

**Curative control of gray leaf spot in tall fescue landscapes, 2005.**

Fungicides were evaluated for their curative effect on gray leaf spot development in tall fescue. This trial was conducted at the Lake Wheeler Turfgrass Field Laboratory in Raleigh, NC on ‘Confederate’ tall fescue maintained under landscape conditions. Mowing was performed 2 times weekly at a height of 3 in. with clippings returned, and the site was irrigated to prevent drought stress. Fertilizer was applied as 25-6-12 on 21 Feb and 21 Mar to deliver 1 lb N/1000 sq ft. Annual grasses were controlled with Barricade 65WDG on 21 Feb (0.5 lb a.i./A) and 18 Apr (0.25 lb a.i./A). The experimental area was naturally infested with the gray leaf spot pathogen and was not artificially inoculated. 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 3 gal per 1000 sq ft with a CO<sub>2</sub> powered sprayer at 40 psi using TeeJet 8004 nozzles. All treatments were applied on 24 Aug and 20 Sep. Percent turf area exhibiting gray leaf spot symptoms was assessed on 24 Aug, 2 Sep, 15 Sep, and 3 Oct. The Henderson-Tilton transformation in ARM was used to estimate percent disease control based on the pre-treatment assessment on 24 Aug. Raw and transformed data were subjected to analysis of variance and means separation by Waller-Duncan k-ratio t test (k=100).

Disease incidence ranged from 11% to 25% prior to initiation of fungicide treatments on 24 Aug, but no significant differences were detected among treatments. Fungicides had no significant effect on 2 Sep and 15 Sep, but all treatments except CL-EXP-4 and CL-EXP-6 significantly reduced disease incidence on 3 Oct compared to the untreated control. According to Henderson-Tilton transformed data, Insignia (0.9 oz), Bayleton (1 oz), Banner Maxx (2 fl oz), Armada (1.2 oz), Systar (3 oz), and 3336 (6 fl oz) provided the most rapid curative suppression on 2 Sep. Few significant differences were detected among treatments on 15 Sep. On 3 Oct, 13 days after the second application, Heritage 50WG (0.4 oz), Heritage TL (2 fl oz), Insignia (0.9 oz), Compass (0.25 oz), Armada (1.2 oz), Heritage TL + Banner Maxx (2 + 2 fl oz), 3336 (6 fl oz), and 3336 Plus (6 fl oz) provided the highest percent control according to this transformation.

Treatment and rate / 1000 sq ft	Spray Interval (days)	Gray leaf spot incidence (%)				Henderson-Tilton transformation (% control) <sup>z</sup>		
		24 Aug	2 Sep	15 Sep	3 Oct	2 Sep	15 Sep	3 Oct
Heritage 50WG 0.4 oz .....	28 <sup>y</sup>	25 a <sup>x</sup>	26 a	22 a	14 bcd	37 bc	38 ab	70 a-d
Heritage TL 0.8ME 2 fl oz .....	28	15 a	15 a	12 a	10 cd	36 bc	53 a	64 a-d
Insignia 20WG 0.9 oz .....	28	19 a	16 a	16 a	10 cd	44 abc	44 ab	65 a-d
Compass 50WG 0.25 oz .....	28	15 a	20 a	13 a	5 d	26 cd	48 a	81 ab
Bayleton 50DF 1 oz .....	28	13 a	11 a	11 a	13 bcd	52 abc	47 ab	46 cde
Banner MAXX 1.3EC 2 fl oz .....	28	11 a	5 a	14 a	14 a-d	64 ab	44 ab	47 cde
Armada 50WP 1.2 oz .....	28	14 a	10 a	8 a	6 d	46 abc	53 a	75 abc
Heritage TL 0.8ME 2 fl oz								
+ Banner Maxx 1.3EC 2 fl oz .....	28	13 a	11 a	9 a	2 d	30 cd	48 a	94 a
Systar 80WDG 3 oz .....	28	11 a	12 a	15 a	10 cd	61 ab	39 ab	53 b-e
3336 4F 6 fl oz .....	28	16 a	8 a	10 a	3 d	69 a	56 a	88 a
3336 PLUS F 6 fl oz .....	28	14 a	13 a	16 a	7 d	38 bc	30 ab	62 a-e
CL-EXP-4 10WP 1 oz .....	28	17 a	16 a	24 a	26 ab	49 abc	25 ab	37 de
CL-EXP-6 WP 4 oz .....	28	14 a	17 a	19 a	23 abc	28 cd	24 ab	30 ef
Untreated Control .....	--	15 a	24 a	24 a	29 a	0 d	0 b	0 f

<sup>z</sup>Henderson-Tilton transformation estimates percent control based on changes in disease incidence compared to the pre-treatment assessment on 24 Aug.

<sup>y</sup>Fungicides were applied on 24 Aug and 20 Sep.

<sup>x</sup>Values 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).