

Next Generation Formulations of Glyphosate

Trial ID: NTS05-08
 Conducted: T-16 Botany

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

| | | | |
|---------------|--------------------|--------------|---------------------------|
| Date Planted: | 5/13/08 | Row Spacing: | 7.5 IN |
| Variety: | Asgrow 2107 | No. of Reps: | 5 |
| Population: | 210,000 seeds/Acre | % OM: | 2.6 |
| Soil Type: | Sandy Loam | pH: | 6.3 |
| Plot Size: | 10 X 40 FT | Design: | RANDOMIZED COMPLETE BLOCK |

Tillage: No-till into standing corn stubble
 Fertilizer: none at planting

Crop and Weed Description

| Weed | Code | Common Name | Scientific Name |
|------|-------|----------------------------------|-----------------------|
| 1. | CHEAL | LAMBSQUARTERS, COMMON | CHENOPODIUM ALBUM L. |
| 2. | ERICA | HORSEWEED (Marestail) | CONYZA CANADENSIS L. |
| 3. | TAROF | DANDELION, COMMON | TARAXACUM OFFICINALE |
| 4. | VERPG | SPEEDWELL, PURSLANE | VERONICA PEREGRINA L. |
| 5. | AMASS | REDROOT PIGWEED, POWELL AMARANTH | AMARANTHUS SP. |
| 6. | STEME | CHICKWEED, COMMON | STELLARIA MEDIA (L.) |
| Crop | Code | Common Name | |
| 1. | GLXMA | SOYBEAN | |

Application Description

A
 Application Timing: POST
 Date Treated: 6/12/08
 Time Treated: 3:30 PM
 % Cloud Cover: 90
 Air Temp., Unit: 85 F
 % Relative Humidity: 51
 Wind Speed/Unit/Dir: 6 mph S
 Soil Temp., Unit: 77 F
 Soil/Leaf Surface M: 4 5
 Soil Moist (1=w 5=d): 4

Crop Stage at Each Application

A
 Crop Name: GLXMA
 Height (In.): 3-5
 Stage (L): VC-V1

Weed Stage at Each Application

A
 Weed 1 Name: CHEAL
 Height (In.): 1-16
 Stage (L): 4-many
 Weed 2 Name: ERICA
 Height (In.): 2-10
 Stage (L): many
 Weed 3 Name: TAROF
 Height (In.): 8-15
 Stage (L): flowering
 Weed 4 Name: VERPG
 Height (In.): 2-6
 Stage (L): flowering
 Weed 5 Name: AMASS
 Height (In.): 1-2
 Stage (L): 4-8
 Weed 6 Name: STEME
 Height (In.): 8-13
 Stage (L): flowering

Next Generation Formulations of Glyphosate

Trial ID: NTS05-08
 Conducted: T-16 Botany

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Weed Density (plants/sq. ft.)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------|---------|---------|---------|---------|---------|---------|---------|
| Date: | 7/25/08 | 7/25/08 | 7/25/08 | 7/25/08 | 7/25/08 | 7/25/08 | 7/25/08 |
| Weed Name: | TAROF | ERICA | CHEAL | ERIST | ANGR | VERPG | ABUTH |
| Density: | 0.1 | 0.7 | 6.1 | 0.3 | 6.2 | 1.3 | 0.3 |

Application Equipment

| Appl | Sprayer Type | Speed MPH | Nozzle Type | Nozzle Size | Nozzle Height | Nozzle Spacing | Boom Width | GPA | Carrier | PSI |
|------|--------------|-----------|-------------|-------------|---------------|----------------|------------|-----|---------|-----|
| A | Cub | 3.8 | AirMix | 11003 | 26 | 20 | 100 | 19 | water | 28 |

MSU Weed Science Research Program

Next Generation Formulations of Glyphosate

Trial ID: NTS05-08
 Conducted: T-16 Botany

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

| | | |
|-------------------|---------|---------|
| Weed Code | CHEAL | ERICA |
| Crop Code | | |
| Rating Data Type | control | control |
| Rating Unit | percent | percent |
| Rating Date | 7/1/08 | 7/1/08 |
| Trt-Eval Interval | 19 DA-A | 19 DA-A |

| Trt No. | Treatment Name | Form Conc | Form Type | Rate | Rate Unit | Grow Stg | Appl Code | | |
|---------|----------------|-----------|-----------|------|-----------|----------|-----------|----|----|
| 1 | MON 76238 | 4.5 | SL | 0.56 | lb ae/a | POST | A | 84 | 92 |
| 2 | MON 76237 | 4.5 | SL | 0.56 | lb ae/a | POST | A | 94 | 86 |
| 3 | MON 79790 | 4.5 | SL | 0.56 | lb ae/a | POST | A | 93 | 89 |
| 4 | MON 76301 | 4.5 | SL | 0.56 | lb ae/a | POST | A | 94 | 95 |
| 5 | MON 76410 | 4.5 | SL | 0.56 | lb ae/a | POST | A | 96 | 91 |
| 6 | MON 76186 | 4.5 | SL | 0.56 | lb ae/a | POST | A | 74 | 90 |
| 7 | MON 76415 | 4.5 | SL | 0.56 | lb ae/a | POST | A | 76 | 89 |
| 8 | Untreated | | | | | | | 0 | 0 |
| 9 | MON 76238 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 96 | 98 |
| 10 | MON 76237 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 98 | 93 |
| 11 | MON 79790 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 92 | 98 |
| 12 | MON 76301 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 99 | 98 |
| 13 | MON 76410 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 92 | 97 |
| 14 | MON 76186 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 93 | 96 |
| 15 | MON 76415 | 4.5 | SL | 0.75 | lb ae/a | POST | A | 95 | 97 |
| 16 | MON 79616 | 4.2 | SL | 0.75 | lb ae/a | POST | A | 96 | 93 |
| 17 | MON 79614 | 5 | SL | 0.75 | lb ae/a | POST | A | 76 | 86 |
| 17 | Activator 90 | | L | 0.25 | % v/v | POST | A | | |
| 18 | MON 79685 | 4 | SL | 0.75 | lb ae/a | POST | A | 82 | 99 |

| | | |
|--------------------|------|------|
| LSD (P=.10) | 8.6 | 5.7 |
| Standard Deviation | 8.2 | 5.4 |
| CV | 9.61 | 6.14 |