## GREEN SECTION



## Unseasonable Greetings

By Bob Vavrek, Senior Agronomist, USGA Green Section

On Santa's golf course the transition from fall to winter is always accompanied by a consistent, gradual decrease in temperatures. Once the turf fully hardens off, a deep, fluffy layer of snow insulates and protects the playing surfaces until spring. The white snow on the greens is akin to rich whipped cream on top of your hot chocolate as you sit by the fire and dream about sugar plums, the early arrival of a mild spring, full memberships, and record rounds of golf next season.

Then the phone rings and it's abruptly back to reality from your daydream. The crew needs to salt the parking lot and entrance to the clubhouse immediately, if not sooner, because the temperature just dropped nearly 50 degrees during the past 12 hours. To make matters worse, the dreamy whipped cream snow cover that the golf course accumulated during the past few weeks has melted and frozen into a solid sheet of ice. Instead of concern regarding the potential turf damage caused by the toboggans, sleds, and snowmobiles; you now shift your concern to keeping the figure skaters and hockey players off your Seth Raynor punchbowl green.

Circle December 14th on your turf calendars. A fast moving cold front races across the north central tier of states. Temperatures across Wisconsin that plummeted overnight from an unseasonable 50 degrees to a frigid 4 degrees are nothing to joke about, especially when rain and warm temperatures melted nearly all of the heavy snow cover just prior to the drop in temperature. Standing water and slush had very little opportunity to drain off low areas of the course before freezing. This long-winded description of an extreme weather event can be summarized to turf managers in two words: crown hydration.

The upper Midwest experienced a similar, though less severe, sequence of weather events last winter during late January. As a result, numerous courses were affected by winterkill across low lying, poorly drained areas of greens and fairways where water pooled before freezing. The recovery from turf damage was agonizingly slow due to an unusually cool spring.

What can you do? Going out today and applying black sand or Milorganite to melt the ice cover will not minimize any turf damage that accompanied the December weather. On the other hand, applying a darkening agent across dense ice cover on greens wouldn't hurt if you anticipate heavy snowfall in the immediate future that could prevent this early ice accumulation from melting



Dye used on a putting green as a darkening agent to melt ice pack.

before spring. Then again, the Grinch might say that you can't kill grass that is already dead; so why risk frostbite and the chances of causing additional mechanical damage to crunchy turf by a knee jerk reaction to remove ice in mid-December. It's a tough call. Will December ice melt or will it remain intact for the 70 to 90 days needed to cause injury to *Poa annua*?

Documentation and communication are always worth the effort. Every turf manager should have a digital camera. Today would be a good time to bundle up and take pictures of ice cover on turf, especially areas of greens and fairways that have a history of being affected by winter injury. Should winterkill appear next spring, compare the pattern of damage to the pattern of ice accumulation seen on the December photos. The memory of a night's severe weather will fade over time, more so if the current ice cover melts or is covered by snow. Photos documenting or at least strongly suggesting the cause and effect of rapid ice formation and turf damage may provide the foundation for rebuilding or re-grading problem greens in the future.

Even Scrooge ended on a positive note. Research indicates that cool season grasses will have the maximum potential to withstand low temperature stress during early winter and that levels of winter hardiness will decrease over time. Consequently, healthy turf has a better chance of surviving a severe thaw/freeze event during mid-December versus mid-March. We can hope for the best...and what better time to have hope than during the Christmas season.