

THE BIG MELT

By David Oatis, director, Northeast Region
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Snow and ice cover gradually is receding from courses in the Northeast, and while most courses still are covered in the north, most are free of snow and ice in the central and southern parts of the region. Now the challenge becomes determining whether or not injury has been sustained and whether it is extensive. Odors have been detected at numerous courses, but that in itself does not guarantee that damage has occurred. Nonetheless, damage has been documented in Pennsylvania, New Jersey, New York, New England and southern Canada, but the extent is not fully known.



Snow and ice are melting, but shaded areas are the last to clear, which makes them more likely to experience damaging freeze thaw cycles.

This can be a tricky time for turf managers. There often is a strong desire to take action, but weakened turf can be pushed over the edge by being too aggressive too soon. Keep the following points in mind as you weigh options:

- Make sure that no damming occurs as snow and ice is removed and/or melts. Shoveling drainage channels and using darkening agents can speed the melting process, but don't enhance melting unless the weather is favorable. As Jim Skorulski wrote in the last Northeast Regional Update, "work with the weather."
- Turf plants can be closely examined for signs of life, but the only surefire proof of life comes when they break dormancy and begin to grow... or not. Incubating plugs is a great way to get an indication of turf viability.
- Don't be misled by color; it is not a foolproof predictor of turf health. Chlorophyll will be preserved by frozen conditions, so even turf that has sustained considerable injury may initially appear green and healthy once the snow and ice melt. Green water flowing off turf during snow and ice melt can be an indication that turfgrass plant cells have ruptured and are leaking chlorophyll.

- Turf that is in a weakened state as a result of prolonged ice cover may survive, but its weakened state can leave it susceptible to a variety of other stresses, including additional freeze thaw cycles and golfer and equipment traffic.
 - Do not open greens too quickly following snow and ice melt. Soft, saturated soils are more prone to compaction, foot printing and rutting. Traffic on weakened turf will cause more injury.
 - Maintenance activities such as cultivation may be necessary to get seed in the ground if damage has occurred. However, weak plants that have nearly exhausted their carbohydrate reserves are more susceptible to damage from cultivation processes. It is important to get seed in the ground, but don't rush it and push more turf over the edge.
 - Get the irrigation system up and running quickly. Dry conditions can be lethal to weakened turf.
- Covers can be very helpful in promoting growth and recovery from damage, so get them out and cover known damaged areas right away. Covers also will protect weak turf from cold, dry winds.
- If you have damage, be prepared to seed using multiple methods. Drop seeding following hollow-core aeration combined with slit seeding using newer, less-disruptive implements are all excellent approaches. Follow seeding with multiple, light fertilizer applications to promote more growth.
- Planting small plugs (3 inch works well) from your nursery a couple of inches apart in damaged areas also can help tremendously. The plugs effectively raise the mowing height which helps protect weak turf and seedlings. Transplanting cores with soil probes and aerators also works well.

Unquestionably, the most important step in promoting rapid recovery is to keep traffic off of damaged areas. Opening damaged greens before they've healed will prolong recovery time. Temporary greens aggravate golfers, but having to close greens that haven't healed later in the spring is even more aggravating. If your greens are open and still recovering in May and June, you have missed the boat. For the latest information on the role of potassium in winter damage, check out the latest blog post from Dr. Jim Murphy at Rutgers University: <http://plant-pest-advisory.rutgers.edu/winterkill-on-annual-bluegrass-dont-skip-the-k/>

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