

Anthracnose Fungicide Study - 1995

Hancock Turfgrass Research Center, MSU, E. Lansing, MI

The 1995 anthracnose (*Colletotrichum graminicola*) study was conducted on an irrigated annual bluegrass fairway area at the Hancock Turfgrass Research Center on the MSU campus. Treatments were applied curatively to 6' x 9' plots in three replications of a randomized block design using equipment and procedures as previously described in this report. The treatments were initiated on Aug. 3, 1995 and re-applied according to the intervals listed in the data table (Table 6). At the time of the rating (Sept. 2) all treatments had been applied twice.

The plots were fertilized at a 3/4 lb N./1000 ft²/mo. during the study duration.

Although the study was conducted for only one month, due to cool weather and a loss of disease pressure after Labor day, we did observe statistically significant differences in disease control between many of the fungicide treatments and the untreated controls (Table 6). Particularly surprising was the level of disease control and turf quality observed in the Aliette + Fore treatment plots. As expected, the systemic fungicides (Sentinel, Banner, Fungo 85, Rubigan) also provided good disease control, although Rubigan and Bayleton seemed to under perform the other systemics in this curative test. No phytotoxicity was observed in this study.

Table 6. Anthracnose Fungicide Study - 1995 Hancock Turfgrass Research Center

Rating Scale:

Percent plot area infected by anthracnose.

Quality Rating (parenthesis):

(0) = worst, (10) = best. (7) = acceptable

Rating Date:

Sept. 2, 1995

Treatment	Rate/1000 ft ²	Interval	I	II	III	Avg	Tukeys(.05) ^a
Sentinel	0.25 oz	28 day	5(8)	3(8)	7(8)	5.0(8)	F
Aliette + Fore ^b	4 oz + 13 fl oz	14 day	3(8)	7(7)	7(7)	5.7(7.3)	EF
Banner	2 fl oz	28 day	12(7)	5(8)	3(8)	6.7 (7.7)	EF
Fungo 85	0.6 oz	14 day	5(8)	10(7)	7(7)	10.0 (7.3)	DEF
EXP 10704A + Dac. Ultrex ^b	4 oz + 3 oz	14 day	10(7)	5(7)	15(6)	10.0(6.7)	DEF
EXP 10704A + EXP 10682A ^b	4 oz. + 3.5 fl oz	14 day	12(7)	15(7)	7(7)	11.3(7)	DEF
EXP 10704A + Ch. 26019 (WP) ^b	4 oz + 2 oz	14 day	12(7)	10(7)	20(6)	14.0(6.7)	DEF
Rubigan (WP)	1.5 lb./A	28 day	25(6)	15(7)	3(6)	14.3 (6.3)	DEF
Rubigan (WP)	2.72 lb./A	28 day	25(6)	12(7)	10(7)	15.7(6.7)	C-F
EXP 10704A + EXP 10682A ^b	4 oz + 7.2 fl oz	14 day	25(6)	7(8)	25(6)	19.0(6.7)	C-F
Rubigan AS	2 fl oz	28 day	25(6)	15(7)	25(6)	21.7(6.3)	C-F
Bayleton	2 oz	28 day	30(5)	30(6)	20(6)	26.7(5.7)	B-F
S-6115	1.33 lbs	14 day	25(6)	25(6)	35(5)	28.3(5.7)	B-E
S-6128	1.25 lbs	14 day	30(4)	40(5)	25(6)	31.7(5)	BCD
Control (fertilized)	--	--	35(6)	40(5)	40(4)	38.3(5)	ABC
Control (unfertilized)	--	--	40(4)	60(3)	40(4)	46.7(3.7)	AB
Latron CS-7	0.25% v/v	14 day	40(5)	60(4)	65(3)	55.0(4)	A

^aTreatments followed by same letter are not significantly different from each other at the 5% level (Tukeys Honestly Significant Difference Test).

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^bLatron CS-7 added to these treatments at 0.25% v/v.
Brown Patch Fungicide Study - 1995

Hancock Turfgrass Research Center

The brown patch fungicide study at the turf research center on the MSU campus was established on an irrigated creeping bentgrass fairway turf which was fertilized at 1 lb N per 1000 ft.² per month to promote brown patch disease. The fungicide treatments were applied preventively beginning on 6/29/95, with subsequent applications being made at the intervals cited in the data table (Table 7). Uniform disease development was promoted by inoculating the plots with *R. solani* growing on rye seed or in a cornmeal sand mixture. Following inoculation, aluminum pie plates were used to cover the inoculation sites in order to maintain the high humidity needed for disease development.

As the data in table 7 indicates one month after initial applications, most of the treatments gave significant disease control, compared to the untreated controls. Variability between replications limited statistical differentiation between effective treatments, but the data trends indicated that chlorothalonil (Daconil Ultrex, Thalonil) lived up to its reputation as a very effective standard control for brown patch. Sentinel also performed well.

No phytotoxicity was observed in this study this year.

Pythium Blight Fungicide Studies - 1995

Hancock Turfgrass Research Center

This *Pythium* blight study was established on the same fairway area, and culturally maintained in the same manner as the Hancock brown patch study described above. The plots were inoculated with *Pythium* strains from Pat Sanders at Penn. State University, using the pie plate technique described above. Fungicide treatments were initiated on 6/29/95, with subsequent applications being made at the intervals listed in the data table (Table 8).

As the data indicates, all the fungicide treatments gave statistically significant control of *Pythium* blight. The relatively poor disease control observed in the Subdue treatment may be attributable to Subdue-resistance in the *Pythium* strains used to inoculate the study. No phytotoxicity was observed in this study.