

LSU Northeast Research Station

Glufosinate and insecticide co-application effects on Liberty Link cotton

GENERAL TRIAL INFORMATION

Investigator: Donnie Miller
TRIAL LOCATION: ST JOSEPH, LA
Crop 1: GOSHI COTTON
Variety: FM1735LL
Planting Date: 19/May/2008

SITE AND DESIGN

Plot Width, Unit: 6.67 FT
Plot Length, Unit: 20 FT
Reps: 4
Study Design: FACTORIAL

SOIL DESCRIPTION

% Sand: 50 % OM: 0.5
% Silt: 28 pH: 6.8
% Clay: 22 CEC: 12.8
Texture: SILT LOAM

APPLICATION DESCRIPTION

	A	B
Application Date:	6/Jun/2008	23/Jul/2008
Time of Day:	5:05 PM	12:30 PM
Application Method:	SPRAY	SPRAY
Application Timing:	EAPOCR	POSTBL
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	84 F	92 F
% Relative Humidity:	64	54
Wind Velocity, Unit:	6.1 MPH	3.8 MPH
Dew Presence (Y/N):	N	N
Water Hardness:	N	N
Soil Temp., Unit:	98 F	100 F
Soil Moisture:		DRY
% Cloud Cover:	40	50

CROP STAGE AT EACH APPLICATION

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

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 BCPCK	TRACTOR
Operating Pressure:	34 psi	38 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

FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 13/Jun/2008 7 DA-A							
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)	
Total	65	8.863636					
R	2	0.272727	0.136364	1.000	0.3765	0.23	
A	10	1.363636	0.136364	1.000	0.4591	0.37	
B	1	0.136364	0.136364	1.000	0.3230	0.16	
AB	10	1.363636	0.136364	1.000	0.4591	0.53	
ERROR	42	5.727273	0.136364				

FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 20/Jun/2008 14 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 20/Jun/2008 14 DA-A							
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)	
Total	65	46708.675130					
R	2	4.516893	2.258446	0.198	0.8210	2.06	
A	10	50.946715	5.094671	0.447	0.9139	3.41	
B	1	46123.530128	46123.530128	4046.476	0.0001	1.45	
AB	10	50.946715	5.094671	0.447	0.9139	4.82	
ERROR	42	478.734679	11.398445				

FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 3/Jul/2008 27 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 3/Jul/2008 27 DA-A							
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)	
Total	65	2307.581746					
R	2	115.418494	57.709247	2.309	0.1119	3.05	
A	10	173.251289	17.325129	0.693	0.7249	5.05	
B	1	712.155472	712.155472	28.493	0.0001	2.15	
AB	10	257.001566	25.700157	1.028	0.4371	7.14	
ERROR	42	1049.754925	24.994165				

FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 30/Jul/2008 7 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				

FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 13/Aug/2008 21 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				

FACTORIAL/POOLED ERROR AOV For GOSHI AVG CROP HT CM 13/Aug/2008 21 DA-B							
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)	
Total	65	136014.564977					
R	2	1009.026213	504.513106	8.590	0.0007	4.67	
A	10	292.236292	29.223629	0.498	0.8819	7.74	
B	1	131954.399173	131954.399173	2246.791	0.0001	3.30	
AB	10	292.236292	29.223629	0.498	0.8819	10.95	
ERROR	42	2466.667008	58.730167				

FACTORIAL/POOLED ERROR AOV For GOSHI AVG CROP HT CM 27/Aug/2008 35 DA-B							
SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)	
Total	65	150793.095545					
R	2	961.775213	480.887607	9.090	0.0005	4.43	
A	10	191.596069	19.159607	0.362	0.9561	7.35	
B	1	147226.295994	147226.295994	2783.066	0.0001	3.13	
AB	10	191.596069	19.159607	0.362	0.9561	10.39	
ERROR	42	2221.832199	52.900767				

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Crop Code	GOSHI	GOSHI	
Rating Data Type	YIELD	YIELD	
Rating Unit	LB	LB/A	
Rating Date	15/Oct/2008	15/Oct/2008	

Trt-Eval Interval					
ARM Action Codes					TY1
# Subsamples, Dec.					1
Trt	Treatment	Rate	Unit	Appl Code	
No.	Name				

TABLE OF R MEANS

Replicate 1	4.59	1498.2
Replicate 2	5.16	1685.8
Replicate 3	6.23	2033.7
Replicate 4	.	.

TABLE OF A MEANS

1	IGNITE	29 oz/a	A	4.95	1616.4
2	IGNITE	29 oz/a	A	5.34	1742.6
2	ACEPHATE	0.2 lb ai/a	A		
3	IGNITE	29 oz/a	A	5.62	1836.2
3	BAYTHROID XL	0.015 lb ai/a	A		
4	IGNITE	29 oz/a	A	5.71	1865.6
4	BIDRIN	0.2 lb ai/a	A		
5	IGNITE	29 oz/a	A	4.95	1615.3
5	CENTRIC	0.047 lb ai/a	A		
6	IGNITE	29 oz/a	A	5.38	1757.9
6	DIMETHOATE	0.25 lb ai/a	A		
7	IGNITE	29 oz/a	A	5.64	1840.6
7	DIAMOND	9 oz/a	A		
8	IGNITE	29 oz/a	A	5.30	1731.7
8	CARBINE	0.088 lb ai/a	A		
9	IGNITE	29 oz/a	A	5.29	1726.3
9	ZEPHYR	5 oz/a	A		
10	IGNITE	29 oz/a	A	5.23	1708.9
10	OBERON	5 oz/a	A		
11	IGNITE	29 oz/a	A	5.18	1690.4
11	VYDATE C-LV	0.4 lb ai/a	A		

TABLE OF B MEANS

1	2-3 LF	A	5.67	1852.0
2	1 WAF	B	4.98	1626.5

TABLE OF AB MEANS

1	IGNITE	29 oz/a	A	5.50	1796.0
1	2-3 LF		A		
2	IGNITE	29 oz/a	A	5.53	1806.8
2	ACEPHATE	0.2 lb ai/a	A		
1	2-3 LF		A		
3	IGNITE	29 oz/a	A	6.41	2094.2
3	BAYTHROID XL	0.015 lb ai/a	A		
1	2-3 LF		A		
4	IGNITE	29 oz/a	A	6.14	2004.9
4	BIDRIN	0.2 lb ai/a	A		
1	2-3 LF		A		
5	IGNITE	29 oz/a	A	5.85	1909.2
5	CENTRIC	0.047 lb ai/a	A		
1	2-3 LF		A		
6	IGNITE	29 oz/a	A	5.72	1867.8
6	DIMETHOATE	0.25 lb ai/a	A		
1	2-3 LF		A		
7	IGNITE	29 oz/a	A	4.83	1578.3
7	DIAMOND	9 oz/a	A		
1	2-3 LF		A		
8	IGNITE	29 oz/a	A	5.37	1754.6
8	CARBINE	0.088 lb ai/a	A		
1	2-3 LF		A		
9	IGNITE	29 oz/a	A	6.54	2135.6
9	ZEPHYR	5 oz/a	A		
1	2-3 LF		A		
10	IGNITE	29 oz/a	A	4.93	1610.9
10	OBERON	5 oz/a	A		
1	2-3 LF		A		
11	IGNITE	29 oz/a	A	5.55	1813.4
11	VYDATE C-LV	0.4 lb ai/a	A		
1	2-3 LF		A		
1	IGNITE	29 oz/a	A	4.40	1436.8
2	1 WAF		B		

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Crop Code	GOSHI	GOSHI	
Rating Data Type	YIELD	YIELD	
Rating Unit	LB	LB/A	
Rating Date	15/Oct/2008	15/Oct/2008	

Trt-Eval Interval					
ARM Action Codes					TY1
# Subsamples, Dec.					1
Trt	Treatment	Rate	Unit	Appl	
No.	Name			Code	
					10 11
2	IGNITE	29	oz/a	A	5.14 1678.4
2	ACEPHATE	0.2	lb ai/a	A	
2	1 WAF			B	
3	IGNITE	29	oz/a	A	4.83 1578.3
3	BAYTHROID XL	0.015	lb ai/a	A	
2	1 WAF			B	
4	IGNITE	29	oz/a	A	5.29 1726.3
4	BIDRIN	0.2	lb ai/a	A	
2	1 WAF			B	
5	IGNITE	29	oz/a	A	4.05 1321.4
5	CENTRIC	0.047	lb ai/a	A	
2	1 WAF			B	
6	IGNITE	29	oz/a	A	5.05 1647.9
6	DIMETHOATE	0.25	lb ai/a	A	
2	1 WAF			B	
7	IGNITE	29	oz/a	A	6.44 2102.9
7	DIAMOND	9	oz/a	A	
2	1 WAF			B	
8	IGNITE	29	oz/a	A	5.23 1708.9
8	CARBINE	0.088	lb ai/a	A	
2	1 WAF			B	
9	IGNITE	29	oz/a	A	4.03 1317.0
9	ZEPHYR	5	oz/a	A	
2	1 WAF			B	
10	IGNITE	29	oz/a	A	5.53 1806.8
10	OBERON	5	oz/a	A	
2	1 WAF			B	
11	IGNITE	29	oz/a	A	4.80 1567.4
11	VYDATE C-LV	0.4	lb ai/a	A	
2	1 WAF			B	

FACTORIAL/POOLED ERROR AOV For GOSHI YIELD LB 15/Oct/2008

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	103.703306				
R	2	30.469232	15.234616	15.179	0.0001	0.61
A	10	3.939392	0.393939	0.393	0.9428	1.01
B	1	7.862540	7.862540	7.834	0.0077	0.43
AB	10	19.279247	1.927925	1.921	0.0691	1.43
ERROR	42	42.152894	1.003640			

FACTORIAL/POOLED ERROR AOV For GOSHI YIELD LB/A 15/Oct/2008 TY1 1

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F	Prob(F)	LSD (.05)
Total	65	11057493.727883				
R	2	3248819.672562	1624409.836281	15.179	0.0001	199.3
A	10	420042.645852	42004.264585	0.393	0.9428	330.6
B	1	838353.641868	838353.641868	7.834	0.0077	141.0
AB	10	2055673.913066	205567.391307	1.921	0.0691	467.5
ERROR	42	4494603.854534	107014.377489			

Column 11: TY1 = 326.5367*[10]