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2008 Roundup PROMAX Demonstration

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Abstract

The objective of this study was to investigate the effectiveness of the new Roundup PROMAX formulation as a non-selective weed control.

Keywords

Horticulture

Disciplines

Agricultural Science | Agriculture | Horticulture

2008 Roundup PROMAX Demonstration

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Treatments were applied June 20, 2008 (Table 1). Treatments were applied with a backpack CO₂ sprayer at 40 psi, and a spray volume equivalent to 2 gallons/1000ft². Data were collected on percentage control at 3, 7, 14, 28, and 56 days after treatment (DAT) (Table 2). Pictures were also taken of individual plots at the previous mentioned intervals.

Introduction

The objective of this study was to investigate the effectiveness of the new Roundup PROMAX formulation as a non-selective weed control.

Materials and Methods

This study was conducted at the Iowa State University Horticulture Research Station, Ames, IA. The soil is a disturbed Nicollet clay-loam soil with a pH of 5.8, 3.9% organic matter, 164 ppm K, and 9 ppm P. The plots were arranged in a randomized complete block design with four replications, and the plot size was 5 ft × 10 ft. The area used for the study was a common variety of Kentucky bluegrass, which also included populations of quackgrass, dandelion, white clover, bromegrass, and yellow woodsorrel.

Results and Discussion

Within three days of application, the plants in the treated plots began to show signs of the Roundup PROMAX damage (Table 2). Seven days after treatment, plots treated with Roundup PROMAX displayed an average of 75% control of grass and weeds. At the 14 DAT rating, broadleaves (dandelion) were the only thing not completely controlled. At both the 28 and 56 DAT ratings, there was 100% control of both grass and weeds. However, at the final rating date, although all of the weeds and grass were controlled, a large population of crabgrass had germinated and taken over the treated plots. Table 2 illustrates the percentages of crabgrass populations within the treated plots.

Table 1. Treatment list and application timing for PROMAX demonstration.

	Treatment	Rate	Rate unit	Application date
1	Control	**	**	
2	Roundup PROMAX	5.44	qt/A	20-Jun

Table 2. Percentage control from Roundup PROMAX for demonstration study.

Treatment	Percentage control					Percentage crabgrass
	3 DAT	7 DAT	14 DAT	28 DAT	56 DAT	56 DAT
1	0	0	0	0	0	0
2	17.5	75	86.25	100	100	100
LSD (0.05)	4.6	11.3	7.6	0	0	6.5