

**TURFGRASS DISEASE REPORT FOR 1998**  
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**Brown Patch Field Trial, 1998.**

This test was conducted at the Hancock Turfgrass Research Center, E. Lansing, MI on a mixed stand of colonial bentgrass and annual bluegrass. Plots were mowed at 1.5 in, and fertilized monthly with 1 lb nitrogen per 1000 sq ft beginning on 15 May. Fungicide treatments were initiated on 15 June and were applied to 2 ft x 4.5 ft plots arranged in a randomized complete block design with four replications. Applications were made using a hand held CO<sub>2</sub>-powered backpack sprayer at 36 psi with a single 8002E flat fan TeeJet nozzle at a rate of 1.1 gal per 1000 sq ft. The entire plot area was inoculated weekly with *R. solani* growing on a sand/cornmeal mixture from 17 June until 16 July using a drop spreader at a rate of 2.5 lb per 1000 sq ft. Each plot was covered with a 1 ft x 2 ft opaque plastic pan in the late afternoon and uncovered each morning for at least 5 days each week. The test area was heavily irrigated beginning in mid June and for the duration of the study. Visual estimations of the % area blighted of the covered portion of each plot was recorded. Data were subjected to analysis of variance and LSD test,  $p=0.05$ .

Disease pressure was heavy late in the study. On 27 Jul, more than 94% of the covered area of control plots was infected with brown patch. Near complete suppression of disease for the duration of the study was provided by Daconil Ultrex, Heritage, Echo, Eminent Star, and Prostar + Daconil 2787. AMV 300 did not provide disease suppression when compared to the untreated control. Heritage lost efficacy when applied at 0.4 oz/28 days as compared to 0.2 oz/14 days. The Prostar 70WP provided superior control than did Prostar 50WP. Phytotoxicity was observed after each of the first 2 applications of AMV 300 but not with subsequent applications. Phytotoxicity was not observed for any other treatments.

*Table 1. 1998 Brown Patch Ratings*

Treatment	Rate per 1000 ft <sup>2</sup>	Int. (days) <sup>c</sup>	% Brown patch <sup>a</sup>		
			9-Jul	20-Jul	27-Jul
Daconil Ultrex 82.5WDG	3.8 oz	14	0 g <sup>b</sup>	0.3 j	0.4h
Heritage 50WG	0.2 oz	14	0 g	0 j	0.5 h
Prostar 70WP + Daconil 2787 4.17F1.5 oz + 4.9 fl oz.		14	0 g	0 j	0.6 h
Echo 75WDG	4.2 oz	14	1.5 g	2.8 h-j	1.5 h
Eminent Star ES	6 oz	14	0 g	1.8 ij	1.8 h
Spectro 90WDG	8 oz	14	8.8 fg	6.3 h-j	5.5 h
Eminent 125SL	4 fl oz	21	6.5 fg	6.3 h-j	8 gh
Chipco 26GT 2F + 3336 50WP	2 fl oz + 2 oz	14	5.5 fg	10 g-j	11 gh
Prostar 70WP	2.25 oz	21	2.8 g	15.5 g-j	12 gh
Echo 720 6F	4.2 fl oz	14	3.8 g	16.8 g-j	13.1 f-h
WAC 76 W	3.3 oz	14	16.8 fg	18.8 f-j	14.5 f-h
Daconil Weather Stik 6F	4.2 fl oz	14	0.5 g	22.5 e-h	17.5 f-h
3336 50WP	4 oz	14	16.8 fg	21.3 e-i	19.3 f-h
WAC 75 WP	3 oz	14	19.8 e-g	28.8 d-g	26.3 e-g
Heritage 50WG	0.4 oz	28	27 ef	40 de	27.5 e-g
Prostar 50WP	3 oz	21	13.8 fg	37.5 d-f	32.5 ef
3336 4.5F	4 fl oz	14	75 a-c	78.8 ab	72.5 bc
AMV 300 F	1 fl oz	14	57.5 cd	89.8 a	88.5 ab
QST 713	10 g/L	7	76.3 a-c	90 a	90 ab
QST 713	20 g/L	7	82.5 ab	90.8 a	92 ab
QST 713	5 g/L	7	92.5 a	95.8 a	92.5 ab
Untreated Control	—	—	68.8 bc	94.5 a	94.5 a

<sup>a</sup> Numbers represent estimated % diseased area of the covered portion of each plot. Means of four replications.

<sup>b</sup> Means followed by the same letter do not significantly differ (LSD,  $p=0.05$ .)

<sup>c</sup> 14 day treatments were applied on 6/15, 7/1, 7/14, and 7/28; 21 day treatments on 6/15, 7/8, and 7/28; and 28 day treatments on 6/15 and 7/14.