

Turfgrass Color Evaluation on Green Height 'Penn A-4' Creeping Bentgrass

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Introduction

This study was conducted on a mature stand of 'Penn A-4' creeping bentgrass (*Agrostis stolonifera*) at the Valentine Turfgrass Research Center, Penn State University, University Park, Pa. The objective of the study was to determine the effect of various products on turfgrass color.

Methods and Materials

This study was a randomized complete block design with three replications. All treatments were applied on July 1 (JULY), and July 15 (14DAT) 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 maintained similar to that of a golf course green with respect to irrigation, fertilization and mowing. The test plot size was 21 ft².

Results and Discussion

Turfgrass color was rated 14 times during the study (Table 1). All treated turfgrass revealed better color than untreated at some point during the study. The 5 oz/M rate of iron sulfate provided the most green color (10) on several rating dates. On the July 4 rating date, turfgrass treated with iron sulfate at 2 oz/M, Ferromec at 5 oz/M, and Quelent FE at 5 oz/M plus Amino Green at 0.0606 lb N/M were also rated 10 for color. Turfgrass treated with iron sulfate at 2 oz/M was rated 10 for color on July 16 and 17. On the July 17 rating date, Turfgrass treated with Ferromec at 5 oz/M also was rated at 10 for color. In general, turfgrass treated with Quelant FE, Ferromec, and Quelant FE plus Amino Green tended to have a similar pattern of enhanced turfgrass color response.

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Table 1. Color ratings on a scale of 0-10 where 0 = brown, 7= acceptable, and 10 = dark green of creeping bentgrass taken in 2005.

Treatment	Form	Rate oz/M	Color					
			7-1	7-2	7-4	7-5	7-6	7-8
QUELANT FE	0.24L	0.5	7.3	8.2	7.7	8.2	8.3	8.0
QUELANT FE	0.24L	1	7.7	8.3	8.0	8.5	8.5	8.3
QUELANT FE	0.24L	1.5	7.8	8.5	8.7	9.0	8.7	8.5
QUELANT FE	0.24L	2	7.3	8.3	8.8	9.2	9.0	8.5
QUELANT FE	0.24L	5	7.8	8.8	9.0	8.8	8.7	8.7
IRON SULFATE	WP	0.5	8.3	8.0	9.2	9.0	8.5	8.5
IRON SULFATE	WP	1	8.3	8.5	9.0	8.8	8.7	8.5
IRON SULFATE	WP	1.5	8.8	9.0	9.7	9.2	9.0	8.8
IRON SULFATE	WP	2	9.7	9.3	10.0	9.7	9.3	8.8
IRON SULFATE	WP	5	10.0	10.0	10.0	10.0	10.0	9.3
CHECK			7.3	7.3	7.5	7.7	7.5	7.8
FERROMECC	1.8L	0.5	7.5	8.3	8.2	8.2	8.0	8.3
FERROMECC	1.8L	1	7.7	8.3	8.5	8.3	8.2	8.3
FERROMECC	1.8L	1.5	7.8	8.8	8.7	9.0	9.0	8.7
FERROMECC	1.8L	2	8.0	9.0	9.0	8.8	9.0	8.5
FERROMECC	1.8L	5	8.3	9.7	10.0	9.3	8.8	8.8
QUELANT FE	0.24L	0.5	7.3	8.0	9.2	8.8	8.0	8.0
AMINO GREEN (18-3-1)	1.8L	0.006 lb N/M						
QUELANT FE	0.24L	1	7.7	8.7	9.0	8.7	8.3	8.3
AMINO GREEN (18-3-1)	1.8L	0.012 lb N/M						
QUELANT FE	0.24L	1.5	7.8	8.8	9.0	8.3	8.5	8.7
AMINO GREEN (18-3-1)	1.8L	0.018 lb N/M						
QUELANT FE	0.24L	2	7.3	9.3	9.7	9.3	8.7	8.7
AMINO GREEN (18-3-1)	1.8L	0.0244 lb N/M						
QUELANT FE	0.24L	5	7.8	9.8	10.0	9.5	9.0	8.7
AMINO GREEN (18-3-1)	1.8L	0.0606 lb N/M						

