

# 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           | C           |
|----------------------|------------|-------------|-------------|
| Application Date:    | 9/Jun/2008 | 16/Jun/2008 | 24/Jul/2008 |
| Time of Day:         | 1:35 AM    | 2:25 PM     | 10:00 AM    |
| Application Method:  | SPRAY      | SPRAY       | SPRAY       |
| Application Timing:  | EAPOCR     | EAPOCR      | POSTBL      |
| Applic. Placement:   | BROFOL     | BROFOL      | BROFOL      |
| Air Temp., Unit:     | 87 F       | 93 F        | 88 F        |
| % Relative Humidity: | 51         | 38          | 55          |
| Wind Velocity, Unit: | 10.4 MPH   | 3.8 MPH     | 7 MPH       |
| Dew Presence (Y/N):  | N          | N           | N           |
| Water Hardness:      | N          | N           | N           |
| Soil Temp., Unit:    | 91 F       | 97 F        | 92 F        |
| Soil Moisture:       |            |             | DRY         |
| % Cloud Cover:       | 30         | 50          | 0           |

### CROP STAGE AT EACH APPLICATION

|                     | A          | B          | C           |
|---------------------|------------|------------|-------------|
| Crop 1 Code, Stage: | GOSHI 3 LF | GOSHI 8 LF | GOSHI BLOOM |

### APPLICATION EQUIPMENT

|                       | A          | B          | C       |
|-----------------------|------------|------------|---------|
| Appl. Equipment:      | CO2 BCPCCK | CO2 BCPCCK | TRACTOR |
| Operating Pressure:   | 34 psi     | 34 psi     | 38 psi  |
| Nozzle Type:          | DG         | DG         | DG      |
| Nozzle Size:          | 11002      | 11002      | 11002   |
| Nozzle Spacing, Unit: | 20 IN      | 20 IN      | 20 IN   |
| Nozzles/Row:          | 2          | 2          | 2       |
| Ground Speed, Unit:   | 3.2 MPH    | 3.2 MPH    | 3.2 MPH |
| Carrier:              | WATER      | WATER      | WATER   |
| Spray Volume, Unit:   | 15 GPA     | 15 GPA     | 15 GPA  |





| FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 16/Jun/2008 7DA-A          |    |                 |               |       |         |           |  |
|--|----|-----------------|---------------|-------|---------|-----------|--|
| SOURCE   | DF | SUM OF SQUARES  | MEAN SQUARE   | F     | Prob(F) | LSD (.05) |  |
| Total  | 98 | 151.838384      |               |       |         |           |  |
| R  | 2  | 1.232323        | 0.616162      | 0.397 | 0.6743  | 0.61      |  |
| A  | 10 | 28.949495       | 2.894949      | 1.863 | 0.0672  | 1.02      |  |
| B  | 2  | 1.959596        | 0.979798      | 0.631 | 0.5355  | 0.53      |  |
| AB   | 20 | 20.262626       | 1.013131      | 0.652 | 0.8563  | 1.76      |  |
| ERROR  | 64 | 99.434343       | 1.553662      |       |         |           |  |
| FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 23/Jun/2008 14 DA-A 7 DA-B |    |                 |               |       |         |           |  |
| SOURCE   | DF | SUM OF SQUARES  | MEAN SQUARE   | F     | Prob(F) | LSD (.05) |  |
| Total  | 98 | 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  | 2  | 0.000000        | 0.000000      | 0.000 | 0.0000  | 0.00      |  |
| AB   | 20 | 0.000000        | 0.000000      | 0.000 | 0.0000  | 0.00      |  |
| ERROR  | 64 | 0.000000        | 0.000000      |       |         |           |  |
| FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 30/Jun/2008 14 DA-B        |    |                 |               |       |         |           |  |
| SOURCE   | DF | SUM OF SQUARES  | MEAN SQUARE   | F     | Prob(F) | LSD (.05) |  |
| Total  | 98 | 108.181818      |               |       |         |           |  |
| R  | 2  | 6.727273        | 3.363636      | 3.632 | 0.0321  | 0.47      |  |
| A  | 10 | 12.181818       | 1.218182      | 1.315 | 0.2417  | 0.79      |  |
| B  | 2  | 8.909091        | 4.454545      | 4.810 | 0.0113  | 0.41      |  |
| AB   | 20 | 21.090909       | 1.054545      | 1.139 | 0.3360  | 1.36      |  |
| ERROR  | 64 | 59.272727       | 0.926136      |       |         |           |  |
| FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 31/Jul/2008 7 DA-C         |    |                 |               |       |         |           |  |
| SOURCE   | DF | SUM OF SQUARES  | MEAN SQUARE   | F     | Prob(F) | LSD (.05) |  |
| Total  | 98 | 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  | 2  | 0.000000        | 0.000000      | 0.000 | 0.0000  | 0.00      |  |
| AB   | 20 | 0.000000        | 0.000000      | 0.000 | 0.0000  | 0.00      |  |
| ERROR  | 64 | 0.000000        | 0.000000      |       |         |           |  |
| FACTORIAL/POOLED ERROR AOV For GOSHI INJURY % 13/Aug/2008 20 DA-C        |    |                 |               |       |         |           |  |
| SOURCE   | DF | SUM OF SQUARES  | MEAN SQUARE   | F     | Prob(F) | LSD (.05) |  |
| Total  | 98 | 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  | 2  | 0.000000        | 0.000000      | 0.000 | 0.0000  | 0.00      |  |
| AB   | 20 | 0.000000        | 0.000000      | 0.000 | 0.0000  | 0.00      |  |
| ERROR  | 64 | 0.000000        | 0.000000      |       |         |           |  |
| FACTORIAL/POOLED ERROR AOV For GOSHI YIELD LB 15/Oct/2008                |    |                 |               |       |         |           |  |
| SOURCE   | DF | SUM OF SQUARES  | MEAN SQUARE   | F     | Prob(F) | LSD (.05) |  |
| Total  | 98 | 121.424566      |               |       |         |           |  |
| R  | 2  | 6.896906        | 3.448453      | 2.733 | 0.0726  | 0.55      |  |
| A  | 10 | 13.376478       | 1.337648      | 1.060 | 0.4056  | 0.92      |  |
| B  | 2  | 1.223522        | 0.611761      | 0.485 | 0.6180  | 0.48      |  |
| AB   | 20 | 19.178164       | 0.958908      | 0.760 | 0.7487  | 1.59      |  |
| ERROR  | 64 | 80.749497       | 1.261711      |       |         |           |  |
| 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  | 98 | 12947042.802951 |               |       |         |           |  |
| R  | 2  | 735390.942184   | 367695.471092 | 2.733 | 0.0726  | 180.6     |  |
| A  | 10 | 1426283.042012  | 142628.304201 | 1.060 | 0.4056  | 299.5     |  |
| B  | 2  | 130459.412618   | 65229.706309  | 0.485 | 0.6180  | 156.4     |  |
| AB   | 20 | 2044895.546385  | 102244.777319 | 0.760 | 0.7487  | 518.7     |  |
| ERROR  | 64 | 8610013.859753  | 134531.466559 |       |         |           |  |
| FACTORIAL/POOLED ERROR AOV For GOSHI AVG CROP HT CM 21/Oct/2008          |    |                 |               |       |         |           |  |
| SOURCE   | DF | SUM OF SQUARES  | MEAN SQUARE   | F     | Prob(F) | LSD (.05) |  |
| Total  | 98 | 5292.509885     |               |       |         |           |  |
| R  | 2  | 301.794684      | 150.897342    | 2.888 | 0.0630  | 3.56      |  |
| A  | 10 | 718.750025      | 71.875002     | 1.376 | 0.2118  | 5.90      |  |
| B  | 2  | 68.812791       | 34.406395     | 0.659 | 0.5211  | 3.08      |  |
| AB   | 20 | 859.426950      | 42.971348     | 0.822 | 0.6783  | 10.22     |  |
| ERROR  | 64 | 3343.725435     | 52.245710     |       |         |           |  |

Column 7: TY1 = 326.5367\*[6]