

Valor plus Sharpen Burndown Interaction.

Trial ID: 10-YRC-ValorSharp Location: Young Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Murphysboro IL 62966 USA
 Trial Status: FINAL Initiation Date: 05-24-10

Objectives: Determine the interaction of Valor and Sharpen for marestalk burndown and crop response.

Crop 1: GLXMA Soybean Variety: AG 4005 Description: RR
 Planting Method: SEEDS
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: ERICA Conyza canadensis (L.) Crong. horseweed
 Pest Description: glyphosate-resistant marestalk
 Pest 2 Type: W Code: GERCA Geranium carolinianum L. geranium, Carolina

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 33 FT Tillage Type: NO-TILL
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year
 1. GLXMA 2009

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

% OM: 2.1 Texture: VERY FINE SANDY LOAM
 pH: 5 Soil Name: ALVIN
 CEC: 9 Fert. Level: P1 133 LB/A, K 209 LB/A

Application Description

A
 Application Date: 05-24-10
 Time of Day: 9:30
 Application Method: Spray
 Application Timing: 8-15"MT
 Application Placement: BROFOL
 Applied By: NRJ
 Air Temperature, Unit: 90 F
 % Relative Humidity: 60
 Wind Velocity, Unit: 1 MPH
 Wind Direction: S
 Dew Presence (Y/N): N
 Soil Temperature, Unit: 72 F
 Soil Moisture: NORMAL
 % Cloud Cover: 0

05-24-10
 Crop stage at application: NA

Pest Stage At Each Application

Application Date: 05-24-10
 Weed Code: ERICA
 Stage Majority (leaves): 25
 Stage Min, Max: 10 50
 Height Majority: 8 IN
 Height Min, Max: 2 18
 Density, Unit: 1 FT2
 Weed Code: GERCA
 Stage Majority (leaves): 30
 Stage Min, Max: 20 40
 Height Majority: 8 IN
 Height Min, Max: 6 12
 Density, Unit: 0.01 FT2

Application Equipment

Appl. Equipment: CO2 sprayer
 Operating Pressure: 30 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 8002
 Boom Length, Unit: 6.67 FT
 Spray Volume, Unit: 15 GPA

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Pest Code Crop Code Rating Date Rating Data Type Rating Unit Rating Timing Trt-Eval Interval										GLXMA 06-10-10 Injury Percent	GLXMA 06-14-10 Injury Percent	GLXMA 06-21-10 Injury Percent	GLXMA 06-24-10 Injury Percent	GLXMA 06-28-10 Injury Percent	GLXMA 07-05-10 Injury Percent
										14 DAP1	14 DAP2	14 DAP3	28 DAP1	28 DAP2	28 DAP3
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NONTREATED									0 c	0 b	0 a	0 b	0 a	0 a
2	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	8-15"MT	A	1 bc	0 b	0 a	0 b	0 a	0 a
2	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
3	SHARPEN	2.85	SC	0.0167	lb ai/a	0.75	fl oz/a	8-15"MT	A	2 bc	0 b	0 a	0 b	0 a	0 a
3	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
4	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	8-15"MT	A	1 bc	0 b	0 a	0 b	0 a	0 a
4	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
5	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A	1 bc	0 b	0 a	0 b	0 a	0 a
5	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
6	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A	0 c	0 b	0 a	0 b	0 a	0 a
6	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	8-15"MT	A						
6	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
7	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A	0 c	0 b	0 a	0 b	0 a	0 a
7	SHARPEN	2.85	SC	0.0167	lb ai/a	0.75	fl oz/a	8-15"MT	A						
7	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
8	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A	1 bc	0 b	0 a	0 b	0 a	0 a
8	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	8-15"MT	A						
8	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
9	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	3 abc	0 b	0 a	0 b	0 a	0 a
10	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A	3 abc	0 b	0 a	0 b	0 a	0 a
10	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A						
11	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	4 abc	1 ab	0 a	1 a	0 a	0 a
11	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	8-15"MT	A						
11	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
12	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	6 a	0 b	0 a	0 b	0 a	0 a
12	SHARPEN	2.85	SC	0.0167	lb ai/a	0.75	fl oz/a	8-15"MT	A						
12	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
13	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	4 ab	0 b	0 a	0 b	0 a	0 a
13	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	8-15"MT	A						
13	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
14	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	4 ab	0 b	0 a	0 b	0 a	0 a
14	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A						
14	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	8-15"MT	A						
14	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
15	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	4 ab	1 ab	0 a	0 b	0 a	0 a
15	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A						
15	SHARPEN	2.85	SC	0.0167	lb ai/a	0.75	fl oz/a	8-15"MT	A						
15	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
16	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	7 a	2 a	0 a	0 b	0 a	0 a
16	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A						
16	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	8-15"MT	A						
16	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
LSD (P=.05)										4.0	1.5	0.0	0.7	0.0	0.0
Replicate F										4.343	3.201	0.000	1.000	0.000	0.000
Replicate Prob(F)										0.0221	0.0549	1.0000	0.3798	1.0000	1.0000
Treatment F										2.407	1.000	0.000	1.000	0.000	0.000
Treatment Prob(F)										0.0198	0.4801	1.0000	0.4801	1.0000	1.0000

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

Valor plus Sharpen Burndown Interaction.

Trial ID: 10-YRC-ValorSharp Location: Young Res. Center

Pest Code	ERICA	ERICA	ERICA	GERCA	GERCA	GERCA
Crop Code	05-31-10	06-07-10	06-21-10	05-31-10	06-07-10	06-21-10
Rating Date	Control	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-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						
1	NONTREATED									0 h	0 e	0 f	0 f	0 d	0 c
2	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	8-15"MT	A	95 d	96 a	95 ab	82 d	88 b	85 b
2	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
3	SHARPEN	2.85	SC	0.0167	lb ai/a	0.75	fl oz/a	8-15"MT	A	97 abc	98 a	97 ab	87 d	86 c	83 b
3	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
4	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	8-15"MT	A	98 a	98 a	98 ab	92 c	89 b	85 b
4	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
5	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A	62 f	55 d	55 e	92 c	99 a	99 a
5	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
6	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A	95 d	94 a	95 ab	95 abc	99 a	99 a
6	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	8-15"MT	A						
6	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
7	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A	95 bcd	96 a	95 b	96 ab	99 a	99 a
7	SHARPEN	2.85	SC	0.0167	lb ai/a	0.75	fl oz/a	8-15"MT	A						
7	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
8	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A	97 a-d	98 a	97 ab	93 bc	99 a	99 a
8	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	8-15"MT	A						
8	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
9	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	58 g	62 c	73 d	73 e	98 a	99 a
10	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A	68 e	73 b	82 c	95 abc	99 a	99 a
10	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A						
11	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	95 cd	97 a	98 ab	94 abc	99 a	99 a
11	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	8-15"MT	A						
11	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
12	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	98 ab	98 a	98 ab	92 c	99 a	99 a
12	SHARPEN	2.85	SC	0.0167	lb ai/a	0.75	fl oz/a	8-15"MT	A						
12	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
13	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	98 a	98 a	98 ab	96 ab	99 a	99 a
13	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	8-15"MT	A						
13	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
14	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	95 cd	98 a	98 ab	98 ab	99 a	99 a
14	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A						
14	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	8-15"MT	A						
14	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
15	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	97 a-d	98 a	99 a	97 ab	99 a	99 a
15	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A						
15	SHARPEN	2.85	SC	0.0167	lb ai/a	0.75	fl oz/a	8-15"MT	A						
15	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
16	2,4-D LV 4	3.8	EC	0.475	lb ae/a	1	pt/a	8-15"MT	A	98 ab	98 a	99 a	98 a	99 a	99 a
16	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	8-15"MT	A						
16	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	8-15"MT	A						
16	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	8-15"MT	A						
LSD (P=.05)										2.5	4.8	4.3	4.4	1.6	3.3
Replicate F										1.061	1.190	1.377	0.110	3.087	2.414
Replicate Prob(F)										0.3587	0.3182	0.2677	0.8959	0.0627	0.1092
Treatment F										949.012	259.330	306.224	244.952	2045.960	481.360
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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

Valor plus Sharpen Burndown Interaction.

Trial ID: 10-YRC-ValorSharp Location: Young Res. Center

Trial Comments

1. Protocol: Valent (Valor MD 99.03).
2. Ratings: CI at 14 and 28 days after each planting date. WC at 7, 14, and 28 DAT.
3. No yield data necessary.
4. Plant soybean perpendicular to plots. Plant one pass (4 rows) at 3, 7, and 14 DAT.
Soybean passes were planted on 5-27-10, 5-31-10, and 6-7-10.
5. Blanket application of Select to control grass species.
6. ERICA-HR = Herbicide-resistant marestail (glyphosate).
AMASS = Amaranth species including AMATA (common waterhemp) and AMARE (redroot pigweed).
DAP1, DAP2, and DAP3 = Days after planting date 1, 2, and 3, respectively.
7. Not harvested.