

Early curative control of an unknown root disease of creeping bentgrass putting greens, 2004.

Fungicides were evaluated for their curative effect on an unknown disease of creeping bentgrass. This disease has been widespread across the Southeastern United States since 2002 and is suspected to be *Pythium* root dysfunction caused by *Pythium volutum*. This trial was conducted at Myers Park Country Club in Charlotte, NC on 'A-1' creeping bentgrass maintained under golf course putting green conditions. Mowing was performed 7 times weekly at a height of 0.120 in. with clippings collected, and the site was irrigated to prevent drought stress. 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. Irrigation water (1/8") was applied to watered-in (WI) treatments immediately after application; surface application (SA) treatments were not irrigated. All treatments were initiated on 24 Mar and were reapplied at the appropriate intervals as indicated in the table. Disease severity was evaluated on 13 Apr, 29 Apr, and 27 May, using a 1 to 9 scale (9=most severe, 0=no disease). Data were subjected to analysis of variance and means separation by Waller-Duncan k-ratio t test (k=100).

Disease symptoms first appeared in mid-March during an extended period of warm, dry weather. Disease severity gradually increased after initiation of the experiment on 24 Mar. On 13 Apr, plots treated with Heritage + 3336 (0.4 + 8 fl oz) exhibited significantly lower disease severity than all other treatments including the untreated control. The individual components of this tank-mixture were not included based on results from 2003, which indicated that Heritage and 3336 had no effect on the disease when applied alone but did provide significant control when tank-mixed and watered-in. Disease severity gradually declined after 13 Apr and symptoms of the disease disappeared entirely by early June. Plots receiving the Heritage + 3336 treatment also exhibited the lowest disease severity on 29 Apr and 27 May but was not significantly different from the untreated control on either date.

Treatment and rate / 1000 sq ft	Application code	Application method	Disease severity ^z		
			13 Apr	29 Apr	27 May
1. Terrazole 35WP 4 oz	ABCD	WI	4.8 a	4.3 ab	1.3 a
2. Subdue Maxx 2ME 1 fl oz.....	ABCD	SA	5.0 a	3.5 ab	2.3 a
3. Signature 80WDG 4 oz.....	ABCD	SA	3.8 a	3.3 ab	1.8 a
4. Signature 80WDG 8 oz.....	ABCD	SA	3.3 ab	3.5 ab	2.5 a
5. Alude 5F 5 fl oz	ABCD	SA	3.8 a	4.5 ab	2.5 a
6. Alude 5F 10 fl oz.....	ABCD	SA	4.3 a	5.3 a	2.0 a
7. Banol 6F 4 fl oz	ABCD	SA	4.3 a	3.3 ab	2.0 a
8. Heritage 50WG 0.4 oz.....	ABCD	WI			
Cleary 3336 4F 8 fl oz.....	ABCD	WI	0.3 b	0.0 b	0.8 a
9. Terrazole 35WP 4 oz	A	WI			
Subdue Maxx 2ME 1 fl oz.....	BCD	SA	4.5 a	5.5 a	1.8 a
10. Terrazole 35WP 4 oz	A	WI			
Signature 80WDG 4 oz.....	BCD	SA	4.5 a	4.3 ab	2.5 a
11. Terrazole 35WP 4 oz	A	WI			
Signature 80WDG 8 oz.....	BCD	SA	5.3 a	6.0 a	1.5 a
12. Subdue Maxx 2ME 0.5 fl oz.....	ABCD	SA			
Signature 80WDG 2 oz.....	ABCD	SA	4.5 a	5.8 a	1.8 a
13. Banol 6F 2 fl oz	ABCD	SA			
Signature 80WDG 2 oz.....	ABCD	SA	5.3 a	2.0 ab	1.3 a
14. Subdue Maxx 2ME 1 fl oz.....	AC	SA			
Signature 80WDG 4 oz.....	BD	SA	5.3 a	5.5 a	2.3 a
15. Banol 6F 4 fl oz	AC	SA			
Signature 80WDG 4 oz.....	BD	SA	3.5 ab	3.5 ab	1.3 a
16. Untreated Control	--	--	4.5 a	3.5 ab	1.8 a

^zDisease severity on a 1 to 9 scale, where 9=highest severity and 5=moderate severity.

^yApplication code indicates the application date(s) for each treatment component: A, 24 Mar; B, 5 Apr; C, 21 Apr; D, 6 May.

^xIrrigation water (1/8") was applied to watered-in (WI) treatments immediately after application; surface application (SA) treatments were not irrigated.

^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).