

RED THREAD (*LAETISARIA FUCIFORMIS*)

This study was set up on a ryegrass fairway height turf at Hancock Turfgrass Research Center, East Lansing, MI. The study consisted of four replicates of each treatment set up in a randomized complete block design with plots measuring 6' x 6' with 1' alleys. Treatments were applied using a CO₂ backpack sprayer at 48 GPA and 34 PSI with two 8002E flat fan nozzles. Treatments were applied for the first time on May 31. All treatments were reapplied on 6/13, 7/12, 7/26, and 8/6. Fertilizer was applied as follows: 6/5 (1/4 # N), 6/19 (1/4 # N), 7/12 (1/4 # N), and 7/31 (1/4 # N). Plots were rated for percent area diseased with red thread. Means are presented in Table 8. Data were analyzed with ANOVA and means separated with LSD (p = 0.05).

All of the treatments tested in this study provided significant red thread control compared to the untreated control. While red thread continued to develop in the control plots, by the July 9 rating, all treatments had almost totally eradicated the disease.

Table 8. Red Thread 2001.

Hancock Turfgrass Research Center, East Lansing, MI							
Rating Scale: Percent plot area with red thread.							
Treatment	Rate/1000 sq ft	Interval (Days)	Mean ^a 6/12	Mean 6/25	Mean 7/9	Mean 7/17	Mean 7/26
Endorse	4 oz	14	0.4 a	0 a	0 a	0 a	0 a
Endorse	6 oz	14	0.4 a	0.3 a	0.1 a	0 a	0 a
Chipco 26 GT	4 fl oz	14	0.3 a	0.8 a	0 a	0 a	0 a
Spectro 90WDG	4 oz	14	1.6 a	1.1 a	1.0 a	0.7 a	0 a
Control (Fertilized)	--	--	6.8 b	8.5 b	8.0 b	7.3 b	10.0 b

^aTreatment means within each rating date followed by the same letter do not differ significantly (LSD, p = 0.05).

SUMMER PATCH (*MAGNAPORTHE POAE*)

The study was established on an irrigated annual bluegrass fairways at the Dearborn Country Club in Dearborn, MI. The study consisted of four replicate 6' x 9' plots in a random block design. Treatments were applied preventively with a CO₂ backpack sprayer at 34 PSI and 48 GPA. Treatments were initiated on 6/11/01 when temperatures reached 75°F at a 2" soil depth. The 14 day treatments were applied on 6/11, 6/25, 7/9, 7/24, and 8/7. The 21 day treatments were applied on 6/11, 7/2, and 7/24. The 28 day treatments were applied on 6/11, 7/9, and 8/7. The Banner Maxx/Heritage treatment was applied on 6/11, 6/25, 7/9, and 8/7. Fertility was maintained at ¼ # N/1000 ft²/month. Data represent percent plot area diseased in study B on July 30, 2001 and a later rating on September 6. The 9/6 rating was taken after some treatments had expired because disease pressure declined as usual in August and then unexpectedly redeveloped in September. Those data are presented for unexpired treatments or treatments whose longevity outlasted their reapplication interval.

As Table 9 indicates, at the time of the 7/30 rating, most fungicide treatments were providing significant summer patch control compared to the untreated control. Because disease pressure was moderate on 7/30, statistical separation of the treatment means was limited. Treatment separation, statistically, was much more complete at the time of the 9/6 rating. As the 9/6 data indicate, several treatments, including Insignia, Banner Maxx, and Heritage, exhibited control of summer patch even after the treatment had expired by more than twice the recommended time period. So although some disease did develop in plots that had very little disease earlier in the season, these treatments still provided excellent control considering that the treatment had expired but was still showing significant efficacy after more than twice their application interval. No phytotoxicity was observed during the course of this study.

Table 9. Summer Patch, Study 2001.

Dearborn Country Club, Dearborn, MI				
Rating Scale: Percent plot area exhibiting summer patch symptoms (yellow, thin).				
Treatment	Rate/1000 sq ft	Interval (Days)	Jul 30^a	Sep 6
Heritage	0.2 oz	28	0.0 e	2.0 hij
Insignia 20WG	0.5 oz	14	0.0 e	0 j ^c
Lynx 45WP + Compass 50WG	1.11oz + 0.2 oz	21 (3 apps)	0.0 e	0.8 ij
Heritage 50 WG	0.4 oz	21 (3 apps)	0.0 e	1.3 ij
Heritage 50 WG	0.4 oz	28 (2 apps) ^b	0.0 e	1.5 ij
Banner Maxx + Medallion	2.0 fl oz + 0.33 oz	14	0.0 e	8.8 f-j ^c
Heritage	0.1 oz	14	0.0 e	3.8 hij ^c
Macrosorb + Heritage	2 fl oz + 0.1 oz	14	0.0 e	0.3 j ^c
Banner Maxx	4 oz	28 (2 apps) ^b	0.5 de	12.8 e-i
Lynx 45WP	1.11 oz	21 (3 apps)	0.5 de	0 j
Heritage 50 WG	0.2 oz	21 (3 apps)	0.8 de	0.5 j
Honor 50WG	0.2 oz	28	1.3 de	1.5 ij
Heritage 50 WG	0.3 oz	21 (3 apps)	1.8 de	0.5 j
Chipco Triton	2.0 fl oz	28	2.0 de	16.5 efg
Banner Maxx	2.0 fl oz	14	2.3 de	7.0 f-i ^c
Heritage 50 WG + Banner Maxx	0.2 oz + 2.0 fl oz	28	2.5 de	1.3 ij
Chipco Triton	1.0 fl oz	28	3.8 c-e	17.5 def
Insignia 20WG	0.9 oz	28	3.8 c-e	0.8 ij
TADS 12529	8.5 gm	28	5.0 c-e	26.3 bcd
Banner Maxx <i>followed by</i>	2.0 fl oz	14 (first 2 apps)	5.0 c-e	5.0 ghi
Heritage	0.4 oz	28 (next 2 apps)		
Chipco Triton	0.5 fl oz	28	6.3 c-e	26.3 bcd
Compass 50 WG	0.2 oz	21 (3 apps)	6.3 c-e	25.0 cd
Bayleton 50WP	1.0 oz	21 (3 apps)	6.5 c-e	30.0 bc
TADS 12529	4.25 gm	28	7.0 b-e	37.5 ab

Chipco Triton + TADS13093	1.0 fl oz	28	7.5 b-d	26.3 bcd
Bayleton 50WP + Compass 50WG	1.0 oz + 0.2 oz	21 (3 apps)	10.8 bc	18.8 cd
Macrosorb	2 fl oz	14	13.8 ab	NA ^d
BAS 510F	0.18 oz	28	19.3 a	43.8 a
Control (Fertilized)	--	--	20.0 a	37.5 ab

^aMeans followed by the same letter within the same rating date are not significantly different (LSD, $p = 0.05$).

^bTreatments applied on 6/11 and 7/9 only.

^cTreatment expired – 30 days since last application on 8/7, however, summer patch control still observed.

^dTreatment expired – 30 days since last application on 8/7.

MICRODOCHIUM PATCH (*MICRODOCHIUM NIVALE*)

This curative study was established on a bentgrass green at the Hancock Turfgrass Research Center on the MSU campus in a location where Microdochium patch was beginning to develop. The study consisted of four replicate 2' x 6' plots laid out in a random block design. Treatments were applied initially on April 28, 2001 using a single nozzle (TeeJet flat fan) CO₂ backpack sprayer at 30 PSI and 48 GPA. Treatments were reapplied on a 14 day interval on 5/13, 5/23, and 6/8. Data were analyzed using ANOVA and means separated with LSD ($p = 0.05$).

Consyst and Fore both provided excellent recovery from Microdochium Patch at the time of the May and June ratings (Table 10). By the June ratings, Chipco 26GT provided significant recovery compared to the control, however, it didn't perform as well as expected. This could possibly be due to the curative nature of this study as compared to a preventive study. No phytotoxicity was observed during the course of this study.

Table 10. Microdochium Patch 2001.

Hancock Turfgrass Research Center, East Lansing, MI						
Rating Scale: Mean percent recovery from pre-treatment rating on 4/28/01.						
Treatment	Rate/ 1000 sq ft	Interval	14-May*	29-May	5-Jun	12-Jun
Consyst WDG	8 oz	14 day	28.1 a	88.9 a	90.6 a	97.0 a
Fore WP	6 oz	14 day	7.1 a	41.1 ab	73.7 ab	87.1 a
Consyst WDG	6 oz	14 day	10.7 a	68.1 ab	78.0 a	88.2 a
Ch 26 GT	4 fl oz	14 day	2.7 ab	33.6 c	50.7 b	61.6 b
Control	--	--	-38.4 b	14.3 c	8.9 c	8.0 c

*Means followed by the same letter within the same rating date do not differ significantly (LSD, $p = 5\%$).