

LSU Northeast Research Station

PREFIX: EVALUATION OF PHYTOTOXICITY AND WEED CONTROL

GENERAL TRIAL INFORMATION

Study Director: SYNGENTA
Investigator: Donnie Miller
TRIAL LOCATION: ST JOSEPH, LA

CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1. IPOLA	Morningglory, pitted	Ipomoea lacunosa
2. IPOHG	Morningglory, entireleaf	Ipomoea hederacea
3. SEBEX	Coffeebean	integriuscul
4. CASOB	Sickle pod	Sesbania exaltata
5. ECHCG	Barnyardgrass, common	Cassia obtusifolia
6. DIGSA	Crabgrass, large	Echinochloa crus-galli
		Digitaria sanguinalis

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	26/Jun/2008
Time of Day:	10:20 AM	1:00 PM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPRE	EAPOWE
Applic. Placement:	BROSOI	BROFOL
Air Temp., Unit:	80 F	88 F
% Relative Humidity:	66	56
Wind Velocity, Unit:	13.8 MPH	8.1 MPH
Dew Presence (Y/N):	N	N
Water Hardness:	N	N
Soil Temp., Unit:	78 F	91 F
Soil Moisture:	DRY	
% Cloud Cover:	100	30

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	GLXMA N/A	GLXMA 3 TRIFOL

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	IPOLA N/A	IPOLA 2"
Weed 2 Code, Stage:	IPOHG	IPOHG 2"
Weed 3 Code, Stage:	SEBEX	SEBEX 2"
Weed 4 Code, Stage:	CASOB	CASOB 2"
Weed 5 Code, Stage:	ECHCG	ECHCG 2"
Weed 6 Code, Stage:	DIGSA	DIGSA 2"

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

LSU Northeast Research Station

Weed Code	IPOLA	IPOHG	SEBEX	CASOB	ECHCG	BRAPP	AMARE	GLXMA	GLXMA	GLXMA	IPOLA	IPOHG
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY	INJURY	INJURY	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%	%	%	%	%	%
Rating Date	15/May/2008	15/May/2008	15/May/2008	15/May/2008	15/May/2008	15/May/2008	15/May/2008	15/May/2008	15/May/2008	15/May/2008	15/May/2008	22/May/2008
Trt-Eval Interval	7 DAE	7 DAE	7 DAE	7 DAE	7 DAE	7 DAE	7 DAE	7 DAE	7 DAE	7 DAE	7 DAE	14 DAE
ARM Action Codes												
# Subsamples, Dec.												
Trt Treatment												
No. Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7	8	9
1 PREFIX	2 pt/a	A		100.00 a	100.00 a	100.00 a	100.00 a	100.00 a	100.00 a	100.00 a	0.00 a	88.75 a
TOUCHDOWN TOTAL	24 oz/a	B										
2 PREFIX	2 pt/a	B										
TOUCHDOWN TOTAL	24 oz/a	B										
3 NONTREATED				100.00 a	100.00 a	100.00 a	100.00 a	100.00 a	100.00 a	100.00 a	0.00 a	82.50 a
LSD (P=.05)				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	22.8
Standard Deviation				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	10.1
CV				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.
Grand Mean				100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	85.
Bartlett's X2				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
P(Bartlett's X2)				.	.	.	.	.	.	.	.	0.6
Replicate F				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.4
Replicate Prob(F)				1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.74
Treatment F				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.7
Treatment Prob(F)				1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.44

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.

Weed Code	IPOHG	SEBEX	CASOB	ECHCG	BRAPP	AMARE	GLXMA	GLXMA	GLXMA	GLXMA	IPOLA	IPOHG	
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY	INJURY	INJURY	CONTROL	CONTROL	CONTROL	
Rating Unit	%	%	%	%	%	%	%	%	%	%	%	%	
Rating Date	22/May/2008	22/May/2008	22/May/2008	22/May/2008	22/May/2008	22/May/2008	22/May/2008	22/May/2008	22/May/2008	22/May/2008	5/Jun/2008	5/Jun/2008	
Trt-Eval Interval	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE	7 DA-B	28 DAE	
ARM Action Codes													
# Subsamples, Dec.													
Trt Treatment													
No. Name	Rate	Unit	Appl Code	10	11	12	13	14	15	16	17	18	19
1 PREFIX	2 pt/a	A		95.00 a	97.50 a	81.25 a	100.00 a	100.00 a	100.00 a	0.00 a	0.00 b	88.75 b	91.25 b
TOUCHDOWN TOTAL	24 oz/a	B											
2 PREFIX	2 pt/a	B											
TOUCHDOWN TOTAL	24 oz/a	B											
3 NONTREATED				100.00 a	93.75 a	78.75 a	100.00 a	100.00 a	100.00 a	0.00 a	21.25 a	98.75 a	100.00 a
LSD (P=.05)				6.495	17.639	7.955	0.000	0.000	0.000	0.000	3.978	6.495	3.9
Standard Deviation				2.887	7.840	3.536	0.000	0.000	0.000	0.000	1.768	2.887	1.7
CV				2.96	8.2	4.42	0.0	0.0	0.0	0.0	16.64	3.08	1.8
Grand Mean				97.5	95.63	80.0	100.0	100.0	100.0	0.0	10.63	93.75	95.6
Bartlett's X2				0.0	1.086	0.007	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P(Bartlett's X2)				.	0.297	0.932	.	.	.	.	.	1.00	.
Replicate F				1.000	0.864	25.333	0.000	0.000	0.000	0.000	1.000	0.500	1.000
Replicate Prob(F)				0.5000	0.5463	0.0124	1.0000	1.0000	1.0000	1.0000	0.5000	0.7082	0.5000
Treatment F				6.000	0.458	1.000	0.000	0.000	0.000	0.000	289.000	24.000	49.000
Treatment Prob(F)				0.0917	0.5472	0.3910	1.0000	1.0000	1.0000	1.0000	0.0004	0.0163	0.0000

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.

Weed Code	SEBEX	CASOB	ECHCG	BRAPP	AMARE	GLXMA	IPOLA	IPOHG	SEBEX	CASOB	ECHCG			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit	%	%	%	%	%	%	%	%	%	%	%			
Rating Date	5/Jun/2008	5/Jun/2008	5/Jun/2008	5/Jun/2008	5/Jun/2008	5/Jun/2008	9/Jun/2008	9/Jun/2008	9/Jun/2008	9/Jun/2008	9/Jun/2008			
Trt-Eval Interval	28 DAE	28 DAE	28 DAE	28 DAE	28 DAE	28 DAE	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B			
ARM Action Codes														
# Subsamples, Dec.														
Trt Treatment														
No. Name	Rate	Unit	Appl Code	20	21	22	23	24	25	26	27	28	29	30
1 PREFIX	2 pt/a	A		92.50 a	91.25 a	95.00 a	100.00 a	100.00 a	0.00 b	88.75 a	93.75 a	86.25 a	85.00 a	92.50 a
TOUCHDOWN TOTAL	24 oz/a	B												
2 PREFIX	2 pt/a	B												
TOUCHDOWN TOTAL	24 oz/a	B												
3 NONTREATED				100.00 a	87.50 a	92.50 a	100.00 a	100.00 a	15.00 a	95.00 a	100.00 a	91.25 a	81.25 a	88.75 a
LSD (P=.05)				10.270	7.616	15.233	0.000	0.000	6.495	10.010	7.616	12.990	26.284	7.616
Standard Deviation				4.564	3.385	6.770	0.000	0.000	2.887	4.449	3.385	5.774	11.682	3.385
CV				4.74	3.79	7.22	0.0	0.0	38.49	4.84	3.49	6.51	14.05	3.79
Grand Mean				96.25	89.38	93.75	100.0	100.0	7.5	91.88	96.88	88.75	83.13	93.75
Bartlett's X2				0.0	0.698	0.577	0.0	0.0	0.0	0.658	0.0	2.294	2.431	0.0
P(Bartlett's X2)				.	0.403	0.448	.	.	.	0.417	.	0.13	0.119	0.0
Replicate F				1.000	1.727	0.273	0.000	0.000	1.000	0.158	1.000	4.375	0.389	3.000
Replicate Prob(F)				0.5000	0.3323	0.8429	1.0000	1.0000	0.5000	0.9181	0.5000	0.1284	0.7705	0.5000
Treatment F				5.400	2.455	0.273	0.000	0.000	54.000	3.947	6.818	1.500	0.206	2.000
Treatment Prob(F)				0.1027	0.2152	0.6376	1.0000	1.0000	0.0052	0.1411	0.0796	0.3081	0.6807	0.0000

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.

Weed Code	BRAPP	AMARE		IPOLA	IPOHG	SEBEX	CASOB	ECHCG	BRAPP	AMARE			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Rating Data Type	CONTROL	CONTROL	INJURY	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit	%	%	%	%	%	%	%	%	%	%			
Rating Date	9/Jun/2008	9/Jun/2008	9/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008			
Trt-Eval Interval	14 DA-B	14 DA-B	14 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B			
ARM Action Codes													
# Subsamples, Dec.													
Trt Treatment													
No. Name	Rate	Unit	Appl Code	31	32	33	34	35	36	37	38	39	40
1 PREFIX	2 pt/a	A		100.00 a	100.00 a	0.00 b	78.75 b	92.50 a	71.25 a	62.50 a	82.50 a	95.00 a	100.00 a
TOUCHDOWN TOTAL	24 oz/a	B											
2 PREFIX	2 pt/a	B											
TOUCHDOWN TOTAL	24 oz/a	B											
3 NONTREATED				100.00 a	100.00 a	13.75 a	90.00 a	96.25 a	76.25 a	61.25 a	80.00 a	95.00 a	100.00 a
LSD (P=.05)	0.000	0.000		0.000	0.000	3.978	7.616	7.616	37.873	49.626	7.955	0.000	0.000
Standard Deviation	0.000	0.000		0.000	0.000	1.768	3.385	3.385	16.833	22.056	3.536	0.000	0.000
CV	0.0	0.0		0.0	0.0	25.71	4.01	3.59	22.82	35.65	4.35	0.0	0.0
Grand Mean	100.0	100.0		100.0	100.0	6.88	84.38	94.38	73.75	61.88	81.25	95.0	100.0
Bartlett's X2	0.0	0.0		0.0	0.0	0.422	0.422	0.059	3.907	3.437	0.335	0.0	0.0
P(Bartlett's X2)	.	.		.	.	0.516	0.516	0.809	0.048*	0.064	0.563	.	.
Replicate F	0.000	0.000		0.000	0.000	1.000	5.364	0.273	1.926	0.846	1.000	0.000	0.000
Replicate Prob(F)	1.0000	1.0000		1.0000	1.0000	0.5000	0.1006	0.8429	0.3019	0.5531	0.5000	1.0000	1.0000
Treatment F	0.000	0.000		0.000	0.000	121.000	22.091	2.455	0.176	0.006	1.000	0.000	0.000
Treatment Prob(F)	1.0000	1.0000		1.0000	1.0000	0.0016	0.0182	0.2152	0.7027	0.9412	0.3910	1.0000	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.

Weed Code	SORHA							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Rating Data Type	CONTROL	INJURY	YIELD	MOISTURE	YIELD			
Rating Unit	%	%	LB	%	BU/A			
Rating Date	23/Jun/2008	23/Jun/2008	23/Sep/2008	23/Sep/2008	23/Sep/2008			
Trt-Eval Interval	28 DA-B	28 DA-B						
ARM Action Codes					TY1			
# Subsamples, Dec.					1			
Trt Treatment								
No. Name	Rate	Unit	Appl Code	41	42	43	44	45
1 PREFIX	2 pt/a	A		83.75 a	0.00 a	6.53 a	13.00 b	28.4 a
TOUCHDOWN TOTAL	24 oz/a	B						
2 PREFIX	2 pt/a	B						
TOUCHDOWN TOTAL	24 oz/a	B						
3 NONTREATED				93.75 a	0.00 a	6.48 a	13.68 a	27.9 a
LSD (P=.05)				14.524	0.000	0.669	0.572	2.78
Standard Deviation				6.455	0.000	0.297	0.254	1.23
CV				7.27	0.0	4.57	1.91	4.38
Grand Mean				88.75	0.0	6.5	13.34	28.16
Bartlett's X2				0.087	0.0	0.009	0.04	0.013
P(Bartlett's X2)				0.768	.	0.924	0.841	0.909
Replicate F				1.300	0.000	74.078	6.265	78.374
Replicate Prob(F)				0.4172	1.0000	0.0026	0.0830	0.0024
Treatment F				4.800	0.000	0.057	14.110	0.253
Treatment Prob(F)				0.1162	1.0000	0.8269	0.0330	0.6494

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.
Column 45: TY1 = 4.353823*[43]*(100-@MVAVGREP([44]))/87