

Valor and Fierce in No-Till Corn.

Trial ID: 10-8A-S60

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: 05-14-10

Objectives: To evaluate Valor and Fierce applied as part of an early preplant burndown program in Roundup Ready field corn for early season weed control.

Crop 1: ZEAMD Dent corn Variety: P1184HR Description: LL/RR2
 Planting Method: SEEDED Planting Date: 05-29-10
 Rate, Unit: 28000 S/A Depth, Unit: 1.5 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: GGGAN grasses, annual
 Pest 2 Type: W Code: AMBTR Ambrosia trifida L. ragweed, giant
 Pest 3 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common
 Pest 4 Type: W Code: ABUTH Abutilon theophrasti Medicus velvetleaf

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 27 FT Tillage Type: NO-TILL
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year
 1. GLXMA 2009

Field Prep./Maintenance: N 150 LB/A, P205 0 LB/A, K20 100 LB/A

% OM: 1.8 Texture: SILT LOAM
 pH: 6.8 Soil Name: PIERRON
 CEC: 10 Fert. Level: P1: 74 LB/A, K: 343 LB/A

Application Description

	A	B
Application Date:	05-14-10	07-12-10
Time of Day:	15:00	8:30
Application Method:	Spray	Spray
Application Timing:	7DBP	42DAP
Application Placement:	BROFOL	BROFOL
Applied By:	DKP	NVH
Air Temperature, Unit:	66 F	74 F
% Relative Humidity:	80	92
Wind Velocity, Unit:	3 MPH	1 MPH
Wind Direction:	W	S
Dew Presence (Y/N):	N	Y
Soil Moisture:	ABONOR	ABONOR
% Cloud Cover:	80	40

	A	B
Crop stage at application:	NA	V15
Height Min, Max (inch):	72	94

Pest Stage At Each Application

	A	B
Application Date:	05-14-10	07-12-10
Weed Code:	GGGAN	GGGAN
Stage Majority (leaves):	4	40
Stage Min, Max:	2 8	20 60
Height Majority:	3 IN	48 IN
Height Min, Max:	2 8	36 52
Density, Unit:	1 FT2	0.7 FT2
Weed Code:	AMBTR	AMBTR
Stage Majority (leaves):	4	50
Stage Min, Max:	2 6	30 60
Height Majority:	4 IN	62 IN
Height Min, Max:	2 8	40 76
Density, Unit:	3 FT2	3 FT2
Weed Code:	AMATA	AMATA
Stage Majority (leaves):	NA	50
Stage Min, Max:		30 80
Height Majority:		55 IN
Height Min, Max:		48 72
Density, Unit:		0.3 FT2
Weed Code:	ABUTH	ABUTH
Stage Majority (leaves):	NA	20
Stage Min, Max:		18 20
Height Majority:		48 IN
Height Min, Max:		36 48
Density, Unit:		0.1 FT2

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA

Valor and Fierce in No-Till Corn.

Trial ID: 10-8A-S60

Location: Belleville Res. Center

										AMBTR	AMBTR	AMBTR	AMATA	AMATA	AMATA
Pest Code										06-26-10	07-10-10	07-24-10	06-26-10	07-10-10	07-24-10
Crop Code										Control	Control	Control	Control	Control	Control
Rating Date										Percent	Percent	Percent	Percent	Percent	Percent
Rating Data Type										28 DAP	42 DAP	56 DAP	28 DAP	42 DAP	56 DAP
Rating Unit															
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						
1	NONTREATED									0 d	0 d	0 c	0 b	0 d	0 b
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	60 bc	57 ab	47 ab	0 b	0 d	0 b
2	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A						
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B						
2	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B						
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	83 abc	63 ab	60 a	84 a	50 ab	43 a
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	7DBP	A						
3	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A						
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B						
3	AATREX	4	SC	0.5	lb ai/a	1	pt/a	42DAP	B						
3	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B						
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	53 c	23 cd	30 b	89 a	53 a	43 a
4	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	7DBP	A						
4	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A						
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B						
4	AATREX	4	SC	1	lb ai/a	1	qt/a	42DAP	B						
4	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B						
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	92 a	48 abc	47 ab	63 a	17 bcd	8 b
5	LEXAR	3.7	SC	1.39	lb ai/a	1.5	qt/a	7DBP	A						
5	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A						
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B						
5	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B						
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	97 a	77 a	73 a	85 a	45 abc	45 a
6	CORVUS	2.62	SC	0.0614	lb ai/a	3	fl oz/a	7DBP	A						
6	AATREX	4	SC	1	lb ai/a	1	qt/a	7DBP	A						
6	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A						
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B						
6	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B						
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	86 ab	45 bc	45 ab	91 a	30 a-d	28 ab
7	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	7DBP	A						
7	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A						
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B						
7	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B						
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	81 abc	60 ab	57 ab	71 a	12 cd	3 b
8	INTEGRITY	5.57	EC	0.566	lb ai/a	13	fl oz/a	7DBP	A						
8	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	7DBP	A						
8	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A						
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B						
8	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B						
LSD (P=.05)										31.9	28.8	28.6	30.4	34.5	35.0
Replicate F										0.308	0.837	1.201	2.458	0.663	0.504
Replicate Prob(F)										0.7398	0.4536	0.3300	0.1216	0.5309	0.6145
Treatment F										9.047	6.638	5.504	14.755	3.692	3.204
Treatment Prob(F)										0.0003	0.0014	0.0033	0.0001	0.0180	0.0303

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

Valor and Fierce in No-Till Corn.

Trial ID: 10-8A-S60

Location: Belleville Res. Center

Pest Code	ABUTH	ABUTH	ABUTH
Crop Code			
Rating Date	06-26-10	07-10-10	07-24-10
Rating Data Type	Control	Control	Control
Rating Unit	Percent	Percent	Percent
Rating Timing	28 DAP	42 DAP	56 DAP
Trt-Eval Interval			

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED									0 b	0 b	0 b
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	0 b	0 b	0 b
2	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A			
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B			
2	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B			
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	56 ab	30 ab	27 ab
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	7DBP	A			
3	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A			
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B			
3	AATREX	4	SC	0.5	lb ai/a	1	pt/a	42DAP	B			
3	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B			
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	53 ab	28 ab	25 ab
4	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	7DBP	A			
4	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A			
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B			
4	AATREX	4	SC	1	lb ai/a	1	qt/a	42DAP	B			
4	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B			
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	91 a	53 a	48 a
5	LEXAR	3.7	SC	1.39	lb ai/a	1.5	qt/a	7DBP	A			
5	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A			
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B			
5	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B			
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	94 a	63 a	62 a
6	CORVUS	2.62	SC	0.0614	lb ai/a	3	fl oz/a	7DBP	A			
6	AATREX	4	SC	1	lb ai/a	1	qt/a	7DBP	A			
6	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A			
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B			
6	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B			
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	76 a	42 ab	37 ab
7	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	7DBP	A			
7	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A			
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B			
7	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B			
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7DBP	A	63 a	50 ab	43 ab
8	INTEGRITY	5.57	EC	0.566	lb ai/a	13	fl oz/a	7DBP	A			
8	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	7DBP	A			
8	AMS	100	SG	2.5	lb/a	2.5	lb/a	7DBP	A			
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	42DAP	B			
8	AMS	100	SG	2.5	lb/a	2.5	lb/a	42DAP	B			
LSD (P=.05)										56.4	50.7	45.7
Replicate F										1.533	0.872	1.056
Replicate Prob(F)										0.2525	0.4411	0.3740
Treatment F										3.941	2.028	2.136
Treatment Prob(F)										0.0159	0.1285	0.1075

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

Trial Comments

1. Protocol: Valent.
2. Ratings: CI at 14 and 28 DAP; WC at 28, 42, and 56 DAP.
3. GGGAN = Annual grasses including SETFA (giant foxtail) and PANDI (fall panicum).
DAP = Days after planting.
4. Not harvested.