

Control of brown patch in tall fescue landscapes with Armada and ProStar fungicides, 2007.

Armada and ProStar fungicides were evaluated for preventative control of brown patch. This trial was conducted at the Lake Wheeler Turfgrass Field Lab in Raleigh, NC on ‘Coronado’ tall fescue maintained under home lawn conditions. Mowing was performed two times weekly at a height of 3.5 in. with clippings returned. The site was irrigated with 0.13 in. water daily at 2000 h to provide environmental conditions conducive to disease development. Fertilizer was applied as 46-0-0 on 11 Jan (0.25 lb N/1000 sq ft) and 25-6-12 on 20 Feb and 24 Apr (1.0 lb N/1000 sq ft each). Barricade 65WG was applied at 0.25 lb ai/a on 26 Feb and 25 Apr. Plots were 5 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 15 Jun and were reapplied at the appropriate intervals as indicated in the table. The experimental area was not inoculated. Percent turf area exhibiting brown patch symptoms was assessed on 3, 12, and 30 Jul, and 6 Aug. Data were subjected to analysis of variance and means separation by Waller-Duncan k-ratio t test (k=100).

Brown patch incidence was light and variable in this trial. The highest level of disease incidence in the untreated control plots was only 10.2% on 12 July. Weather was hot and dry during the course of the experiment. Only 0.2 in. of rain fell during the last 17 days of June and 0.3 in. during the first 16 days of July. Following a 3.0 in. rain event on 17 Jul, only 0.5 in. of precipitation was recorded between 18 Jul and 21 Aug. With 25 days of temperatures $\geq 90^\circ$ F, and six days $> 100^\circ$ F in August, brown patch symptoms did not develop beyond 6 Aug. Throughout the study, brown patch was effectively controlled by Armada (1.2 oz and 1.5 oz), Armada alternated with ProStar 70WG (1.2 oz or 1.5 oz Armada followed by 2.2 oz ProStar), and Heritage (0.3 oz). ProStar 70WP was not significantly different from the untreated control on 6 Aug, and ProStar 70WG was not significantly different from the untreated control on 30 Jul or 6 Aug. No phytotoxicity was observed in the study.

Treatment, formulation, and rate per 1000 sq ft	Appl. interval (days)	Brown patch incidence (%)			
		3 Jul	12 Jul	30 Jul	6 Aug
Armada 50WP 1.2 oz.....	28 ^z	0.0 b ^y	2.4 b	0.3 b	1.3 bc
Armada 50WP 1.5 oz.....	28	0.0 b	1.1 b	0.7 b	0.5 c
Armada 50WP 1.2 oz <i>Alt</i> ProStar 70WG 2.2 oz ^x	28	0.3 b	3.2 b	0.8 b	2.0 bc
Armada 50WP 1.5 oz <i>Alt</i> ProStar 70WG 2.2 oz ^x	28	0.0 b	0.9 b	0.4 b	1.6 bc
ProStar 70WP 2.2 oz.....	28	0.0 b	1.3 b	1.5 b	2.4 abc
ProStar 70WG 2.2 oz.....	28	0.2 b	2.1 b	2.4 ab	3.0 ab
Heritage 50WG 0.3 oz.....	28	0.2 b	0.8 b	1.9 b	1.9 bc
Untreated Control.....		3.8 a	10.2 a	4.5 a	4.5 a

^z Fungicides applied 15 Jun, 11 Jul, and 7 Aug.

^y 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).

^x Fungicides were alternated on a 28-day interval: Armada applied 15 Jun and 7 Aug; and ProStar applied 11 Jul.