Fusarium Blight Fungicide Studies - 1982 Hancock Turfgrass Research Center, MSU

The 1982 Fusarium blight fungicide studies were conducted on the Hancock Turfgrass Research Center on the Michigan State University campus on an irrigated, lightly fertilized Fylking Kentucky bluegrass research area which was maintained at a 1 1/2" height of cut.

Various Bayleton + Urea combination treatments were applied preventatively on June 15 and July 15. Other treatments, including Chipco 26019, BTS 41661, Prochloraz, CGA-64250, BAS 43603F, Fungo 50, and Tersan 1991 were applied preventatively on July 15 and, thereafter, according to contract.

Results:

Though Fylking Kentucky bluegrass has, in the past, shown a susceptibility to Fusarium blight disease, no Fusarium blight developed in our plot area this season.

> Daconil 2787 FL Fungigation Study - 1982 Hancock Turfgrass Research Center, MSU

Establishment:

The 1982 fungigation study was established on an irrigated annual bluegrass (Poa annua) block at the Hancock Turfgrass Research Center on the Michigan State University campus.

Undiluted Daconil 2787 (FL) was injected directly into the irrigation line in the pump house at a rate of approximately 3 gallons/hr using a Hydro-Flo Chem-Injector single piston pump (Hydro-Flo Corp., 112 Maple Ave., Dublin, PA 18917). Injections were made into a line with a water capacity of 3600 gallons/hr. The fungigation treatment was applied through 4 Nelson pop-up irrigation heads, each of which was applying approximately 15 gallons/minute. This resulted in a dilution factor of approximately 1:1200. The fungicide was applied at a rate of 7 quarts/acre, the maximum label rate for fairway applications. Treatments were applied on June 9, June 22, July 8, July 20, August 6 and August 20.

In order to provide a comparison of fungigation versus sprayer application, part of the annual bluegrass study was sprayed with Daconil 2787 FL at 7 qts/acre using a CO₂ small-plot sprayer operating at 20 gallons/acre. The dilution of fungicide to water in this case was approximiately 1:12.

This research area was irrigated as needed and fertilized at a total rate of 1 1/2 1b N/1000 ft² during the 1982 season.

The study was rated for dollarspot (<u>Sclerotinia homoeocarpa</u>) incidence on August 2, August 30, and September 10. Anthracnose (<u>Colletotrichum</u> <u>graminicola</u>) disease is normally a problem on annual bluegrass fairways, however, no significant anthracnose pressure developed in this study, therefore, no data was available. Results:

Daconil 2787 can be applied through irrigation systems and give effective disease management of Sclerotinia dollarspot. It also gave satisfactory management of anthracnose although the disease pressure was not as severe this year.

Table 10

Daconil 2787 Fungigation Study - 1982 Hancock Turfgrass Research Center, MSU Dollar spot rating scale - 1(no disease)-9(90% infection or greater)

Treatment	Rate/acre		Repetition				
		I	II_	III	AVE	DMR	
Ratin	g of August 2						
Conventional sprayer application	7 qts/acre	1	1	1	1		
Fungigation application	7 qts/acre	2	2	2	2		
Control		4	4	4	4		
Ratin Conventional sprayer application Fungigation application Control	g of August 30 7 qts/acre 7 qts/acre -	1 2 6	1 2 6	1 2 6	1 2 6		
Rating	of September 10						
Conventional sprayer application	7 qts/acre	1	1	1	1		
Fungigation application	7 qts/acre	1 2 7	2	2	2		
Control		7	7	7	7		