Plot Width, Unit: 10 FT	Site Type: FIELD field
Plot Length, Unit: 80 FT	
Plot Area, Unit: 800 FT ²	Tillage Type: REDTIL reduced-till
Replications: 1	Study Design: NONRAN Non-Randomized

No.	Previous Crop	Year
1.	GLXMA	2011

Maintenance	
No.	Maintenance Treatment Name
1.	N 150 LB/A, P205 0 LB/A, K20 150 LB/A

Soil Description	
% OM: 1.9	Texture: SIL SILT LOAM
pH: 6.8	Soil Name: WINFIELD
CEC: 7	

Additional Measured Elements		
Element	Quantity	Unit
P1	119	LB/A
K	315	LB/A

Moisture and Weather Conditions	
Overall Moisture Conditions:	BELNOR below normal
Closest Weather Station: ICN - Belleville IL	Distance, Unit: 0.5 MI

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No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-24-12					7	DAY	42.6	74.3	F
2.	4-29-12	3.06	IN	RAIN	rain					
3.	4-30-12	0.66	IN	RAIN	rain					
4.	5-1-12	0.13	IN	RAIN	rain					
5.	5-1-12					7	DAY	33.5	76	F
6.	5-4-12	0.25	IN	RAIN	rain					
7.	5-7-12	0.29	IN	RAIN	rain					
8.	5-8-12					7	DAY	47.5	87.8	F
9.	5-15-12					7	DAY	37.7	81.3	F
10.	5-21-12	0.18	IN	RAIN	rain					
11.	5-22-12					7	DAY	47.6	82.3	F
12.	5-29-12					7	DAY	48.1	90	F
13.	5-30-12	0.07	IN	RAIN	rain					
14.	5-31-12	0.21	IN	RAIN	rain					
15.	6-5-12					7	DAY	50.2	90.1	F
16.	6-11-12	0.75	IN	RAIN	rain					
17.	6-12-12					7	DAY	52.4	93.6	F
18.	6-17-12	0.36	IN	RAIN	rain					
19.	6-19-12					7	DAY	56.3	94	F
20.	6-26-12					7	DAY	51.8	105.4	F
21.	7-3-12					7	DAY	68.9	104.7	F
22.	7-8-12	0.28	IN	RAIN	rain					
23.	7-10-12					7	DAY	63.4	95	F
24.	7-17-12					7	DAY	61	102.2	F
25.	7-24-12					7	DAY	61	103	F
26.	7-29-12	0.15	IN	RAIN	rain					
27.	7-31-12					7	DAY	60.2	99.1	F
28.	8-5-12	0.18	IN	RAIN	rain					
29.	8-7-12					7	DAY	50.2	99.8	F
30.	8-13-12	0.88	IN	RAIN	rain					
31.	8-14-12					7	DAY	51	95.6	F
32.	8-17-12	1.19	IN	RAIN	rain					
33.	8-21-12					7	DAY	54.7	94.2	F
34.	8-26-12	0.04	IN	RAIN	rain					
35.	8-27-12	1.66	IN	RAIN	rain					
36.	8-31-12	0.11	IN	RAIN	rain					

Application Description

	A	B	C	D
Application Date:	5-30-12	6-8-12	6-18-12	7-30-12
Time of Day:	7:00	10:30	6:30	7:00
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	V2	V4	VT
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	JRK	JRK	RJW	RJW
Air Temperature, Unit:	62 F	83 F	77 F	76 F
% Relative Humidity:	87	31	71	79
Wind Velocity, Unit:	0 MPH	1 MPH	6 MPH	4 MPH
Wind Direction:		W	S	W
Dew Presence (Y/N):	N no	N no	Y yes	Y yes
Soil Temperature, Unit:	71 F	72 F	78 F	80 F
Soil Moisture:	BELNOR	BELNOR	NORMAL	BELNOR
% Cloud Cover:	100	20	10	50
Next Rain Occurred On:	5-31-12	6-11-12	7-7-12	8-4-12

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Crop Stage At Each Application				
	A	B	C	D
Crop 1 Code, BBCH Scale:	ZEAMD BCOR	ZEAMD BCOR	ZEAMD BCOR	ZEAMD BCOR
Stage Scale Used:	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	V2	V4	VT
Stage Minimum, Percent:		V1	V3	VT
Stage Maximum, Percent:		V2	V4	VT
Height, Unit:		3 IN	8 IN	60 IN
Height Minimum, Maximum:		1.5 3	6 8	48 60

Pest Stage At Each Application				
	A	B	C	D
Pest 1 Code, Type, Scale:	NA W DESC	NA W DESC	NA W DESC	NA W DESC
Stage Majority, Percent:	NA	NA	NA	NA

Application Equipment				
	A	B	C	D
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR	XR
Nozzle Size:	8002	8002	8002	8002
Boom Length, Unit:	10 FT	10 FT	10 FT	10 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA

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Pest Code							ZEAMD	ZEAMD	ZEAMD		
Crop Code							11-8-12	11-8-12	11-8-12		
Rating Date							Moisture	Test wt.	Yield		
Rating Type							Percent	lb/bu	bu/A		
Rating Unit											
Rating Timing											
Trt-Eval Interval											
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Unit	Growth Stage	Appl Code			
1	NONTREATED								22.4	55.3	54
2	PREQUEL	45	WG	0.0467 lb ai/a	1.66	oz/a	PRE	A	22.7	55.2	64
	REALM Q	38.75	WG	0.097 lb ai/a	4	oz/a	V4	C			
	ABUNDIT EXTRA	3	SL	0.75 lb ae/a	32	fl oz/a	V4	C			
	N-PAK AMS	3.4	SL	3.92 % v/v	2	lb ai/a	V4	C			
	APROACH	2.08	SC	0.0975 lb ai/a	6	fl oz/a	VT	D			
	ASANA	0.66	EC	0.031 lb ai/a	6	fl oz/a	VT	D			
	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25	% v/v	VT	D			
3	INSTIGATE	45.84	WG	0.172 lb ai/a	6	oz/a	PRE	A	23.3	54.9	51
	CINCH ATZ	5.5	SC	1.37 lb ai/a	1	qt/a	PRE	A			
	APROACH	2.08	SC	0.0975 lb ai/a	6	fl oz/a	VT	D			
	ASANA	0.66	EC	0.031 lb ai/a	6	fl oz/a	VT	D			
	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25	% v/v	VT	D			
4	INSTIGATE	45.84	WG	0.172 lb ai/a	6	oz/a	PRE	A	22.8	55.2	70
	CINCH ATZ	5.5	SC	2.75 lb ai/a	2	qt/a	PRE	A			
	APROACH	2.08	SC	0.0975 lb ai/a	6	fl oz/a	VT	D			
	ASANA	0.66	EC	0.031 lb ai/a	6	fl oz/a	VT	D			
	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25	% v/v	VT	D			
5	PREQUEL	45	WG	0.07 lb ai/a	2.5	oz/a	PRE	A	22.8	55.1	78
	AATREX	4	SC	2 lb ai/a	2	qt/a	PRE	A			
	APROACH	2.08	SC	0.0975 lb ai/a	6	fl oz/a	VT	D			
	ASANA	0.66	EC	0.031 lb ai/a	6	fl oz/a	VT	D			
	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25	% v/v	VT	D			
6	REALM Q	38.75	WG	0.097 lb ai/a	4	oz/a	V2	B	23.5	54.9	66
	BREAKFREE	6.4	EC	1.06 lb ai/a	1.33	pt/a	V2	B			
	ABUNDIT EXTRA	3	SL	0.75 lb ae/a	32	fl oz/a	V2	B			
	N-PAK AMS	3.4	SL	3.92 % v/v	2	lb ai/a	V2	B			
	APROACH	2.08	SC	0.0975 lb ai/a	6	fl oz/a	VT	D			
	ASANA	0.66	EC	0.031 lb ai/a	6	fl oz/a	VT	D			
	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25	% v/v	VT	D			
7	CINCH ATZ	5.5	SC	1.37 lb ai/a	1	qt/a	PRE	A	22.2	55.3	85
	REALM Q	38.75	WG	0.097 lb ai/a	4	oz/a	V4	C			
	AATREX	4	SC	1 lb ai/a	1	qt/a	V4	C			
	ABUNDIT EXTRA	3	SL	0.75 lb ae/a	32	fl oz/a	V4	C			
	N-PAK AMS	3.4	SL	3.92 % v/v	2	lb ai/a	V4	C			
	APROACH	2.08	SC	0.0975 lb ai/a	6	fl oz/a	VT	D			
	ASANA	0.66	EC	0.031 lb ai/a	6	fl oz/a	VT	D			
	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25	% v/v	VT	D			
8	REALM Q	38.75	WG	0.097 lb ai/a	4	oz/a	V2	B	22.3	55.2	81
	BREAKFREE ATZ	5.25	SC	1.97 lb ai/a	1.5	qt/a	V2	B			
	ABUNDIT EXTRA	3	SL	0.75 lb ae/a	32	fl oz/a	V2	B			
	N-PAK AMS	3.4	SL	3.92 % v/v	2	lb ai/a	V2	B			
	APROACH	2.08	SC	0.0975 lb ai/a	6	fl oz/a	VT	D			
	ASANA	0.66	EC	0.031 lb ai/a	6	fl oz/a	VT	D			
	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25	% v/v	VT	D			
9	BREAKFREE ATZ	5.25	SC	1.97 lb ai/a	3	pt/a	PRE	A	21.9	55.5	88
	REALM Q	38.75	WG	0.097 lb ai/a	4	oz/a	V4	C			
	AATREX	4	SC	1 lb ai/a	1	qt/a	V4	C			
	ABUNDIT EXTRA	3	SL	0.75 lb ae/a	32	fl oz/a	V4	C			
	N-PAK AMS	3.4	SL	3.92 % v/v	2	lb ai/a	V4	C			
	APROACH	2.08	SC	0.0975 lb ai/a	6	fl oz/a	VT	D			
	ASANA	0.66	EC	0.031 lb ai/a	6	fl oz/a	VT	D			
	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25	% v/v	VT	D			

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										ZEAMD	ZEAMD	ZEAMD
Crop Code										11-8-12	11-8-12	11-8-12
Rating Date										Moisture	Test wt.	Yield
Rating Type												
Rating Unit										Percent	lb/bu	bu/A
Rating Timing												
Trt-Eval Interval												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
10	CORVUS	2.62	SC	0.102	lb ai/a	5	fl oz/a	PRE	A	22.1	55.3	74
	AATREX	4	SC	1	lb ai/a	1	qt/a	PRE	A			
	ABUNDIT EXTRA	3	SL	0.75	lb ae/a	32	fl oz/a	V4	C			
	N-PAK AMS	3.4	SL	3.92	% v/v	2	lb ai/a	V4	C			
	HEADLINE AMP	1.68	SC	0.131	lb ai/a	10	fl oz/a	VT	D			
	ASANA	0.66	EC	0.031	lb ai/a	6	fl oz/a	VT	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	VT	D			
11	PREQUEL	45	WG	0.0467	lb ai/a	1.66	oz/a	PRE	A	22.2	55.3	67
	AATREX	4	SC	1	lb ai/a	1	qt/a	PRE	A			
	VERDICT	5.57	EC	0.566	lb ai/a	13	fl oz/a	PRE	A			
	APROACH	2.08	SC	0.0975	lb ai/a	6	fl oz/a	VT	D			
	ASANA	0.66	EC	0.031	lb ai/a	6	fl oz/a	VT	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	VT	D			
12	NONTREATED									20.5	55.3	15
LSD (P=.05)										.	.	.
Standard Deviation										.	.	.
CV										.	.	.

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Trial Comments

1. Protocol: DuPont (USA-12-297; MWJ-12-097).
2. Ratings: None, maybe take photos at 42 DAP or just prior to canopy closure.
3. Yield.
4. Rainfall following the PRE application was 0.28 inch 1 day later, and 0.75 inch 12 days later.
5. Harvested 11-8-12, (2) 30 inch rows by 77 ft.