

**Comparison of QoI fungicides for suppression of dollar spot in creeping bentgrass, 2007.**

QoI fungicides were evaluated for preventative suppression of dollar spot by applying the high and low label rates on a 14-day interval. This trial was conducted at the Lake Wheeler Turfgrass Field Laboratory in Raleigh, NC on 'Crenshaw' creeping bentgrass maintained under golf course putting green conditions. Mowing was performed four times weekly at heights of 0.140 in. (11 Jan-12 Apr), 0.125 in. (13 Apr-24 May), and 0.180 in. (after 25 May) with clippings collected. The site was irrigated to prevent drought stress. Fertilizer was applied as 46-0-0 on 11 Jan and 12 Feb (0.125 and 0.25 lb N/1000 sq ft, respectively), 10-0-30 on 19 Feb (0.5 lb N/1000 sq ft), 26-0-22 on 15 Mar (0.33 lb N/1000 sq ft), 18-3-16 on 13 Apr (0.75 lb N/1000 sq ft), 18-0-12 on 11 May (0.25 lb N/1000 sq ft), and 18-9-18 on 25 May (0.6 lb N/1000 sq ft). Micronutrients were applied as Brexil Multi (3.0 oz/1000 sq ft) on 12 Feb and HEP 35 (5.0 oz/1000 sq ft) on 11 May. Insect pests were suppressed with Allectus GC (2.9 lb/1000 sq ft) on 29 Jun. Cascade Plus (8.0 fl oz/1000 sq ft) was applied on 20 Mar and 2 May, and Revolution (6.0 fl oz/1000 sq ft) was applied on 10 Jul for improved water infiltration. 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 CO<sub>2</sub> powered sprayer at 40 psi using a TeeJet 9508E nozzle. All treatments were initiated on 30 Apr. The experimental area was not inoculated. Dollar spot incidence was assessed weekly from 11 Jun through 23 Jul by counting the number of infection centers per plot. Turfgrass quality was evaluated on 4 Jun using a 1 to 9 scale (9=best, 5=acceptable) based on color, density, and uniformity. Algae was observed and rated on 13 Jul as percent plot affected. Data were subjected to analysis of variance and means separation using the Waller-Duncan k-ratio t test (k=100).

All treatments provided significant control of dollar spot throughout the study. Both rates of Insignia and the high rate of Disarm provided the best disease control overall. The high rates of Compass (0.25 oz) and Heritage TL (2.0 fl oz) performed similarly to one another, and provided good disease suppression on most rating dates. All treatments exhibited acceptable turf quality on 4 Jun. Plots treated with the 1.0 oz rate of Insignia contained significantly more algae than all other treatments in the experiment on 13 Jul. No phytotoxicity was observed in this trial.

Treatment, formulation, and rate per 1000 sq ft	Appl. interval (days)	Dollar spot incidence (number of infection centers per plot)				
		11 Jun	18 Jun	25 Jun	2 Jul	9 Jul
Disarm 4SC 0.18 fl oz .....	14*	8.0 b**	26.5 b	56.3 b	49.5 bc	53.5 bc
Disarm 4SC 0.36 fl oz .....	14	1.3 bc	13.8 bc	28.3 bc	31.5 bed	22.5 cde
Heritage TL 0.8ME 1.0 fl oz.....	14	4.3 bc	26.5 b	59.3 ab	59.3 b	71.3 b
Heritage TL 0.8ME 2.0 fl oz.....	14	2.5 bc	16.3 bc	37.5 bc	39.3 bc	46.8 bcd
Compass 50WG 0.15 oz .....	14	5.8 bc	27.3 b	56.0 b	58.3 b	63.8 b
Compass 50WG 0.25 oz .....	14	2.5 bc	14.3 bc	35.5 bc	42.8 bc	41.8 bcd
Insignia 20WG 0.5 oz.....	14	0.8 bc	2.0 c	13.5 c	15.8 cd	13.3 de
Insignia 20WG 1.0 oz.....	14	0.0 c	0.0 c	4.5 c	1.5 d	0.0 e
Untreated Control .....		32.0 a	76.8 a	91.3 a	126.8 a	120.5 a

\*Treatments were applied on 30 Apr, 14 and 29 May, 11 and 25 Jun, 9 and 24 Jul.

\*\*Values are means of four replications. Means within columns followed by the same letter are not significantly different according to the Waller-Duncan k-ratio t-test (k=100).

Treatment, formulation, and rate per 1000 sq ft	Appl. interval (days)	Dollar spot incidence (number of infection centers per plot)			Turf Quality <sup>z</sup>	% Algae
		16 Jul	23 Jul	30 Jul	4 Jun	13 Jul
Disarm 4SC 0.18 fl oz .....	14 <sup>y</sup>	30.3 b <sup>x</sup>	24.3 bc	11.3 b	6.0 a	6.7 b
Disarm 4SC 0.36 fl oz .....	14	4.8 cd	2.8 cd	0.5 b	6.3 a	5.7 b
Heritage TL 0.8ME 1.0 fl oz.....	14	38.0 b	25.0 bc	10.5 b	6.5 a	8.5 b
Heritage TL 0.8ME 2.0 fl oz.....	14	17.8 bcd	10.3 cd	1.8 b	6.8 a	12.6 b
Compass 50WG 0.15 oz .....	14	40.0 b	33.8 b	16.5 b	6.0 a	9.8 b
Compass 50WG 0.25 oz .....	14	29.8 bc	20.5 bed	10.0 b	6.3 a	9.5 b
Insignia 20WG 0.5 oz.....	14	2.0 d	3.8 cd	0.8 b	6.8 a	12.6 b
Insignia 20WG 1.0 oz.....	14	0.0 d	0.0 d	0.0 b	7.0 a	24.7 a
Untreated Control .....		107.5 a	80.5 a	75.3 a	6.5 a	6.9 b

<sup>z</sup> Turf quality on a 1 to 9 scale, where 9=highest quality, and 5=acceptable.

<sup>y</sup> Treatments were applied on 30 Apr, 14 and 29 May, 11 and 25 Jun, 9 and 24 Jul.

<sup>x</sup> Values are means of four replications. Means within columns followed by the same letter are not significantly different according to the Waller-Duncan k-ratio t-test (k=100).