

2003 Postemergence Annual Bluegrass Trial

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This study was conducted to assess the efficacy of Velocity herbicide for annual bluegrass control applied at differing intervals to fairway height creeping bentgrass. The trial was conducted at Veenker Memorial golf course on ‘Cato’ creeping bentgrass.

The trial was arranged in a randomized complete block format. Each treatment was replicated three times and plots were five feet by five feet. Treatments were applied using a carbon dioxide backpack sprayer with #8002 flat fan TeeJet nozzles at 30-40 psi and diluted to a total spray volume of 3 gal per 1000 sq. ft. The initial application was made on July 18 with sequential treatments made as listed in Table 2.

Turfgrass quality was taken on the dates specified in Table 2 to evaluate any phytotoxic effects that may have occurred. A scale of 1-9 with 1 being the worst, 6 being acceptable and 9 being excellent was used to assess turfgrass quality. There was initial phytotoxicity from the treatments, but they recovered later in the season.

The *Poa annua* population was reduced during the winter and the population in the control was only 4 % on May 6 when data were collected (Table 1). There was no significant reduction of *Poa annua* in response to the treatments.

Table 1. Treatments and *Poa annua* percent in the Velocity study.

Trt	Material	Rate <i>g a.i./A</i>	Rate <i>lb a.i./A</i>	Application Interval <i>(days)</i>	Percent <i>Poa annua</i> 5/06/04
1	Untreated Control	N/A	N/A	N/A	4.0
2	Velocity 80WP	30	0.066	7	6.7
3	Velocity 80WP	30	0.066	14	6.3
4	Velocity 80WP	30	0.066	21	5.3
5	Velocity 80WP	30	0.066	28	2.0
LSD					NS

Table 2. Turfgrass quality following the application of Velocity herbicide to fairway height creeping bentgrass.

Trt	Material	Rate g a.i./A	Rate lb a.i./A	Application Interval	Turfgrass Quality							
					7/25/03	8/01/03	8/08/03	8/15/03	8/22/03	8/29/03	9/05/03	9/15/03
1	Untreated Control	N/A	N/A	N/A	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
2	Velocity 80WP	30	0.066	7 days	6.00	5.67	7.00	8.00	8.00	8.00	8.00	8.00
3	Velocity 80WP	30	0.066	14 days	6.00	7.00	6.00	7.33	7.33	7.67	8.00	8.00
4	Velocity 80WP	30	0.066	21 days	6.00	7.00	8.00	5.00	7.67	8.00	8.00	8.00
5	Velocity 80WP	30	0.066	28 days	6.00	7.00	8.00	8.00	5.33	7.00	7.67	8.00
LSD					0.1	0.49	0.1	0.49	0.69	NS	NS	NS

Table 3. The date of second application for each treatment.

Trt	Second Application Date
1	N/A
2	7/25/03
3	8/01/03
4	8/08/03
5	8/15/03

Table 4. Weather conditions as reported in Ames, Iowa on each application date.

	Application Date				
	7/18/03	7/25/03	8/01/03	8/08/03	8/15/03
Temperature (°F) (at time of application)	72	80	67	70	68
High Temperature(°F)	83	93	71	86	92
Dew point (°F)	70	64.1	67	65	68
Wind speed (mph)	0-5	0-10	0-5	3-6	calm
Humidity	94%	58%	87%	84%	100%