

Take COVER!

Dodge the bullet of unpredictable and inclement winter weather by covering your greens.

by John Torsiello

In northern climate zones of the United States covers for greens and other winter weather-vulnerable areas of a golf course can be important tools with which a superintendent can protect his layout from the vagaries of the cold months of the year.

There are “numerous” benefits to using covers on turf during the winter months, says Dr. Paul Koch, associate researcher of Turfgrass Pathology at the University of Wisconsin-Madison. He cites protection from winter desiccation and early spring green-up as probably the most significant benefits. There may also be some protection from crown hydration when using an impermeable cover like a GreenJacket, although he says data is a little more mixed on that subject.

Robert Wolverton, greens superintendent at Edgewood Country Club in River Vale, N.J., has employed green covers with considerable success.

“I have used them in areas that were renovated or newly established. The turf in these areas might not be ready for winter and need a few more weeks of growth. Likewise, the covers will give them a jump start in the spring.” He says the decision when and when not to cover greens and other areas is dependent on the environmental conditions surrounding the greens. “If there are shade issues where ice can build up, then a cover might be warranted or in an area of tremendous exposure in order to limit desiccation.”

Ken Smith has seen just about every winter weather condition during his 26 years as course superintendent at Eagle River Golf Course in Eagle River, Wis. For many years it appeared as though Mother Nature was treating his course kindly. Then conditions began to change.

“We always had very good snow cover but from 2005 thru 2007 I started seeing some ice damage on greens facing north,” Smith says. “It was minor, but I had never seen ice damage here before. Then in 2008 we had at least three inches of ice everywhere, on the greens, tees and fairways. But we had an early spring, which saved us from losing turf.” Okay, bullet dodged. But just to be safe, Smith used six Green Jackets in the winter of 2011-12 to prevent putting surfaces from potential ice damage. “In the spring, the greens covered with the Green Jackets



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did very well. I did have two greens where water got under the covers and did some damage. But the other four were perfect and these were greens that I was having problems with in 2006, 2007 and 2008. I'm planning on using six more this year for a total of 12 covers."

Dave Van Auken, superintendent at Bass Lake Country Club, Upham, Wis., has employed green covers at a number of different facilities throughout his 24-year career as a superintendent in Wisconsin. "They were in use when I had my first experience with green covers and I became quite fond of the early green-up when the surrounding turf still held on to the dull brown of winter."

Each facility Van Auken has been at has had its own unique circumstances and subsequent benefits from the use of covers. "Overall, the benefits outweigh the negatives," he says. "I have not had problems with increased disease pressure or substantial set back of the turf once the covers were removed and frigid temperatures returned for a spell."

A nice plus for management? "The brilliant green color gets everyone excited about the upcoming season," Van Auken adds.

Roger Stewart, director of golf course maintenance operations at TPC Twin Cities in Blaine, Minn., has used covers primarily on the facility's practice tee to help divots

Options

There are a number of companies making and selling green covers, which vary in size from 10-by-50-feet to 80-by-110-feet but can also be custom made to fit any amount of turf. Prices range roughly from \$1,200 to \$2,600 for each cover depending, of course, on size, and may have to be replaced every six to seven years because of use and wear and tear. Add on another 10 to 15 percent of the cost of the covers for fastening and hardware/supplies, and more if the cover is dammed with sandbags and edges trenched in.

TURF CARE

recover, protect seedlings and have greener turf in the spring. "We have also used small pieces to cover a few specific areas on greens where we have a mound or an area exposed to winds in an open winter," he says. "We do not cover greens on a regular basis primarily because we have very little *Poa annua* and we typically get enough snow cover to prevent winter desiccation."

Dr. Jim Kerns, a turfgrass pathologist in the department of plant pathology at North Carolina State University, advises that covers be put on after the last mowing of the year and prior to snowfall or before the weather gets extremely cold. As for when they should be removed, he says it depends on the season.

"The best practice would be to remove them when the potential for winter injury is limited," Kerns says. "However, there are circumstances when the covers may need to be removed early. In most cases I would suggest leaving them on until most of the winter moisture has dissipated."

The "trickiest time" for the application of covers comes in fall, shortly after they are put on, and in spring following snow melt. "Temperatures can soar under the covers when they are in direct sunlight, even in fall and spring sunlight," Koch says. "But if you remove the covers and the temperatures fall well below freezing that night you can significantly shock and injure the plants."

Ideally, covers should be installed as late as possible in the fall after foliar growth has ceased and removed as early as possible following snowmelt before growth has resumed to prevent the types of injury described above. "But variable fall and spring conditions, small crew sizes, and other extenuating circumstances make this more difficult than it seems," Koch says.

Wolverton quips that the best time to apply green covers is "before you let the crew go for the season!" He adds that when to cover is weather dependent.

"Some guys will put covers

on at a certain date and take them off at a specific time," Wolverton says. "I always check the extended forecasts and allow the plant to go through a couple hard freezes before we cover them just to make sure they were asleep." As for their removal, Wolverton adds that task is also highly dependent on the weather. "There were some warm days that we took the covers off and then needed to put them back on at night because of the extreme drop in temperatures," he says. "This seemed to happen more times than we wanted to do it in the spring. The goal was not to have too much growth right off the bat to expend carbohydrates but also to protect the turf from hard freezes."

Van Auken has "perfected" the application and removal process.

"Every cover gets unrolled from front to back right down the middle," he says. "The corners are located and six of us can unfurl the cover and start tacking it down in a minute or two. We also have a tremendous amount

of support from our membership and will have six or so volunteers helping out. I take a crew and tack the covers down and the volunteers come through and finish the job." He says he uses the same process, only in reverse come spring. Volunteers pull 80 to 90 percent of the staples and the maintenance crew pulls the remaining few, folds the covers to the center and rolls them toward the front. Each cover is tied up and tagged for use again in the fall.

The biggest drawback to green covers is the cost and hassle of purchasing and putting them out,' Koch says. Putting out covers in the late fall with a reduced crew is a significant task, and many superintendents are surprised by how much work they are.

"In addition, a study we completed last spring at the University of Wisconsin showed an increase in snow mold severity under an impermeable cover with the foam insulation but not a permeable cover (like an Evergreen cover)," he says. "The increased snow mold severity was manageable, however, when a strong fungicide program was used."

Covers can stimulate growth, which, when they are removed, could present a problem in the spring, Kern says.

"We also found that snow mold severity was most severe under impermeable covers." He also referenced the University of Wisconsin (where he was prior to taking the position at N.C. State) trial. "Although our snow mold treatment kept snow mold at bay, the non-treated controls that were covered with an impermeable cover had significantly more snow mold than any other cover treatment."

Bill Stein, superintendent at Minnocqua Country Club in Minnocqua, Wis., says that despite his desire for additional green covers, the time needed



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– Ken Smith, Eagle River Golf Course

to put them on in the right time-frame is a challenge with the number of covers he currently has, so more covers are almost out of the question.

“Covers also need to be replaced every few years also,” Stein says. “So there’s an additional cost to consider as well. I feel we are at the appropriate number of covers for our situation. We have minimized our risk and feel that we can get our covers on and off in an acceptable timeframe.”

While covers may be costly to purchase compared to seven temporary greens and angry membership, it’s a drop in the bucket, Smith says. He adds, “Basically, they are insurance because the weather here in the north woods has become so extreme over the last 10 years. I would say half the time we don’t need covers we will have good snow cover or a nice month of March. But when you

go until late April without hitting 50 degrees and night after night of a freeze thaw cycles, the Green Jackets are worth every penny. I would say there is a learning curve for each course but it’s the best chance to have quality greens in the spring.”

Steve Sarro, director of grounds at Pinehurst Country Club in Denver adds covers can be labor intensive and he may not need them every year. However, he likes to think of them as an insurance policy.

“In my current climate it is all about water management, even through the winter,” Sarro says. “When Mother Nature gets the best of you, you better have a great relationship with the pro and the general membership.” GCI

John Torsiellos is a Torrington, Conn.-based writer and frequent GCI contributor.

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