

Brown Patch (*Rhizoctonia solani*)

A preventive brown patch study was set up on a ryegrass plot area at the Hancock Turfgrass Research Center, E. Lansing, MI. The study was set in a randomized complete block design with 4 replicates of each treatment. Plots measured 2' x 6' with 1' alleys. Treatments were applied using a CO₂ backpack sprayer at 36 PSI and 48 GPA, unless otherwise noted in Table 11, using a single 8002E Tee Jet flat fan nozzle. The ryegrass study area was inoculated on 6/9, 6/29, 7/19, and 8/2 with *Rhizoctonia solani* growing on a sand/cornmeal mixture using a drop spreader. Plots were fertilized at a rate of 0.8# N/1000 ft²/month on both studies. Treatments were applied beginning on June 28 unless otherwise noted in Table 11. Subsequent applications of the 14-day treatments were made on 7/13 and 7/28. The 21-day treatments were reapplied on 7/22, and the 28 day treatments on 7/28. Plots were rated for percent area blighted by brown patch (see Table 11.) Data were analyzed using ANOVA and means separated with LSD (p=0.05).

Disease conditions were unfavorable this year for brown patch. We had an average of 15% of the plot area diseased in our control plots at our earliest rating representing the height of our disease pressure (Table 11.) Due to such low disease pressure, all 14 and 28 day interval treatments provided significant control, compared to the untreated control, on the first rating date. Disease pressure subsided after the first rating, and from then on, no significant differences were obtained when treatments were compared to the untreated control. No phytotoxicity was observed in the study.

Table 11. Brown Patch on Ryegrass

Location: Hancock Turfgrass Research Center, E. Lansing, MI

Rating Scale: Percent area infected with brown patch.

Treatment and Rate/1000 sq ft	Interval (Days)	Jul 22		Jul 29		5-Aug	
		Mean ^a	LSD	Mean ^a	LSD	Mean ^a	LSD
EXP 0357 5 lbs	14 (3 apps)	1.8	B	0.8	B	1.8	AB
EXP 0357 10 lbs	14 (3 apps)	1.3	B	0.0	B	0.0	B
Compass 50 WG 0.2 oz	14 (3 apps)	0.3	B	0.8	B	0.1	B
Insignia 0.5 oz	14	0.1	B	0.0	B	0.0	B
Insignia 0.9 oz	28	0.0	B	0.0	B	0.0	B
Iprodione Pro 4 fl oz	14	3.8	B	2.8	B	0.3	B
Echo 720 3.6 fl oz	14	0.0	B	0.0	B	0.0	B
Echo 825 3.25 oz	14	0.3	B	0.0	B	0.0	B
Propiconazole 1.3ME 2 fl oz	14	0.8	B	0.0	B	0.1	B
18-Plus Flowable 3 fl oz	21	7.5	AB	5.3	B	2.4	AB
Heritage 0.2 oz	14	0.0	B	0.0	B	0.0	B
Chipco 26GT 4 fl oz	14	0.5	B	1.3	B	1.4	AB