

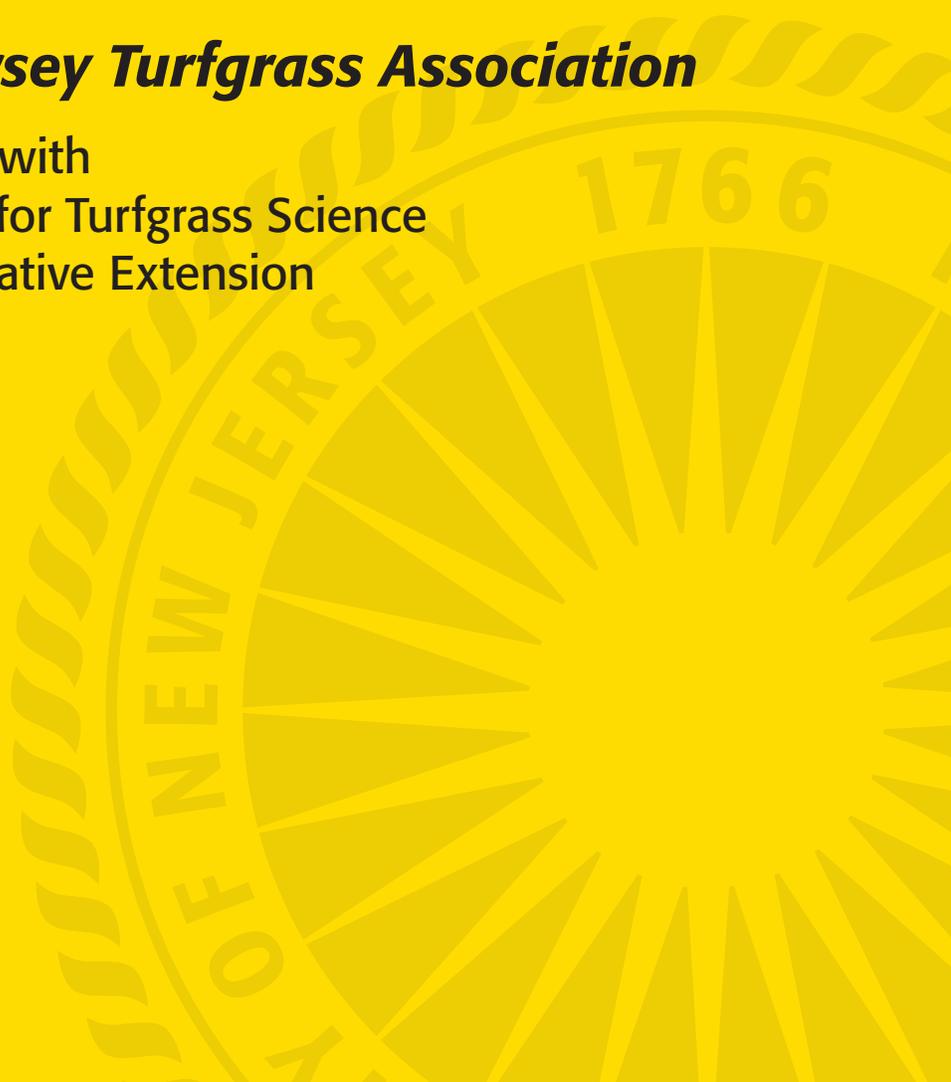
RUTGERS

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The Rutgers Turfgrass Proceedings is published yearly by the Rutgers Center for Turfgrass Science, Rutgers Cooperative Extension, and the New Jersey Agricultural Experiment Station, School of Environmental and Biological Sciences, Rutgers, The State University of New Jersey in cooperation with the New Jersey Turfgrass Association. The purpose of this document is to provide a forum for the dissemination of information and the exchange of ideas and knowledge. The proceedings provide turfgrass managers, research scientists, extension specialists, and industry personnel with opportunities to communicate with co-workers. Through this forum, these professionals also reach a more general audience, which includes the public.

This publication includes lecture notes of papers presented at the 2010 GREEN EXPO Turf and Landscape Conference. Publication of these lectures provides a readily available source of information

covering a wide range of topics and includes technical and popular presentations of importance to the turfgrass industry.

This proceedings also includes research papers that contain original research findings and reviews of selected subjects in turfgrass science. These papers are presented primarily to facilitate the timely dissemination of original turfgrass research for use by the turfgrass industry.

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Dr. Ann Brooks Gould, Editor
Dr. Bruce B. Clarke, Coordinator

INFLUENCE OF SELECTED FUNGICIDES ON RED THREAD CONTROL OF PERENNIAL RYEGRASS, 2009

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Fungicides were evaluated in 2009 for their ability to control red thread (caused by *Laetisaria fuciformis*) on perennial ryegrass (*Lolium perenne* cv. Stellar GLR) at the Plant Science Research and Extension Farm in Adelphia, NJ. The study was established in September 2007 on a Freehold sandy loam with a pH of 6.0. Turf was mowed twice a week at a height of 2.0 inches with clippings returned. The site was irrigated as needed to prevent drought stress and encourage disease.

Fertilizer was applied as 16-4-8 on 11 June (0.9 lb nitrogen (N)/1000 ft²) and 19 June (0.55 lb N/1000 ft²). Lime (2000 lb/A) was broadcast over the site on 23 April. Dimension 1E (1.5 pt/A) was sprayed for pre-emergence weed control on 30 April and 19 June. Insect pests were suppressed with Merit 75WSP (0.16 oz/1000 ft²) on 7 June. Plots were 3 x 9 ft and were arranged in a randomized complete block with four replications.

Products were applied in water equivalent to 1.9 gal/1000 ft² with a CO₂ powered sprayer at 30 psi using TeeJet 8003VS flat fan nozzles. Treatments (trt) were initiated on a curative basis on 28 May when environmental conditions were conducive for continued red thread development. Fungicides were

reapplied at the appropriate intervals as indicated in Table 1. Turf was visually evaluated for percent turf area infested with red thread on 28 May, 4, 11, 18, and 24 June, and 2 July. Turf quality was rated on 18 June and 2 July using a 1 to 9 scale, where 9 = best turf quality and 5 = acceptable quality. Data were subjected to analysis of variance and means were separated using the Waller-Duncan *k*-ratio *t*-test (*k* = 100).

Red thread was first observed on 21 May and became uniform throughout the study by 28 May (Table 1). Disease severity ranged from 39 to 83% turf area infested with *L. fuciformis* on untreated turf, which was considered a moderate to severe level of red thread infestation, respectively. Less than 10% turf area infested per plot represented an acceptable level of disease control. All treatments in the study provided acceptable curative control of red thread throughout the application period (28 May to 25 June) except Banner MAXX 1.3ME (trt 3). DPX-LEM17-50 50WDG (now called Velistar 50WDG) @ 0.5 oz (trt 2) and Heritage TL 0.8ME (trt 4) afforded excellent residual disease control through the end of the study (2 July). All treatments provided acceptable turf quality and no phytotoxicity was observed.

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Table 1. Influence of selected fungicides on red thread control of perennial ryegrass: Rutgers University, 2009.

Treatment	Rate per 1000 sq ft	Spray Interval (days) ³	Turf Area Infested (%) per Plot ¹					Turf Quality ²		
			28 May	4 June	11 June	18 June	24 June	2 July	18 June	2 July
1 DPX-LEM 17-50 50WDG	0.3 oz	14	50.3 a ⁴	11.5 b	8.8 c	6.5 bc	4.8 c	12.3 c	7.3 ab	6.3 b
2 DPX-LEM 17-50 50WDG	0.5 oz	14	45.8 a	5.8 cd	7.3 c	4.8 bc	4.0 c	4.0 c	7.5 a	7.8 a
3 Banner MAXX 1.3 ME	2 fl oz	14	47.3 a	7.0 c	16.0 b	13.8 b	15.3 b	30.3 b	6.0 b	5.3 c
4 Heritage TL 0.8 ME	2 fl oz	14	45.0 a	2.5 d	1.8 c	0.5 c	3.0 c	4.3 c	7.5 a	7.5 a
5 UTC.....	—	—	45.8 a	39.0 a	82.8 a	82.3 a	52.5 a	46.8 a	3.0 c	4.3 d
			INT ⁵	DAT ⁶	DAT	DAT	DAT	DAT	DAT	DAT
			14	7	14	7	13	7	7	7

¹ Values are means of four replicates. Means followed by the same letter are not significantly different according to Waller-Duncan *k*-ratio *t*-test (*k*=100).

² Turf quality on a 1 to 9 scale where 9 = best turf quality and 5 = commercially acceptable quality.

³ Fungicides were applied on 28 May (all treatments), 11 June (14-day treatment), and 25 June (14-day treatment).

⁴ Pretreatment rating taken on 28 May.

⁵ Spray intervals in days.

⁶ Days after the last treatment.