

Efficacy of curative fungicide application for control of dollar spot on creeping bentgrass, 2008.

Tests were conducted on a Bridgehampton silt loam located at the Skogley Memorial Turfgrass Research Facility at the University of Rhode Island. The turf was maintained at a 0.13-in. mowing height, irrigated as needed and a total of 4 lb N was applied in four separate applications throughout the course of the season as a slow release formulation. Plots measured 5 ft x 5 ft with no borders, and were arranged in a randomized complete block design with three replicates on an original mixture of 83% ‘Penncross’ and 17% ‘Penneagle’ creeping bentgrass with approximately 20% *Poa annua* invasion. Fungicides were applied using a CO₂-pressurized hand held sprayer fitted with TeeJet 8004VS Visiflow flat fan nozzles delivering 3.2 gal/1000 sq ft at 40 psi. All treatments were first applied on 6 Jun as dollar spot started to appear. All other sprays were made on approximately a 14 day interval (20 Jun, 4 Jul, 18 Jul, 1 Aug and 15 Aug) with eleven treatments made on a 21 day interval (27 Jun, 21 Jul and 8 Aug).

Dollar spot appearance was particularly late this season, with no symptoms observed until June 2. However, on that morning disease erupted abruptly and caused significant damage. For this reason, ratings were not taken until July in order to allow plots an opportunity to recover after fungicide treatments had begun. By 18 Jul, dollar spot damage was still extremely widespread and control plots had approximately 13% damage. Under extreme disease pressure, most fungicides were able to stop disease spread and allow for good recovery. Emerald was the most effective product and gave complete control of dollar spot up to the last rating date. Cleary’s 3336 provided very little control, suggesting the presence of thiophanate-methyl resistant *S. homoeocarpa*. It must be emphasized that while this trial was started soon after disease was observed, dollar spot was extremely aggressive this year and it resurged rapidly in August. Typically, little dollar spot is observed in URI trials during August, however August 2008 was very mild with relatively cool evenings, enabling the disease to aggressively attack turf.

| Treatment and rate per 1000 sq ft | % dollar spot | | |
|---|---------------------|---------|---------|
| | 18 Jul ^z | 7 Aug | 1 Sept |
| 1. Control | 13.3 f | 6.0 d | 17.7 c |
| 2. Tartan 2.88 SC – 1.0 oz/M (21 Days) | 6.7 bcde | 2.7 bc | 8.3 abc |
| 3. Tartan 2.88 SC – 1.5 oz/M (21 Days) | 3.3 abcd | 2.0 abc | 6.7 abc |
| 4. Signature 80 WDG – 4.0 oz/M (21 Days) | 8.3 def | 6.0 d | 6.4 abc |
| 5. Emerald 70WG – 0.13 oz/M | 1.0 ab | 0.0 a | 0.0 a |
| 6. Trinity 1.7SC – 1.0 oz/M | 3.0 abcd | 1.7 abc | 5.0 abc |
| 7. Emerald 70WG – 0.18 oz/M (21 Days) | 0.3 a | 0.0 a | 0.0 a |
| 8. Trinity 1.7SC – 1.5 oz/M (21 Days) | 4.3 abcd | 2.7 bc | 5.0 abc |
| 9. Banner MAXX 1.3MEC – 1.0 oz/M | 2.3 abc | 1.7 abc | 4.0 a |
| 10. Banner MAXX 1.3MEC – 1.5 oz/M | 1.7 ab | 1.0 ab | 4.3 ab |
| 11. Banner MAXX 1.3MEC – 1.0 oz/M (21 Days) | 4.3 abcd | 3.0 bc | 4.0 a |
| 12. Banner MAXX 1.3MEC – 1.5 oz/M (21 Days) | 3.3 abcd | 2.7 bc | 3.0 a |
| 23. Disarm 480 – 0.27 oz/M | 2.3 abc | 1.0 ab | 3.7 a |
| 24. Disarm C – 4.32 oz/M | 2.0 ab | 1.0 ab | 4.0 a |
| 25. Rhapsody – 5.0 oz/M | 8.0 cdef | 3.3 c | 5.7 abc |
| 26. Rhapsody – 10.0 oz/M | 4.3 abcd | 2.0 abc | 5.0 abc |
| 27. Daconil 82.5WG – 1.6 oz/M | 4.7 a-e | 2.7 bc | 8.6 abc |
| 28. Daconil 82.5WG – 3.2 oz/M | 2.7 abcd | 2.0 abc | 9.0 abc |
| 29. Cleary’s 3336 – 6.0 oz/M | 10.3 ef | 6.3 d | 13.3 bc |

^zPlots were rated based on the percentage of symptomatic plot area. Means within a column followed by the same letter are not significantly different, according to the Waller-Duncan k-ratio t-test (k=100, P≤0.05).