USGA So Far, So Good

By Bob Vavrek, Agronomist, North-Central Region

et's be optimistic. The long spell of dry weather this ⊿ past fall had many superintendents second-guessing themselves about the optimal time to winterize irrigation systems. In fact, irrigation systems at a good number of courses were blown out twice - once in November and again in December.

Dry fall weather was just what the doctor ordered for late fall construction projects - right up to the point where the renovated playing surfaces required seed or sod. It then became a challenge and, sometimes, a losing proposition to keep seedlings or sod alive without the assistance of consistent late-season rainfall. It was no surprise to find that many of these projects have been dormant seeded in hopes of more favorable weather for turf establishment come spring.

The dry fall weather likely encouraged more blue-

grass and bentgrass than Poa annua to fill into the voids in the playing surfaces left behind when knotweed, crabgrass, and other annual weeds died back after a few hard frosts. The normally cool, wet conditions during October/November generally produce a flush of Poa annua germination and establishment into thin and bare areas, especially at older courses where a considerable amount of Poa annua seed is already present in the soil.

The superintendents I talked to during January expressed very little concern over winterkill. They believe the turf had ample time to harden off before the cold weather arrived. Only isolated cases of consistent ice cover on greens or fairways have been reported. The absence of severe freeze/thaw events, so far this winter, provides even more reason to be optimistic about the

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coming season. In fact, the only concern expressed with any regularity is whether or not the efficacy of snow mold fungicides were affected by the relatively long period of mild weather that occurred late last fall.

We are not out of the woods yet with respect to winter injury. Keep in mind that many of the most severe winterkill events to *Poa annua* and perennial ryegrass playing surfaces are associated with an early spring freeze/thaw event. A few mild days during late winter or early spring can cause susceptible turf to break dormancy prematurely. Melting snow or rain can pool in low pockets on greens and fairways. Subsurface frost inhibits the percolation of excess water through the soil profile—even through sandy soils and sand-based greens. When this combination of weather events occurs, the table is set for classic crown hydration injury.

The missing ingredient is a rapid drop in temperature to well below freezing. How low must the temperature drop before injury occurs? That depends on the condition of the turf (dormant, semi-dormant, or actively growing), the species of turf, and other factors.

Many courses remove most of the ice and snow from the greens during early spring to help reduce the severity of winterkill associated with repeated freeze/thaw events. Snow accumulations on the surrounds can create a dam that impedes the free movement of water off the putting surface. Consequently, snow removal from key areas on the surrounds can be just as important as removing snow/ice from the greens. Darkening agents, such as Milorganite, are still an effective way to accelerate ice removal.

As for next winter, the hot topic regarding the use of covers on greens to prevent winter injury will likely be a waterproof fabric. In theory, the waterproof cover provides a barrier that prevents the crown tissue from absorbing excess water during a midwinter thaw. The trick is preventing water from moving beneath the cover and pooling under the fabric on "punchbowl" greens. A greenhouse effect occurs under breathable fabric covers during open winters and the effect would only be intensified under a waterproof material. Reflective fabrics are being evaluated for their ability to prevent the covered turf from breaking dormancy. If you think the wind wreaks havoc with a breathable cover, just try to keep a waterproof fabric firmly secured to a green. The bottom line is that covers never have, and probably never will be the panacea for all forms of winter injury.

In the meantime, let's hope for the best during the remainder of the winter—so far, so good. \checkmark





THE GRASS ROOTS MARCH/APRIL 2000 27