

Control Evaluations of Selected Materials on Lawn Height 'Park' Kentucky Bluegrass

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Introduction

Green vegetation and control evaluations were conducted on a stand of mature 'Park' Kentucky bluegrass (*Poa pratensis*) at the Valentine Turfgrass Research Center, Penn State University, University Park, Pa. The objective of the study was to determine the vegetation reduction of Kentucky bluegrass using selected compounds.

Methods and Materials

The study was a randomized complete block design with three replications. Treatments were applied on September 25 (SEPT), October 28 (4 WAT), and November 28 (8 WAT) 2005 using a three foot CO₂ powered boom sprayer calibrated to deliver 40 gpa using two, flat fan, 11004 nozzles at 40 psi.

The test site was mowed at one and one half inches twice weekly with a rotary mower with clippings returned to the site.

Results and Discussion

The percent green vegetation was rated four times during the study (Table 1). In general, there was more green vegetation present on the last rating date (April 21, 2006) following on a single application of materials in comparison to multiple applications of materials. Only turfgrass treated with Reward 2 EC at 1.0 lb ai/A plus NIS at 0.25 % v/v twice was not significantly different than untreated turfgrass on this date. Turfgrass treated with RoundUp Pro applied twice, and Tranxit GTA plus NIS applied twice, had no green vegetation on the final rating date, April 21, 2006.

It appears that the reduction and in some cases the elimination of 'Park' Kentucky bluegrass can be accomplished.

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Table 1. Percent green vegetation of 'Park' Kentucky bluegrass in 2005 and 2006.

Treatment	Form	Rate lb ai/a	Timing	(-----% Green Vegetation-----)			
				10/12/05	10/28/05	12/1/05	4/21/06
ROUNDUP PRO	3SL	1.5 lb ae/a	SEPT	66.7bc	17.3cd	9.0cde	20.0cd
ROUNDUP PRO	3SL	1.5 lb ae/a	SEPT/4 WAT	50.0c	1.0d	1.0e	0.0d
FUSILADE II	2EC	0.38	SEPT/4 WAT	78.3ab	43.3b	10.cde	23.3cd
CROP OIL	L	1 % v/v	SEPT/4 WAT				
ENVOY	0.94EC	0.25	SEPT/4 WAT	75.0abc	43.3b	13.7cd	8.3d
CROP OIL	L	1 % v/v	SEPT/4 WAT				
FUSILADE II	2EC	0.38	SEPT/4 WAT	86.7ab	56.7b	10.0cde	15.0d
CROP OIL	L	1 % v/v	SEPT/4 WAT				
FUSILADE II	2EC	0.25	8 WAT				
CROP OIL	L	1 % v/v	8 WAT				
VANTAGE	1EC	0.47	SEPT/4 WAT	76.7abc	40.0b	5.0de	11.7d
CROP OIL	L	1 % v/v	SEPT/4 WAT				
CHECK				100.0a	100.0a	100.0a	100.0a
REVOLVER	0.19SC	0.03	SEPT	80.0ab	46.7b	16.7c	53.3b
REVOLVER	0.19SC	0.03	SEPT/4 WAT	80.0ab	40.0b	10.0cde	0.7d
FINALE	1SL	1.5	SEPT	1.0d	1.0d	1.0e	6.7d
FINALE	1SL	1.0	SEPT/4 WAT	4.0d	1.0d	1.0e	5.3d
REWARD	2EC	1.0	SEPT/4 WAT	93.3ab	100.0a	86.7b	95.0a
NIS	L	0.25 % v/v	SEPT/4 WAT				
TRANXIT GTA	25DF	0.03	SEPT	70.0bc	33.3bc	13.3cd	40.0bc
NIS	L	0.5 % v/v	SEPT				
TRANXIT GTA	25DF	0.03	SEPT/4 WAT	80.0ab	43.3b	10.0cde	0.0d
NIS	L	0.5 % v/v	SEPT/4 WAT				

1 - Means followed by same letter do not significantly differ (P=0.05, Duncan's New MRT)