

Comparison of granular and sprayable formulations of fenarimol for control of spring dead spot, 2004-2005.

Sprayable and granular formulations of fenarimol were evaluated for preventative control of spring dead spot in hybrid bermudagrass. This trial was conducted at Landfall Soccer Complex in Wilmington, NC on ‘Tifway’ bermudagrass maintained under athletic field conditions. Plots were 12 ft x 15 ft and were arranged in a randomized complete block with four replications. Sprayable fungicides were applied in water equivalent to 2.5 gal per 1000 sq ft with a CO₂ powered sprayer at 40 psi using TeeJet 8004 nozzles. Granular fungicides were applied with a 3 ft Gandy drop spreader. All treatments were applied on 7 Oct 04 and were immediately watered-in with 0.25 in. of irrigation. Selected treatments received a follow-up application on 4 Nov 04 as indicated in the table. Turfgrass color was assessed visually on 9 Nov 04 and 20 Mar 05, using a 1 to 9 scale (9=darkest green, 5=acceptable color). Percent turf area exhibiting spring dead spot symptoms was assessed on 25 Apr 05 using digital image analysis. Turfgrass quality was evaluated on 25 Apr 05, 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).

No differences were detected among treatments for turfgrass color on 9 Nov 04 or on 20 Mar 05. This was of concern since some fungicides impact bermudagrass color as it enters or exits dormancy. Fungicide treatments did not impact turfgrass quality compared to the untreated control in 25 Apr 05, but plots treated with Rubigan 1AS (4 fl oz, once) and Rubigan 1G (4 or 6 lb, once) were the only ones to exhibit acceptable turfgrass quality on this date.

All treatments, except Rubigan 1AS (4 fl oz, twice), provided significant suppression of spring dead spot symptoms on the 25 Apr 05 rating date when compared to the untreated control. Fenarimol applications resulted in a 52% to 94% reduction in spring dead spot incidence, with Rubigan 1G (6 lb, once) providing the highest level of control.

Treatment and rate / 1000 sq ft	Application code	Turfgrass color ^z		Turfgrass quality ^y 25 Apr 05	Spring dead spot incidence (%) 25 Apr 05
		9 Nov 04	20 Mar 05		
Rubigan 1AS 4 fl oz.....	A ^x	6.0 a ^w	2.8 a	5.3 a	0.45 c
Rubigan 1AS 6 fl oz.....	A	6.3 a	2.0 a	4.8 ab	0.57 c
Rubigan 1AS 4 fl oz.....	AB	6.5 a	1.3 a	4.8 ab	1.08 bc
Rubigan G 4 lb	A	6.5 a	2.3 a	5.0 a	0.85 c
Rubigan G 6 lb	A	6.5 a	1.0 a	5.0 a	0.13 c
Rubigan G 4 lb	AB	6.5 a	1.5 a	4.3 ab	0.94 c
Untreated Control.....	--	6.5 a	2.0 a	4.1 ab	2.23 b

^zTurfgrass color on a 1 to 9 scale, where 9=darkest green and 5=acceptable.

^yTurfgrass quality on a 1 to 9 scale, where 9=highest quality and 5=acceptable.

^xApplication code indicates the application date(s) of each treatment: A, 7 Oct; B, 4 Nov.

^wValues 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).