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2005 Crabgrass Control Trial

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Abstract

The objective of this study was to evaluate the efficacy of several preemergence herbicides for the control of crabgrass in Kentucky bluegrass (*Poa pratensis* L.) turf.

Keywords

Horticulture

Disciplines

Agricultural Science | Agriculture | Horticulture

2005 Crabgrass Control Trial

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Introduction

The objective of this study was to evaluate the efficacy of several preemergence herbicides for the control of crabgrass in Kentucky bluegrass (*Poa pratensis* L.) turf.

Materials and Methods

The study was conducted at the Iowa State University Horticulture Research Station using an area of common Kentucky bluegrass. To ensure uniformity, the plot area was seeded with crabgrass on April 25, 2005.

All liquid 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 gallons/1,000 ft². Granular materials were applied using shaker dispensers. in order to provide uniform application. The initial preemergence application took place on April 26, 2005. The Nicollet soil on the site contained 4.5% organic

matter, had a pH of 6.2, a phosphorus content of 29 ppm, and a potassium content of 172 ppm. Turf quality was evaluated weekly during the summer, and no damage to the bluegrass was observed from any of the treatments. The number of crabgrass plants in each plot was recorded on July 18 and August 2, 2005.

Data were analyzed using SAS and the analysis of variance procedure. Treatment effects were tested using the least significant difference test.

Results and Discussion

The germination of natural and seeded crabgrass in the area was excellent and crabgrass populations in controls reached 90% cover by August 2. All treatments reduced crabgrass populations from the untreated control (Table 1). While there is no significant difference between Pendulum 3.8CS at 1 lb and 2 lb ai/acre, but there was a slight numeric improvement as the rate increased. The only material to give 100% control at August 2 was Dimension 0.21% at 0.5 lb ai/acre.

Table 1. Percentage cover of crabgrass in Kentucky bluegrass treated with preemergence herbicides in the 2005 crabgrass control study.

Company	Trt	Product	Application timing	Rate (ai/acre)	Crabgrass July 18 (% cover)	Crabgrass August 2 (% cover)
---	1	Untreated control	---	---	48	90
Dow AgroSciences	2	Dimension 0.15%	Preemergence	0.27 lb	1	2
	3	Dimension 0.21%	Preemergence	0.5 lb	0	0
	4	Stonewall 0.20%	Preemergence	0.5 lb	5	10
Gowan	5	Betasan 4E	Preemergence	10 lb	5	5
	6	Pendulum 3.3EC	Preemergence	2 lb	1	8
	7	Pendulum 3.3EC	Preemergence 6 WAIT	1 lb	0	1
BASF	8	Pendulum 3.8CS	Preemergence	2 lb	3	6
	9	Pendulum 3.8CS	Preemergence 6 WAIT	1 lb	6	16
	10	BASF EXP1 3.3	Preemergence	3 lb	6	13
		LSD 0.05			4	15