

Landscape Fabrics

Turf managers rediscover old uses and invent new ones for various types of fabrics.

by Ron Hall, assistant editor

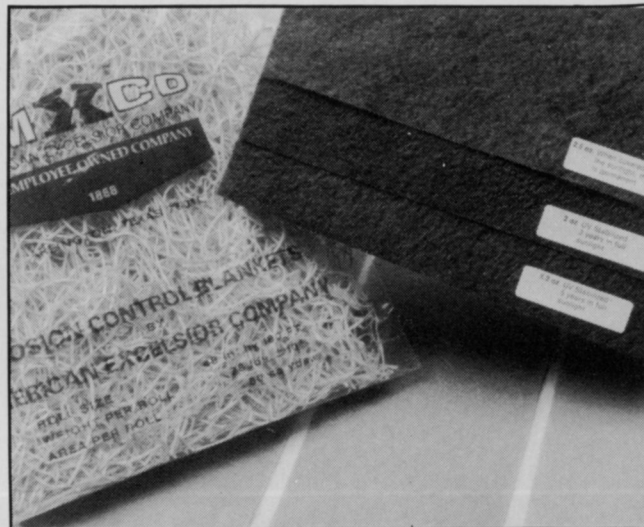
Turf managers are rediscovering a neglected old friend, the landscape blanket. This old acquaintance, redesigned in today's fabrics, has started to generate new interest.

Tobacco farmers learned years ago that putting a cotton cover over seedbeds allowed planting as early as February. In more recent years tobacco growers have gone from cotton to Reemay, a spun-bonded polyester produced by DuPont.

Golf course superintendents in the north are learning that turf covers reduce desiccation and winter kill on greens. Stadium managers are discovering fabrics will protect turf in previously hopeless situations, while still others are betting they can germinate grass seed faster under them. Research is also being conducted to see if grass can be favorably grown through fabrics, or on top of them.

Where this will lead is unclear. What is clear, however, is that a handful of companies feel the science of growing and protecting turfgrass is ready for a variety of different covers. Concerns such as DuPont, Phillips 66, Amoco, and Warren Turf are testing the waters.

"These products have been out for a while, but all of a sudden everyone is saying, 'look what I've found,'" says Tom Blunk, a former golf course superintendent. Blunk, a representative of Blunk's Wholesale Supply near Chicago, handles the



GreenSaver mat by American Excelsior, Terra Bond by Warrens, and Duon from Phillips 66 are examples of the large variety of turf and grounds covers now available.

Phillips 66 product Duon.

Blunk is right. Ground covers aren't new. American Excelsior has

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been producing grounds blankets made of excelsior (Aspen wood fibers) for years for use on slopes, median

strips, and other areas where a quick vegetative cover is needed.

What's new is the ways covers are being used. And some of the fabrics themselves.

American Excelsior is almost 100 years old, but it's GreenSaver blankets with excelsior sandwiched between plastic mesh just started finding favor as a golf course greens cover in recent years. Oakmont Country Club, site of the 1983 U.S. Open, has used Excelsior's GreenSaver blankets with heartening results.

Covers of various materials have been used for erosion control and for separating sand and soil in golf

course sand traps for years. The use of these same types of covers, with engineering improvements, may be ready to blossom in the turf industry. The spark is coming from far-thinking turf managers seeking solutions to specific problems.

Victory or disaster

Curiously, Michael Jackson, the superstar of the popular music set, gave it an unknowing boost during his "Victory" concert tour last summer and fall. The tons of scaffolding and equipment and the thousands of fans at the tour stops overwhelmed the natural turf in many of the top sports stadiums in the nation. The pop music triumph was a turfgrass mega-disaster.

But Cleveland field boss Dave Frey

and Will Puffer of Hoechst Fiber (maker of Warren's fabric) put their heads together for Jackson's October 19 and 20 dates at Cleveland Stadium.

With an NFL Browns game just days away, Frey and Puffer came up with a nonwoven geotextile cover made of polyester. Frey applied pre-germinated perennial ryegrass seed to the playing surface prior to laying

It takes uncovered greens three weeks to catch up to covered ones in the spring.

135,000 square feet of the light-colored, needle-punched material which is now being marketed by Warren Turf under the name *TerraCover*.

Although conditions were ripe for another turfgrass disaster ("we had five inches of rain before and during the concert," Frey recalls), the grass was basically undamaged after four days under the cover. Surprisingly, new grass had germinated, some of it growing to a 1/2 inch.

"There was darkening of some of the leaf but the crown of the grass plants were undamaged," Puffer says. "Of course we were very happy with the project. We came up with something that is durable, breathable, and survived the rigors of the concert. Furthermore, the cost of the fabric delivered is less than the cost of plywood."

The same cushioned fabric that Frey used was shipped to the Orange Bowl in Miami and to Phoenix for later Jackson stops, again with heartening results. Those successes have led Frey, and others, to experiment with *TerraCover* in the players' area along the sidelines and under television camera tracks.

Faster greenup

Using geotextile covers (the word geotextile includes just about any product that covers the ground) to protect grass is no secret to golf course superintendents. In the far north where cold, dry winds rake exposed greens some superintendents have been using covers for several years to reduce desiccation and winter kill. Several, however, are testing the effectiveness of the various new products to determine if they can be used for a faster spring

greenup of healthy turf and, hopefully, a longer season.

Doug Mahal at Interlochen near Minneapolis has been covering the greens on his course with excelsior mats by American Excelsior since 1977, but this season he's putting down *TerraShield* by Warren Turf and *Reemay* also. Jerry Nelson at the Somerset Country Club near St. Paul has been testing eight different covers on 8-by-12-foot plots, while Mark Smith at the Minneapolis Golf Club covered a third of his greens with *Reemay* last winter and will be doing some work with *TerraShield* also this winter.

The covered turf "comes out looking a lot better in the spring, but after three weeks the uncovered turf has generally caught up to it," says Smith. Others report similar experiences with covers. Nelson reports greener turf under all his test plots. "It's all in varying degrees," he says.

Since heavy snow blanketed much of the north last winter many of these same superintendents are anxious to determine how their blanketed turf responds to icy conditions.

Several precautions are necessary

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— Puffer

prior to laying and anchoring covers over greens, however, the superintendents say. First, the greens should be well drained and, equally important, fungicides should be applied to reduce disease pressure. Timing of the cover's installation and removal is also important. Grass should be dormant when they are applied, superintendents say, and covers should not be left on after regeneration has begun in the spring. Too much growth is undesirable.

Getting turf blankets to stay put can be a problem also. Central Indiana landscaper Larry Runyon wanted to make sure his covers didn't blow away. In addition to the U-shaped fasteners which came with the fabric, he anchored and criss-crossed 18-gauge wire every 10 feet over the covers of two football fields he seeded this winter.

Runyon is going a different direction with the geotextile covers he uses.

Runyon is using DuPont's spun-bonded polyester *Reemay* in hopes of getting a jump on spring in the seeding of the two grass practice fields at the Indianapolis Colts' new 30-acre training facility just outside Indianapolis. Because of construction delays Runyon wasn't able to seed the fields until December 5.

He is hoping that *Reemay* helps retain moisture and warms his ^{50/50} mix of Kentucky bluegrass/ryegrass enough to give him a month headstart in preparing his fields for the Colts. He chose the DuPont material because it was translucent. "It's definitely going to let the sunlight in and I'm hoping for that good green color," he says.

While several of the products are translucent and allow light to penetrate to the turf, several are not. Duon by Phillips 66 is a dark gray and its promoters believe it may promote protection and early green up by raising the soil temperature somewhat.

Research needed

Initial research in the use of covers for germinating grass seed has been spotty and inconclusive. Clemson horticulture professor Landon Miller had little success with growing grass both over and under continuous filament spunbound polyester covers during 1984 and he's repeating his research on five different varieties of grass with broken filament spunbound material this year.

A test by Don Marshall using *Reemay* at Anaheim Stadium in Southern California to lengthen the growing season of Bermudagrass into December had to be cut short because of torrential rains and the return of the NFL Rams to Anaheim for a playoff game. Or as Marshall notes, "basically, the test amounts to no test."

But, designers and manufacturers of the new generation of turf covers remain optimistic about the potential uses of their products. The challenge seems to be matching the correct product with the specific use.

"There are significant opportunities in the Green Industry for properly designed fabrics that meet particular needs," Hoescht Fiber's Puffer says. "The challenge then clearly rests with the industry to meet the needs and produce those products. They must meet the challenges of the application rather than making one product for all applications."

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