

LSU Northeast Research Station

EVALUATIONS OF STAPLE LX AND DUAL MAGNUM COMBINATIONS WITH GLYPHOSATE

GENERAL TRIAL INFORMATION

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

CROP AND WEED DESCRIPTION

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

Crop 1: GOSHI COTTON
Variety: DP164B2RF
Planting Date: 30/Apr/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: 50 % OM: 1
% Silt: 28 pH: 6.5
% Clay: 22 CEC: 12.8
Texture: SILT LOAM

APPLICATION DESCRIPTION

A
Application Date: 26/May/2008
Time of Day: 12:05 PM
Application Method: SPRAY
Application Timing: EAPOCR
Applic. Placement: BROFOL
Air Temp., Unit: 88 F
% Relative Humidity: 58
Wind Velocity, Unit: 8.2 MPH
Dew Presence (Y/N): N
Water Hardness: N
Soil Temp., Unit: 89 F
% Cloud Cover: 40

CROP STAGE AT EACH APPLICATION

A
Crop 1 Code, Stage: GOSHI 2-3 LF

WEED STAGE AT EACH APPLICATION

A
Weed 1 Code, Stage: CASOB 2-5"
Weed 2 Code, Stage: AMARE 2-5"
Weed 3 Code, Stage: SEBEX 2-5"
Weed 4 Code, Stage: IPOLA 2-5"
Weed 5 Code, Stage: IPOHG 2-5"
Weed 6 Code, Stage: DIGSA 2-5"
Weed 7 Code, Stage: ECHCG 2-5"

APPLICATION EQUIPMENT

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

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Weed Code	ECHCG	DIGSA	SEBEX	CASOB	IPOLA	IPOHG	AMARE	ECHCG	
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	
Rating Data Type	INJURY	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY	
Rating Unit	%	%	%	%	%	%	%	%	
Rating Date	2/Jun/2008	9/Jun/2008	9/Jun/2008	9/Jun/2008	9/Jun/2008	9/Jun/2008	9/Jun/2008	9/Jun/2008	23/Jun/2008
Trt-Eval Interval	7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	28 DA-A

ARM Action Codes
Subsamples, Dec.

Trt	Treatment	Rate	Appl											
No.	Name	Rate	Unit	Code	1	2	3	4	5	6	7	8	9	10
1	ROUNDUP POWERMAX	22 oz/a	A		2.50 cde	93.75 ab	100.00 a	95.00 a-d	85.00 abc	90.00 c	92.50 ab	95.00 ab	1.25 c	78.75 a-d
2	TOUCHDOWN TOTAL	24 oz/a	A		1.25 de	91.25 b	100.00 a	88.75 d	85.00 abc	91.25 bc	98.75 a	93.75 b	0.00 c	71.25 cd
3	SEQUENCE	2.5 pt/a	A		6.25 cde	93.75 ab	100.00 a	90.00 cd	83.75 bc	97.50 a	92.50 ab	100.00 a	3.75 c	85.00 ab
4	ROUNDUP POWERMAX	22 oz/a	A		13.75 ab	95.00 ab	100.00 a	91.25 bcd	80.00 c	98.75 a	98.75 a	95.00 ab	10.00 b	86.25 a
	DUAL MAGNUM	16 oz/a	A											
5	TOUCHDOWN TOTAL	24 oz/a	A		7.50 bcd	93.75 ab	100.00 a	95.00 a-d	83.75 bc	93.75 abc	92.50 ab	93.75 b	5.00 bc	86.25 a
	DUAL MAGNUM	16 oz/a	A											
6	SEQUENCE	2.5 pt/a	A		15.00 a	96.25 a	100.00 a	98.75 a	88.75 abc	97.50 a	92.50 ab	100.00 a	10.00 b	82.50 abc
	STAPLE LX	1.7 oz/a	A											
7	ROUNDUP POWERMAX	22 oz/a	A		15.00 a	92.50 ab	100.00 a	97.50 ab	91.25 ab	95.00 abc	88.75 b	98.75 ab	17.50 a	82.50 abc
	DUAL MAGNUM	16 oz/a	A											
	STAPLE LX	1.7 oz/a	A											
8	TOUCHDOWN TOTAL	24 oz/a	A		2.50 cde	91.25 b	98.75 b	98.75 a	81.25 c	93.75 abc	91.25 ab	96.25 ab	1.25 c	70.00 d
	DUAL MAGNUM	16 oz/a	A											
	STAPLE LX	1.7 oz/a	A											
9	ROUNDUP POWERMAX	22 oz/a	A		6.25 cde	93.75 ab	100.00 a	98.75 a	86.25 abc	93.75 abc	95.00 ab	100.00 a	3.75 c	75.00 a-d
	STAPLE LX	1.7 oz/a	A											
10	ROUNDUP POWERMAX	22 oz/a	A		8.75 abc	95.00 ab	100.00 a	97.50 ab	93.75 a	97.50 a	90.00 ab	100.00 a	5.00 bc	83.75 ab
	STAPLE LX	2.7 oz/a	A											
11	ROUNDUP POWERMAX	22 oz/a	A		3.75 cde	93.75 ab	100.00 a	96.25 abc	88.75 abc	97.50 a	95.00 ab	100.00 a	3.75 c	78.75 a-d
	STAPLE LX	3.8 oz/a	A											
12	TOUCHDOWN TOTAL	24 oz/a	A		1.25 de	92.50 ab	100.00 a	100.00 a	87.50 abc	96.25 ab	91.25 ab	100.00 a	1.25 c	73.75 bcd
	STAPLE LX	1.7 oz/a	A											
13	NONTREATED				0.00 e	0.00 c	0.00 c	0.00 e	0.00 d	0.00 d	0.00 c	0.00 c	0.00 c	0.00 e
LSD (P=.05)					6.254	4.319	0.991	6.417	9.195	6.210	8.875	5.447	5.079	12.435
Standard Deviation					4.376	3.022	0.693	4.491	6.434	4.346	6.210	3.812	3.554	8.702
CV					67.93	3.5	0.75	5.09	8.08	4.94	7.22	4.23	73.93	11.86
Grand Mean					6.44	86.35	92.21	88.27	79.62	87.88	86.06	90.19	4.81	73.37
Bartlett's X2					12.85	5.446	0.0	12.433	10.599	8.999	10.357	2.986	6.422	15.442
P(Bartlett's X2)					0.303	0.794	.	0.257	0.477	0.622	0.499	0.702	0.779	0.163
Replicate F					0.293	0.772	1.000	6.389	0.279	1.460	2.206	0.044	2.182	0.463
Replicate Prob(F)					0.8303	0.5173	0.4040	0.0014	0.8404	0.2418	0.1042	0.9875	0.1071	0.7095
Treatment F					5.921	295.632	6387.667	142.081	56.698	149.181	70.271	204.022	7.985	27.298
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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	ELEIN	SEBEX	CASOB	IPOLA	IPOHG	AMARE	DIGSA			
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY	YIELD
Rating Unit	%	%	%	%	%	%	%	%	%	LB
Rating Date	23/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008	23/Jun/2008	10/Oct/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	137 DA-A

ARM Action Codes

Subsamples, Dec.

Trt Treatment

No.	Name	Rate	Unit	Appl Code	11	12	13	14	15	16	17	18	19
1	ROUNDUP POWERMAX	22 oz/a	A		78.75 a-d	87.50 abc	72.50 ab	97.50 a	96.25 b	86.25 a-d	95.00 a	2.50 a	5.21 bcd
2	TOUCHDOWN TOTAL	24 oz/a	A		71.25 cd	81.25 c	66.25 ab	98.75 a	100.00 a	77.50 d	95.00 a	0.00 a	5.13 cd
3	SEQUENCE	2.5 pt/a	A		85.00 ab	81.25 c	68.75 ab	100.00 a	100.00 a	88.75 a-d	95.00 a	0.00 a	6.80 a
4	ROUNDUP POWERMAX	22 oz/a	A		86.25 a	88.75 abc	43.75 c	100.00 a	100.00 a	85.00 bcd	95.00 a	0.75 a	4.79 d
	DUAL MAGNUM	16 oz/a	A										
5	TOUCHDOWN TOTAL	24 oz/a	A		86.25 a	90.00 abc	61.25 bc	97.50 a	100.00 a	80.00 cd	95.00 a	1.25 a	6.37 abc
	DUAL MAGNUM	16 oz/a	A										
6	SEQUENCE	2.5 pt/a	A		82.50 abc	87.50 abc	70.00 ab	100.00 a	100.00 a	93.75 abc	95.00 a	1.25 a	6.58 abc
	STAPLE LX	1.7 oz/a	A										
7	ROUNDUP POWERMAX	22 oz/a	A		82.50 abc	85.00 bc	76.25 ab	97.50 a	100.00 a	96.25 ab	95.00 a	3.75 a	5.19 bcd
	DUAL MAGNUM	16 oz/a	A										
	STAPLE LX	1.7 oz/a	A										
8	TOUCHDOWN TOTAL	24 oz/a	A		70.00 d	93.75 ab	71.25 ab	100.00 a	100.00 a	95.00 ab	95.00 a	0.00 a	6.55 abc
	DUAL MAGNUM	16 oz/a	A										
	STAPLE LX	1.7 oz/a	A										
9	ROUNDUP POWERMAX	22 oz/a	A		75.00 a-d	86.25 bc	76.25 ab	100.00 a	100.00 a	98.75 ab	95.00 a	1.25 a	6.68 ab
	STAPLE LX	1.7 oz/a	A										
10	ROUNDUP POWERMAX	22 oz/a	A		83.75 ab	97.50 a	81.25 a	98.75 a	98.75 ab	97.50 ab	95.00 a	0.00 a	6.63 abc
	STAPLE LX	2.7 oz/a	A										
11	ROUNDUP POWERMAX	22 oz/a	A		78.75 a-d	92.50 ab	80.00 a	100.00 a	100.00 a	100.00 a	95.00 a	0.00 a	6.20 a-d
	STAPLE LX	3.8 oz/a	A										
12	TOUCHDOWN TOTAL	24 oz/a	A		73.75 bcd	88.75 abc	73.75 ab	100.00 a	100.00 a	100.00 a	95.00 a	0.75 a	6.13 a-d
	STAPLE LX	1.7 oz/a	A										
13	NONTREATED				0.00 e	0.00 d	0.00 d	0.00 b	0.00 c	0.00 e	0.00 b	0.00 a	0.82 e
LSD (P=.05)					12.435	10.613	18.573	3.311	3.159	14.896	0.000	2.862	1.543
Standard Deviation					8.702	7.427	12.997	2.317	2.211	10.424	0.000	2.002	1.069
CV					11.86	9.11	20.08	2.53	2.41	12.33	0.0	226.36	19.02
Grand Mean					73.37	81.54	64.71	91.54	91.92	84.52	87.69	0.88	5.62
Bartlett's X2					15.442	12.995	12.958	2.972	3.026	12.079	0.0	6.22	10.3
P(Bartlett's X2)					0.163	0.294	0.296	0.563	0.082	0.209	.	0.399	0.59
Replicate F					0.463	6.811	0.716	1.194	0.787	0.406	0.000	1.592	8.498
Replicate Prob(F)					0.7095	0.0009	0.5487	0.3258	0.5091	0.7499	1.0000	0.2082	0.0002
Treatment F					27.298	45.046	11.139	564.463	625.197	25.823	0.000	1.326	8.981
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	0.2469	0.0001

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

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LSU Northeast Research Station

Weed Code
 Crop Code GOSHI
 Rating Data Type YIELD
 Rating Unit LB/A
 Rating Date 10/Oct/2008
 Trt-Eval Interval 137 DA-A
 ARM Action Codes TY1
 # Subsamples, Dec. 1

Trt No.	Treatment Name	Rate	Unit	Appl Code	20
1	ROUNDUP POWERMAX	22 oz/a	A		1359.7 bcd
2	TOUCHDOWN TOTAL	24 oz/a	A		1338.8 cd
3	SEQUENCE	2.5 pt/a	A		1776.4 a
4	ROUNDUP POWERMAX	22 oz/a	A		1251.1 d
	DUAL MAGNUM	16 oz/a	A		
5	TOUCHDOWN TOTAL	24 oz/a	A		1662.7 abc
	DUAL MAGNUM	16 oz/a	A		
6	SEQUENCE	2.5 pt/a	A		1717.6 abc
	STAPLE LX	1.7 oz/a	A		
7	ROUNDUP POWERMAX	22 oz/a	A		1354.5 bcd
	DUAL MAGNUM	16 oz/a	A		
	STAPLE LX	1.7 oz/a	A		
8	TOUCHDOWN TOTAL	24 oz/a	A		1711.1 abc
	DUAL MAGNUM	16 oz/a	A		
	STAPLE LX	1.7 oz/a	A		
9	ROUNDUP POWERMAX	22 oz/a	A		1743.7 ab
	STAPLE LX	1.7 oz/a	A		
10	ROUNDUP POWERMAX	22 oz/a	A		1730.6 abc
	STAPLE LX	2.7 oz/a	A		
11	ROUNDUP POWERMAX	22 oz/a	A		1619.6 a-d
	STAPLE LX	3.8 oz/a	A		
12	TOUCHDOWN TOTAL	24 oz/a	A		1600.0 a-d
	STAPLE LX	1.7 oz/a	A		
13	NONTREATED				214.2 e

LSD (P=.05) 403.13
 Standard Deviation 279.19
 CV 19.02
 Grand Mean 1467.69
 Bartlett's X2 10.3
 P(Bartlett's X2) 0.59

Replicate F 8.498
 Replicate Prob(F) 0.0002
 Treatment F 8.981
 Treatment Prob(F) 0.0001

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 20: TY1 = 261.2294*[19]