

CASE STUDY



NEW YORK GOLF COURSE FOUNDATION BEST MANAGEMENT PRACTICES

Rolling Approaches: A New Way to Suppress Dollar Spot



Project Details

- **Course:** Mohawk Golf Club
 - **Location:** Schenectady, New York
 - **Annual rounds of golf:** 13,500
 - **Staff:** 18-20
 - **Acres:** 200 acres (3 acres of greens, 2.2 acres of tees, 27.5 acres of fairways, 30 acres of roughs, 20 acres native areas)
 - **Public or Private:** Private
 - **BMP Implementation:** Cultural practices designed to reduce disease outbreaks
- Cost:** 4.5 labor hours to roll approaches at a frequency of 3 times week @ \$13/hr = \$175.5

Overview

The frequency and potential severity of dollar spot outbreaks make it one of the most significant diseases that turf managers in New York State must combat. With disease pressure existing from early in the growing season until late in the fall, the window for outbreaks is long.

Dollar spot pressure begins in the late spring once night temperatures begin to consistently exceed 50 degrees Fahrenheit. Outbreaks become most prevalent once average daytime temperatures reach 70-85 degrees and during periods of high relative humidity (85% or greater). Persistently wet leaves (e.g. 10 hours a day) only increases the pressure. Disease pressure continues throughout the heat of summer but generally slows down when daytime temperatures begin to exceed 90 degrees. It then decreases once prevailing temperatures and relative humidity decrease heading into fall.



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Rolling: A New Approach

In the past, turf managers used a combination of pesticides and nutrient, water, and organic matter management to control dollar spot. However, recent research has shown lightweight rolling of turfgrass at least three days per week to be effective in suppressing disease outbreaks. (See [Clark Talks Turf: Rolling off the greens to save on dollar spot](#) for a summary of this research.)

Beyond suppressing dollar spot, several additional benefits may result from instituting a lightweight rolling program, such as:

- reduced fungicide and nutrient inputs
- reduced organic matter accumulation
- reduced water use
- increased quality of cut
- increased turf quality overall
- improved ball roll

In addition, reduced reliance on fungicides to treat dollar spot reduces the risk of resistance development to certain classes of fungicides.

Rolling Program at Mohawk Golf Club

In 2019, Mohawk Golf Club implemented a rolling program on its approaches, the transition area between fairways and greens, as a way to combat dollar spot pressure by removing dew (Figure 1). The approaches were rolled three to four times per week, generally on days when the turf was not mowed. Greens were rolled simultaneously with approaches, which allowed for increased efficiency in the process. Rolling 60,000 ft² of approaches required a total of 4.5 hours in additional labor per session.

The approach rolling program helped increase the efficiency of Mohawk Golf Club's pesticide applications targeting dollar spot. A reduction of dollar spot pressure in these same areas, which were known to experience significant dollar spot outbreaks in previous years, has been attributed to the rolling program. In addition, dollar spot outbreaks were observed more frequently in unrolled approach turf next to greens where turf being rolled adjacent to these areas had no dollar spot outbreaks (Figure 2).



Figure 1. Rolling approaches.



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Mohawk Golf Club recognized many benefits from the rolling program and plans to continue utilizing and evaluating its effectiveness in the future.



Figure 2. Unrolled approaches suffered more outbreaks of dollar spot during 2019.