

ALTERNATIVE PEST MANAGEMENT STRATEGIES

N. Dykema, J. Vargas, Jr., R. Detweiler, J. Powell, and J. Borgman
Botany and Plant Pathology Department
Michigan State University

Conventional practices for the management of turfgrass diseases includes the use of fungicides. In a study presented here an alternative means of pest management is examined. The study looks at a wetting agent, Surfside 199, and it's ability to manage dollar spot.

A dollar spot study was conducted on an Emerald creeping bentgrass green at the Hancock Turfgrass Research Center on the campus of Michigan State University. Five replications of each treatment were made. Plots were mowed at 1/4", and fertility was maintained at 1/2 lb. nitrogen per 1000 sq. ft. per month. Treatments were applied using a CO₂ backpack sprayer with a single nozzle boom at a rate of 48 gal/acre. Treatments began on June 11, 1996 and were continued according to the schedule below. The last treatment was made on September 25, 1996. The following is a list of treatments, rates and application intervals used in this study.

Treatment	Rate	Interval
1. 199	4 oz/1000 ft ²	7 days
2. 199	6 oz/1000 ft ²	7 days
3. 199	4 oz/1000 ft ²	14 days
4. 199	6 oz/1000 ft ²	14 days
5. Daconil Ultrex	4 oz/1000 ft ²	14 days
6. Control	—	—

Data were collected by visually estimating the percentage of area infected with dollar spot in each plot. Ratings were taken on a weekly basis beginning on August 30, 1996 and ending on October 3, 1996. Data collected this year supports many of the conclusions as the data from an identical study conducted in 1995. The Surfside 199 treatments on a weekly application interval performed the same, statistically, as Daconil Ultrex. The Daconil Ultrex and Surfside 199 7 day interval treatments gave significant dollar spot reduction when compared to the untreated control. The Surfside 199 treatments on a 14 day application interval were not statistically different from the control until the last week of rating. Mild phytotoxicity was observed in the Surfside 199 treatment applied at a 6 oz rate on a weekly basis. These plots were slightly yellowed due to treatment application. Based on this data, weekly treatments using Surfside 199 significantly reduces dollar spot incidence compared to an untreated control plot. This reduction is comparable to the control achieved using Daconil Ultrex in this study.