



Wide swings in weather conditions sometimes make it necessary to evaluate turf health and take action to protect Poa annua greens.

FEBRUARY BRINGS RELIEF AND ANXIETY

BY JIM SKORULSKI | AGRONOMIST, NORTHEAST REGION

For turf managers in the Northeast, February is often a turning point in the winter season. Winter is not over, but the increasing daylight hours and the added heat from the sun remind us the transition to spring is underway. This transition fuels both optimism and anxiety depending on the conditions at your golf course.

Reports from across the Northeast vary due to a wide range of weather patterns. Southern and central areas have seen open ground recently, while areas farther north find layers of snow and ice cover. Those who have been able to check ice-covered turf have yet to detect the fermentation smell associated with anoxia, and there is no indication of winter damage on exposed turf farther south.

The greatest concern now is for golf courses in more northern areas where ice cover has been in place for more than 60 days. Anoxic conditions will likely soon develop if they have not already. *Poa annua* is

especially vulnerable to damage from ice encasement and its condition can begin to deteriorate after 30 to 40 days in a low-oxygen environment. Anaerobic respiration occurring beneath the ice depletes turf's energy reserves. Plants weakened by this condition are more susceptible to injury from cold temperatures and wide temperature swings. Several byproducts from anaerobic respiration can also hurt turf that is covered in ice. Detecting the sweet fermentation smell associated with anoxia does not necessarily mean there is dead grass below the ice or that immediate action should be taken. It does, however, alert us that there may be problems ahead.

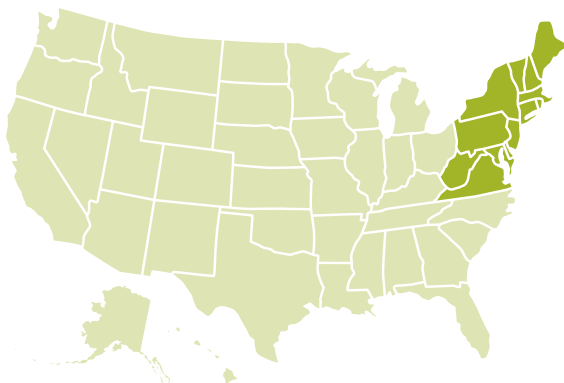
A prudent approach for those with *Poa annua* surfaces that have been under ice for 21 days or longer is to initiate field sampling to check for anoxic conditions. Saw, drill or chisel through ice layers to check for the smell associated with anoxia. Extract turf plugs, bring them indoors and monitor for greenup to evaluate turf conditions further. Understanding the health of your turf now is invaluable for formulating a plan of action in the coming weeks. Cycles of freeze and thaw will continue, so it is vital to make sure that surface drainage from critical turf areas is not obstructed.

If a decision is made to remove ice from putting greens, it is critical to work with the weather, and not against it. Initiate the removal process during periods of moderate temperatures and be prepared to protect recently exposed greens with a cover or with snow if extremely cold temperatures or wind is predicted soon after. Ice removal programs have inherent risks associated with them – including physical damage to turf during the removal process itself – so weigh all available options before acting. Finally, we encourage you to contact a USGA Agronomist if you wish to discuss current field conditions and management strategies further.



For information on the USGA's Course Consulting Service Contact the Green Section Staff.

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NORTHEAST REGION AGRONOMISTS:

David Oatis, Regional Director, doatis@usga.org

James Skorulski, Agronomist, jskorulski@usga.org

Elliott Dowling, Agronomist, edowling@usga.org

Paul Jacobs, Agronomist, pjacobs@usga.org

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