

Table 4. 1998 Summer Decline in Annual Bluegrass Turf Quality Ratings

Treatment	Rate/1000 ft <sup>2</sup>	Turf quality <sup>1</sup>						
		2 Jul	10 Jul	17 Jul	21 Jul	27 Jul	11 Aug	21 Aug
Chipco Alette Signature 80WDG + Chipco 26GT 2F	4 oz + 4 fl oz	7 a <sup>2</sup>	8 a	7.8 a	6.5 a	7.5 a	8 a	7 b
Chipco Alette Signature 80WDG + Daconil Ultrex 82.5WDG	4 oz + 3.8 oz	7 a	8 a	6.8 b	6 ab	7 a	7.8 ab	7.8 a
Chipco Alette Signature 80WDG + EXP 80318C 1.67SC	4 oz + 1 fl oz	6.3 b	7.5 ab	6.8 b	6.5 a	7.3 a	6.8 c	7 b
Chipco Alette Signature 80WDG + Dithane T&O 75WG	4 oz + 8 oz	6.3 b	7.8 a	6.8 b	5.8 a-c	6.8 a	4 d	3.3 c
Dithane T&O 75WG	8 oz	6.3 b	6.5 cd	5.8 c	5 bc	5.5 b	2.3 e	2.3 d
Chipco Alette Signature 80WDG	4 oz	6 bc	6.3 d	5.8 c	5 bc	5 b	1.8 e	2.3 d
Thalonil 4L + Alette T&O 80WDG <sup>3</sup>	3.5 fl oz + 4 oz	6 bc	7 bc	7 ab	5.8 a-c	6.8 a	7.3 bc	6.8 b
Untreated Control	---	5.5 c	6 d	5.5 c	4.5 c	5 b	1.8 e	2.5 d

<sup>1</sup>Turf quality ratings are subjective and based upon turf density and color, where 0 = dead and 10 = excellent.

Means of 4 replications.

<sup>2</sup>Means followed by the same letter do not significantly differ (LSD, p=0.05.)

Table 5. 1998 Dollar Spot Rating on Annual Bluegrass

Treatment and rate/1000 sq ft	Rate	% Dollar spot <sup>1</sup>		
		10 Jul	17 Jul	11 Aug
Chipco Alette Signature 80WDG + EXP 80318C 1.67SC	4 oz + 1 fl oz	1 bc <sup>2</sup>	0.4 c	0.1 c
Chipco Alette Signature 80WDG + Chipco 26GT 2F	4 oz + 4 fl oz	0.4 c	0.1 c	0.5 c
Chipco Alette Signature 80WDG + Daconil Ultrex 82.5WDG	4 oz + 3.8 oz	0.8 bc	1.6 bc	0.5 c
Thalonil 4L + Alette T&O 80WDG <sup>3</sup>	3.5 fl oz + 4 oz	0.8 bc	0.6 c	1.8 c
Chipco Alette Signature 80WDG + Dithane T&O 75WG	4 oz + 8 oz	1.1 bc	1.9 bc	25 b
Dithane T&O 75WG	8 oz	2 b	4 bc	86.3 a
Chipco Alette Signature 80WDG	4 oz	5.5 a	11.9 ab	87.5 a
Untreated Control	---	6.8 a	15 a	91.3 a

<sup>1</sup>Dollar spot ratings are % plot area showing disease symptoms. Means of 4 replications.

<sup>2</sup>Means followed by the same letter do not significantly differ (LSD, p=0.05.)

<sup>3</sup>Blending agent (Combine (95% ai)) added at a rate of 3 pts/100 gal.

### Summer Patch Fungicide Field Trial, 1998.

This test was conducted at the Dearborn County Club, Dearborn, MI on an irrigated annual bluegrass fairway. The plots were mowed at 1/2" and fertilized monthly at 1/2# nitrogen/1000 sq ft. Fungicide treatments were initiated preventively on May 6 when the soil temperature reached 65 F at a 2" soil depth (except as noted in data table). A second application was made 30 days later on Jun 8 (except as noted in data table). Treatments were applied utilizing a CO2 backpack sprayer equipped with 800E flat-fan nozzles. Application volume was 100 GPA.

By the August 17 rating, disease pressure in the plot area was moderately severe, but the standard fungicides (Eagle, Sentinel, Banner, Heritage, and 3336 WP) were still providing good disease control. By the end of August, fungicide residues were diminishing and summer patch control was deteriorating in the standard treatments. This is reflected in the Sept 8 ratings. Disease pressure was also abating in the control plots by Sept 9. The result was no significant statistical difference between the treatments (Table 6.) Phytotoxicity was observed following application of the May 6 application of the Sentinel treatment. The superintendent of the golf course used Primo at reduced rates on this fairway in order to reduce annual bluegrass seedhead production and overall growth. Though no phytotoxicity was observed from this application, the May 6 application of Sentinel on this Primo-treated turf produced a significant burn. The June 8 application of Sentinel produced only mild phytotoxicity since the Primo effect was abating. No other phytotoxicity was observed this season.

Table 6. 1998 Summer Patch Ratings

Treatment	Rate/1000 ft <sup>2</sup>	Spray Int.	% Summer Patch <sup>a</sup>		
			27 Jul	17 Aug	8 Sep
Heritage	0.2 oz	65 F + 30 days	1.5 e	1.8 e	13 a
Banner MAXX	4 fl oz	65 F + 30 days	1.8 e	5 de	16.8 a
Clearys 3336 WP	8 oz	14 days	7 c-e	8 c-e	11.8 a
Eagle	1.2 oz	65 F + 30 days	3.5 de	4 e	13 a
Sentinel	0.33 oz	65 F + 30 days	2.8 de	6.3 de	11.5 a
EXP80318C	0.5 oz	65 F + 30 days	10 b-d	17.3 bc	16.8 a
EXP80318C	1.5 oz	65 F + 30 days	14.3 a-c	15 b-d	16.3 a
Control	—	—	17.5 a	27.5 a	20 a
EXP80318C	1 oz	65 F + 30 days	14.8 ab	21 ab	25 a

<sup>a</sup> Means of 4 replications.

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

### 1997-98 Snow Mold Fungicide Field Trials

#### Studies A & B

Two corporation-sponsored snow mold fungicide studies were conducted during the fall and winter of 1997-98. Study A was applied on the Boyne Highlands Resort in Harbor Springs, MI on Oct. 31, 1997 (except as noted in the data table), and study B was applied on the Tree Tops/Sylvan Resort in Gaylord, MI on Oct. 30, 1997 (except as noted in the data table). Treatments were applied preventively to three replicate 6' X 9' creeping bentgrass (*Agrostis palustris*) / annual bluegrass (*Poa annua*) fairway plots where the turf was maintained at approximately 1/2" height of cut. Liquid treatments were applied with a CO<sub>2</sub> back-pack sprayer at a pressure of 36 PSI and a volume of 100 GPA. Granular products were pre-weighed and hand applied.

Study A was rated following snow cover melt-off on March 29, 1998 (Table 7). The predominant snow mold was gray snow mold, caused by *Typhula incarnata* and *Typhula ishkariensis*. There was insufficient *Microdochium* patch infection to warrant a separate rating.

Study B was rated on March 30, 1998. The predominant snow mold disease in this study was gray snow mold (*T. incarnata*, *T. ishkariensis*). In instances where there was sufficient *Microdochium* patch to warrant a separate rating, the percentage of disease/plot attributable to *Microdochium* patch is indicated in the data table (Table 8).

As the data in Table 7 indicate, disease pressure was quite heavy in the Boyne Highlands study this year. The various PCNB formulations (Turfcide 400, Penstar FLO, Defend, Revere 4000, Scts FF II) performed well, whether alone, or in combination with other products. The standard combination of CH 26GT and Daconil Ultrex performed moderately well this year, but the addition of Turfcide 400 to the combination greatly improved the disease control performance. The addition of Signature to the CH 26GT + Daconil Ultrex combination also improved the performance, at least when split applications were made. No phytotoxicity or turf quality differences were observed.