

Preemergent Control of *Poa annua* with GOLTIX

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Background/Objective:

Evaluate the efficacy of GOLTIX against *Poa annua*.

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:	None
Turf Condition:	NA
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:	Prior to germination

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:

- This site was primarily *Poa annua* with some creeping bentgrass. Finale was applied to the experimental site prior to the initiation of the study in early May in order to fully evaluate the preemergence control from GOLTIX. Though the Finale did not provide 100%, it provided enough control to evaluate the efficacy of GOLTIX.
- GOLTIX at 4.0 lbs ai/A or higher prevented germination of *Poa annua* or reemergence of creeping bentgrass to less than 5% cover on 28 May (Table 1).
- GOLTIX at 4.0 lbs ai/A limited *Poa annua* germination to less than 5% cover by 9 June and 2 July.
- GOLTIX has potential for preemergence control of *Poa annua* at rates of 4.0 lbs ai/A or higher.

Table 1. Percent turf cover and percent *Poa annua* cover after an initial application of Finale followed by various applications of GOLTIX.

Treatment	Rate of application	<u>turf cover^a</u>	<u>poa annua cover^b</u>	
		28 May	9 June	2 July
	lb a.i./A	%	-----% -----	
Check		46.3	27.5	38.8
GOLTIX 70WDG	2.0	16.3	3.5	31.3
GOLTIX 70WDG	4.0	3.8	0.8	1.8
GOLTIX 70WDG	6.0	3.0	0.0	1.0
GOLTIX 70WDG	8.0	2.0	0.0	0.0
GOLTIX 70WDG	10.0	1.5	0.0	0.0
LSD (0.05)		13.9	4.3	11.6

^a Percent of the plot area covered by turfgrass.

^b Percent of the plot area covered by *Poa annua*.