

Postemergent Control of *Poa annua* with GOLTIX

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Background/Objective:

Evaluate the efficacy of GOLTIX against *Poa annua* and determine the phytotoxicity potential for Goltix when used in turf.

Site Information

| | |
|---------------------------------------|--|
| Location: | W.H. Daniel Research and Diagnostic Center |
| Soil Type: | Starks-Fincastle silt loam |
| Soil pH: | 7.2 |
| Soil Organic Matter (%): | NA |
| Turfgrass Species: | Creeping bentgrass |
| Turf Condition: | Fair |
| Turf Management: | |
| Mowing Height cm (in): | 1.25 (0.5) |
| Fertilization: | 3 lbs N/1000ft ² /yr |
| Irrigation: | To prevent moisture stress |
| Testing on Site Previous Year: | None |
| Target Pest: | Annual bluegrass (<i>Poa annua</i>) |
| Growth Stage: | Various |

Application Information

| | |
|---|---------------------------|
| Application Date: | 7 May |
| Application Time: | 1:00pm |
| Air Temperature C⁰(F⁰): | 15.8 (60) |
| Relative Humidity(%): | 78 |
| Wind Speed m s⁻¹ (mph): | 1.8 (4) |
| Soil Temperature(7.6 cm depth) C⁰(F⁰): | 18.3 (65) |
| Soil Moisture: | moist |
| Spray Volume L ha⁻¹ (gal 1000 ft⁻²): | 814 (2) |
| Spray Pressure: | 35psi |
| Spray Nozzle: | 8001.5 |
| Spray Equipment: | CO ₂ backpack |
| Irrigation After Application: | None |
| Experimental Design: | Randomized complete block |
| Replications: | 3 |
| Plot Size m (ft): | 1.5 X 1.5 (5 X 5) |

Results:

- There was no phytotoxicity to creeping bentgrass during this study (Table 1).
- Though GOLTIX damaged the *Poa annua* as measured by percent brown Poa on 25 May, GOLTIX had few long-term effects on the *Poa annua*.
- Only GOLTIX at 5.0 lbs ai/A reduced *Poa annua* cover during this study and only on 9 June.
- GOLTIX does not appear to have much potential for *Poa annua* control under the conditions of this study.

Table 1. Phytotoxicity to bentgrass, percent cover by *Poa annua*, and percent green and brown poa 2 weeks following application.

| Treatment | Rate of application | 25 May | 9 June | 9 June | 2 July | 25 May | 25 May |
|--------------|---------------------|----------------------------|--------|-------------------------------|--------|--------------------------|--------------------------|
| | lb a.i./A | phytotoxicity ^b | | -----cover ^c ----- | | % green poa ^d | % brown poa ^e |
| Check | | 9 | 9 | 31.3 | 15.0 | 40.0 | 1.3 |
| GOLTIX 70WDG | 1.0 | 9 | 9 | 31.3 | 12.5 | 36.3 | 0.0 |
| MSO | 1.5 ^a | | | | | | |
| GOLTIX 70WDG | 2.0 | 9 | 9 | 26.3 | 15.0 | 40.0 | 1.3 |
| MSO | 1.5 ^a | | | | | | |
| GOLTIX 70WDG | 3.0 | 9 | 9 | 36.3 | 22.5 | 43.8 | 5.0 |
| MSO | 1.5 ^a | | | | | | |
| GOLTIX 70WDG | 4.0 | 9 | 9 | 21.3 | 16.3 | 22.5 | 10.0 |
| MSO | 1.5 ^a | | | | | | |
| GOLTIX 70WDG | 5.0 | 9 | 9 | 13.8 | 17.5 | 12.5 | 33.8 |
| MSO | 1.5 ^a | | | | | | |
| LSD (0.05) | | NS | NS | 10.5 | NS | 7.2 | 9.5 |

^a Rate of application was percent volume per volume.

^b Phytotoxicity was rated on a scale of 1 to 9 where 1 = completely brown turf, 7 = acceptable damage, and 9 = no phytotoxicity.

^c Cover is the percent of the plot area covered by *Poa annua*.

^d % green poa is the percent of the plot area covered by green *Poa annua*.

^e % brown poa is the percent of the plot area covered by brown *Poa annua*.