Southern Illinois University

Valor versus Competitive Corn Standards.

Project Code: 07-5B Location: Belleville Research Center
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
Trial Status: Final **Updated:** 1-23-08

Objective:
Compare Valor and Valor plus atrazine to competitive standards in no-till corn.

Weed	Code	Common Name	Scientific Name
1.	ERICA	horseweed	Conyza canadensis (L.) Crong.
2.	AMBEL	ragweed, common	Ambrosia artemisiifolia L.
3.	XANST	cocklebur, common	Xanthium strumarium L.
4.	SETFA	foxtail, giant	Setaria faberi Herrm.
5.	AMATA	waterhemp, common	Amaranthus rudis Sauer

Crop 1: ZEAMX corn, field **Variety:** 33K44
Planting Method: Seeded **Planting Date:** 5-14-07
Rate: 28000 S/A **Depth:** 1.5 IN
Row Spacing: 30 IN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 27 FT **Reps:** 3
Tillage Type: No-Till **Study Design:** Randomized complete block
Previous Crop, Year: GLXMA, 2006
Field Prep./Maintenance: N 150 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Name: Stoy **% OM:** 2.2 **pH:** 7.1 **CEC:** 7
Texture: Silt loam **Fert. Level:** P1: 96 LB/A, K: 411 LB/A

APPLICATION DESCRIPTION

	A	B
Application Date:	4-24-07	5-1-07
Time of Day:	10:00	9:30
Application Method:	Spray	Spray
Application Timing:	14EPP	7EPP
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	76 F	70 F
% Relative Humidity:	70	90
Wind Velocity, Unit:	3 MPH	3 MPH
Soil Moisture:	NORMAL	NORMAL

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	ZEAMX NA	ZEAMX NA
Height, Unit:	NA NA	NA NA

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code:	ERICA	ERICA
Stage(leaves):	10+	4-20
Height(inches):	3-4	0.5-5
Density:	Medium	Medium
Weed 2 Code:		AMBEL
Stage(leaves):		2-4
Height(inches):		0.5-1
Density:		Low

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 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

NOTES:

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ZEAMX Injury Percent 5-21-07 7 DAP	ZEAMX Injury Percent 6-18-07 35 DAP	ERICA Control Percent 5-21-07 7 DAP	ERICA Control Percent 6-18-07 35 DAP	AMBEL Control Percent 5-21-07 7 DAP	AMBEL Control Percent 6-18-07 35 DAP	XANST Control Percent 5-21-07 7 DAP	XANST Control Percent 6-18-07 35 DAP	SETFA Control Percent 5-21-07 7 DAP	SETFA Control Percent 6-18-07 35 DAP	AMATA Control Percent 5-21-07 7 DAP	AMATA Control Percent 6-18-07 35 DAP
1	NONTREATED									0 a	0 a	0 b	0 b	0 d	0 e	0 g	0 d	0 f	0 f	0 h	0 f
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	14EPP	A	0 a	0 a	99 a	99 a	78 c	85 d	0 g	0 d	7 ef	3 ef	0 h	0 f
2	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	14EPP	A												
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	14EPP	A	0 a	0 a	99 a	99 a	96 ab	88 bcd	10 fg	0 d	75 bc	50 c	73 cde	52 bc
3	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	14EPP	A												
3	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	14EPP	A												
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	14EPP	A	0 a	0 a	99 a	99 a	97 ab	93 abc	13 fg	2 cd	86 ab	55 c	70 cde	50 bc
4	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	14EPP	A												
4	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	14EPP	A												
4	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	14EPP	A												
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	14EPP	A	0 a	0 a	99 a	99 a	98 ab	93 abc	17 efg	12 bcd	38 d	13 def	20 g	3 f
5	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	14EPP	A												
5	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	14EPP	A												
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	14EPP	A	0 a	0 a	99 a	99 a	95 ab	87 cd	10 fg	3 cd	43 d	18 de	7 gh	0 f
6	BICEP II MAGNUM	5.5	L	1.79	lb ai/a	1.3	qt/a	14EPP	A												
6	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	14EPP	A												
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	14EPP	A	0 a	0 a	99 a	99 a	93 ab	88 bcd	27 def	10 cd	62 c	27 d	48 f	23 de
7	LUMAX	3.94	L	1.48	lb ai/a	3	pt/a	14EPP	A												
7	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	14EPP	A												
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	14EPP	A	0 a	0 a	99 a	99 a	98 ab	90 a-d	13 fg	3 cd	17 e	2 ef	0 h	0 f
8	BALANCE PRO	4	SC	0.047	lb ai/a	1.5	fl oz/a	14EPP	A												
8	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	14EPP	A												
9	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	14EPP	A	0 a	0 a	99 a	99 a	98 ab	93 abc	10 fg	7 cd	33 d	15 def	0 h	0 f
9	EPIC	58	WG	0.181	lb ai/a	5	oz/a	14EPP	A												
9	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	14EPP	A												
10	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7EPP	B	0 a	0 a	99 a	99 a	93 b	92 a-d	13 fg	3 cd	43 d	17 def	0 h	0 f
10	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	7EPP	B												
11	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7EPP	B	0 a	0 a	99 a	99 a	99 a	92 a-d	55 ab	27 ab	96 a	88 a	90 ab	53 b
11	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	7EPP	B												
11	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	7EPP	B												
12	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7EPP	B	0 a	0 a	99 a	99 a	99 a	96 ab	58 a	28 a	96 a	75 ab	96 a	68 ab
12	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	7EPP	B												
12	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	7EPP	B												
12	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	7EPP	B												
13	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7EPP	B	0 a	0 a	99 a	99 a	98 ab	90 a-d	40 bcd	17 abc	73 bc	60 bc	80 bcd	33 cd
13	AATREX	90	WG	1.0	lb ai/a	1.11	lb/a	7EPP	B												
13	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	7EPP	B												
14	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7EPP	B	0 a	0 a	99 a	99 a	98 ab	96 ab	43 a-d	10 cd	92 a	73 ab	60 ef	7 ef
14	BICEP II MAGNUM	5.5	L	1.79	lb ai/a	1.3	qt/a	7EPP	B												
14	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	7EPP	B												
15	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7EPP	B	0 a	0 a	99 a	99 a	99 a	90 a-d	45 abc	13 a-d	97 a	88 a	96 a	73 a
15	LUMAX	3.94	L	1.48	lb ai/a	3	pt/a	7EPP	B												
15	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	7EPP	B												
16	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7EPP	B	0 a	0 a	99 a	99 a	98 ab	97 a	47 abc	13 a-d	94 a	81 a	83 abc	50 bc
16	BALANCE PRO	4	SC	0.047	lb ai/a	1.5	fl oz/a	7EPP	B												
16	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	7EPP	B												
17	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7EPP	B	0 a	0 a	99 a	99 a	98 ab	93 abc	33 cde	12 bcd	94 a	78 a	67 de	17 def
17	EPIC	58	WG	0.181	lb ai/a	5	oz/a	7EPP	B												
17	AMS	100	DRY	2.5	lb ai/a	2.5	lb/a	7EPP	B												
LSD (P=.05)										0.0	0.0	0.0	0.0	5.5	8.2	17.6	16.3	16.0	17.8	14.9	19.7
Replicate F										0.000	0.000	0.000	0.000	1.134	0.358	1.195	1.423	2.233	5.220	3.563	1.179
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000	0.3342	0.7015	0.3157	0.2559	0.1237	0.0109	0.0401	0.3206
Treatment F										0.000	0.000	0.000	0.000	157.866	62.128	9.900	2.329	37.259	28.678	56.512	15.667
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0204	0.0001	0.0001	0.0001	0.0001

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

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Trial Comments

1. Protocol: Valent (MD68.02).
2. Ratings: CI / WC 7 + 35 DAP.
3. Apply POST application after Valent plot tour.
4. DAP = Days after planting.
5. A blanket POST application of Roundup Weathermax (32 floz/A) + AMS (2.5 lb/A) was applied to the front half of each plot, except the nontreated, on 6-9-07.
   Ratings at 35 DAP were from the back half of each plot (without the POST).