Frigid Facts of Life

Come spring,

superintendents

may have to deal with

the effects of winterkill.

What to do?

BY ANTHONY PIOPPI

s sure as the days will get longer and the temperature warmer, come spring superintendents throughout the northern half of the United States will have to deal with the ravages of the preceding frigid months.

From Bangor, Maine, to Bozeman, Mont., they will be forced to deal with turf that was wiped out or severely damaged by the effects of winterkill, either from crown hydration or desiccation.

There are tried-and-true methods to deal with the problem along with some new ideas. The fact remains, however, that nothing can be done to save the turf in certain situations.

Craig Vigen, certified superintendent of the Fargo (N.D.) Country Club., has 27 holes to maintain at the private facility, 18 of which are more than 100 years old and another nine that date back to the early 1960s.

Since the mid-1980s Vigen says he has been protecting his original 18 greens — which are pushups — with covers, while sealing the newer nine with heavy layers of sand.

A consistent snow cover for most winters and a layout sheltered from strong winter winds by trees and topography has kept away winter damage for most seasons. In 1998, though, Vigen had winter damage throughout his 27 greens thanks to crown hydration problems caused by the warming of snow then freezing of the runoff. His turf is 70 percent Penncross and 30 percent *Poa annua*.

According to Vigen, sometimes nothing can be done to prevent damage or predict its extent.

"I don't get too worked up about it," he says. "There's not much you can do about it until you see it."

Keith Angilly is entering his third season at Mill River Country Club in Stratford, Conn., and has the same assessment.

"Until the snow melts you don't know what's going to happen," he says. "It comes out of the winter looking green, everything is great, and a week later it dies."

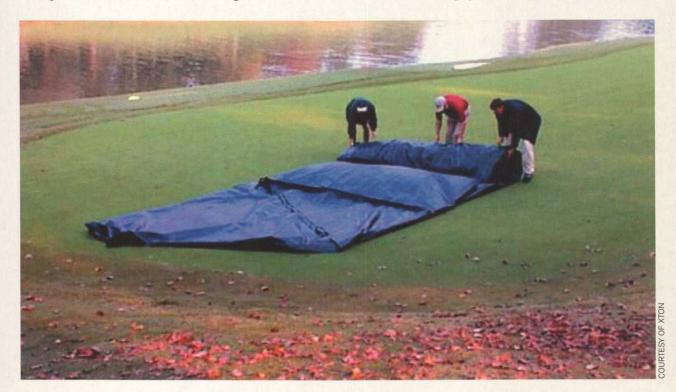
Angilly has been lucky. In the spring of 2003, many courses in the Central Connecticut were wracked with winter damage. Angilly escaped with few problems.

He is a big fan of topdressing his greens heavily before Thanksgiving.

"It really helps against desiccation to protect the crown," he says. "I don't believe in covers."

He does not remove the sand come spring. "I just let nature take its course," he says.

His fall fertilization program calls for more potassium and a little more phosphorous while Continued on page 64 Some superintendents and their crews cover greens to protect them from winter damage.



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Continued from page 63 backing off the nitrogen so the plant can begin to harden off.

If the white stuff piles up, so be it. "I've never believed in shoveling snow off greens," Angilly says.

Tim Davis, the longtime superintendent at Shoreacres in Lake Bluff, Ill., has stuck with his plan of allowing snow cover to remain on greens for his 20 seasons at the Seth Raynor-designed course. For 19 years that method worked. In 1998, however, he suffered his only bout of winter damage as 60 percent of his 16th green died when spring arrived.

He says a bout of warm weather, mixed with rain in March of that year, led to crown hydration. Within 24 hours, the temperature dropped 40 degrees to 2 below zero.

That spring, when the problem became evident, he aggressively overseeded using some quadritining, but mostly relying on a hand aerifyer with nipple



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tines. He then covered the affected areas and was able to get germination around Easter, but kept the green under wraps until May. By June 15, the green was ready for play.

Davis said he kept the line of communication open with his supportive members so they knew one green had a problem coming into the season.

Vigen's former assistant, Todd Grimm, is in charge of Meadows Golf Course in Moorhead, Minn. His problems are a lit- ≥ tle different at the 11-year-old municipal course he grew in. A links-style layout, Moorhead has not a tree, and Grimm's ⊆ biggest opponent is the Northwest winds that rip through the golf course.

The only time he suffered any sort of winterkill came when a warm fall turned quickly to a cold one with the arrival of a major snowstorm that saw a wind chill factor of 40 below zero. Grimm surmises the turf hadn't properly hardened off enough to withstand the drastic temperature change, and the result was dead grass.

To thwart the winds, he places covers over the greens and erects snow fences around the northwest side of each green. "As long as the grass is hardened off going into the winter, we're usually OK," Grimm says.

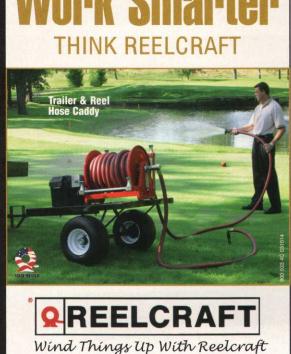
Bob Brame, director of the USGA Green Section's North-Central Region, says the key to avoiding winterkill is to properly prepare the grass. "Try and get good healthy turf and put it to bed as strong as it can be," he says.

Another remedy, according to Brame, is to improve drainage on greens that have consistent problems with winter damage.

Bob Vavrek Jr., the USGA's North-Central Region's senior agronomist, says a number of supposed remedies have come and gone over the years. One trend a few years back in the Minneapolis area was the use of wood fiber blankets, much like those used to prevent erosion, placed on problem greens. Vavrek says some superintendents still use that method.

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Trees can help thwart wicked winter winds that lead to winterkill.

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One problem with the wood fiber is that it expands and gains weight when it first becomes wet, Vavrek says. Large dry areas are required for storage and even then the blankets only last three or four years.

Some superintendents are experimenting with waterproof white plastic greens covers that do not heat up the ground the way dark colored covers do. "I've seen success," Vavrek says.

Others are experimenting with antitranspirants, common in the horticulture industry. These chemicals are capable of reducing transpiration rate when applied to plant foliage. Some superintendents are putting the waxy substances on greens to reduce chances of problems in the spring.

Still there is no silver bullet for winter damage or impatient golfers once spring rolls

One of Vigen's biggest problems associated with winterkill is dealing with members who did not like the idea of greens being closed for recovery. "They expect it (the course) to be perfect from the start," he says.

According to Brame, there is one simple rule that superintendents know is indisputable.

Brame says, "and golfers forget that."

"Mother Nature is definitely in control,"

Pioppi is a freelance writer from Middletown, Conn.





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