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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, Cook College, Rutgers University 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. Articles appearing in these proceedings are divided into two sections.

The first section includes lecture notes of papers presented at the 1998 New Jersey Turfgrass Expo. Publication of the New Jersey Turfgrass Expo Notes provides a readily available

source of information covering a wide range of topics. The Expo Notes include technical and popular presentations of importance to the turfgrass industry.

The second section includes research papers containing original research findings and reviews covering selected subjects in turfgrass science. The primary objective of this section is to facilitate the timely dissemination of original turfgrass research for use by the turfgrass industry.

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Dr. Ann B. Gould, Editor
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EVALUATION OF FUNGICIDES FOR THE CONTROL OF BROWN PATCH ON TALL FESCUE

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Tall fescue cv. Rebel II was treated with fungicides to evaluate the control of brown patch (caused by *Rhizoctonia solani*) at the Plant Science Research Farm in Adelphia, NJ. The turf was established in September 1991 on a Freehold sandy loam with a pH of 6.5. The site was mowed at a height of 2.0 inches two times per week, clippings were not collected, and turf was irrigated to prevent drought stress. Fertilizer was applied as 15-0-0 on 9 April (0.75 lb N/1000 ft²) and 5 June (1 lb N/1000 ft²), and 16-4-8 on 14 July (0.75 lb N/1000 ft²). Dacthal 6F (5.3 fl oz/1000 ft²) was applied for preemergence weed control on 8 April. Postemergence weed control was provided by 2,4-D-1 amine (3.67 fl oz/1000 ft²), MCPP-2 amine (0.55 fl oz/1000 ft²), and Banvel-4 amine (0.18 fl oz/1000 ft²) on 21 April. Plots were 3 ft x 9 ft and were arranged in a randomized complete block with four replications.

Fungicides were applied in water equivalent to 2 gal/1000 ft² with a CO₂ powered sprayer at

30 psi using TeeJet 8003E nozzles. Treatments were initiated on 7 July and were reapplied as indicated in Table 1. Percent turf area infested with *R. solani* was assessed on 31 July, 12 August, and 2 September. Data were subjected to analysis of variance and means separation by Waller-Duncan *k*-ratio *t*-test (*k*=100).

Brown patch first developed on 16 July and increased steadily from the end of July into early September. All treatments except Chipco Triton 1.67SC applied every 21 days (trt 6) provided good to excellent control of brown patch on 31 July. All fungicides applied on a 14 day schedule (trt 1 to 5, 7,8, and 10) provided excellent disease control on 12 August (22 days after the final application). However, fungicides applied on a 21 day schedule (trt 6 and 9) were less effective in suppressing brown patch on that date. By 2 September (36 to 43 days post-treatment), none of the fungicides entries afforded adequate control of the target disease. Phytotoxicity was not observed.

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Table 1. Impact of fungicides on the severity of brown patch on tall fescue in Adelphia, NJ: 1998

Treatment and rate/1000 sq ft	Spray interval (days) ²	Turf area infected (%)/plot ¹		
		31 July	12 Aug.	2 Sept.
1. Chipco 26GT 2SC 4.0 fl oz	14	3.3 ab	2.5 a	27.5 ab
2. RU181603D 4F 0.3 fl oz.....	14	1.8 a	7.0 a-c	37.0 b-e
3. RU181603D 4F 0.6 fl oz.....	14	2.0 a	9.3 bc	34.5 a-d
4. RU181603D 4F 1.0 fl oz.....	14	3.0 ab	3.8 a	26.5 a
5. Chipco Triton 1.67SC 1.0 fl oz	14	9.0 bc	6.5 a-c	42.5 de
6. Chipco Triton 1.67SC 1.0 fl oz	21	19.0 d	15.3 d	32.0 a-e
7. Heritage 50WG 0.2 oz.....	14	1.8 a	5.0 ab	44.5 ef
8. Daconil Ultrex 82.5SDG 3.8 oz	14	1.8 a	3.5 a	38.5 c-e
9. ProStar 70W 2.25 oz	21	5.5 ab	11.3 cd	37.3 c-e
10. Banner Maxx 1.24 MC 2.0 fl oz	14	3.3 ab	2.8 a	30.5 a-c
11. Untreated Check	—	13.0 cd	37.5 e	52.5 f
	INT ³	DAT ⁴	DAT	DAT
	14	10	22	43
	21	3	15	36

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 Fungicides were applied on 7 July (all treatments), 21 July (14 day treatments), and 28 July (21 day treatments).

³ Spray interval in days.

⁴ Days after treatment (DAT) for each spray interval.