STOP #6

SUMMER PATCH, ANTHRACNOSE AND OTHER TURFGRASS PLAGUES OF THE SUMMER OF 1987

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The excessive heat and drought we experienced this summer caused severe outbreaks of summer patch, anthracnose, brown patch and Pythium blight on Michigan golf courses. In many cases, anthracnose (Colletotrichum graminicola) was observed to be colonizing annual bluegrass plants which were simultaneously infected by summer patch (Phialophora graminicola). Summer patch created special problems because, as a root disease, it is difficult and expensive to control with our currently available fungicides. It is a heat-stress related disease which, in normal summers, is active primarily in August and September. Because August-like temperatures occurred as early as May this year, summer patch was a problem for nearly 4 months.

Preliminary field plot research indicates that preventive (May, June and, possibly, July) applications of systemic fungicides, especially Rubigan (1 oz/100 ft^2) and Bayleton (2 oz/1000 ft^2) can be effective in preventing summer patch outbreaks. Prevention is preferable to curative treatment because recovery from this root and crown infecting disease is slow if disease symptoms are severe. While Bayleton and Rubigan are also effective when used curatively, our research indicates that the benzimidazole fungicides (Tersan 1991, Fungo 50, Cleary 3336) promote the fastest recovery of disease symptoms when applied at 6 oz/1000 ft^2. We recommend drenching the above fungicides into the soil before they dry on the leaves in order to achieve maximum control.

We have observed this year that low fertility seems to increase summer patch severity, especially on annual bluegrass fairways. Many superintendents are cutting back on nitrogen, phosphorus and irrigation in order to increase fairway bentgrass. These practices may increase the stress on annual bluegrass and cause increased susceptibility to stress-related diseases such as summer patch and anthracnose. In instances where summer patch is a problem, adequate fertility (N-P-K), afternoon syringing to relieve heat stress, and avoidance of stressful cultivation techniques are recommended.

Pythium blight and brown patch were also more severe this summer than usual. Turf managers who consistently apply Subdue for Pythium control should, however, understand that Subdue resistance is occurring in Tennessee and Kentucky.

EMERALD CREEPING BENTGRASS DOLLAR SPOT FUNGICIDE STUDY - 1987

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The 1987 dollar spot (Lanzia sp., Moellerodiscus sp.) fungicide studies are being conducted on a moderately fertilized, irrigated Emerald creeping bentgrass green mowed at 1/4" height of cut.

Treatments were initiated curatively on July 10 with subsequent applications being made at 14-21 day intervals as shown on the plot signs. All liquid products were applied with a CO_2 small-plot sprayer at 30 PSI and 40 gal/acre spray volumes. The granular products were pre-weighed and applied by hand.

The particular dollar spot strains we are working with on this study are highly benzimidazole-resistant, as they are on most Michigan golf courses. Therefore, the Tersan 1991 (as well as Fungo 50, Cleary 3336, etc.) would not be expected to control dollar spot in this study although it would otherwise be quite effective.