

LSU Northeast Research Station

GLUFOSINATE AND INSECTICIDE CO-APPLICATION EFFECTS ON LIBERTY LINK COTTON

GENERAL TRIAL INFORMATION

Investigator: Donnie Miller
TRIAL LOCATION: ALEXANDRIA, LA
Crop 1: GOSHI COTTON
Variety: FM1735LL
Planting Date: 7/May/2008

SITE AND DESIGN

Plot Width, Unit: 6.67 FT
Plot Length, Unit: 40 FT
Reps: 4
Study Design: FACTORIAL

SOIL DESCRIPTION

% Sand: 14 % OM: 1.75
% Silt: 54 pH: 7.8
% Clay: 32 CEC: 14.4
Texture: NORWOOD SILT LOAM

APPLICATION DESCRIPTION

	A	B
Application Date:	27/May/2008	10/Jul/2008
Time of Day:	12:00 PM	2:20 PM
Application Method:	SPRAY	SPRAY
Application Timing:	EAPOCR	POSTBL
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	87 F	82 F
% Relative Humidity:	58	74
Wind Velocity, Unit:	3.2 MPH	9 MPH
Dew Presence (Y/N):	N	N
Water Hardness:	N	N
Soil Temp., Unit:	93 F	96 F
Soil Moisture:		DRY
% Cloud Cover:	70	100

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	GOSHI 3 LF	GOSHI 1 WAF

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 BCPCK	TRACTOR
Operating Pressure:	34 psi	30 PSI
Nozzle Type:	DG	FF
Nozzle Size:	11002	11003
Nozzle Spacing, Unit:	20 IN	20
Nozzles/Row:	2	
Ground Speed, Unit:	3.2 MPH	3.2 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA

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FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 3/Jun/2008 7 DA-A						
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	47.818182				
R	2	0.090909	0.045455	1.000	0.3765	0.13
A	10	21.818182	2.181818	48.000	0.0001	0.22
B	1	2.181818	2.181818	48.000	0.0001	0.09
AB	10	21.818182	2.181818	48.000	0.0001	0.30
ERROR	42	1.909091	0.045455			

FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 10/Jun/2008 14 DA-A						
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	25.772727				
R	2	0.000000	0.000000	0.000	1.0000	0.40
A	10	3.272727	0.327273	0.764	0.6619	0.66
B	1	0.136364	0.136364	0.318	0.5757	0.28
AB	10	4.363636	0.436364	1.018	0.4449	0.94
ERROR	42	18.000000	0.428571			

FACTORIAL/POOLED ERROR AOV For GOSHI AVG CROP HT CM 10/Jun/2008 14 DA-A						
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	1298.358894				
R	2	45.928197	22.964098	1.067	0.3531	2.83
A	10	75.927541	7.592754	0.353	0.9598	4.69
B	1	51.145563	51.145563	2.377	0.1306	2.00
AB	10	221.649377	22.164938	1.030	0.4357	6.63
ERROR	42	903.705216	21.516791			

FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 24/Jun/2008 28 DA-A						
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	0.000000				
R	2	0.000000	0.000000	0.000	0.0000	0.00
A	10	0.000000	0.000000	0.000	0.0000	0.00
B	1	0.000000	0.000000	0.000	0.0000	0.00
AB	10	0.000000	0.000000	0.000	0.0000	0.00
ERROR	42	0.000000	0.000000			

FACTORIAL/POOLED ERROR AOV For GOSHI AVG CROP HT CM 24/Jun/2008 28 DA-A						
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	78887.879417				
R	2	58.440331	29.220165	2.379	0.1051	2.14
A	10	123.064467	12.306447	1.002	0.4577	3.54
B	1	78067.357071	78067.357071	6354.898	0.0001	1.51
AB	10	123.064467	12.306447	1.002	0.4577	5.01
ERROR	42	515.953081	12.284597			

FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 17/Jul/2008 7 DA-B						
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	41.590909				
R	2	1.909091	0.954545	1.427	0.2514	0.50
A	10	4.090909	0.409091	0.612	0.7951	0.83
B	1	3.409091	3.409091	5.097	0.0292	0.35
AB	10	4.090909	0.409091	0.612	0.7951	1.17
ERROR	42	28.090909	0.668831			

FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 24/Jul/2008 14 DA-B						
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	17.454545				
R	2	1.090909	0.545455	2.100	0.1351	0.31
A	10	2.454545	0.245455	0.945	0.5035	0.51
B	1	0.545455	0.545455	2.100	0.1547	0.22
AB	10	2.454545	0.245455	0.945	0.5035	0.73
ERROR	42	10.909091	0.259740			

FACTORIAL/POOLED ERROR AOV For GOSHI AVG CROP HT CM 24/Jul/2008 14 DA-B						
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	181920.696460				
R	2	1358.119202	679.059601	17.403	0.0001	3.81
A	10	136.264362	13.626436	0.349	0.9612	6.31
B	1	178651.254172	178651.254172	4578.582	0.0001	2.69
AB	10	136.264362	13.626436	0.349	0.9612	8.93
ERROR	42	1638.794361	39.018913			

FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 7/Aug/2008 28 DA-B						
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	0.000000				
R	2	0.000000	0.000000	0.000	0.0000	0.00
A	10	0.000000	0.000000	0.000	0.0000	0.00
B	1	0.000000	0.000000	0.000	0.0000	0.00
AB	10	0.000000	0.000000	0.000	0.0000	0.00
ERROR	42	0.000000	0.000000			

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Crop Code	GOSHI	GOSHI	GOSHI
Rating Data Type	AVG CROP HT	YIELD	YIELD
Rating Unit	CM	LB	LB/A
Rating Date	7/Aug/2008	26/Sep/2008	26/Sep/2008
Trt-Eval Interval	28 DA-B		
ARM Action Codes	TY1		
# Subsamples, Dec.	1		
Trt Treatment	Rate	Unit	Appl Code
No. Name	10	11	12

TABLE OF R MEANS

Replicate 1	95.05	8.59	1402.0
Replicate 2	97.51	8.49	1386.5
Replicate 3	115.37	8.93	1457.5
Replicate 4	.	.	.

TABLE OF A MEANS

1 IGNITE	29 oz/a	A	104.20	8.78	1433.8
2 IGNITE	29 oz/a	A	102.80	9.17	1496.6
2 ACEPHATE	0.2 lb ai/a	A			
3 IGNITE	29 oz/a	A	103.30	7.85	1281.1
3 BAYTHROID XL	0.015 lb ai/a	A			
4 IGNITE	29 oz/a	A	98.53	9.03	1473.5
4 BIDRIN	0.2 lb ai/a	A			
5 IGNITE	29 oz/a	A	102.73	8.00	1305.9
5 CENTRIC	0.047 lb ai/a	A			
6 IGNITE	29 oz/a	A	107.07	8.35	1363.6
6 DIMETHOATE	0.25 lb ai/a	A			
7 IGNITE	29 oz/a	A	101.63	8.07	1317.8
7 DIAMOND	9 oz/a	A			
8 IGNITE	29 oz/a	A	99.70	8.11	1324.1
8 CARBINE	0.088 lb ai/a	A			
9 IGNITE	29 oz/a	A	100.70	9.37	1529.0
9 ZEPHYR	5 oz/a	A			
10 IGNITE	29 oz/a	A	103.83	9.23	1506.4
10 OBERON	5 oz/a	A			
11 IGNITE	29 oz/a	A	104.60	9.41	1536.9
11 VYDATE C-LV	0.4 lb ai/a	A			

TABLE OF B MEANS

1 2-3 LF	A	.	8.13	1328.1
2 1 WAF	B	102.65	9.20	1502.6

TABLE OF AB MEANS

1 IGNITE	29 oz/a	A	.	8.18	1335.0
1 2-3 LF		A			
2 IGNITE	29 oz/a	A	.	7.89	1287.6
2 ACEPHATE	0.2 lb ai/a	A			
1 2-3 LF		A			
3 IGNITE	29 oz/a	A	.	7.51	1226.7
3 BAYTHROID XL	0.015 lb ai/a	A			
1 2-3 LF		A			
4 IGNITE	29 oz/a	A	.	8.63	1409.0
4 BIDRIN	0.2 lb ai/a	A			
1 2-3 LF		A			
5 IGNITE	29 oz/a	A	.	6.72	1097.2
5 CENTRIC	0.047 lb ai/a	A			
1 2-3 LF		A			
6 IGNITE	29 oz/a	A	.	8.42	1374.2
6 DIMETHOATE	0.25 lb ai/a	A			
1 2-3 LF		A			
7 IGNITE	29 oz/a	A	.	7.76	1267.5
7 DIAMOND	9 oz/a	A			
1 2-3 LF		A			
8 IGNITE	29 oz/a	A	.	8.09	1320.8
8 CARBINE	0.088 lb ai/a	A			
1 2-3 LF		A			
9 IGNITE	29 oz/a	A	.	8.52	1391.0
9 ZEPHYR	5 oz/a	A			
1 2-3 LF		A			
10 IGNITE	29 oz/a	A	.	9.37	1529.8
10 OBERON	5 oz/a	A			
1 2-3 LF		A			
11 IGNITE	29 oz/a	A	.	8.39	1369.8
11 VYDATE C-LV	0.4 lb ai/a	A			
1 2-3 LF		A			
1 IGNITE	29 oz/a	A	104.20	9.39	1532.5
2 1 WAF		B			

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Crop Code	GOSHI	GOSHI	GOSHI
Rating Data Type	AVG CROP HT	YIELD	YIELD
Rating Unit	CM	LB	LB/A
Rating Date	7/Aug/2008	26/Sep/2008	26/Sep/2008
Trt-Eval Interval	28 DA-B		
ARM Action Codes			TY1
# Subsamples, Dec.			1

Trt Treatment	Rate	Rate Unit	Appl Code	10	11	12
2 IGNITE	29 oz/a	A		102.80	10.45	1705.6
2 ACEPHATE	0.2 lb ai/a	A				
2 1 WAF		B				
3 IGNITE	29 oz/a	A		103.30	8.18	1335.5
3 BAYTHROID XL	0.015 lb ai/a	A				
2 1 WAF		B				
4 IGNITE	29 oz/a	A		98.53	9.42	1538.0
4 BIDRIN	0.2 lb ai/a	A				
2 1 WAF		B				
5 IGNITE	29 oz/a	A		102.73	9.28	1514.6
5 CENTRIC	0.047 lb ai/a	A				
2 1 WAF		B				
6 IGNITE	29 oz/a	A		107.07	8.29	1353.0
6 DIMETHOATE	0.25 lb ai/a	A				
2 1 WAF		B				
7 IGNITE	29 oz/a	A		101.63	8.38	1368.2
7 DIAMOND	9 oz/a	A				
2 1 WAF		B				
8 IGNITE	29 oz/a	A		99.70	8.13	1327.4
8 CARBINE	0.088 lb ai/a	A				
2 1 WAF		B				
9 IGNITE	29 oz/a	A		100.70	10.21	1667.0
9 ZEPHYR	5 oz/a	A				
2 1 WAF		B				
10 IGNITE	29 oz/a	A		103.83	9.08	1483.0
10 OBERON	5 oz/a	A				
2 1 WAF		B				
11 IGNITE	29 oz/a	A		104.60	10.44	1704.0
11 VYDATE C-LV	0.4 lb ai/a	A				
2 1 WAF		B				

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FACTORIAL/POOLED ERROR AOV For GOSHI AVG CROP HT CM 7/Aug/2008 28 DA-B

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	177420.940088				
R	2	1352.931456	676.465728	13.870	0.0001	4.26
A	10	87.074198	8.707420	0.179	0.9970	7.06
B	1	173845.479103	173845.479103	3564.527	0.0001	3.01
AB	10	87.074198	8.707420	0.179	0.9970	9.98
ERROR	42	2048.381132	48.770979			

FACTORIAL/POOLED ERROR AOV For GOSHI YIELD LB 26/Sep/2008

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	125.362104				
R	2	2.303202	1.151601	0.727	0.4894	0.77
A	10	21.795342	2.179534	1.376	0.2247	1.27
B	1	18.858762	18.858762	11.904	0.0013	0.54
AB	10	15.864274	1.586427	1.001	0.4580	1.80
ERROR	42	66.540524	1.584298			

FACTORIAL/POOLED ERROR AOV For GOSHI YIELD LB/A 26/Sep/2008 TY1 1

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	3341725.050100				
R	2	61395.320234	30697.660117	0.727	0.4894	125.2
A	10	580989.781068	58098.978107	1.376	0.2247	207.7
B	1	502710.000181	502710.000181	11.904	0.0013	88.5
AB	10	422887.113721	42288.711372	1.001	0.4580	293.7
ERROR	42	1773742.834895	42231.972259			

Column 12: TY1 = 163.2684*[11]