

Summer Patch (*Magnaporthe poae*)

This study was established on an irrigated annual bluegrass fairway at the Dearborn Country Club in Dearborn, MI. The study consisted of 4 replicate 6' x 9' plots in a random block design. Treatments were applied preventively with a CO₂ backpack sprayer at 34 PSI and 100 GPA (except as noted in Table 11). Treatments were initiated on 6/10/02 when we reached 75°F at a 2" soil depth. The 14 and 28-day treatments were re-applied as indicated in Table 11. Fertility was maintained at 1/2#N/1000 ft²/month. The study was background sprayed with 2 oz Echo (chlorothalonil) and 1 oz Subdue Maxx on 7/23 to control dollar spot and Pythium. Data represent percent plot area diseased on 7/23 and 8/20 when disease development peaked.

As the data in Table 11 indicate, summer patch disease pressure was moderately severe this year due to the warm, stressful summer we experienced. Under these stressful conditions, many treatments that controlled summer patch in the early rating (7/23), failed to control summer patch disease as the summer progressed and disease pressure increased (8/20 rating). Surprisingly, the strobilurin fungicides (Heritage, Insignia, Emerald) failed this year, except in combinations. The propiconazole fungicides, thiophanate methyl fungicides, TADS 12529, and Lynx + Compass are among the treatments that performed significantly better than the untreated control this year. No phytotoxicity was observed in this study.

Table 11: Summer Patch Data 2002

Dearborn Country Club, Dearborn, MI		7/23	8/20
Rating scale: % plot area exhibiting summer patch symptoms		Mean ^a	Mean
Treatment and Rate/1000 sq ft	Interval (Days)		
Insignia 0.9 oz alt with Emerald 0.18 oz	75F+28 (6/10, 8/5) alt 28 (7/8)	15.3 ^b A	43.8 A
Emerald 0.18 oz	75F+28 (6/10, 7/8, 8/5)	13.5 AB	36.3 AB
Compass 50WG 0.2 oz	75F+21 (6/10, 7/8, 7/23)	5.3 CD	33.8 A-C
Control	--	6.8 CD	32.5 A-D
Insignia 0.5 oz	75F+28 (6/10, 7/8, 8/5)	4.3 CD	30.0 A-E
Heritage 50WG 0.2 oz	75F+28 (6/10, 7/8)	3.8 BD	30.0 A-E
Heritage 50WG 0.4 oz	75F+28 (6/10, 7/8)	11.25 AC	30.0 A-E
Bayleton 50WG 1 oz + Compass 50WG 0.2 oz	75F+21 (6/10, 7/8, 7/23)	4.0 CD	28.8 A-E
Heritage 50WG 0.4 oz	75F+28 (6/10, 7/8)	3.8 D	23.8 B-E
Signature 80WG 4 oz + TADS 12529 8.5 g	75F+28 (6/10, 7/8)	0.5 D	22.5 B-G
TADS 12529 8.5 g + Surfactant 32 fl oz/100 gal	75F+28 (6/10, 7/8)	1.25 D	21.0 C-H
Heritage 50WG 0.2 oz	75F+21 (6/10, 7/8, 7/23)	1.3 D	20.0 C-H
Insignia 0.9 oz	75F+28 (6/10, 7/8, 8/5)	3.0 D	19.3 C-I
TopPro Propiconazole 14.3 2 fl oz	75F+28 (6/10, 7/8)	3.8 D	18.0 D-J
Banner Maxx 2 fl oz	75F+28 (6/10, 7/8)	3.0 BD	15.5 E-K
TADS 12529 17 g	75F+28 (6/10, 7/8)	0.0 D	11.0 F-L
TADS 12529 8.5 g	75F+28 (6/10, 7/8)	0.5 D	10.5 F-L

TopPro Propiconazole 14.3 4 fl oz	75F+28 (6/10, 7/8)	0.8 D	9.5 F-L
Magellan 4.1 fl oz + thiophanate methyl 4 fl oz ^c	75F+21(6/10, 7/1, 7/23)	0.3 D	8.0 G-L
Heritage 50WG 0.2 oz + Banner Maxx 2 fl oz	75F+28 (6/10, 7/8)	0.0 D	6.5 H-L ^b
TADS 12529 17 g + Surfactant 32 fl oz/100 gal	75F+28 (6/10, 7/8)	0.0 D	4.3 I-L
Banner Maxx 4 fl oz	75F+28 (6/10, 7/8)	0.0 D	4.3 I-L
Cleary's 3336F 6 fl oz	75F +14(6/10, 6/24, 7/8, 7/23, 8/5)	0.0 D	3.0 J-L
Banner Maxx 2 fl oz (2 apps, then Heritage)	75F+14 (6/10, 6/24)	0.0 D	2.3 LK ^b
Heritage 50WG 0.4 oz	14 (7/8, 7/23)		
Cleary's 3336F 6 fl oz + Nutri-grow 3 fl oz	75F+14 (6/10, 6/24, 7/8, 7/23, 8/5)	0.0 BD	0.8 LK ^b
Lynx 45WP 1.11 oz + Compass 50WG 0.2 oz	75F+21 (6/10, 7/8, 7/23)	0.0 D	0.0 L ^b

^a Means followed by the same letter are not significantly different (LSD, p=0.05).

^b One or more replicate plots within treatment displayed superior turfgrass quality/color on 8/20/02.

^c Treatment applied in 3 gal/1000ft² spray volume.

Take-All Patch (*Gaeumannomyces graminis*) 2001-2003

This multi-year take-all patch disease study is being conducted on an irrigated and diseased creeping bentgrass fairway at the Golf Club of Michigan, Brighton, MI. The study is setup in four replications of a randomized complete block design utilizing 6' X 9' plots, each of which has displayed active take-all in recent years. Applications were made with a CO₂ small plot sprayer with flat fan 8002E nozzles, operating at 36 PSI and approximately 100 GPA. Fertilizer treatments were pre-weighed and hand applied.

Because take-all patch is most severe under low fertility conditions, we applied only 1#N/1000 ft² of background fertilizer this season, except in the fertilizer treatments. This level of fertility was deemed adequate to promote fungicide efficacy while not discouraging disease symptom development. Fertilizer (18-3-12) was applied as follows: ¼#N/1000 ft² on 5/14/02 and 8/13/02; and 1/8#N/1000 ft² on 6/14/02, 7/12/02, 7/26/02, and 9/11/02. Chlorothalonil and metalaxyl fungicides were applied at low rates on 7/12/02 and 8/2/02 to control dollar spot and Pythium blight in the study.

As in 2001, take-all patch in this study developed in the spring once again. As the data indicates, however, disease pressure was modest and occurred somewhat unevenly in the study. This variability led to poor statistical separation between the treatment means of all the fertilized treatments. On the other hand, the benefit of fertility in take-all patch management is evident by comparing the unfertilized control with many of the fertilized treatments, most of which exhibited significantly less disease than the unfertilized control.