Covers Become Multi-Faceted Tool

Bentgrass underneath the fabric cover greened-up more than two weeks before the uncovered turf.

One late winter day John Roberts, extension turf specialist at the University of New Hampshire, was evaluating his turf plots for winterkill when he noticed that the nearby vegetable plots were covered with a sheet of fabric. He put turf winterkill and the covers together in his mind. He obtained a spare cover from the vegetable specialist and pegged it down over one section of his turf plots. That section of turf greened up more than two weeks earlier than the uncovered turf.

That was the first use of a new tool for management of both cool and warm season turf. Uses for these portable, ventilated greenhouse-like covers quickly spread from golf courses in New Hampshire to Alabama. It wasn't long before they could be found at Milwaukee Stadium and the Rose Bowl. Today, the 16-foot-long tubes of material are commonplace in the storage areas beneath the stands of stadiums and in the maintenance buildings of golf courses across the country.

The list of benefits attributable to covers has grown far beyond early spring green-up. Low-temperature damage to both bentgrass and Bermudagrass has been greatly reduced. Higher soil temperatures beneath covers enhance turf root growth, help sod knit faster, and speed up germination of seed by as much as 50 percent. The controlled ventilation of the turf under the blankets conserves moisture and greatly reduces dessication injury. Irrigation to covered turf can be cut nearly in half.

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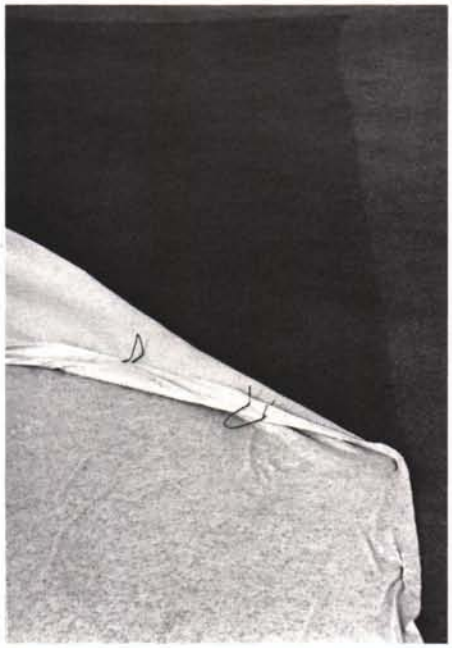
Covers are much easier to install, remove and reinstall than straw or other types of mulches used to insulate turf during the winter. In case of a late frost after the covers have been removed, the blankets can be reinstalled on an average green in less than 20 minutes.

Stadium field managers are using these covers to speed up germination or regrowth of turf between the hash marks or along the sidelines of football fields and around the goal mouths of soccer fields. One stadium field superintendent plans to place a cover over damaged portions of his football field that have been seeded with pregerminated ryegrass.

Football and soccer field managers can cover their fields between games in the fall to delay winter dormancy. Baseball field managers with early season openers can use the covers to bring the turf out of dormancy. Sod can be installed earlier in the spring and still knit before the first game when covered.

Landscape uses have just begun to develop. By covering a newly-seeded slope, germination can occur faster, wind and water erosion halted, and the amount of water to irrigate the slope reduced. The fabric can be reused on other sites as needed. Subsurface uses for the fabrics, such as preventing rocks and debris from heaving into the topsoil, are just now being evaluated. Versions of some of these fabrics are used to wrap drainage structures to prevent siltation and clogging. Thicker sheets of the fabrics have provided tremendous temporary protection of turf against vehicle and foot traffic.

The three manufacturers of these covers are as amazed by the new uses of their product as anyone. Gary Anderson, marketing manager of DuPont's Turf Blanket, says demand is so great that many buyers don't want to wait for adjustments underway to make the covers more covenient and durable for golf course and athletic field use. "In the past three years we have increased the tear strength of the Turf Blankets six fold and the sunlight resistance three fold," state Anderson. "Now we are preparing to offer the blankets in sizes to fit specific sites and we are simplifying the process which holds sections of the blanket together."



Wire loops hold the fabric down and can be installed quickly.

The cover Roberts first tried was DuPont's Remay, a six ml spun-bonded polyester which allows 75 percent of light through. Today, Anderson recommends the company's Typar blankets for sports turf uses. Because it is made of spun-bonded polypropelene and 12 ml thick, it is six times stronger than Remay while still 70 percent transparent. It also resists degradation by sunlight three times longer.

HPI Ltd. of Canada recently set up distributors in the U.S. for its Evergreen protective covers. These are made from woven polyolefin fabric and are 85 percent transparent. The Evergreen cover is made to order and comes as one piece in its own storage bag. This eliminates long storage tubes and joining different pieces together during installation.

Warren's Special Products Div. has been marketing TerraShield protective covers for more than two years. Made of polyester nonwoven needle-punched fabric, TerraShield covers are not subject to degradation by ultraviolet light. The white material lets enough light through to allow turf underneath to tiller, avoiding the stemmy growth caused when a cover creates too much shade.

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Evergreen protective covers allow 85 percent penetration of sunlight to the turf.

Roberts has continued to study the covers since his early observation. He has not found that they increase the incidence of snow mold or pythium diseases. "If these diseases are a problem on uncovered turf in a particular area or site, then fungicide treatments should be made prior to installation of the blanket," he states.

Some attention needs to be paid to turf after a cover is removed. Having enjoyed protected conditions for an extended period of time, the turf needs time to harden enough to withstand uncovered temperatures and conditions. This adjustment period is shorter for lighter-weight fabrics says Roberts. These can be removed earlier in the spring when used for winter protection than heavier covers.

Anderson recommends that mowing be delayed for a day or two after covers are removed. He also urges turf managers to mow two to three times to gradually bring the height of the turf down to its desired level.

Warren's Emory Hunter says it's important to treat the covers as a reusable tool. The covers will not rot or decay, but debris caught on them will. If hosed down and swept off before storage, the covers should last for more than three years.

Emory adds, "A turf manager should evaluate covers by their cost per square foot per year. A cover that costs ten cents per square foot and lasts for five years is more cost effective than one that costs five cents per square foot and only last two years."