

Preventive control of large patch in 'Emerald' zoysiagrass, 2006-2007.

Fungicides were evaluated for preventative control of large patch and their impact on spring greenup. This trial was conducted at the Lake Wheeler Turfgrass Field lab in Raleigh, NC on 'Emerald' zoysiagrass maintained under home lawn conditions. Mowing was performed three times weekly at a height of 0.75 in. with clippings returned, and the site was irrigated to prevent drought stress. Fertilizer was applied as 25-6-12 (0.5 lb N/1000 sq ft) on 25 Apr 06, 16 Jun 06, and 22 Aug 06. Ronstar 2G was applied at 3.0 lb ai/a on 1 Mar 06 for control of annual grasses and broadleaf weeds. Plots were 5 ft x 10 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 applied on 3 Oct 06 and 31 Oct 06. The experimental area was inoculated on 2 Oct 06 using rye grain infested with *R. solani* isolates L.P. St. Aug 1A and L.P. St. Aug 2A to encourage large patch development. Percent turf area exhibiting large patch symptoms was assessed on 1 Jun 07. Spring greenup was evaluated weekly from 2 Apr 07 through 30 Apr 07. Data were subjected to analysis of variance and means separation using the Waller-Duncan k-ratio t-test (k=100).

Tartan, Lynx, and Tartan II enhanced spring greenup from 2 Apr 07 through 23 Apr 07 compared to the untreated control. By 30 Apr 07, there were no significant differences among the treatments. No significant differences were observed among Insignia treatments applied in 1 or 2 gal water per 1000 sq ft. Large patch incidence was low in the experiment, with only 3.2% disease incidence in untreated control plots on 1 Jun 07. No significant differences in large patch incidence were detected in this trial, and no phytotoxicity was observed during the experiment.

Treatment, formulation, and rate per 1000 sq ft	Appl. interval	Spring greenup (%) 2007 ^z					Large Patch inc. (%) ^y
		2 Apr	9 Apr	16 Apr	23 Apr	30 Apr	1 Jun 07
Insignia 20WG 0.9 oz ^x	AE	4.0 d ^w	5.3 bc	6.3 c	7.3 bc	8.8 a	4.1 a
Insignia 20WG 0.9 oz.....	AE	4.3 cd	5.3 bc	6.8 bc	7.3 bc	8.6 a	4.4 a
NCSU-EXP-3 1.1 oz.....	AE	5.0 bc	5.0 c	6.3 c	6.5 c	8.4 a	2.4 a
Tartan SC 2 fl oz.....	AE	6.5 a	6.5 a	7.5 ab	8.3 ab	9.0 a	3.0 a
Lynx SC 1.5 fl oz.....	AE	6.3 a	6.8 a	7.8 a	8.5 a	9.1 a	2.7 a
Tartan II SC 1 fl oz.....	AE	5.3 b	6.5 a	7.5 ab	7.5 abc	9.0 a	3.4 a
Tartan II SC 2 fl oz.....	AE	6.3 a	6.5 a	7.5 ab	8.3 ab	9.0 a	3.1 a
ProStar 70WP 2.2 oz.....	AE	4.3 cd	5.5 bc	6.5 c	7.5 abc	8.6 a	3.4 a
Bayleton SC 2 fl oz.....	AE	5.0 bc	5.8 b	6.3 c	7.5 abc	8.8 a	3.3 a
Untreated control.....		4.3 cd	5.3 bc	6.5 c	7.0 c	8.9 a	3.2 a

^zSpring greenup on a 0-10 scale, where 0=no green turf in plot, 1=10% plot green, and 10=100% plot green.

^yLarge patch incidence using a 0-10 scale where 0=no disease in plot, 1=10% plot symptomatic, and 10=100% plot symptomatic.

^xTreatment was applied in 1 gal water per 1000 sq ft.

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