

Effect of Velocity and Certainty on short-term control of *Poa trivialis*

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Objective:

Determine the most effective herbicide strategy for short-term control of *Poa trivialis*

Rationale:

Poa trivialis is now a problematic weed on golf courses, home lawns and athletic fields from the Midwest to the Mid-Atlantic states. *Poa trivialis* has poor drought and heat tolerance, thus turf areas with substantial roughstalk bluegrass populations thin in late summer, decreasing aesthetic and functional quality. Herbicide control is important since management of *Poa trivialis* does not seem practical to date. Two promising selective herbicides for *Poa trivialis* control are Certainty and Velocity. Both herbicides are labeled for selective postemergence control of *Poa trivialis*.

Materials and Methods:

Treatments were initiated in June at the W.H. Daniel Turfgrass Research and Diagnostic Center, West Lafayette, IN. Treatments were arranged in a randomized complete block design with three replications. Six Certainty treatments, six Velocity treatments and an untreated check were included (Table 1). Initial applications took place on June 15, 2006. All Certainty treatments included MON 0818 surfactant at 0.25% v/v. Treatments were applied at 2 gals/water/1000ft². *Poa trivialis* cover was rated visually as a percentage of cover in each plot. Herbicide treatments were repeated on L93 creeping bentgrass to monitor potential phytotoxicity.

What we know so far:

- There were no agronomically significant differences among control from the treatments 4 WAIT (data not shown).
- 8 WAIT, Certainty at 0.50 oz/A reduced *Poa trivialis* cover to $\leq 14\%$, which was better than the other Certainty treatments. Velocity at 0.65, 0.98 and 1.3 oz/A reduced *Poa trivialis* cover $\leq 6\%$ (Figure 1).
- At 12 WAIT, Velocity at 0.98 oz/A and 1.3 oz/A reduced *Poa trivialis* cover to 12% and 4%, respectively. Velocity at 0.65 oz/A applied on a one week and two week interval reduced *Poa trivialis* cover to 42% and 37%, respectively, and Certainty at 0.50 oz/A applied three times reduced *Poa trivialis* cover to 57%.
- At 12 WAIT, Velocity at 0.65 oz/A applied on a one week interval performed similarly to Velocity at 0.65 oz/A applied on a two week interval. Velocity applied on a one week interval reduced *Poa trivialis* cover earlier than Velocity applied on a two week interval. This was due to the fact that the plots that received Velocity on a one week interval were exposed to the total amount of herbicide applied over the four applications sooner than the plots that received Velocity on a two week interval.
- There was no reduction in the percent cover of the creeping bentgrass. Certainty and Velocity both caused minor phytotoxicity, but it was within acceptable levels.

Table 1. Herbicide list

Herbicide	Rate	Application Dates
Certainty	0.25 + 0.25 oz/A on 2 week interval	6/15, 6/29, 7/13, 7/27
Certainty	0.50 + 0.50 oz/A on 2 week interval	6/15, 6/29, 7/13, 7/27
Certainty	0.25 + 0.25 + 0.25 oz/A on 2 week interval	6/15, 6/29, 7/13, 7/27
Certainty	0.50 + 0.50 + 0.50 oz/A on 2 week interval	6/15, 6/29, 7/13, 7/27
Certainty	0.20 + 0.20 oz/A on 2 week interval	6/15, 6/29, 7/13, 7/27
Certainty	0.20 + 0.20 + 0.20 oz/A on 2 week interval	6/15, 6/29, 7/13, 7/27
Velocity	0.65 + 0.65 + 0.65 + 0.65 oz/A on 2 week interval	6/15, 6/29, 7/13, 7/27
Velocity	0.98 + 0.98 + 0.98 + 0.98 oz/A on 2 week interval	6/15, 6/29, 7/13, 7/27
Velocity	1.3 + 1.3 + 1.3 + 1.3 oz/A on 2 week interval	6/15, 6/29, 7/13, 7/27
Velocity	0.33 + 0.33 + 0.33 + 0.33 oz/A on 1 week interval	6/15, 6/22, 6/29, 7/6
Velocity	0.33 + 0.33 + 0.33 + 0.33 oz/A on 2 week interval	6/15, 6/29, 7/13, 7/27
Velocity	0.65 + 0.65 + 0.65 + 0.65 oz/A on 1 week interval	6/15, 6/22, 6/29, 7/6
Check	--	--

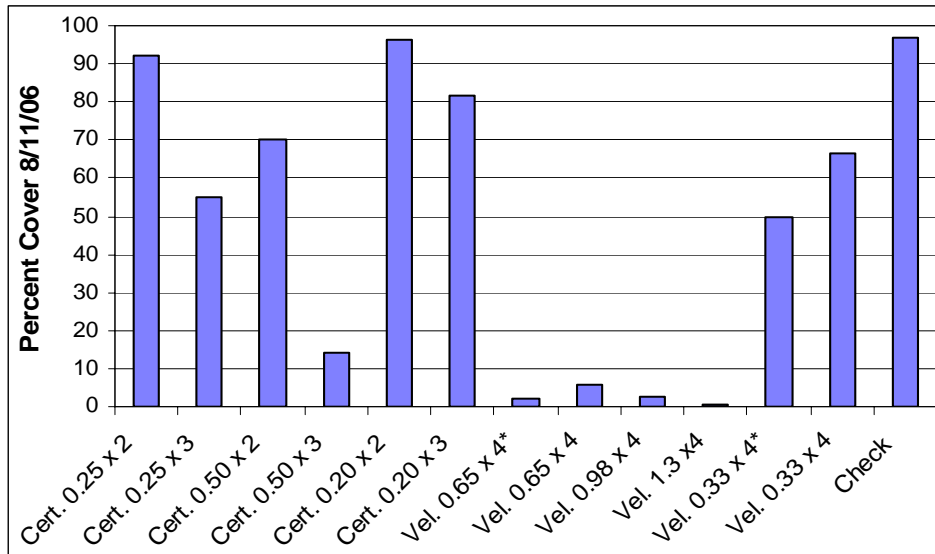


Figure 1. Percent cover of roughstalk bluegrass as influenced by Velocity and Certainty 8 WAIT.
* treatments applied on a one week interval

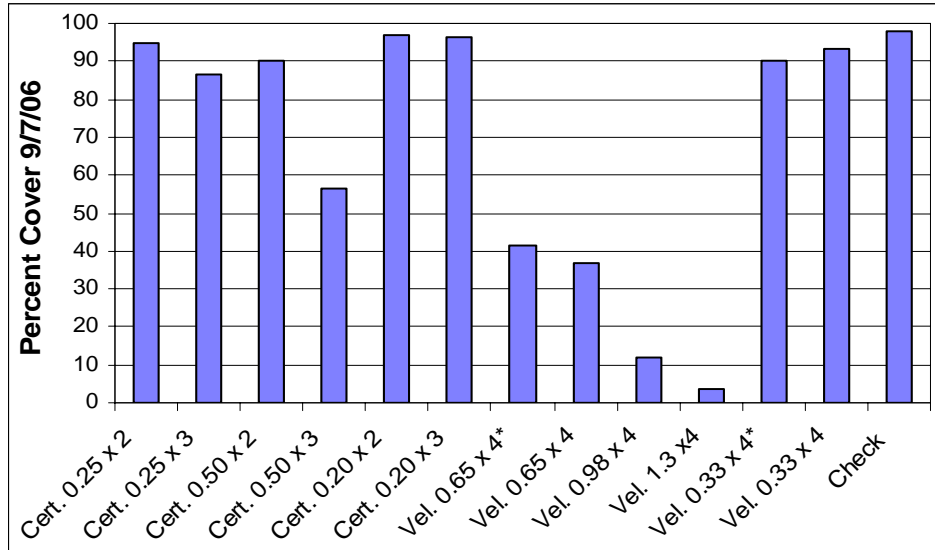


Figure 2. Percent cover of roughstalk bluegrass as influenced by Velocity and Certainty 12 WAIT * treatments applied on a one week interval