Winterkill information for your golfers
April 7, 2014

Winterkill can be a mystery to turfgrass professionals. For little apparent reason, dead turf can be inches away from healthy turf, not to mention differences from course to course within the same town. In Nebraska it's not even clear what killed the turf. Was it desiccation injury, direct lower temperature kill, or some combination of the two? While we'll learn more about the extent of damage in the next weeks as well as from research studies during the coming years, golfers and decision makers want to know why it died and more importantly, when play can return to normal. It can be a challenge to explain winterkill to golfers, given the intricacies of species, management, environment, soil, etc. The turf program at UNL has put together a one-page flyer to help answer many of the common winterkill questions asked by your golfers. Please use it as you see fit: post it at your facility; share it in newsletters or blurbs; leave it for pickup in the pro-shop; etc. We've also released a press-release in March warning of the risk of winterkill and will be following up with another this week with the Master's this weekend to boost golf activity. Please let us know how your course is fairing and let us know how we can help.

Bill Kreuser, Assistant Professor and Turfgrass Extension Specialist, wkreuser2@unl.edu

Zac Reicher, Professor, Turfgrass Science, zreicher2@unl.edu

Golfer FAQ: Golf Course Winterkill

University of Nebraska–Lincoln Turfgrass Science Program | turf.unl.edu Pub. Turf 2012m

Following are the most frequently asked questions arising from golfers as many courses in Nebraska and the Great Plains are experiencing widespread turfgrass winterkill.

Why did the grass die?

Much like summer drought, the windy and dry weather this past winter caused grass plants to die of dehydration and desiccation. Elevated or wind-exposed areas such as mounds and green and bunker banks were the most susceptible to desiccation injury. Dramatic swings in air temperature during January and February may have also killed some of the golf course turf.

What was different this winter?

Snow is great insulation and protection, and snow melt throughout winter helps keep the grass hydrated. The lack of snow cover this winter left the turfgrass unprotected from the relentless dry winds and extreme temperature swings.

Why is the course across town fine?

Winter desiccation injury is extremely variable. Generally, turfgrass in protected areas have fewer winterkill problems than exposed areas. Features that make turf management challenging during the heat of the summer, such as large trees, fences, and low areas, can shelter the turf and help reduce desiccation injury during winter.

Could anything have been done to prevent this winterkill?

Extremely laborious and expensive turf covers and winter watering likley helped on most greens, but these practices are practically and financially impractical on the rest of the golf course. Turf damage may still have occurred in spite of these preventative measures.

What's being done to aid recovery?

Thinned turf will recover slowly, but most courses will require overseeding to some extent. Golf course superintendents are using their experience and education to quickly repair and recover from the winterkill damage. Seeding will likely occur in a few weeks once soil temperatures increase and the risk fades of another hard frost. The new seedlings will need expert care to speed recovery and prepare the new plants for summer heat and drought stress.

How long will recovery take?

Recovery will largely depend on Mother Nature. Warm temperatures and ample rain will help accelerate recovery, but a cold and dry spring will hinder seed germination and slow recovery. Please be patient.

What can golfers do to help?

Please respect all cart rules and golf course signs. New seedlings can be easily killed by foot or golf cart traffic. Patience now will accelerate recovery and get your favorite course back to tip-top shape as quickly as possible.

Authors: Bill Kreuser, Assistant Professor and Zac Reicher, Professor, Department of Agronomy & Horticulture, University of Nebraska–Lincoln.

Figure 1. Exposed and elevated areas were most susceptible to winter desiccation injury. Changes in elevation as little as a few inches made the difference between winter death and survival.