

Impact of Mowing Practices on Green Speed and Turfgrass Disease Severity and Quality

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Objectives:

1. Determine the impact increasing mowing practices have on turfgrass disease severity.
2. Evaluate management practices that can maintain greenspeed while decreasing turfgrass disease severity.

Start Date: 2006

Project Duration: one year

Total Funding: \$3,000

Turfgrass disease severity is influenced by management practices including mowing height, mowing frequency, and lightweight rolling. Previous research has shown that these mowing practices all positively affect ball roll distance as measured by the Stimpmeter. Most of the research has focused on increasing this measure of greenspeed without attention to the negative impacts of these practices, such as increasing disease severity.

Research at Michigan State University showed that lightweight rolling decreased the severity of dollar spot on putting greens in Michigan. Superintendents are routinely expected to increase greenspeed and most generally do so by decreasing the mowing heights of their greens. However, as mowing height decreases, it becomes increasingly difficult to provide a high-quality playing surface due to surface disruptions, decreased fungicide efficacy, and increased turfgrass dis-



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ease. This is especially true in the southeastern US where summers are hot and humid, and these stresses negatively affect putting green quality throughout the season.

Plots will be established at a golf course in the Tidewater region in order to

provide as close to "real-world" results as possible. Two mowing heights, and a rolling treatment will be evaluated. The mowing heights will be selected to reflect the current practice in the Tidewater region of VA. Stimpmeter measurements, turfgrass disease severity, and overall turf quality will be measured weekly.

This research project will:

1. Evaluate the impact of mowing height and lightweight rolling practices on turfgrass disease severity.
2. Evaluate the effect of increased mowing heights and lightweight mowing practices on overall turfgrass quality.
3. Survey the membership at the cooperating golf club in an effort to determine if observed differences in putting speed as a result of these practices can be detected.

Summary Points

- Research is underway to determine the effect that mowing and rolling have on disease development on putting green turf.
- A survey of the membership at the cooperating golf club will be initiated to determine how well golfers can detect differences in putting speed.



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