

Summer Decline in Creeping Bentgrass Field Trial, 1998

This test was conducted at the Hancock Turfgrass Research Center, E. Lansing, MI on an experimental research green. Plots were mowed at 1/8 in and fertilized monthly with 0.5 lb nitrogen per 1000 sq ft. Fungicide treatments 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 CO₂-powered back pack sprayer at 36 psi with a single 8002E flat fan TeeJet nozzle at a rate of 1.1 gal per 1000 sq ft. Treatment applications began on 12 May and all were applied on a 14 day schedule. Turf quality was based on a subjective evaluation of turf density and color where 0 = dead and 10 = excellent. Data were subjected to analysis of variance and LSD test, $p=0.05$.

Chipco Aliette Signature + Chipco 26GT was the only treatment tested that provided significantly better turf quality than the control for the entire duration of the study. Chipco Aliette Signature + Daconil Ultrex exhibited better quality than the control on 4 of the 6 dates readings were taken. Sprays of EXP 80318C were least effective. No phytotoxicity was observed.

Table 3. 1998 Summer Decline in Creeping Bentgrass Turf Quality Ratings.

Treatment	Rate per	Turf quality*					
	1000 ft ²	1 Jul	9 Jul	17 Jul	28 Jul	12 Aug	21 Aug
Chipco Aliette Signature 80WDG +	4 oz +						
Chipco 26GT 2F	4 fl oz	6.5 a**	7.5 a	7.5 a	8 a	8.5 a	8 a
Chipco Aliette Signature 80WDG +	4 oz +						
Daconil Ultrex 82.5WDG	3.8 oz	6.5 a	6.8 ab	6.8 ab	7 b	7.8 ab	7.8 ab
Chipco Aliette Signature 80WDG +	4 oz +						
EXP 80318C 1.67SC	1 fl oz	6 a	6.3 bc	6.8 ab	6.8 b	7 bc	7 bc
Untreated Control	—	5 b	5.5 c	6.3 b	6.5 b	6.5 c	6.3 c

*Turf quality ratings are subjective and based upon turf density and color, where 0 = dead and 10 = excellent.

Means of 4 replications.

**Means followed by the same letter do not significantly differ (LSD, $p=0.05$.)

Summer Decline in Annual Bluegrass Field Trial, 1998.

This test was conducted at the Hancock Turfgrass Research Center, E. Lansing, MI. Plots were mowed at 1/2 in and fertilized monthly with 0.5 lb nitrogen per 1000 sq ft. Fungicide treatments 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 CO₂-powered back pack sprayer at 36 psi with a single 8002E flat fan TeeJet nozzle at a rate of 1.1 gal per 1000 sq ft. All fungicide treatments were initiated on 6 Jul and applied on a 14 day interval. Turf quality evaluations were based on turf density and color where 0 = dead and 10 = excellent. Dollar spot ratings were visual estimations of % plot area with dollar spot symptoms. Data were subjected to analysis of variance and LSD test, $p=0.05$.

Combinations of Chipco Aliette Signature 80 WDG with Chipco 26GT 2F, Daconil Ultrex 82.5 WDG, and EXP 80318C provided significantly better turf quality than untreated controls for the entire duration of the study. Dollar spot developed in Jul and exhibited 91% disease in controls in Aug. All Chipco Aliette Signature combinations tested provided significant dollar spot control when compared to the untreated control, as did the Aliette T&O + Thalonil 4L combination. By 11 Aug, control with a tank mix of Dithane and Chipco Aliette Signature was superior to either product alone, demonstrating the synergy of the two products. No phytotoxicity was observed.

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

Treatment	Rate/1000 ft ²	Turf quality ¹						
		2 Jul	10 Jul	17 Jul	21 Jul	27 Jul	11 Aug	21 Aug
Chipco Alette Signature 80WDG +	4 oz +							
Chipco 26GT 2F	4 fl oz	7 a ²	8 a	7.8 a	6.5 a	7.5 a	8 a	7 b
Chipco Alette Signature 80WDG +	4 oz +							
Daconil Ultrex 82.5WDG	3.8 oz	7 a	8 a	6.8 b	6 ab	7 a	7.8 ab	7.8 a
Chipco Alette Signature 80WDG +	4 oz +							
EXP 80318C 1.67SC	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 +	4 oz +							
Dithane T&O 75WG	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 ³	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

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

Means of 4 replications.

²Means 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 ¹		
		10 Jul	17 Jul	11 Aug
Chipco Alette Signature 80WDG +	4 oz +			
EXP 80318C 1.67SC	1 fl oz	1 bc ²	0.4 c	0.1 c
Chipco Alette Signature 80WDG +	4 oz +			
Chipco 26GT 2F	4 fl oz	0.4 c	0.1 c	0.5 c
Chipco Alette Signature 80WDG +	4 oz +			
Daconil Ultrex 82.5WDG	3.8 oz	0.8 bc	1.6 bc	0.5 c
Thalonil 4L + Alette T&O 80WDG ³	3.5 fl oz + 4 oz	0.8 bc	0.6 c	1.8 c
Chipco Alette Signature 80WDG +	4 oz +			
Dithane T&O 75WG	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

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

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

³Blending 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.