

Control of Volunteer Roundup Ready Corn in Soybean - United Suppliers.

Project Code: 07-6B-N70 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: 1-23-08

Objective:

Compare adjuvant treatments in glyphosate plus clethodim tank-mixtures on volunteer Roundup Ready corn and other weed species.

Weed Code Common Name Scientific Name

1. ZEAMX corn, volunteer Zea mays L.

Crop 1: GLXMA soybean Variety: Asgrow 4404 RR/STS
Planting Method: Seeded Planting Date: 6-3-07
Rate: 75 lb/A Depth: 1.0 IN
Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 21 FT Reps: 3
Tillage Type: Reduced-Till Study Design: Randomized complete block
Previous Crop, Year: GLXMA, 2006
Field Prep./Maintenance: N 150 LB/A, P2O5 50 LB/A, K2O 0 LB/A

Soil Name: Stoy % OM: 2.1 pH: 6.6 CEC: 8
Texture: Silt loam Fert. Level: P1: 55 LB/A, K: 401 LB/A

APPLICATION DESCRIPTION

A

Application Date: 6-27-07
Time of Day: 12:30
Application Method: Spray
Application Timing: 12"CN
Applic. Placement: BROFOL
Air Temp., Unit: 86 F
% Relative Humidity: 88
Wind Velocity, Unit: 0-2 MPH
Dew Presence (Y/N): N
Soil Moisture: ABONOR
% Cloud Cover: 100

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: GLXMA V2-V3
Height, Unit: 8 IN

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code: ZEAMX
Stage(leaves): V5
Height(inches): 8-15
Density: High

APPLICATION EQUIPMENT

A

Appl. Equipment: CO2 sprayer
Operating Pressure: 40 PSI
Nozzle Type: Flat fan
Nozzle Size: XR 110015
Boom Length, Unit: 7.5 FT
Spray Volume, Unit: 10 GPA

NOTES:

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| Weed Code | GLXMA | GLXMA | ZEAMX | ZEAMX |
|-------------------|---------|---------|---------|---------|
| Crop Code | Injury | Injury | Control | Control |
| Rating Data Type | Percent | Percent | Percent | Percent |
| Rating Unit | 7-11-07 | 7-25-07 | 7-11-07 | 7-25-07 |
| Rating Date | 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 | | | | |
|-------------------|------------------|-----------|-----------|--------|-----------|-----------|-------------|----------|-----------|--------|--------|---------|---------|
| 1 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 95 bc | 94 bc |
| 1 | ARROW | 2 | EC | 0.0625 | lb ai/a | 4 | fl oz/a | 12"CN | A | | | | |
| 1 | AMS | 100 | DRY | 1.0 | % w/w | 8.5 | lb/100 gal | 12"CN | A | | | | |
| 1 | CHEM-SURF 80 | 100 | LIQ | 0.25 | % v/v | 2 | pt/100 gal | 12"CN | A | | | | |
| 2 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 97 abc | 98 a |
| 2 | ARROW | 2 | EC | 0.0625 | lb ai/a | 4 | fl oz/a | 12"CN | A | | | | |
| 2 | AMS | 100 | DRY | 1.0 | % w/w | 8.5 | lb/100 gal | 12"CN | A | | | | |
| 2 | US333 | 100 | LIQ | 0.5 | % v/v | 4 | pt/100 gal | 12"CN | A | | | | |
| 3 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 96 abc | 96 abc |
| 3 | ARROW | 2 | EC | 0.0625 | lb ai/a | 4 | fl oz/a | 12"CN | A | | | | |
| 3 | AMS | 100 | DRY | 1.0 | % w/w | 8.5 | lb/100 gal | 12"CN | A | | | | |
| 3 | TRANSLATE | 100 | LIQ | 0.25 | % v/v | 2 | pt/100 gal | 12"CN | A | | | | |
| 4 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 97 ab | 98 a |
| 4 | ARROW | 2 | EC | 0.0625 | lb ai/a | 4 | fl oz/a | 12"CN | A | | | | |
| 4 | AMS | 100 | DRY | 1.0 | % w/w | 8.5 | lb/100 gal | 12"CN | A | | | | |
| 4 | BETWEEN | 100 | LIQ | 0.5 | % v/v | 4 | pt/100 gal | 12"CN | A | | | | |
| 5 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 98 a | 99 a |
| 5 | ARROW | 2 | EC | 0.0625 | lb ai/a | 4 | fl oz/a | 12"CN | A | | | | |
| 5 | AMS | 100 | DRY | 1.0 | % w/w | 8.5 | lb/100 gal | 12"CN | A | | | | |
| 5 | PREMIUM COC | 100 | LIQ | 1 | % v/v | 8 | pt/100 gal | 12"CN | A | | | | |
| 6 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 94 c | 98 a |
| 6 | ARROW | 2 | EC | 0.0625 | lb ai/a | 4 | fl oz/a | 12"CN | A | | | | |
| 6 | ULTRA SURF | 100 | LIQ | 2.5 | % v/v | 2.5 | gal/100 gal | 12"CN | A | | | | |
| 7 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 94 c | 94 c |
| 7 | SELECT MAX | 0.97 | EC | 0.0455 | lb ai/a | 6 | fl oz/a | 12"CN | A | | | | |
| 7 | AMS | 100 | DRY | 1.0 | % w/w | 8.5 | lb/100 gal | 12"CN | A | | | | |
| 7 | CHEM-SURF 80 | 100 | LIQ | 0.25 | % v/v | 2 | pt/100 gal | 12"CN | A | | | | |
| 8 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 96 abc | 97 a |
| 8 | SELECT MAX | 0.97 | EC | 0.0455 | lb ai/a | 6 | fl oz/a | 12"CN | A | | | | |
| 8 | AMS | 100 | DRY | 1.0 | % w/w | 8.5 | lb/100 gal | 12"CN | A | | | | |
| 8 | US333 | 100 | LIQ | 0.5 | % v/v | 4 | pt/100 gal | 12"CN | A | | | | |
| 9 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 96 abc | 97 ab |
| 9 | SELECT MAX | 0.97 | EC | 0.0455 | lb ai/a | 6 | fl oz/a | 12"CN | A | | | | |
| 9 | AMS | 100 | DRY | 1.0 | % w/w | 8.5 | lb/100 gal | 12"CN | A | | | | |
| 9 | TRANSLATE | 100 | LIQ | 0.25 | % v/v | 2 | pt/100 gal | 12"CN | A | | | | |
| 10 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 97 ab | 97 a |
| 10 | SELECT MAX | 0.97 | EC | 0.0455 | lb ai/a | 6 | fl oz/a | 12"CN | A | | | | |
| 10 | AMS | 100 | DRY | 1.0 | % w/w | 8.5 | lb/100 gal | 12"CN | A | | | | |
| 10 | BETWEEN | 100 | LIQ | 0.5 | % v/v | 4 | pt/100 gal | 12"CN | A | | | | |
| 11 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 95 abc | 97 abc |
| 11 | SELECT MAX | 0.97 | EC | 0.0455 | lb ai/a | 6 | fl oz/a | 12"CN | A | | | | |
| 11 | AMS | 100 | DRY | 1.0 | % w/w | 8.5 | lb/100 gal | 12"CN | A | | | | |
| 11 | PREMIUM COC | 100 | LIQ | 1 | % v/v | 8 | pt/100 gal | 12"CN | A | | | | |
| 12 | ROUNDUP ORIG MAX | 4.5 | SL | 0.75 | lb ae/a | 21.3 | fl oz/a | 12"CN | A | 0 a | 0 a | 95 abc | 97 abc |
| 12 | SELECT MAX | 0.97 | EC | 0.0455 | lb ai/a | 6 | fl oz/a | 12"CN | A | | | | |
| 12 | ULTRA SURF | 100 | LIQ | 2.5 | % v/v | 2.5 | gal/100 gal | 12"CN | A | | | | |
| 13 | NONTREATED | | | | | | | | | 0 a | 0 a | 0 d | 0 d |
| LSD (P=.05) | | | | | | | | | | 0.0 | 0.0 | 2.5 | 3.3 |
| Replicate F | | | | | | | | | | 0.000 | 0.000 | 0.948 | 0.021 |
| Replicate Prob(F) | | | | | | | | | | 1.0000 | 1.0000 | 0.4016 | 0.9797 |
| Treatment F | | | | | | | | | | 0.000 | 0.000 | 995.758 | 581.031 |
| Treatment Prob(F) | | | | | | | | | | 1.0000 | 1.0000 | 0.0001 | 0.0001 |

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: United Suppliers.
2. Ratings: CI/WC at 14 + 28 DAT.
3. Plant RR corn perpendicular to soybean rows or broadcast prior to tillage.
4. DA-A = Days after 12"CN application.