

Early Spring Burndown with Valor XLT.

Project Code: 07-Young-ValorXLT Location: Murphysboro, IL
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Murphysboro IL 62966 USA
Trial Status: Final Updated: 1-24-08

Objective:

Evaluate the efficacy of Valor XLT programs versus competitive programs on common chickweed.

Weed Code	Common Name	Scientific Name
1.	STEME chickweed, common	Stellaria media (L.) Vill.
2.	LAMAM henbit	Lamium amplexicaule L.
3.	ERICA horseweed	Conyza canadensis (L.) Crong.
4.	GERCA geranium, Carolina	Geranium carolinianum L.
5.	AMATA waterhemp, common	Amaranthus rudis Sauer

Crop 1: GLXMA soybean Variety: FS4646 RR
 Planting Method: Seeded Planting Date: 5-7-07
 Rate: 75 lb/A Depth: 1.0 IN
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 30 FT Reps: 3
 Tillage Type: No-Till Study Design: Randomized complete block
 Previous Crop, Year: ZEAMX, 2006
 Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 0 LB/A

Soil Name: Alvin % OM: 1.6 pH: 5.2 CEC: 6.7
 Texture: Very fine sandy loam Fert. Level: P1: 56 LB/A, K: 143 LB/A

APPLICATION DESCRIPTION

A
 Application Date: 4-2-07
 Time of Day: 18:00
 Application Method: Spray
 Application Timing: 35EPP
 Applic. Placement: BROFOL
 Air Temp., Unit: 68 F
 % Relative Humidity: 59

CROP STAGE AT EACH APPLICATION

A
 Crop 1 Code, Stage: GLXMA NA
 Height, Unit: NA NA

WEED STAGE AT EACH APPLICATION

A
 Weed 1 Code: STEME
 Stage(leaves): 100+
 Height(inches): 9-12 DIA
 Density: High
 Weed 2 Code: LAMAM
 Stage(leaves): 50+
 Height(inches): 3-9 DIA
 Density: High
 Weed 3 Code: ERICA
 Stage(leaves): 9-16
 Height(inches): 4-8 DIA
 Density: Medium
 Weed 4 Code: GERCA
 Stage(leaves): 8-20
 Height(inches): 6-10 DIA
 Density: Low

APPLICATION EQUIPMENT

A
 Appl. Equipment: CO2 sprayer
 Operating Pressure: 40 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 8002
 Boom Length, Unit: 7.5 FT
 Spray Volume, Unit: 15 GPA

NOTES:

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Crop Code	Injury	Control	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	6-4-07	4-16-07	4-23-07	5-7-07	4-16-07	4-23-07	5-7-07
Rating Date	28 DAP	14 DA-A	21 DA-A	0 DAP	14 DA-A	21 DA-A	0 DAP
Trt-Eval Interval							

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code							
1	NONTREATED									0 a	0 d	0 d	0 c	0 b	0 c	0 b
2	VALOR XLT	40.3	WG			3	oz/a	35EPP	A	0 a	98 a	98 ab	99 a	99 a	99 a	99 a
2	->VALOR SX	51	WG	0.056	lb ai/a			35EPP	A							
2	->CLASSIC	25	WG	0.0194	lb ai/a			35EPP	A							
2	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	35EPP	A							
2	PRIME OIL COC	100	LIQ	1.0	pt/a	1	pt/a	35EPP	A							
3	CANOPY	75	WG	0.14	lb ai/a	3	oz/a	35EPP	A	0 a	98 a	98 ab	99 a	99 a	99 a	99 a
3	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	35EPP	A							
3	PRIME OIL COC	100	LIQ	1.0	pt/a	1	pt/a	35EPP	A							
4	CANOPY XL	56.3	WG			3	oz/a	35EPP	A	0 a	92 b	94 c	95 b	99 a	99 b	99 a
4	->CLASSIC	25	WG	.017667	lb ai/a			35EPP	A							
4	->AUTHORITY	75	WG	0.0883	lb ai/a			35EPP	A							
4	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	35EPP	A							
4	PRIME OIL COC	100	LIQ	1.0	pt/a	1	pt/a	35EPP	A							
5	CANOPY EX	29.5	WG			1.35	oz/a	35EPP	A	0 a	87 c	96 b	99 a	99 a	99 a	99 a
5	->CLASSIC	25	WG	0.01924	lb ai/a			35EPP	A							
5	->EXPRESS XP	75	WG	.005763	lb ai/a			35EPP	A							
5	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	35EPP	A							
5	PRIME OIL COC	100	LIQ	1.0	pt/a	1	pt/a	35EPP	A							
6	VALOR XLT	40.3	WG			3	oz/a	35EPP	A	0 a	98 a	98 ab	99 a	99 a	99 a	99 a
6	->VALOR SX	51	WG	0.056	lb ai/a			35EPP	A							
6	->CLASSIC	25	WG	0.0194	lb ai/a			35EPP	A							
6	EXPRESS XP	75	WG	0.00586	lb ai/a	0.125	oz/a	35EPP	A							
6	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	35EPP	A							
6	PRIME OIL COC	100	LIQ	1.0	pt/a	1	pt/a	35EPP	A							
7	VALOR XLT	40.3	WG			3	oz/a	35EPP	A	0 a	98 a	99 a	99 a	99 a	99 a	99 a
7	->VALOR SX	51	WG	0.056	lb ai/a			35EPP	A							
7	->CLASSIC	25	WG	0.0194	lb ai/a			35EPP	A							
7	AUTUMN	10	WG	0.00078	lb ai/a	0.125	oz/a	35EPP	A							
7	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	35EPP	A							
7	PRIME OIL COC	100	LIQ	1.0	pt/a	1	pt/a	35EPP	A							
8	VALOR XLT	40.3	WG			3	oz/a	35EPP	A	0 a	99 a	99 a	99 a	99 a	99 a	99 a
8	->VALOR SX	51	WG	0.056	lb ai/a			35EPP	A							
8	->CLASSIC	25	WG	0.0194	lb ai/a			35EPP	A							
8	ROUNDUP ORIG MAX	4.5	SL	0.387	lb ai/a	11	fl oz/a	35EPP	A							
8	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	35EPP	A							
8	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	35EPP	A							
8	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	35EPP	A							
9	VALOR XLT	40.3	WG			3	oz/a	35EPP	A	0 a	99 a	99 a	99 a	99 a	99 a	99 a
9	->VALOR SX	51	WG	0.056	lb ai/a			35EPP	A							
9	->CLASSIC	25	WG	0.0194	lb ai/a			35EPP	A							
9	SENCOR	75	WG	0.094	lb ai/a	2	oz/a	35EPP	A							
9	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	35EPP	A							
9	PRIME OIL COC	100	LIQ	1.0	pt/a	1	pt/a	35EPP	A							
LSD (P=.05)										0.0	2.7	2.3	2.8	0.0	0.3	0.0
Replicate F										0.000	3.718	1.069	0.871	0.000	1.000	0.000
Replicate Prob(F)										1.0000	0.0472	0.3665	0.4373	1.0000	0.3897	1.0000
Treatment F										0.000	1321.659	1764.992	1248.014	0.000	88135.759	0.000
Treatment Prob(F)										1.0000	0.0001	0.0001	0.0001	1.0000	0.0001	1.0000

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

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Crop Code	Control	Control	Control	Control	Control	Control	Control	Control										
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent										
Rating Unit	4-16-07	4-23-07	5-7-07	6-4-07	4-16-07	4-23-07	5-7-07	6-4-07										
Rating Date	14 DA-A	21 DA-A	0 DAP	28 DAP	14 DA-A	21 DA-A	0 DAP	28 DAP										
Trt-Eval Interval																		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code									
1	NONTREATED									0 d	0 c	0 b	0 c	0 c	0 c	0 b	0 c	
2	VALOR XLT	40.3	WG			3	oz/a	35EPP	A	94 ab	95 ab	98 a	98 a	99 a	99 a	99 a	99 a	
2	->VALOR SX	51	WG	0.056	lb ai/a			35EPP	A									
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2	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	35EPP	A									
2	PRIME OIL COC	100	LIQ	1.0	pt/a	1	pt/a	35EPP	A									
3	CANOPY	75	WG	0.14	lb ai/a	3	oz/a	35EPP	A	97 ab	98 a	99 a	98 a	99 a	99 ab	99 a	99 a	
3	2,4-D LV4	3.8	EC	0.475	lb ai/a	1	pt/a	35EPP	A									
3	PRIME OIL COC	100	LIQ	1.0	pt/a	1	pt/a	35EPP	A									
4	CANOPY XL	56.3	WG			3	oz/a	35EPP	A	91 b	95 ab	98 a	99 a	95 a	97 b	99 a	99 a	
4	->CLASSIC	25	WG	.017667	lb ai/a			35EPP	A									
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5	CANOPY EX	29.5	WG			1.35	oz/a	35EPP	A	83 c	90 b	98 a	98 a	90 b	98 ab	99 a	40 b	
5	->CLASSIC	25	WG	0.01924	lb ai/a			35EPP	A									
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9	PRIME OIL COC	100	LIQ	1.0	pt/a	1	pt/a	35EPP	A									
LSD (P=.05)										6.7	5.3	1.5	1.9	5.2	1.4	0.0	6.8	
Replicate F										0.312	1.004	1.318	0.932	1.896	1.273	0.000	0.886	
Replicate Prob(F)										0.7364	0.3882	0.2953	0.4140	0.1824	0.3069	1.0000	0.4330	
Treatment F										202.275	324.766	4103.377	2612.263	356.743	5307.273	0.000	255.848	
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	0.0001	

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

Trial Comments

1. Protocol: Valent.
2. Ratings: WC 14, 21 + 35 DA Burndown. CI/WC 28 DAP.
3. Blanket application of Roundup Original Max (22 fl oz/A) to be applied at 28 DAP.
4. DA-A = Days after 35EPP application. DAP = Days after planting. DIA = Diameter.
5. After application and before the first rating, repeated frosts did cause some necrosis of STEME.