Winter Covers: Are They For You?

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To cover or not to cover is a question many superintendents face today. This is especially true in the northern regions of the country, where temperatures and snow cover seem less predictable each year. Geotextile covers can protect exposed greens from harsh, drying winds, and soil temperatures under covers can range as much as 8 degrees Fahrenheit higher than under uncovered areas. Soil and leaf moisture contents also are higher under the covers. The warmer temperatures and soil moisture stimulate earlier root and shoot growth, which can be beneficial in some instances. The use of winter covers is not without risk, however, as many have found. A closer look at the use and management of winter covers may help you decide whether they are the answer you are looking for.

There are many geotextile fabrics and plastic materials available today for use as winter covers. The covers are available in different shades of white, gray and black, with the lighter, more porous materials being most popular. The covers are constructed from bonded polyester, woven polypropylene, plastic weaves and film, and other synthetic and natural materials. There are many individual preferences in the field. The lighter fabrics are easiest to manipulate and usually provide the highest light penetration. The heavier materials are probably more durable for high-wind situations and present more physical protection against winter sporting activities. Take time to research the various materials available and choose one that is best for your specific conditions.

The use of geotextile covers has definitely increased in recent years. Originally, the covers were used largely for protection against desiccation injury from the wind. The covers' insulating benefits then were discovered and the covers were used to stimulate earlier spring growth, especially on weak, shaded greens. This can be an effective program if the covers are managed properly.

In the South, covers are used frequently to protect bermudagrass on greens and tees against cold temperature injury. They also are effective in preventing frost cover that can delay play during the morning hours. Superintendents in high-altitude locations use geotextile covers to extend their short growing season. Attempts have been made in the North to cover greens for protection against injury from ice cover and crown hydration. The covers also are used to provide a formidable barrier against injury from vandalism and winter activities.

Covers have been helpful for seed germination and establishment at any time of the season. Late fall or dormant seedings often are covered to prevent washouts and hasten seed germination and establishment. Superintendents have

found that dormant seeding bentgrass and applying covers is a good insurance policy for greens that frequently suffer winter injury. The early seed germination hastens the recovery of damaged areas and can increase bentgrass populations on the greens. Damaged areas in spring can be aerated, overseeded and covered to hasten the recovery process.

Unfortunately, winter covers are not a panacea and will not solve all winter problems. Covers have been very inconsistent in their effectiveness against ice and crown hydration injury. Their use in bringing the greens into play earlier in the season can backfire, as many superintendents and disappointed green chairmen have discovered. This is especially true if adequate labor is not available to properly manipulate the covers in early spring, when the turf is lush and susceptible to cold temperature injury. In one instance, a geotextile cover was blown free from half a green. The cover was not replaced and the turf wintered naturally. The *(Continued on Page 23)*



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side which was covered appeared very strong and was actively growing when the cover was finally removed in spring. A frost occurred and damaged the lush turf, but the portion of the green which wintered naturally was not harmed. The surface quality between the covered and uncovered portions of the green remained apparent into late spring.

Cool-season diseases such as pink snow mold, *Fusarium* patch, *Typhula* blight, root rot *Pythium* and cool-weather brown patch also can be more damaging under covers, where temperatures and moisture are ideal for disease activity. The actively growing plants often are succulent and more susceptible to pathogen infection. Fungicide applications made the previous fall can break down as a result of the accelerated growth and increased disease pressure. An extra fungicide application often is required to extend protection against cool-season diseases once the covers are removed.

There are several practices that can be used to help assure successful cover use. The covers normally are installed on greens in late fall or early winter, after turf growth has ceased and preventative fungicide applications have been completed. The covers are secured to the ground with large staples, or with spikes inserted through lathing strips. Once covered, the greens usually are not touched until late winter or early spring when temperatures warm or snow cover disappears. However, it is important to monitor the covered greens through the winter season, as high winds or vandals can tear the covers. It also is important to monitor for ice accumulations which form through the covers in areas of poor surface drainage. The ice should be softened with a darkening agent and carefully removed from the cover to avoid possible turf injury.

The critical management period for the turf occurs immediately after the covers are removed. The majority of failures that occur with covers take place at this time. Initial mowing should be completed as soon as possible, preferably with a walk-behind greens mower set at a height that will not scalp the turf. Remember, growth has been occurring under the covers, so the initial mowing height should be higher than that used during the regular season. The height can be slowly lowered during early spring until the desired height-of-cut is obtained.

The turf also should be assessed for disease activity. A granular application of a contact fungicide can be applied to extend control against the cool-season disease pathogens. The early spring fungicide application should reduce disease incidence through the remaining cold weather period.

DO NOT PACK AWAY THE COVERS! Instead, keep the covers near the greens.



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