

MSU Weed Science Research Program

Evaluation of new Roundup formulations

Trial ID: SOY08-11 Study Dir.: Sprague, Powell
Conducted: C-14E Crops Investigator: Christy Sprague

Date Planted: 5/10/2011 Row Spacing: 30 IN
Variety: Pioneer 92M61 No. of Reps: 4
Population: 155,000 % OM: 2.5
Soil Type: Silt Loam pH: 6.9
Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fallow 2010- Installed tile drainage, spring soil finish.
Fertilizer: None at planting.

Crop and Weed Description

Table with 4 columns: Weed, Code, Common Name, Scientific Name. Lists weeds 1-5 and crop 1 (GLXMA SOYBEAN).

Application Description

A
Application Timing: POST
Date Treated: 6/15/2011
Time Treated: 9:15 AM
% Cloud Cover: 80
Air Temp., Unit: 62 F
% Relative Humidity: 71
Wind Speed/Unit/Dir: 3 mph E
Soil Temp., Unit: 62 F
Soil/Leaf Surface M: 5 4
Soil Moist (1=w 5=d): 3

Crop Stage at Each Application

A
Crop Name: GLXMA
Height (In.): 3-4"
Stage (L): V2

Weed Stage at Each Application

A
Weed 1 Name: ANGR
Height (In.): 6-10"
Stage (L): 6-10
Weed 2 Name: AMBEL
Height (In.): 2-3"
Stage (L): 6-8
Weed 3 Name: AMAPO
Height (In.): 3-5"
Stage (L): 12-20
Weed 4 Name: ABUTH
Height (In.): 2"
Stage (L): 4-5
Weed 5 Name: SINAR
Height (In.): 6-14"
Stage (L): flowering

Weed Density (plants/sq. ft.)

Table with 5 columns: Weed Name, Density. Lists ANGR, AMBEL, ABUTH, AMAPO, SINAR with their respective densities.

Application Equipment

Table with 10 columns: Appl, Sprayer, Speed, Nozzle, Nozzle, Nozzle, Nozzle, Boom, GPA, Carrier, PSI. Lists application parameters for 'A'.

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Table with 8 columns: Weed Code, Crop Code, Rating Data Type, Rating Unit, Rating Date, Trt-Eval Interval, # Subsamples, Dec., ANGR, AMBEL, ABUTH, SINAR, GLXMA, ANGR. It lists various weed codes and their corresponding injury and control percentages at different dates.

Main data table with 16 rows of treatment data and summary statistics. Columns include Trt No., Treatment Name, Form Conc, Form Type, Rate, Rate Unit, Grow Stg, Appl Code, and injury/control percentages for ANGR, AMBEL, ABUTH, SINAR, and GLXMA. Summary statistics at the bottom include LSD (P=.05), Standard Deviation, and CV.

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 | AMAPO | AMBEL | ABUTH | SINAR |
| Crop Code | | | | |
| Rating Data Type | control | control | control | control |
| Rating Unit | percent | percent | percent | percent |
| Rating Date | 7/8/2011 | 7/8/2011 | 7/8/2011 | 7/8/2011 |
| Trt-Eval Interval | 23 DA-A | 23 DA-A | 23 DA-A | 23 DA-A |
| # Subsamples, Dec. | | | | |

| Trt No. | Treatment Name | Form Conc | Form Type | Rate | Rate Unit | Grow Stg | Appl Code | AMAPO | AMBEL | ABUTH | SINAR |
|--------------------|----------------|-----------|-----------|------|-----------|----------|-----------|-------|-------|-------|-------|
| 1 | Mon 76238 | 4.5 | SL | 0.5 | lb ae/a | POST | A | 99.0 | 83.0 | 81.0 | 87.3 |
| 2 | Mon 76237 | 4.5 | SL | 0.5 | lb ae/a | POST | A | 99.0 | 81.3 | 79.5 | 93.3 |
| 3 | Mon 76640 | 4.5 | SL | 0.5 | lb ae/a | POST | A | 99.0 | 83.5 | 70.0 | 97.0 |
| 4 | Mon 76701 | 4.5 | SL | 0.5 | lb ae/a | POST | A | 99.0 | 86.5 | 77.3 | 91.0 |
| 5 | Mon 76660 | 4.5 | SL | 0.5 | lb ae/a | POST | A | 99.0 | 81.3 | 80.3 | 96.3 |
| 6 | Mon 76702 | 4.5 | SL | 0.5 | lb ae/a | POST | A | 99.0 | 77.8 | 73.8 | 96.3 |
| 7 | Mon 76667 | 4.5 | SL | 0.5 | lb ae/a | POST | A | 99.0 | 80.5 | 83.0 | 95.7 |
| 8 | Mon 76703 | 4.5 | SL | 0.5 | lb ae/a | POST | A | 98.0 | 76.5 | 78.0 | 96.3 |
| 9 | Mon 76238 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 99.0 | 91.5 | 83.0 | 99.0 |
| 10 | Mon 76237 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 99.0 | 87.3 | 74.3 | 97.0 |
| 11 | Mon 76640 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 99.0 | 93.0 | 77.5 | 98.7 |
| 12 | Mon 76701 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 99.0 | 93.3 | 80.0 | 97.7 |
| 13 | Mon 76660 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 99.0 | 92.5 | 83.0 | 98.3 |
| 14 | Mon 76702 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 99.0 | 88.5 | 88.3 | 99.0 |
| 15 | Mon 76667 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 99.0 | 91.8 | 90.0 | 99.0 |
| 16 | Mon 76703 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 99.0 | 91.3 | 83.5 | 99.0 |
| LSD (P=.05) | | | | | | | | 0.71 | 5.08 | 15.06 | 7.20 |
| Standard Deviation | | | | | | | | 0.50 | 3.55 | 10.54 | 4.32 |
| CV | | | | | | | | 0.51 | 4.12 | 13.15 | 4.48 |

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.