

Preventative control of dollar spot in bermudagrass greens with propiconazole formulations, 2005.

Propiconazole formulations were evaluated for dollar spot control and their effects on bermudagrass quality when applied during the summer months. This trial was conducted at the Lake Wheeler Turfgrass Field Laboratory in Raleigh, NC on ‘Tifeagle’ bermudagrass maintained under putting green conditions. Mowing was performed 3 times weekly at a height of 0.156 in. with clippings collected, and the site was irrigated to prevent drought stress. Fertilizer was applied as 18-3-6 (Coron + 5% Fe + micros) at a rate of 0.125 lb N/1000 sq ft (13 Jun, 27 Jun, 11 Jul, and 22 Aug), at 0.25 lb N/1000 sq ft (25 Jul and 8 Aug), or at 1 lb N/1000 sq ft (18 Jul). In addition, 0-0-50 was applied every three weeks from 13 Jun to 26 Sep (0.25 lb K/1000 sq ft per application). Cultural practices included verticutting and topdressing on 27 Jul and 17 Aug. Plots were 3.33 ft x 6 ft and were arranged in a randomized complete block with four replications. Fungicides were applied in water equivalent to 2 gal per 1000 sq ft with a CO₂ powered sprayer at 40 psi using TeeJet 8004 nozzles. All treatments were initiated on 6 Jul and were reapplied at the appropriate intervals as indicated in the table. The experimental area was inoculated on 27 Apr using rye grain infested with *Sclerotinia homoeocarpa* isolates PST-4, PST-17, and LWC-27 to encourage dollar spot development. Turfgrass quality was evaluated on 16 Aug and 3 Oct, using a 1 to 9 scale (9=best, 5=acceptable) based on color, density, and uniformity. Data were subjected to analysis of variance and means separation by Waller-Duncan k-ratio t test (k=100).

Symptoms of dollar spot were not observed in the experimental area during 2005, therefore no data is available for dollar spot control. However, turfgrass quality ratings were assessed on two dates. Although most treatments provided adequate turfgrass quality, only MANA PPZ-143 1.3ME (0.5 fl oz/1000 sq ft) applied every 14 days significantly improved quality compared to the untreated control on 16 Aug. No differences were detected among treatments on the 3 Oct rating date.

Treatment and rate / 1000 sq ft	Spray Interval (days)	Turfgrass quality	
		16 Aug	3 Oct
MANA PPZ-143 1.3ME 0.5 fl oz	14 ^z	6.3 a ^y	3.5 a
Banner MAXX 1.3ME 0.5 fl oz	14	5.0 ab	3.5 a
MANA PPZ-143 1.3ME 1 fl oz	14	5.3 ab	3.5 a
Banner MAXX 1.3ME 1 fl oz	14	5.0 ab	3.0 a
MANA PPZ-143 1.3ME 0.5 fl oz	21	4.8 ab	3.5 a
Banner MAXX 1.3ME 0.5 fl oz	21	4.8 ab	3.8 a
MANA PPZ-143 1.3ME 1 fl oz	21	5.0 ab	3.5 a
Banner MAXX 1.3ME 1 fl oz	21	6.0 ab	4.3 a
Untreated Control	--	4.5 b	4.0 a

^zFungicides were applied on 6 Jul (all treatments), 20 Jul (14 day treatments), 27 Jul (21 day treatments), 3 Aug (14 day treatments), 16 Aug (all treatments), 31 Aug (14 day treatments), 7 Sep (21 day treatments), and 14 Sep (14 day treatments).

^yTurfgrass quality on a 1 to 9 scale, where 9=highest quality and 5=acceptable. Values are means of four replicates. Means within columns followed by the same letter are not significantly different according to Waller-Duncan k-ratio t-test (k=100).