



March Madness

By Jim Skorulski, agronomist, Northeast Region

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The last Northeast regional update written by Dave Oatis alerted golf courses to potential problems resulting from cold temperature injury. Golf courses located around metropolitan New York and some coastal New England golf courses experienced an ice event in early January, followed by a number of heavy snowstorms that left a more persistent snow pack than usual. Reports were heard that anoxic conditions (lack of oxygen) were evident below the ice, and there are now indications of some turf damage on plugs that have been pulled from greens. Golf courses further north and in interior sections of the region experienced higher snow, while others missed some of the heavier rain associated with the January storms. More recent rains have complicated the picture in some areas by exposing turf and creating some additional ice problems.

Although the reports I have received this week are slightly more positive, we all know the potential for cold temperature injury is far from over. Things change in late winter, during the transition period when the sun's angle is more direct, and warmer temperatures thaw the snow and de-harden the turf. This is the time when thoughts turn to expediting snow and ice removal and dealing with ice and impermeable covers. It is a most dangerous time for annual bluegrass.



A sheet of clear ice is exposed on a green this week, following the warm temperatures and heavy rains that moved through the region earlier in the week. Widely fluctuating temperatures, and the natural de-hardening of annual bluegrass, bring an altogether different meaning of March Madness to Northern turf managers.

Management decisions in March will likely involve some snow removal to expedite the natural thawing process, especially where the turf has been under ice, heavy snowpack, or impermeable covers for extended periods. Monitor the ground conditions under ice sheets and covers to check for anaerobic or anoxic conditions. The presence of a faint anaerobic smell does not necessarily mean the turf is damaged, but it is a sign that plants may have already lost some ability to tolerate cold temperatures. That condition indicates the need for action to be taken fairly soon, and also that the plants are probably even more vulnerable to cold temperatures. Keep this in mind when scheduling snow and ice removal or pulling impermeable covers. A few extra days of snow and ice cover here or there is not going to jeopardize the turf at this point; however, exposing the already weak annual bluegrass to temperatures in low teens or single digits will. The decision as to when to pull the trigger is a difficult one; try to work when the weather is in your favor. Snow and ice removal is a major project, but there are many successful methods being used that we will be happy to share with you.

Managers who use exposed impermeable covers on greens are faced with a similar removal decision. A number of experienced turf managers use canopy temperature beneath the covers to help with that decision. They have found success in removing the covers when temperatures are more consistently in the 40°- 43° range, when dehardening is thought to begin more rapidly. Some will try to remove the covers even earlier if they detect that the plants have already broken dormancy.

Annual bluegrass that has been exposed by choice or as a result of the recent weather, also is more vulnerable to extremely cold temperatures or drying winds. Consider protecting it with permeable covers if such conditions are in the immediate forecast. No one can say what the magical temperature for annual bluegrass will be in March, but you can be pretty sure that it will not take well to temperatures in the low teens or single digits. Continue to pull and grow-out plugs from recently exposed areas where there may be concerns. Assessing the damage is the first step in communicating the situation at hand and laying out a successful recovery plan.

It is inevitable that golf courses in the region have lost grass this winter. The extent of the problem will not be known until the snowpack recedes. Questions

will arise as to what was or was not done and, as usual, some will be blamed unfairly for events that are completely out of their control. This is no time to panic and make unwise decisions based on what someone else may or may not be doing. Evaluate your own situation, assess the conditions at hand, plan accordingly around the weather forecast, and realize that annual bluegrass at this point is likely to be more vulnerable to cold temperatures and repeating freeze/thaw cycles. Any steps taken to insulate against colder temperatures and break the freeze-thaw cycle will help the grass transition successfully into spring.

We look forward to more *March Madness* at the New England Regional Turfgrass Conference in Providence. We will be available there to discuss your winter related concerns and to help discuss recovery options. Join us for the USGA Session at the Conference on March 8th when presentations on a wide range of topics will be provided followed by the keynote presentation from Mike Eruzione and the tradeshow grand opening and reception.

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