

Control of Spring Leaf Spot/Melting-out on Kentucky Bluegrass, 2005

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Introduction

Leaf spot diseases caused by species of *Drechslera* and *Bipolaris* are common problems on turfgrasses. The use of fungicides can be an important means of managing spring leaf spot/melting-out. This study was conducted at the Valentine Research Center, University Park, PA, on Kentucky bluegrass (*Poa pratensis*, 'Park'). The objective of the study was to evaluate various treatments and application intervals to assess control of *Drechslera poae*.

Materials and Methods

The experiment was conducted at the Valentine Turfgrass Research Center, University Park, PA, on Kentucky bluegrass mowed three times per week at a cutting height of 1.5 inch. The soil was Hagerstown silt loam with a soil pH of 6.8. The test area was fertilized with 1.0 lb nitrogen per 1000 sq ft (29-5-10) on 29 Mar and 7 Apr. Treatment plots, 3 ft x 6 ft, were arranged in a randomized complete block design with three replications. Fungicides were applied with a CO₂-powered sprayer, using a TeeJet 11008E nozzle at 40 psi, in water equivalent to 2 gal per 1000 sq ft. Applications were made on 13 and 28 Apr, and 11 and 26 May, unless otherwise noted in the table. Disease was assessed on 3, 10, 19, and 24 May. Data were subjected to analysis of variance, and the mean values were separated using the Waller-Duncan k-ratio Test.

Results and Discussion

Severity of leaf spot/melting-out was high during the experiment. Medallion, Insignia (14-day interval), and 26GT provided good suppression of spring leaf spot/melting-out throughout the study. With the exception of the 19 May evaluation, Insignia (28-day interval) also provided good disease suppression. No treatment provided complete control at any point during the experiment; nor was any phytotoxicity observed.

Table. Control of spring leaf spot/melting-out on Kentucky bluegrass, 2005.

| Treatment, formulation, and rate per 1000 sq ft | Spring leaf spot/melting-out severity ^z | | | | | | | |
|--|--|----------------|--------|----------------|--------|----------------|--------|----------------|
| | 3 May | | 10 May | | 19 May | | 24 May | |
| Banner MAXX 1.3ME 2.0 fl oz ^y | 4.8 | a ^x | 6.0 | a ^x | 4.0 | a ^x | 8.7 | a ^x |
| Armada 50WP 0.6 oz ^y | 3.0 | b-e | 3.2 | c | 2.2 | abc | 5.7 | ab |
| Daconil Ultrex 82.5WG 3.25 oz ^w | 2.8 | b-e | 3.5 | bc | 3.2 | ab | 5.7 | ab |
| Untreated Check..... | 4.3 | ab | 4.7 | ab | 4.2 | a | 5.7 | ab |
| Curalan 50EG 1.0 oz..... | 3.3 | a-e | 4.2 | bc | 3.5 | ab | 5.3 | abc |
| Armada 50WP 1.2 oz ^y | 3.7 | abc | 3.7 | bc | 3.3 | ab | 5.0 | bc |
| Compass 50WG 0.25 oz ^y | 3.5 | a-d | 3.5 | bc | 2.8 | ab | 4.0 | bcd |
| Heritage 50WG 0.3 oz ^y | 3.2 | b-e | 3.2 | c | 2.8 | ab | 3.3 | bcd |
| Heritage TL 0.8ME 1.5 fl oz ^y | 2.3 | c-f | 3.0 | c | 2.3 | abc | 2.7 | bcd |
| Insignia 20WG 0.9 oz ^y | 2.0 | def | 2.8 | c | 2.3 | abc | 2.0 | cd |
| 26GT 2SC 4.0 fl oz ^y | 1.0 | f | 0.8 | d | 1.5 | bc | 2.0 | cd |
| Insignia 20WG 0.9 oz | 1.8 | ef | 2.8 | c | 1.5 | bc | 1.3 | d |
| Medallion 50WP 0.5 oz ^w | 1.2 | f | 1.3 | d | 0.7 | c | 0.7 | d |

^zDisease severity index 0-10; 0=asymptomatic, and 10=>90% turf area symptomatic, mean of three replications.

^yTreatment applied on a 28-day interval (13 Apr and 11 May).

^xMeans within column followed by different letters are significantly different ($P \leq 0.05$) according to the Waller-Duncan k-ratio test.

^wTreatment applied on a 21-day interval (13 Apr and 5 May).