

Marestail Control with Glyphosate Alone.

Project Code: 04-6B-E40 Location: Belleville Research Center
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
Trial Status: Final Updated: 8-16-04

Objective:

Evaluate glyphosate alone at several rates for control of marestail.

| Weed Code | Common Name | Scientific Name |
|-----------|-----------------|-------------------------------|
| 1. | ERICA horseweed | Conyza canadensis (L.) Crong. |

| | | | |
|------------------|---------------|----------------|------------|
| Crop 1: | GLXMA soybean | Variety: | AG 4403 RR |
| Planting Method: | Seeded | Planting Date: | 5-12-04 |
| Rate: | 75 lb/A | Depth: | 1.0 IN |
| Row Spacing: | 15 IN | | |

| | | | | | |
|----------------------|-------------|--------------------|---------------------------|-------|---|
| Plot Width, Unit: | 10 FT | Plot Length, Unit: | 30 FT | Reps: | 3 |
| Tillage Type: | No-Till | Study Design: | Randomized complete block | | |
| Previous Crop, Year: | GLXMA, 2003 | | | | |

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 100 LB/A

| | | | | | | | |
|------------|-----------|--------------|--------------------------|-----|-----|------|---|
| Soil Name: | Stoy | % OM: | 1.6 | pH: | 6.4 | CEC: | 8 |
| Texture: | Silt loam | Fert. Level: | P1: 81 LB/A, K: 414 LB/A | | | | |

APPLICATION DESCRIPTION

A

| | |
|----------------------|---------|
| Application Date: | 5-19-04 |
| Time of Day: | 15:00 |
| Application Method: | Spray |
| Application Timing: | 8-12"W |
| Applic. Placement: | BROFOL |
| Wind Velocity, Unit: | 3 MPH |
| Soil Moisture: | ABONOR |

CROP STAGE AT EACH APPLICATION

A

| | |
|---------------------|-------------|
| Crop 1 Code, Stage: | GLXMA CRACK |
| Height, Unit: | 0 IN |

WEED STAGE AT EACH APPLICATION

A

| | |
|-----------------|--------|
| Weed 1 Code: | ERICA |
| Stage(leaves): | 10+ |
| Height(inches): | 8-14 |
| Density: | Medium |

APPLICATION EQUIPMENT

A

| | |
|---------------------|-------------|
| Appl. Equipment: | CO2 sprayer |
| Operating Pressure: | 40 PSI |
| Nozzle Type: | Flat fan |
| Nozzle Size: | 8002 |
| Boom Length, Unit: | 7.5 FT |
| Spray Volume, Unit: | 20 GPA |

NOTES:

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| Weed Code | ERICA | ERICA | ERICA | ERICA | ERICA | ERICA |
|-------------------|---------|---------|----------|----------|---------|---------|
| Crop Code | CON4-8" | CON4-8" | CON8-14" | CON8-14" | Control | Control |
| Rating Data Type | Percent | Percent | Percent | Percent | Percent | Percent |
| Rating Unit | 6-2-04 | 6-16-04 | 6-2-04 | 6-16-04 | 6-2-04 | 6-16-04 |
| Rating Date | 14 DA-A | 28 DA-A | 14 DA-A | 28 DA-A | 14 DA-A | 28 DA-A |
| Trt-Eval Interval | | | | | | |

| Trt No. | Treatment Name | Form Conc | Form Type | Rate | Rate Unit | Prod Rate | Prod Unit | Grow Stg | Appl Code | ERICA 14 DA-A | ERICA 28 DA-A | ERICA 14 DA-A | ERICA 28 DA-A | Control 14 DA-A | Control 28 DA-A |
|-------------------|----------------|-----------|-----------|-------|-----------|-----------|------------|----------|-----------|---------------|---------------|---------------|---------------|-----------------|-----------------|
| 1 | NONTREATED | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | ROUNDUP W-MAX | 4.5 | SL | 0.375 | LB AE/A | 10.7 | FL OZ/A | 8-12"W | A | 98 | 90 | 83 | 83 | 78 | 81 |
| 2 | AMS | 100 | DRY | 2.0 | % W/W | 17 | LB/100 GAL | 8-12"W | A | | | | | | |
| 3 | ROUNDUP W-MAX | 4.5 | SL | 0.56 | LB AE/A | 16 | FL OZ/A | 8-12"W | A | 98 | 100 | 92 | 100 | 87 | 96 |
| 3 | AMS | 100 | DRY | 2.0 | % W/W | 17 | LB/100 GAL | 8-12"W | A | | | | | | |
| 4 | ROUNDUP W-MAX | 4.5 | SL | 0.75 | LB AE/A | 21.3 | FL OZ/A | 8-12"W | A | 100 | 100 | 96 | 100 | 91 | 98 |
| 4 | AMS | 100 | DRY | 2.0 | % W/W | 17 | LB/100 GAL | 8-12"W | A | | | | | | |
| 5 | ROUNDUP W-MAX | 4.5 | SL | 1.12 | LB AE/A | 32 | FL OZ/A | 8-12"W | A | 100 | 100 | 97 | 100 | 96 | 99 |
| 5 | AMS | 100 | DRY | 2.0 | % W/W | 17 | LB/100 GAL | 8-12"W | A | | | | | | |
| 6 | ROUNDUP W-MAX | 4.5 | SL | 1.5 | LB AE/A | 42.7 | FL OZ/A | 8-12"W | A | 100 | 100 | 100 | 100 | 99 | 100 |
| 6 | AMS | 100 | DRY | 2.0 | % W/W | 17 | LB/100 GAL | 8-12"W | A | | | | | | |
| 7 | ROUNDUP W-MAX | 4.5 | SL | 1.88 | LB AE/A | 53.5 | FL OZ/A | 8-12"W | A | 100 | 100 | 100 | 100 | 99 | 100 |
| 7 | AMS | 100 | DRY | 2.0 | % W/W | 17 | LB/100 GAL | 8-12"W | A | | | | | | |
| 8 | ROUNDUP W-MAX | 4.5 | SL | 2.25 | LB AE/A | 64 | FL OZ/A | 8-12"W | A | 100 | 100 | 100 | 100 | 99 | 100 |
| 8 | AMS | 100 | DRY | 2.0 | % W/W | 17 | LB/100 GAL | 8-12"W | A | | | | | | |
| LSD (P=.05) | | | | | | | | | | 2.4 | 10.7 | 6.7 | 17.9 | 6.4 | 12.6 |
| Replicate F | | | | | | | | | | 0.479 | 1.000 | 0.054 | 1.000 | 0.465 | 1.099 |
| Replicate Prob(F) | | | | | | | | | | 0.6293 | 0.3927 | 0.9474 | 0.3927 | 0.6375 | 0.3603 |
| Treatment F | | | | | | | | | | 2030.124 | 98.143 | 240.254 | 35.286 | 257.048 | 69.757 |
| Treatment Prob(F) | | | | | | | | | | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |

Trial Comments

1. Protocol: SIU/RFK.
2. Ratings: WC 14 and 28 DAT.
3. CON4-8" and CON8-14" = Control of 4-8" and 8-14" ERICA (size at application), respectively. Control = Overall control of ERICA regardless of size at application.
4. DA-A = Days after 8-12"W (ERICA) application.