

University of Nebraska

Evaluation of Valor SX

Trial ID: L0737
Location: Havelock

Study Dir.: Kevin Horky
Investigator: Dr. Mark Bernards

GENERAL TRIAL INFORMATION

Study Director: Kevin Horky **Title:** Research Technician
Affiliation: University of Nebraska Lincoln
Postal Code: 68583
Investigator: Dr. Mark Bernards **Title:** Ext. Weed Specialist
Affiliation: University of Nebraska Lincoln
Postal Code: 68583

TRIAL LOCATION

City: Lincoln
State/Prov.: NE
Postal Code: 68583

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	ABUTH	Velvetleaf	Abutilon theophrasti
2.	AMAPA	Amaranth, Palmer	Amaranthus palmeri
3.	HELAN	Common sunflower	Helianthus annuus
4.	PESGL	Yellow foxtail	Pennisetum glaucum

Crop 1: GLXMA SOYBEAN **Variety:** Asgrow 2703
Planting Date: 22/May/2007 **Planting Method:** planted
Rate: 180000 seeds/acre **Depth:** 1.25 in
Row Spacing: 30 in **Seed Bed:** coarse
Soil Temperature: 10 C **Soil Moisture:** good **Emergence Date:** 28/May/2007

SITE AND DESIGN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 30 FT **Reps:** 3
Site Type: field
Tillage Type: conventional **Study Design:** RANDOMIZED COMPLETE BLOCK

MAINTENANCE

Field Prep./Maintenance: Field was disked once and field cultivated once.

SOIL DESCRIPTION

% Sand: 6 **% OM:** 3.1 **Texture:** Silty Clay Loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharpesburg
% Clay: 29 **CEC:** 31 **Fert. Level:** good

APPLICATION DESCRIPTION

	A
Application Date:	22/May/2007
Time of Day:	10:00 am
Application Method:	Spray
Application Timing:	pre
Applic. Placement:	BROS0I
Air Temp., Unit:	69 F
% Relative Humidity:	79
Wind Velocity, Unit:	10 mph
Soil Temp., Unit:	10 C
Soil Moisture:	good
% Cloud Cover:	100

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GLXMA
Stage Scale:	pre

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WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	ABUTH
Stage Scale:	pre
Weed 2 Code, Stage:	AMAPA
Stage Scale:	pre
Weed 3 Code, Stage:	HELAN
Stage Scale:	pre
Weed 4 Code, Stage:	PESGL
Stage Scale:	pre

APPLICATION EQUIPMENT

	A
Appl. Equipment:	IH cub
Operating Pressure:	30
Nozzle Type:	Turbo Tee
Nozzle Size:	110015
Nozzle Spacing, Unit:	15 in
Nozzles/Row:	2
Boom Length, Unit:	10 ft
Boom Height, Unit:	15 in
Ground Speed, Unit:	3 mph
Carrier:	water
Spray Volume, Unit:	15 gpa
Propellant:	air

Trial Comments

Valent protocol MD64.02

Data requested

Crop Injury 14,28 DAT

Weed control 28,56 DAT

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Study Dir.: Kevin Horky

Location: Havelock

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Weed Code					GLXMA	GLXMA	ABUTH	AMAPA	HELAN	PESGL	
Crop Code					PHYGEN	PHYGEN	GLXMA	GLXMA	GLXMA	GLXMA	
Rating Data Type					%	%	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit					%	%	%	%	%	%	
Rating Date					5/Jun/2007	19/Jun/2007	19/Jun/2007	19/Jun/2007	19/Jun/2007	19/Jun/2007	
Trt-Eval Interval					14 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	
Trt	Treatment	Rate	Grow	Plot	1	2	3	4	5	6	
No.	Name	Rate	Unit	Stg							
1	Check			101	0	0	0	0	0	0	
				205	0	0	0	0	0	0	
				307	0	0	0	0	0	0	
				Mean =	0	0	0	0	0	0	
2	V-10206	0.213	lb ai/a	pre	102	0	0	60	95	20	70
					208	0	0	90	95	40	60
					313	0	0	60	90	30	70
					Mean =	0	0	70	93	30	67
3	Valor SX	0.063	lb ai/a	pre	103	0	0	50	95	40	40
					206	0	0	70	95	50	40
					308	0	0	30	70	30	0
					Mean =	0	0	50	87	40	27
4	V-10206	0.053	lb ai/a	pre	104	0	0	90	95	40	70
					207	0	0	70	95	50	40
	Valor SX	0.063	lb ai/a	pre	309	0	0	50	90	40	50
					Mean =	0	0	70	93	43	53
5	V-10206	0.08	lb ai/a	pre	105	0	0	80	95	40	70
					213	0	0	80	95	85	90
	Valor SX	0.063	lb ai/a	pre	301	0	0	70	95	95	40
					Mean =	0	0	77	95	73	67
6	V-10206	0.106	lb ai/a	pre	106	0	0	80	95	40	70
					204	0	0	90	95	40	70
	Valor SX	0.063	lb ai/a	pre	302	0	0	70	95	60	40
					Mean =	0	0	80	95	47	60
7	V-10206	0.133	lb ai/a	pre	107	0	0	80	90	40	60
					212	0	0	75	95	30	90
	Valor SX	0.063	lb ai/a	pre	310	0	0	75	95	30	60
					Mean =	0	0	77	93	33	70
8	V-10206	0.159	lb ai/a	pre	108	0	0	90	95	50	85
					201	0	0	75	95	30	80
	Valor SX	0.063	lb ai/a	pre	305	0	0	90	95	20	75
					Mean =	0	0	85	95	33	80
9	V-10206	0.053	lb ai/a	pre	109	0	0	60	80	30	40
					210	0	0	60	80	30	50
	Valor SX	0.047	lb ai/a	pre	312	0	0	40	70	50	40
					Mean =	0	0	53	77	37	43
10	V-10206	0.08	lb ai/a	pre	110	0	0	90	95	30	90
					202	0	0	90	95	30	80
	Valor SX	0.047	lb ai/a	pre	311	0	0	80	95	30	50
					Mean =	0	0	87	95	30	73

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Weed Code						GLXMA	GLXMA	ABUTH	AMAPA	HELAN	PESGL
Crop Code						PHYGEN	PHYGEN	GLXMA	GLXMA	GLXMA	GLXMA
Rating Data Type						%	%	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit						%	%	%	%	%	%
Rating Date						5/Jun/2007	19/Jun/2007	19/Jun/2007	19/Jun/2007	19/Jun/2007	19/Jun/2007
Trt-Eval Interval						14 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A
Trt No.	Treatment Name	Rate	Unit	Grow Stg	Plot	1	2	3	4	5	6
11	V-10206	0.106	lb ai/a	pre	111	0	0	75	95	30	80
	Valor SX	0.047	lb ai/a	pre	209	0	0	65	90	30	50
					304	0	0	60	95	20	60
					Mean =	0	0	67	93	27	63
12	V-10206	0.133	lb ai/a	pre	112	0	0	80	95	30	90
	Valor SX	0.047	lb ai/a	pre	203	0	0	70	95	20	70
					306	0	0	90	95	20	70
					Mean =	0	0	80	95	23	77
13	V-10206	0.159	lb ai/a	pre	113	0	0	85	95	30	80
	Valor SX	0.047	lb ai/a	pre	211	0	0	95	95	30	90
					303	0	0	75	95	40	40
					Mean =	0	0	85	95	33	70

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Weed Code						ABUTH	AMAPA	HELAN	PESGL
Crop Code						GLXMA	GLXMA	GLXMA	GLXMA
Rating Data Type						CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit						%	%	%	%
Rating Date						17/Jul/2007	17/Jul/2007	17/Jul/2007	17/Jul/2007
Trt-Eval Interval						56 DA-A	56 DA-A	56 DA-A	56 DA-A
Trt No.	Treatment Name	Rate	Unit	Grow Stg	Plot	7	8	9	10
1	Check				101	0	0	0	0
					205	0	0	0	0
					307	0	0	0	0
					Mean =	0	0	0	0
2	V-10206	0.213	lb ai/a	pre	102	60	95	20	70
					208	90	95	40	50
					313	60	90	30	70
					Mean =	70	93	30	63
3	Valor SX	0.063	lb ai/a	pre	103	50	95	40	40
					206	70	95	50	40
					308	30	70	30	20
					Mean =	50	87	40	33
4	V-10206	0.053	lb ai/a	pre	104	90	95	40	70
	Valor SX	0.063	lb ai/a	pre	207	70	95	50	40
					309	40	90	40	50
					Mean =	67	93	43	53
5	V-10206	0.08	lb ai/a	pre	105	80	95	40	70
	Valor SX	0.063	lb ai/a	pre	213	70	95	80	80
					301	70	95	90	40
					Mean =	73	95	70	63
6	V-10206	0.106	lb ai/a	pre	106	80	95	40	70
	Valor SX	0.063	lb ai/a	pre	204	90	95	40	70
					302	70	95	60	40
					Mean =	80	95	47	60
7	V-10206	0.133	lb ai/a	pre	107	80	80	40	60
	Valor SX	0.063	lb ai/a	pre	212	70	90	30	80
					310	70	90	30	50
					Mean =	73	87	33	63
8	V-10206	0.159	lb ai/a	pre	108	80	95	50	80
	Valor SX	0.063	lb ai/a	pre	201	70	95	30	80
					305	80	95	20	70
					Mean =	77	95	33	77
9	V-10206	0.053	lb ai/a	pre	109	60	80	30	40
	Valor SX	0.047	lb ai/a	pre	210	60	80	30	50
					312	40	70	50	40
					Mean =	53	77	37	43
10	V-10206	0.08	lb ai/a	pre	110	90	95	30	80
	Valor SX	0.047	lb ai/a	pre	202	90	95	30	80
					311	70	95	30	50
					Mean =	83	95	30	70
11	V-10206	0.106	lb ai/a	pre	111	70	95	30	80
	Valor SX	0.047	lb ai/a	pre	209	60	90	30	50
					304	60	95	20	50
					Mean =	63	93	27	60

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Weed Code						ABUTH	AMAPA	HELAN	PESGL
Crop Code						GLXMA	GLXMA	GLXMA	GLXMA
Rating Data Type						CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit						%	%	%	%
Rating Date						17/Jul/2007	17/Jul/2007	17/Jul/2007	17/Jul/2007
Trt-Eval Interval						56 DA-A	56 DA-A	56 DA-A	56 DA-A
Trt No.	Treatment Name	Rate	Unit	Grow Stg	Plot	7	8	9	10
12	V-10206	0.133	lb ai/a	pre	112	70	95	30	80
	Valor SX	0.047	lb ai/a	pre	203	70	95	20	70
					306	90	95	20	70
					Mean =	77	95	23	73
13	V-10206	0.159	lb ai/a	pre	113	80	95	30	80
	Valor SX	0.047	lb ai/a	pre	211	90	90	30	80
					303	70	95	40	40
					Mean =	80	93	33	67

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Weed Code				ABUTH	AMAPA	HELAN	PESGL	ABUTH			
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Rating Data Type		PHYGEN	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit		%	%	%	%	%	%	%			
Rating Date		5/Jun/2007	19/Jun/2007	19/Jun/2007	19/Jun/2007	19/Jun/2007	19/Jun/2007	17/Jul/2007			
Trt-Eval Interval		14 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	56 DA-A			
Trt	Treatment	Rate	Grow								
No.	Name	Rate	Unit	Stg	1	2	3	4	5	6	7
1	Check				0 a	0 a	0 d	0 c	0 c	0 c	0 c
2	V-10206	0.213	lb ai/a	pre	0 a	0 a	70 abc	93 a	30 b	67 a	70 ab
3	Valor SX	0.063	lb ai/a	pre	0 a	0 a	50 c	87 a	40 b	27 b	50 b
4	V-10206	0.053	lb ai/a	pre	0 a	0 a	70 abc	93 a	43 b	53 ab	67 ab
	Valor SX	0.063	lb ai/a	pre							
5	V-10206	0.08	lb ai/a	pre	0 a	0 a	77 abc	95 a	73 a	67 a	73 ab
	Valor SX	0.063	lb ai/a	pre							
6	V-10206	0.106	lb ai/a	pre	0 a	0 a	80 ab	95 a	47 b	60 a	80 ab
	Valor SX	0.063	lb ai/a	pre							
7	V-10206	0.133	lb ai/a	pre	0 a	0 a	77 abc	93 a	33 b	70 a	73 ab
	Valor SX	0.063	lb ai/a	pre							
8	V-10206	0.159	lb ai/a	pre	0 a	0 a	85 a	95 a	33 b	80 a	77 ab
	Valor SX	0.063	lb ai/a	pre							
9	V-10206	0.053	lb ai/a	pre	0 a	0 a	53 bc	77 b	37 b	43 ab	53 ab
	Valor SX	0.047	lb ai/a	pre							
10	V-10206	0.08	lb ai/a	pre	0 a	0 a	87 a	95 a	30 b	73 a	83 a
	Valor SX	0.047	lb ai/a	pre							
11	V-10206	0.106	lb ai/a	pre	0 a	0 a	67 abc	93 a	27 b	63 a	63 ab
	Valor SX	0.047	lb ai/a	pre							
12	V-10206	0.133	lb ai/a	pre	0 a	0 a	80 ab	95 a	23 b	77 a	77 ab
	Valor SX	0.047	lb ai/a	pre							
13	V-10206	0.159	lb ai/a	pre	0 a	0 a	85 a	95 a	33 b	70 a	80 ab
	Valor SX	0.047	lb ai/a	pre							
LSD (P=.05)		0.0			0.0	0.0	17.4	7.4	19.9	22.7	19.0
Standard Deviation		0.0			0.0	0.0	10.3	4.4	11.8	13.5	11.3
CV		0.0			0.0	0.0	15.21	5.19	34.11	23.37	17.31
Grand Mean		0.0			0.0	0.0	67.69	85.13	34.62	57.69	65.13
Bartlett's X2		0.0			0.0	0.0	10.098	10.464	12.054	9.763	9.931
P(Bartlett's X2)		.			.	.	0.522	0.063	0.281	0.552	0.537
Replicate F		0.000			0.000	0.000	4.425	2.104	0.372	7.752	4.255
Replicate Prob(F)		1.0000			1.0000	1.0000	0.0231	0.1439	0.6930	0.0025	0.0262
Treatment F		0.000			0.000	0.000	15.411	104.816	5.720	8.414	11.432
Treatment Prob(F)		1.0000			1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code					AMAPA	HELAN	PESGL
Crop Code					GLXMA	GLXMA	GLXMA
Rating Data Type					CONTROL	CONTROL	CONTROL
Rating Unit					%	%	%
Rating Date					17/Jul/2007	17/Jul/2007	17/Jul/2007
Trt-Eval Interval					56 DA-A	56 DA-A	56 DA-A
Trt No.	Treatment Name	Rate	Unit	Grow Stg	8	9	10
1	Check				0 c	0 c	0 d
2	V-10206	0.213	lb ai/a	pre	93 a	30 b	63 abc
3	Valor SX	0.063	lb ai/a	pre	87 a	40 b	33 c
4	V-10206	0.053	lb ai/a	pre	93 a	43 b	53 abc
	Valor SX	0.063	lb ai/a	pre			
5	V-10206	0.08	lb ai/a	pre	95 a	70 a	63 abc
	Valor SX	0.063	lb ai/a	pre			
6	V-10206	0.106	lb ai/a	pre	95 a	47 b	60 abc
	Valor SX	0.063	lb ai/a	pre			
7	V-10206	0.133	lb ai/a	pre	87 a	33 b	63 abc
	Valor SX	0.063	lb ai/a	pre			
8	V-10206	0.159	lb ai/a	pre	95 a	33 b	77 a
	Valor SX	0.063	lb ai/a	pre			
9	V-10206	0.053	lb ai/a	pre	77 b	37 b	43 bc
	Valor SX	0.047	lb ai/a	pre			
10	V-10206	0.08	lb ai/a	pre	95 a	30 b	70 ab
	Valor SX	0.047	lb ai/a	pre			
11	V-10206	0.106	lb ai/a	pre	93 a	27 b	60 abc
	Valor SX	0.047	lb ai/a	pre			
12	V-10206	0.133	lb ai/a	pre	95 a	23 b	73 ab
	Valor SX	0.047	lb ai/a	pre			
13	V-10206	0.159	lb ai/a	pre	93 a	33 b	67 ab
	Valor SX	0.047	lb ai/a	pre			
LSD (P=.05)					8.1	19.0	19.3
Standard Deviation					4.8	11.3	11.5
CV					5.69	32.82	20.49
Grand Mean					84.49	34.36	55.9
Bartlett's X2					10.412	10.553	7.496
P(Bartlett's X2)					0.108	0.393	0.758
Replicate F					1.361	0.323	8.580
Replicate Prob(F)					0.2755	0.7273	0.0015
Treatment F					87.472	5.785	9.619
Treatment Prob(F)					0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.