

Experimental Postemergence Corn Herbicide Evaluation.

02-10C-M60

OBJECTIVE: Evaluate crop response and weed control from applications of an experimental herbicide compared to commercial standards.

SUMMARY: The purpose of this study was to compare broadleaf weed control from the experimental herbicide TEN 0202 to other postemergence broadleaf herbicides used in corn. TEN 0202 caused slight (4%) corn injury at 14 days after treatment (DAT). However, injury was no longer visible by 28 DAT. No injury was observed from the other broadleaf herbicides. All of the herbicides evaluated provided good control of common ragweed at 14 DAT. TEN 0202 controlled 84 to 87% of morningglory species at 14 DAT which was similar to the other broadleaf herbicides evaluated. TEN 0202 controlled 84 to 85% of velvetleaf at 14 DAT which was similar to Callisto and slightly greater than Distinct, Northstar, and Hornet. Common cocklebur control was similar from all herbicide treatments except Callisto and Hornet which tended to provide the least common cocklebur control. In general, TEN 0202 provided broadleaf weed control similar to or greater than Callisto, Distinct, Northstar, and Hornet.

HERBICIDES

CALLISTO 4 SC
DISTINCT 70 WG
HORNET 68.5 WG
NORTHSTAR 47.4 WG
TEN 0202 65 WG

WEEDS

cocklebur, common
morningglory, species
ragweed, common
velvetleaf

CROP

corn, field

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

APPLICATION EQUIPMENT

A

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

NOTES:

This study was not harvested.

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| Weed Code | | IPOSS | IPOSS | ABUTH | ABUTH | XANST | XANST | AMBEL | AMBEL |
|-------------------|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Crop Code | | ZEAMX | ZEAMX | | | | | | |
| Rating Data Type | | Injury | Injury | Control | Control | Control | Control | Control | Control |
| Rating Unit | | Percent | Percent | Percent | Percent | Percent | Percent | Percent | Percent |
| Rating Date | | 6-28-02 | 7-12-02 | 6-28-02 | 7-12-02 | 6-28-02 | 7-12-02 | 6-28-02 | 7-12-02 |
| Trt-Eval Interval | | 14 DA-A | 28 DA-A | 14 DA-A | 28 DA-A | 14 DA-A | 28 DA-A | 14 DA-A | 28 DA-A |

| Trt No. | Treatment Name | Form Conc | Form Type | Rate | Rate Unit | Prod Rate | Prod Unit | Grow Stg | Appl Code | | | | | | | | | | |
|-------------------|----------------|-----------|-----------|--------|-----------|-----------|-----------|----------|-----------|--------|--------|---------|--------|---------|--------|--------|--------|---------|--------|
| 1 | NONTREATED | | | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 2 | TEN 0202 | 65 | WG | 0.0406 | LB A/A | 1 | OZ/A | 1-3"W | A | 4 | 0 | 87 | 78 | 85 | 63 | 86 | 80 | 99 | 91 |
| 2 | PRIME OIL COC | 100 | LIQ | 1.0 | % V/V | 1 | %V/V | 1-3"W | A | | | | | | | | | | |
| 2 | AMS | 100 | DRY | 2.0 | LB/A | 2 | LB/A | 1-3"W | A | | | | | | | | | | |
| 3 | TEN 0202 | 65 | WG | 0.0406 | LB A/A | 1 | OZ/A | 1-3"W | A | 4 | 0 | 86 | 77 | 84 | 67 | 83 | 80 | 99 | 96 |
| 3 | 40204 | 100 | DRY | 1.5 | LB/A | 1.5 | LB/A | 1-3"W | A | | | | | | | | | | |
| 4 | TEN 0202 | 65 | WG | 0.0406 | LB A/A | 1 | OZ/A | 1-3"W | A | 4 | 0 | 84 | 65 | 85 | 57 | 83 | 78 | 99 | 89 |
| 4 | 40204 | 100 | DRY | 2.25 | LB/A | 2.25 | LB/A | 1-3"W | A | | | | | | | | | | |
| 5 | CALLISTO | 4 | SC | 0.094 | LB A/A | 3 | OZ/A | 1-3"W | A | 0 | 0 | 90 | 75 | 91 | 80 | 65 | 58 | 94 | 77 |
| 5 | PRIME OIL COC | 100 | LIQ | 1.0 | % V/V | 1 | %V/V | 1-3"W | A | | | | | | | | | | |
| 5 | AMS | 100 | DRY | 2.0 | LB/A | 2 | LB/A | 1-3"W | A | | | | | | | | | | |
| 6 | DISTINCT | 70 | WG | 0.175 | LB A/A | 4 | OZ/A | 1-3"W | A | 0 | 0 | 82 | 78 | 75 | 52 | 83 | 82 | 99 | 85 |
| 6 | ACTIVATOR 90 | 100 | LIQ | 0.25 | % V/V | 0.25 | %V/V | 1-3"W | A | | | | | | | | | | |
| 6 | AMS | 100 | DRY | 2.0 | LB/A | 2 | LB/A | 1-3"W | A | | | | | | | | | | |
| 7 | NORTHSTAR | 47.4 | WG | 0.148 | LB A/A | 5 | OZ/A | 1-3"W | A | 0 | 0 | 83 | 78 | 78 | 67 | 82 | 83 | 99 | 94 |
| 7 | ACTIVATOR 90 | 100 | LIQ | 0.25 | % V/V | 0.25 | %V/V | 1-3"W | A | | | | | | | | | | |
| 7 | AMS | 100 | DRY | 2.0 | LB/A | 2 | LB/A | 1-3"W | A | | | | | | | | | | |
| 8 | HORNET | 68.5 | WG | 0.128 | LB A/A | 3 | OZ/A | 1-3"W | A | 0 | 0 | 82 | 55 | 75 | 57 | 75 | 67 | 94 | 72 |
| 8 | ACTIVATOR 90 | 100 | LIQ | 0.25 | % V/V | 0.25 | %V/V | 1-3"W | A | | | | | | | | | | |
| 8 | AMS | 100 | DRY | 2.0 | LB/A | 2 | LB/A | 1-3"W | A | | | | | | | | | | |
| LSD (P=.05) | | | | | | | | | | 1.3 | 0.0 | 6.8 | 11.8 | 7.2 | 11.1 | 10.1 | 12.6 | 6.6 | 14.1 |
| Replicate F | | | | | | | | | | 0.000 | 0.000 | 2.999 | 1.879 | 1.777 | 2.368 | 0.780 | 0.542 | 2.333 | 0.125 |
| Replicate Prob(F) | | | | | | | | | | 1.0000 | 1.0000 | 0.0824 | 0.1893 | 0.2052 | 0.1301 | 0.4773 | 0.5931 | 0.1335 | 0.8833 |
| Treatment F | | | | | | | | | | 26.406 | 0.000 | 178.177 | 47.319 | 153.116 | 42.911 | 75.304 | 45.580 | 256.455 | 46.157 |
| Treatment Prob(F) | | | | | | | | | | 0.0001 | 1.0000 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |

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Trial Comments

1. Protocol: Rosen's.
2. Blanket PRE application of Dual II Magnum at 0.635 lbai/A applied 10 ft wide to all plots including the nontreated on 6-4-02.
3. DA-A = days after 1-3"W application.