

Source: 2009 Fungicide Report
 Department of Plant Pathology
 Michigan State University
 Joe Vargas, Jr., Ron Detweiler, Nancy Dykema

Anthracnose (*Colletotrichum graminicola*), 2009

Crown Rot Anthracnose Study

A crown rot anthracnose study was set up on an annual bluegrass green at the Hancock Turfgrass Research Center, East Lansing, MI. The study was set up in a randomized complete block design with 4 replicates of each treatment. Plots measured 2' x 6' with 1' alleys. Treatments were applied preventively using a CO₂ backpack sprayer at 42 PSI and 96 GPA, unless listed otherwise in Tables 3-4, with a single 8002E Tee Jet flat fan nozzle. Granular treatments were pre-weighed and applied by hand. The annual bluegrass study area was inoculated with *Colletotrichum graminicola* grown on sand/cornmeal using a drop spreader on 6/1, 6/25, and 7/8. Plots were fertilized at a rate of 0.5 lbs N/1000 ft²/month using Country Club 18-4-12. The entire study area was treated with Emerald at 0.13 oz/1000 ft² for the control of dollar spot on 6/25. All treatments were applied beginning on 6/16/09. Subsequent applications of the treatments on a 7 day interval were made on 7/1, 7/14, 7/21, 7/29, 8/6, 8/12, and 8/19. The 14 day interval treatments were reapplied on 7/1, 7/14, 7/29, and 8/12, and the 21 day interval treatments on 7/1, 7/21, and 8/12. For treatments that were applied on an alternating schedule, application dates are provided in Tables 5-6. Plots were rated by visual estimation of percent area infected with crown rotting anthracnose (Table 3). Quality ratings were taken using a 1-10 scale where 1 = poor, 7 = acceptable, and 10 = excellent turf quality (Table 4). Data were analyzed using ANOVA and means separated by LSD (p=0.05).

Source: Great Lakes Turf 2009 Study Protocols

Anthracnose

Approximate Study Period	May 20 – August 31	Turf Species & Area	Annual Bluegrass Green
Treatment Interval	Weekly (Alternating mixes)	Spray Volume	40 GPA
Granular Fertility	Initial Background Fertilizer Only	Cost of Study As Proposed	TBD
Comments & Discussion	Proposed changes for 2009: <ul style="list-style-type: none"> Substitute Power 6-12-3 for P48 Decrease Power C3 rates to adjust nitrogen to 2008 level (.12 lb./1000) Substitute Knife Plus for Renaissance 		

<u>Description</u>	<u>Product</u>	<u>Application Rate/1000</u>	<u>Amount Required</u>	<u>Containers Required</u>	<u>N /1000</u>	<u>P /1000</u>	<u>K /1000</u>
Weeks 1&3	Astron	1.50 oz.	1.50 oz.	0.01 Gallons	0.00	0.00	0.00
	Echo Ultimate WDG	2.00 oz.	2.00 oz.	0.03 5 Lb. Bag	0.00	0.00	0.00
	Knife Plus	1.00 oz.	1.00 oz.	0.01 Gallons	0.01	0.00	0.00
	PK Fight	2.00 oz.	2.00 oz.	0.02 Gallons	0.00	0.00	0.06
	Power 6-12-3	5.00 oz.	5.00 oz.	0.04 Gallons	0.02	0.05	0.01
	Power C3 23-0-0	4.50 oz.	4.50 oz.	0.04 Gallons	0.08	0.00	0.00
	ProteSyn	3.00 oz.	3.00 oz.	0.02 Gallons	0.01	0.00	0.01
Total:					0.12	0.05	0.08
Weeks 2&4	Astron	1.50 oz.	1.50 oz.	0.01 Gallons	0.00	0.00	0.00
	Echo Ultimate WDG	2.00 oz.	2.00 oz.	0.03 5 Lb. Bag	0.00	0.00	0.00
	Knife Plus	1.00 oz.	1.00 oz.	0.01 Gallons	0.01	0.00	0.00
	PK Fight	2.00 oz.	2.00 oz.	0.02 Gallons	0.00	0.00	0.06
	Power 6-12-3	5.00 oz.	5.00 oz.	0.04 Gallons	0.02	0.05	0.01
	Power C3 23-0-0	4.50 oz.	4.50 oz.	0.04 Gallons	0.08	0.00	0.00
	Floradox Pro	3.00 oz.	3.00 oz.	0.02 Gallons	0.00	0.00	0.01
Total:					0.12	0.05	0.08