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Abstract

The objectives of this preemergence study were to evaluate which rates provide the best crabgrass control, which timing provides the best crabgrass control, and evaluation of phytotoxicity to turf by treatment combinations.

Keywords

Horticulture

Disciplines

Agricultural Science | Agriculture | Horticulture

Mesotrione 4SC plus Barricade (Prodiamine) Premix for Crabgrass Control in Northern Turf—2006

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site is a disturbed Nicollet clay loam with a pH of 6.2, 30 ppm P, and 174 ppm K.

Introduction

The objectives of this preemergence study were to evaluate which rates provide the best crabgrass control, which timing provides the best crabgrass control, and evaluation of phytotoxicity to turf by treatment combinations.

Materials and Methods

This study was conducted at the Iowa State University Turfgrass Research Facility on a “Nassau” Kentucky bluegrass. The plot area was seeded with crabgrass on April 18, 2006. The initial treatments were applied April 21. Plots to be retreated with a second application were treated June 1 (Table 1). The soil on the

Results and Discussion

There was no sign of phytotoxicity to any plots treated. Plots treated with mesotrione as a premerge at 0.187 and 0.25 lb ai/acre provided initial control, but the crabgrass percentage increased by mid July (Table 1). Early postemergence applications of mesotrione at these two rates provided better season-long control of crabgrass. The addition of Barricade with the mesotrione provided the best crabgrass control. Dimension 40WP at 0.5 lb ai/acre provided good crabgrass control both as a preemergence and early postemergence treatment. Data were not taken until June 3 because crabgrass had not emerged to the point where data could be collected.

Table 1. Treatment list and percentage crabgrass control for the 2006 mesotrione 4SC plus prodiamine premix for northern turf study.

Trt	Product/Treatment name	Treatments		Percentage weed control			
		Application Timing	Rate ai/acre	June 3	June 17	July 15	Aug 14
1	Control	****	****	0.0	0.0	0.0	0.0
2	Mesotrione	Preemergence	0.187 lb	82.5	86.3	35.0	42.5
3	Mesotrione	Preemergence	0.25 lb	88.0	76.3	36.3	32.5
4	Dimension 40 WP	Preemergence	0.5 lb	100.0	99.8	95.0	90.5
5	Mesotrione	Preemergence	0.25 lb	100.0	100.0	99.8	98.5
	Barricade 4FL	Preemergence	0.75 lb	100.0	100.0	99.8	98.5
6	Mesotrione/Barricade Mix	Preemergence	0.725 lb	100.0	100.0	98.8	96.5
7	Mesotrione/Barricade Mix	Preemergence	0.9 lb	100.0	100.0	99.8	98.5
8	Mesotrione	Early Post	0.25 lb	97.5	99.5	99.5	99.3
	Barricade 4FL	Early Post	0.75 lb	97.5	99.5	99.5	99.3
9	Mesotrione	Early Post	0.187 lb	74.3	97.0	92.0	80.0
10	Barricade 4FL	Early Post	0.75 lb	88.8	92.3	92.0	87.5
11	Dimension 40 WP	Early Post	0.5 lb	79.3	92.5	98.8	97.0
12	Mesotrione/Barricade Mix	Preemergence	0.3875 lb	96.5	99.3	99.5	98.3
	Mesotrione/Barricade Mix	Early Post	0.3875 lb	96.5	99.3	99.5	98.3
13	Mesotrione/Barricade Mix	Preemergence	0.45 lb	100.0	100.0	99.5	99.0
	Mesotrione/Barricade Mix	Early Post	0.45 lb	100.0	100.0	99.5	99.0
14	Mesotrione	Early Post	0.25 lb	82.8	100.0	99.5	94.0
	LSD 0.05			16.8	9.8	18.2	11.8