



A Painful Start To Spring

By Adam Moeller, agronomist, Northeast Region

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Many golf courses in the region have lost their snowpack recently and discovered moderate to severe winter damage on putting greens. Adding to the frustration is the fact that March is often suggested to be the most damaging month for winter injury because of the frequent freeze/thaw events and rainfall. With luck, Mother Nature won't throw any more challenges our way.

Regardless of damage severity, winter injury is always a painful start to spring. Recovery from winter damage starts with communication. The sooner that course decision-makers and golfers are aware of the damage the better. The following are key steps to promote recovery from winter injury on greens.

- Close the greens and install temporary surfaces on the approaches or fairways! This plays the biggest role in successfully recovering from winter injury. If golfer traffic is not restricted, the duration to get the greens healed and back to normal will be dramatically longer and will predispose these areas to major setbacks during the summer.

Winter injury has been observed at many golf courses in the region. Keeping the greens closed during the seeding and establishment process is essential for a speedy and successful recovery.



- Charge the irrigation system and begin light and frequent irrigation during the day to prevent drying out of weakened turf that may appear to be dead.
- Remove trees that shade greens. Greens with limited sunlight will always take longer to recovery than those with ample sunlight.
- Warm the putting green soils with clear plastic covers, permeable covers, or black topdressing sand.
- Create a seedbed with spiking, shallow core aeration, slice seeding, or verticutting. Combinations of these practices will maximize seed/soil contact and should be considered. However, weak turf may not tolerate aggressive cultivation, so err on the conservative side.
- Consider utilizing preplant fertilizer to improve seedling establishment and vigor.
- Seed the damaged areas with creeping bentgrass.
- Use permeable covers or black topdressing sand to aid in soil warming and seed germination. Clear plastic covers will also help, but they will need to be removed frequently to irrigate the turf. Note: warm weather and sunny skies, combined with moist soils under covers, will be ideal for turf pathogens so monitor temperatures frequently under the covers.
- Once germination occurs, initiate a grow-in fertility regime to promote turf vigor and growth.
- Mow these areas as needed with a walk-behind mower set to a conservative mowing height (0.160" +) and utilize a solid front roller.
- Keep the greens closed until the newly established turf has rooted adequately and can tolerate traffic.

Winter injury is a very complex problem, and information about the subject has been written about in the Green Section Record since the 1930's. Significant progress has been made through research, but winter injury continues to be a major concern for golf courses in northern climates. Feel free to contact our

office for more specific information about winter injury and recovery, or review the links below that discusses the subject matter in more detail.

<http://turf.lib.msu.edu/2000s/2000/000911.pdf>

<http://turf.lib.msu.edu/1990s/1994/940517.pdf>

<http://turf.lib.msu.edu/2000s/2002/020901.pdf>

<http://turf.lib.msu.edu/2000s/2004/041101.pdf>

Upcoming Regional Turf Conferences

- Met Golf Association/USGA Green Chairman Seminar, Williston, NY, March 22nd
- New England Golf Summit, Andover CC, Andover, MA, March 30th

USGA agronomists can provide insightful and invaluable information involving all areas of golf course maintenance, which will help maximize turf health, playability, and efficiency.

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[Information on the USGA's Course Consulting Service](#)

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