

LSU Northeast Research Station

TO DEMONSTRATE TO ABILITY OF PREEMERGENCE APPLICATION OF VALOR , VALOR XLT, AND GANGSTER TO CONTROL TOUGH WEEDS IN A ROUNDUP READY SOYBEAN SYSTEM

GENERAL TRIAL INFORMATION

Study Director: VALENT
Investigator: Donnie Miller
TRIAL LOCATION: ST JOSEPH, LA
Crop 1: GLXMA SOYBEAN
Variety: DP4919RR
Planting Date: 1/May/2008

SITE AND DESIGN

Plot Width, Unit: 6.67 FT
Plot Length, Unit: 25 FT
Reps: 4
Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% Sand: 24 % OM: 1.4
% Silt: 50 pH: 6.1
% Clay: 26 CEC: 12.6
Texture: LOAM

APPLICATION DESCRIPTION

	A	B
Application Date:	2/May/2008	30/May/2008
Time of Day:	10:10 AM	3:00 PM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPRE	EAPOCR
Applic. Placement:	BROSOI	BROFOL
Air Temp., Unit:	80 F	87 F
% Relative Humidity:	66	49
Wind Velocity, Unit:	13.8 MPH	5.6 MPH
Dew Presence (Y/N):	N	N
Water Hardness:	N	N
Soil Temp., Unit:	78 F	90 F
Soil Moisture:	DRY	
% Cloud Cover:	100	30

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	GLXMA N/A	GLXMA 3-4 TRIF

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 BCPCK	CO2 BCPCK
Operating Pressure:	34 psi	34 psi
Nozzle Type:	DG	DG
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	20 IN	20 IN
Nozzles/Row:	2	2
Ground Speed, Unit:	3.2 MPH	3.2 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA

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Weed Code	IPOLA	IPOHG	ECHCG	SORHA	DIGSA	SEBEX	CASOB	AMARE	GLXMA	INJURY		
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit	%	%	%	%	%	%	%	%	%	%		
Rating Date	30/May/2008	30/May/2008	30/May/2008	30/May/2008	30/May/2008	30/May/2008	30/May/2008	30/May/2008	30/May/2008	30/May/2008		
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A		
ARM Action Codes												
# Subsamples, Dec.												
Trt Treatment												
No. Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7	8	9
1 ROUNDUP ORIGINAL MAX	22 oz/a	B		61.25 d	87.50 bc	88.75 a	55.00 ab	87.50 a	56.25 b	61.25 bc	96.25 b	0.00 a
2 VALOR SX	2.5 oz/a	A		73.75 c	85.00 c	91.25 a	55.00 ab	95.00 a	67.50 ab	57.50 c	100.00 a	0.00 a
ROUNDUP ORIGINAL MAX	22 oz/a	B										
AMMONIUM SULFATE	2.5 lb/a	B										
3 VALOR XLT	3.0 oz/a	A		88.75 a	95.00 ab	91.25 a	72.50 a	95.00 a	72.50 ab	86.25 a	100.00 a	0.00 a
ROUNDUP ORIGINAL MAX	22 oz/a	B										
AMMONIUM SULFATE	2.5 lb/a	B										
4 VALOR XLT	3.5 oz/a	A		87.50 ab	96.25 a	91.25 a	77.50 a	93.75 a	80.00 a	82.50 ab	100.00 a	0.00 a
ROUNDUP ORIGINAL MAX	22 oz/a	B										
AMMONIUM SULFATE	2.5 lb/a	B										
5 FIRSTRATE	0.4 oz/a	B		77.50 abc	86.25 c	91.25 a	45.00 b	91.25 a	75.00 ab	73.75 abc	100.00 a	0.00 a
VALOR SX	2.0 oz/a	A										
ROUNDUP ORIGINAL MAX	22 oz/a	B										
AMMONIUM SULFATE	2.5 lb/a	B										
6 FIRSTRATE	0.5 oz/a	B		71.25 cd	88.75 abc	90.00 a	63.75 ab	96.25 a	80.00 a	90.00 a	100.00 a	0.00 a
VALOR SX	2.5 oz/a	A										
ROUNDUP ORIGINAL MAX	22 oz/a	B										
AMMONIUM SULFATE	2.5 lb/a	B										
7 VALOR SX	2.0 oz/a	A		68.75 cd	88.75 abc	91.25 a	57.50 ab	96.25 a	78.75 a	83.75 ab	100.00 a	0.00 a
ROUNDUP ORIGINAL MAX	22 oz/a	B										
AMMONIUM SULFATE	2.5 lb/a	B										
8 AUTHORITY	2.75 oz/a	A		76.25 bc	87.50 bc	86.25 a	61.25 ab	96.25 a	86.25 a	75.00 abc	100.00 a	0.00 a
PURSUIT (newpath)	1.68 oz/a	A										
ROUNDUP ORIGINAL MAX	22 oz/a	B										
AMMONIUM SULFATE	2.5 lb/a	B										
9 NONTREATED				0.00 e	0.00 d	0.00 b	0.00 c	0.00 b	0.00 c	0.00 d	0.00 c	0.00 a
LSD (P=.05)				12.368	7.898	6.781	23.360	12.678	20.275	22.985	2.329	0.000
Standard Deviation				8.474	5.411	4.646	16.006	8.687	13.892	15.749	1.596	0.000
CV				12.61	6.81	5.8	29.55	10.41	20.97	23.24	1.8	0.0
Grand Mean				67.22	79.44	80.14	54.17	83.47	66.25	67.78	88.47	0.0
Bartlett's X2				3.341	4.992	2.17	7.921	8.932	9.037	3.869	0.0	0.0
P(Bartlett's X2)				0.852	0.661	0.95	0.34	0.258	0.25	0.795	.	.
Replicate F				3.894	0.822	0.204	0.473	1.801	0.906	1.038	1.000	0.000
Replicate Prob(F)				0.0212	0.4945	0.8928	0.7036	0.1740	0.4530	0.3937	0.4098	1.0000
Treatment F				39.527	123.213	167.895	7.910	52.380	14.354	12.371	1731.546	0.000
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code			IPOLA	IPOHG	ECHCG	SORHA	DIGSA	SEBEX	CASOB	AMARE			
Crop Code			GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Rating Data Type			CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY		
Rating Unit			%	%	%	%	%	%	%	%	%		
Rating Date			27/Jun/2008	27/Jun/2008	27/Jun/2008	27/Jun/2008	27/Jun/2008	27/Jun/2008	27/Jun/2008	27/Jun/2008	27/Jun/2008		
Trt-Eval Interval			56 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A		
ARM Action Codes			28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B		
# Subsamples, Dec.													
Trt	Treatment												
No.	Name	Rate	Unit	Appl Code	10	11	12	13	14	15	16	17	18
1	ROUNDUP ORIGINAL MAX	22 oz/a	B		81.25 bc	88.75 b	77.50 bc	92.50 a	96.25 a	73.75 a	81.25 ab	100.00 a	0.00 a
2	VALOR SX	2.5 oz/a	A		78.75 c	87.50 bc	91.25 a	70.00 a	93.75 a	88.75 a	73.75 b	100.00 a	0.00 a
	ROUNDUP ORIGINAL MAX	22 oz/a	B										
	AMMONIUM SULFATE	2.5 lb/a	B										
3	VALOR XLT	3.0 oz/a	A		91.25 a	92.50 ab	75.00 c	81.25 a	91.25 a	85.00 a	92.50 a	100.00 a	0.00 a
	ROUNDUP ORIGINAL MAX	22 oz/a	B										
	AMMONIUM SULFATE	2.5 lb/a	B										
4	VALOR XLT	3.5 oz/a	A		87.50 abc	92.50 ab	78.75 bc	88.75 a	93.75 a	81.25 a	87.50 ab	100.00 a	0.00 a
	ROUNDUP ORIGINAL MAX	22 oz/a	B										
	AMMONIUM SULFATE	2.5 lb/a	B										
5	FIRSTRATE	0.4 oz/a	B		92.50 a	96.25 a	83.75 abc	93.75 a	97.50 a	83.75 a	86.25 ab	100.00 a	0.00 a
	VALOR SX	2.0 oz/a	A										
	ROUNDUP ORIGINAL MAX	22 oz/a	B										
	AMMONIUM SULFATE	2.5 lb/a	B										
6	FIRSTRATE	0.5 oz/a	B		88.75 ab	96.25 a	85.00 ab	90.00 a	96.25 a	82.50 a	93.75 a	100.00 a	0.00 a
	VALOR SX	2.5 oz/a	A										
	ROUNDUP ORIGINAL MAX	22 oz/a	B										
	AMMONIUM SULFATE	2.5 lb/a	B										
7	VALOR SX	2.0 oz/a	A		80.00 bc	82.50 c	82.50 abc	70.00 a	92.50 a	88.75 a	86.25 ab	100.00 a	0.00 a
	ROUNDUP ORIGINAL MAX	22 oz/a	B										
	AMMONIUM SULFATE	2.5 lb/a	B										
8	AUTHORITY	2.75 oz/a	A		83.75 abc	91.25 ab	76.25 bc	83.75 a	95.00 a	87.50 a	85.00 ab	100.00 a	0.00 a
	PURSUIT (newpath)	1.68 oz/a	A										
	ROUNDUP ORIGINAL MAX	22 oz/a	B										
	AMMONIUM SULFATE	2.5 lb/a	B										
9	NONTREATED				0.00 d	0.00 d	0.00 d	0.00 b	0.00 b	0.00 b	0.00 c	0.00 b	0.00 a
LSD (P=.05)					8.784	5.748	9.538	24.536	7.074	19.095	18.691	0.000	0.000
Standard Deviation					6.019	3.938	6.535	16.812	4.847	13.084	12.806	0.000	0.000
CV					7.92	4.87	9.05	22.58	5.77	17.54	16.8	0.0	0.0
Grand Mean					75.97	80.83	72.22	74.44	84.03	74.58	76.25	88.89	0.0
Bartlett's X2					6.602	8.474	6.191	33.618	8.724	3.418	5.264	0.0	0.0
P(Bartlett's X2)					0.472	0.293	0.518	0.001*	0.273	0.844	0.628	.	.
Replicate F					5.744	4.358	0.390	1.612	1.133	1.043	0.829	0.000	0.000
Replicate Prob(F)					0.0041	0.0138	0.7611	0.2128	0.3556	0.3917	0.4912	1.0000	1.0000
Treatment F					92.291	241.791	71.114	12.135	169.700	18.785	20.788	0.000	0.000
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	1.0000

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Weed Code	IPOLA	IPOHG	ECHCG	SORHA	DIGSA	SEBEX	CASOB	AMARE	GLXMA	GLXMA
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY	YIELD
Rating Unit	%	%	%	%	%	%	%	%	%	%
Rating Date	25/Jul/2008	25/Jul/2008	25/Jul/2008	25/Jul/2008	25/Jul/2008	25/Jul/2008	25/Jul/2008	25/Jul/2008	25/Jul/2008	24/Sep/2008
Trt-Eval Interval	56 DA-B	56 DA-B	56 DA-B	56 DA-B	56 DA-B	56 DA-B	56 DA-B	56 DA-B	56 DA-B	56 DA-B
ARM Action Codes										
# Subsamples, Dec.										

Trt	Treatment	Rate	Rate Unit	Appl Code	19	20	21	22	23	24	25	26	27	28
1	ROUNDUP ORIGINAL MAX	22 oz/a	B		85.00 c	85.00 c	76.25 d	92.50 a	85.00 ab	72.50 a	76.25 ab	100.00 a	0.00 a	5.45
2	VALOR SX	2.5 oz/a	A		83.68 c	83.68 c	90.53 a	86.78 abc	91.52 a	82.72 a	65.28 b	100.00 a	0.00 a	4.45
	ROUNDUP ORIGINAL MAX	22 oz/a	B											
	AMMONIUM SULFATE	2.5 lb/a	B											
3	VALOR XLT	3.0 oz/a	A		96.25 ab	96.25 ab	87.50 ab	81.25 bc	83.75 b	87.50 a	95.00 a	100.00 a	0.00 a	6.65
	ROUNDUP ORIGINAL MAX	22 oz/a	B											
	AMMONIUM SULFATE	2.5 lb/a	B											
4	VALOR XLT	3.5 oz/a	A		97.50 a	97.50 a	86.25 abc	88.75 ab	88.75 ab	81.25 a	83.75 ab	100.00 a	0.00 a	6.38
	ROUNDUP ORIGINAL MAX	22 oz/a	B											
	AMMONIUM SULFATE	2.5 lb/a	B											
5	FIRSTRATE	0.4 oz/a	B		90.00 abc	90.00 abc	86.25 abc	92.50 a	87.50 ab	88.75 a	91.25 a	100.00 a	0.00 a	5.93
	VALOR SX	2.0 oz/a	A											
	ROUNDUP ORIGINAL MAX	22 oz/a	B											
	AMMONIUM SULFATE	2.5 lb/a	B											
6	FIRSTRATE	0.5 oz/a	B		90.00 abc	90.00 abc	83.75 a-d	87.50 abc	90.00 ab	83.75 a	88.75 a	100.00 a	0.00 a	6.68
	VALOR SX	2.5 oz/a	A											
	ROUNDUP ORIGINAL MAX	22 oz/a	B											
	AMMONIUM SULFATE	2.5 lb/a	B											
7	VALOR SX	2.0 oz/a	A		89.12 bc	89.12 bc	79.67 bcd	86.12 abc	87.38 ab	88.38 a	84.62 ab	100.00 a	0.00 a	6.10
	ROUNDUP ORIGINAL MAX	22 oz/a	B											
	AMMONIUM SULFATE	2.5 lb/a	B											
8	AUTHORITY	2.75 oz/a	A		93.75 ab	93.75 ab	77.50 cd	78.75 c	86.25 ab	87.50 a	83.75 ab	100.00 a	0.00 a	6.80
	PURSUIT (newpath)	1.68 oz/a	A											
	ROUNDUP ORIGINAL MAX	22 oz/a	B											
	AMMONIUM SULFATE	2.5 lb/a	B											
9	NONTREATED				0.00 d	0.00 d	0.00 e	0.00 d	0.00 c	0.00 b	0.00 c	0.00 b	0.00 a	1.68
LSD (P=.05)					7.790	7.790	9.330	9.306	7.345	24.069	20.676	0.000	0.000	2.71
Standard Deviation					5.312	5.312	6.362	6.345	5.009	16.412	14.098	0.000	0.000	1.86
CV					6.59	6.59	8.57	8.23	6.44	21.97	18.98	0.0	0.0	33.4
Grand Mean					80.59	80.59	74.19	77.13	77.79	74.71	74.29	88.89	0.0	5.5
Bartlett's X2					11.085	11.085	4.957	9.532	5.949	7.126	8.007	0.0	0.0	10.35
P(Bartlett's X2)					0.135	0.135	0.665	0.146	0.546	0.416	0.332	.	.	0.23
Replicate F					7.938	7.938	0.325	2.950	3.779	0.560	0.499	0.000	0.000	5.66
Replicate Prob(F)					0.0009	0.0009	0.8075	0.0550	0.0251	0.6473	0.6868	1.0000	1.0000	0.004
Treatment F					132.514	132.514	78.772	85.159	136.614	12.040	17.145	0.000	0.000	3.05
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	1.0000	0.015

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

Weed Code
 Crop Code GLXMA GLXMA
 Rating Data Type MOISTURE YIELD
 Rating Unit % BU/A
 Rating Date 24/Sep/2008 24/Sep/2008
 Trt-Eval Interval
 ARM Action Codes TY1
 # Subsamples, Dec. 1

Trt	Treatment	Rate	Unit	Appl Code	29	30
1	ROUNDUP ORIGINAL MAX	22	oz/a	B	14.55 a	23.4 a
2	VALOR SX	2.5	oz/a	A	14.65 a	19.0 ab
	ROUNDUP ORIGINAL MAX	22	oz/a	B		
	AMMONIUM SULFATE	2.5	lb/a	B		
3	VALOR XLT	3.0	oz/a	A	13.33 a	28.8 a
	ROUNDUP ORIGINAL MAX	22	oz/a	B		
	AMMONIUM SULFATE	2.5	lb/a	B		
4	VALOR XLT	3.5	oz/a	A	13.20 a	27.6 a
	ROUNDUP ORIGINAL MAX	22	oz/a	B		
	AMMONIUM SULFATE	2.5	lb/a	B		
5	FIRSTRATE	0.4	oz/a	B	14.33 a	25.4 a
	VALOR SX	2.0	oz/a	A		
	ROUNDUP ORIGINAL MAX	22	oz/a	B		
	AMMONIUM SULFATE	2.5	lb/a	B		
6	FIRSTRATE	0.5	oz/a	B	13.58 a	28.9 a
	VALOR SX	2.5	oz/a	A		
	ROUNDUP ORIGINAL MAX	22	oz/a	B		
	AMMONIUM SULFATE	2.5	lb/a	B		
7	VALOR SX	2.0	oz/a	A	13.65 a	26.3 a
	ROUNDUP ORIGINAL MAX	22	oz/a	B		
	AMMONIUM SULFATE	2.5	lb/a	B		
8	AUTHORITY	2.75	oz/a	A	14.00 a	29.2 a
	PURSUIT (newpath)	1.68	oz/a	A		
	ROUNDUP ORIGINAL MAX	22	oz/a	B		
	AMMONIUM SULFATE	2.5	lb/a	B		
9	NONTREATED				11.15 a	7.4 b
LSD (P=.05)					2.117	11.71
Standard Deviation					1.450	8.02
CV					10.66	33.42
Grand Mean					13.6	24.01
Bartlett's X2					29.537	10.669
P(Bartlett's X2)					0.001*	0.221
Replicate F					0.058	5.579
Replicate Prob(F)					0.9813	0.0048
Treatment F					2.124	3.080
Treatment Prob(F)					0.0736	0.0155

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 Column 30: TY1 = 4.353823*[28]*(100-[29])/87