



Diseases And Mechanical Injury On Greens: Prevention Identification And Remediation

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July 7, 2008

As we transition into July, disease pressure will continue to be extremely high, especially for *Poa annua* /bentgrass putting greens. The potential for mechanical injury also may be high given wet weather and our pursuit of fast greens. Reducing leaf wetness duration is a simple strategy for reducing disease pressure for foliar pathogens and mechanical injury (i.e. mower damage). Improving soil aeration and drainage through hollow tine core cultivation and frequent sand topdressing is crucial in preventing excessive soil wetness, which predisposes turf to root pathogens and soft surfaces prone to mechanical damage. Unfortunately, cultivation at this time of year can be injurious, so aggressive cultivation must be done at a time of year when the recovery potential is higher and the injury potential is lower. The recent spell of heat and humidity has created periods of extreme disease pressure. Distinguishing between disease, pathogens, and even mechanical injury can be quite difficult. Field patterns and symptoms of diseases include:

- Well-defined circular patches.
- Arcs and frog-eye patterns.
- Diffuse areas of affected turf.
- Patterns of damaged turf that follow the surface drainage path.

Mechanical injury patterns and symptoms usually include:

- Thin, damaged turf on the clean-up pass and high traffic entry and exit points.
- Linear patterns of damaged turf that follows mower and roller directions.

Send a turf sample to a disease diagnostic lab as the first step to understand the cause of damage (refer to the NE lab list below). Remediation from disease and/or mechanical damage includes:

- Reduce mowing frequency.
- Mow during the coolest part of the day.
- Use solid rollers rather than grooved rollers.
- Mow when the turf is dry.
- Raising the cutting height may be beneficial, but it will decrease the root:shoot ratio that requires using more carbohydrate reserves.
- Hand syringe to reduce soil wetness during stressful weather.
- Spiking/solid tining/water-injection provide aeration and drainage benefits where soils are excessively wet.
- Apply foliar nitrogen every 7-14 days at 0.1-0.2 lbs N/1000 ft² to improve turf vigor and recovery.

Don't add insult to injury by topdressing, core cultivating, or verticutting and grooming until the turf health has improved. Avoid rolling the greens when the rootzones are saturated. If turf damage is severe enough, introduce creeping bentgrass seed into the bare areas and establish good seed:soil contact. Just be sure not to damage the existing turf or the putting surfaces in the process.

Disease and mechanical injury are often a sign of underlying problems, such as poor soil physical properties (i.e. soil aeration and drainage). If damage occurs, be sure to identify and implement long-term solutions to reduce the threat in the future.

Best of luck for the season ahead and don't hesitate to call if we can be of assistance.

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