



# Extending Field Use With Covers

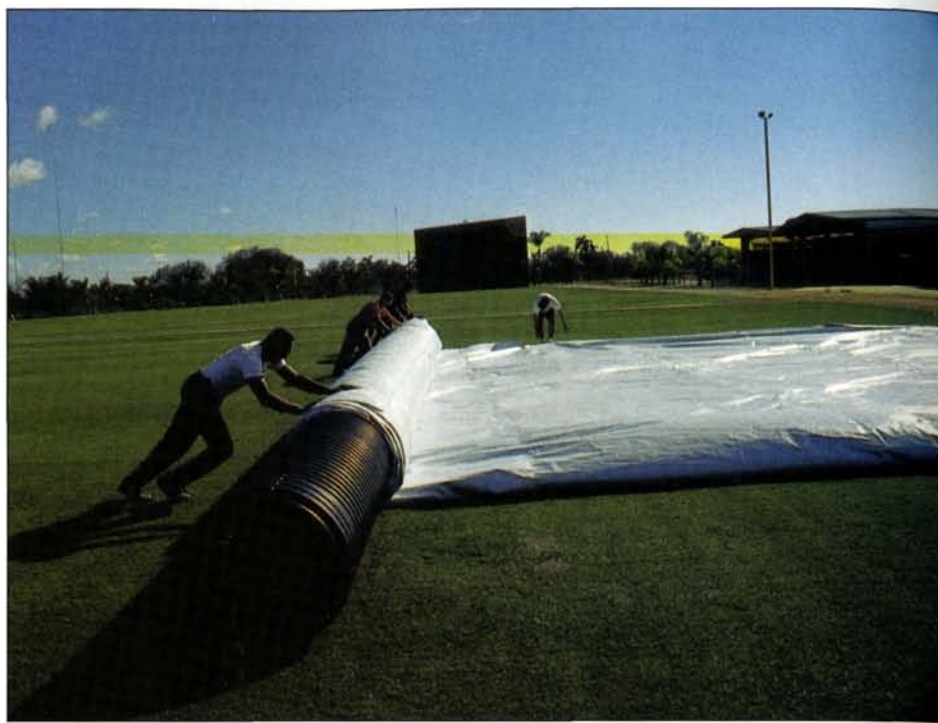
By Steve and Suz Trusty

**S**ports turf managers often need to cover more than their bases when coping with the whims of Mother Nature. Field covers are an important tool in providing playable conditions despite onslaughts of adverse weather conditions.

Across North America, professional, collegiate, high school, junior high and elementary school teams, as well as the organized teams of community parks and recreation systems, compete on fields in open, outdoor sites. These fields may be surrounded by complex stadiums, bordered by a set of bleachers or simply bare. Whatever the setting, the essential playing surface — the field — is exposed to the ever-changing, seasonal weather conditions.

Often key organizational revenues are generated from fan support of games, on-site and/or via TV and radio. A game canceled is money lost. In other situations, the focus and skills of young athletes are enhanced by regular, scheduled competition. A missed game can be a devastating blow to an eager player. The sports turf manager must also contend with the expectations of owners, managers, athletic directors and coaches, who expect a playable field no matter what obstacles nature may erect. Playable practice facilities are equally important. A properly conditioned and trained athlete is less susceptible to injury.

Wind, rain, snow, cold, heat and drought have no respect for practice



Lightweight field covers are easy to remove when weather conditions improve. Photo courtesy: Trusty & Associates.

and game schedules. Few organizations other than major colleges and professional athletic teams can afford domed, climate-controlled facilities for continual field protection, but field covers can provide an affordable alternative for allowing play during or following adverse conditions — and for extending the playing season. To accurately calculate the return on investment, determine the usable life of the cover and allocate a proportionate amount of its initial cost over that period. Then determine what benefits the covers can provide in your situation and how those benefits, translated to extended field use, affect your budget.

## Starting Earlier

Ken Mrock, chief groundskeeper for the Chicago Bears football program, oversees the Halas Hall practice facility on the Lake Forest campus and coordinates operations at Soldier Field as well. Chicago is a tough venue. Summer temperature and humidity levels can combine to put the heat index in the hundreds, and winter is erratic with drastically fluctuating temperatures, icy winds and alternating bouts of heavy snow and no snow. In addition, the "lake effect" can create temperature fluctuations up to 15 degrees from within just two or three miles. Though snow may be falling at the lake, the city may be sunny and clear.

The NFL season is long, starting with training camp in early April and the playoffs lasting into January. Though turf

growth is stopped by wintry weather, practices continue. Mrock and his crews essentially reestablish the turf each spring.

Normal spring weather in the Chicago area brings strong northeast winds and temperatures in the 40s, conditions that are not conducive to germination and establishment of cool-season grasses. Mrock uses an 84-by-110-yard section of lightweight, perforated poly cover to warm and protect the seed. He uses a pregerminated mix of 50 percent bluegrass and 50 percent perennial ryegrass, which is broadcast and the same seed mix ungerminated, which is slit-seeded in two directions. A light top-dressing is applied.

A four-person crew, with one person at each corner, places the cover and anchors it with four-inch metal ground staples. The greenhouse effect of the cover raises soil temperatures by as much as six to eight degrees. Light, air and water easily pass through the cover, yet it has enough holding power to keep seed from washing away during heavy rains. Even under cover, germination takes from five days to two weeks, depending on weather conditions.

The turf is irrigated as necessary through the tarp. In some seasons the cover is removed to allow mowing and then replaced.

Tom Lujan, stadium turf manager for Denver's Mile High Stadium, over-

*continued on page 12*



## Field Covers

*continued from page 10*

sees a P.A.T. field with sub-irrigation, the ability to pump the field dry and a root-zone heating system that can maintain 65 degrees F. However, at times all that is not enough to withstand the weather extremes in the Rocky Mountains. Besides the heat and cold, humidity fluctuations can be drastic, sometimes ranging in the 90s on a Saturday afternoon and falling to 50 percent by game time on Sunday.

The Kentucky bluegrass field is over-seeded with a blend of pre-germinated perennial ryegrasses during early spring, early fall and prime playing periods. Lujan and his crew use field covers to help spur the growth and development of the seed, especially in early spring and late fall. With the cover, they can even get some growth during the winter season.

### In-Season Protection

Wise cover management can often save a baseball game from being rained out. The key is knowing when to put the covers in place and when and how

to remove them. For Jesse Cuevas, stadium manager for Johnny Rosenblatt Stadium in Omaha, NE, covers are essential for keeping the field in shape for the televised sessions of the College World Series. Midwestern spring warming comes only when it's ready, and the June weather in Omaha can range from cool and damp to hot and humid. Cuevas uses covers early in the spring to spur greening and growth and to control moisture levels to force deep rooting.

As with all baseball fields, during the playing season and especially during the College World Series at Rosenblatt, cover placement becomes a balancing act between weather conditions, necessary maintenance practices and field-use schedules. Cuevas monitors soil-moisture levels closely to determine how much rain-fall the field can handle within a short period and still remain playable. Covers will be put in place prior to a game if water levels are near field capacity, and rain-fall is predicted.

Football fields benefit from protection, too. Mrock and his crew use seven 20-by-60-yard sections of 14-ounce field cover as necessary to tarp the fields during the April to December period of active use.



**Snow is easily removed from the field cover, leaving the protected turf in good condition. File photo.**

The covers protect the field from heavy rains, reducing the wet, muddy playing conditions that are so damaging to turf.

At Mile High Stadium, Lujan uses three covers, each 224 feet across by 150 feet wide, to cover the entire turf area, not just the playing field. These covers have one black side and one white side. When covering is necessary in the early fall, the white side is placed upward to deflect the rays of the sun. When night temperatures fall below 50 degrees F, and the extra heat is needed, the black side is placed up. The black surface helps keep frost from settling or a light snow from accumulating.

## TerraFlow DRAINAGE SYSTEMS

**Easy, Economical  
Solutions to Your Turf  
Drainage Problems.**



CONTECH TerraFlow™ is an easy-to-install solution for field drainage problems. These economical systems are especially designed to outperform ordinary, expensive pipe/stone drain construction.

Backed by years of field-proven performance, TerraFlow provides high flow capacity and extended durability. Installs quickly with less turf disturbance and requires no special tools or equipment.

For more information about the many advantages of TerraFlow, contact your local TerraFlow dealer. Or call toll-free: 1-800-338-1122.

**CONTECH**  
CONSTRUCTION PRODUCTS INC.  
Innovative Product Design  
for Over 75 Years

## RainBuster



**\*Black/White reversibles for the ULTIMATE A-L-L SEASON turf protection!**

**\*Lightweight AND Economical!**

**\*Sizes from Golf Greens to Soccer Fields.**

Compliments our complete line of vinyl covers, patented zipper systems, geotextiles, grids and more! Call for your FREE BUYER'S GUIDE now.

**1-800-621-0146 TOLL FREE**

**M. PUTTERMAN & COMPANY, INC.**  
4834 South Oakley • Chicago, Illinois 60609  
312-927-4120 (In Illinois)



## Playing Late

In Chicago, winter-like temperatures may hit in October and hang on until spring. Mrock uses covers to protect the fields from heavy snows that could hamper play. For as long as 24 hours prior to a practice or game, he uses covers to trap the heat generated by four 600,000 BTU kerosene heaters. This warming boost helps keep the turf growing a little later in the season. Even when turf growth can't be maintained, the heat keeps the field surface from freezing, providing a safer arena for the players.

Covers also provide snow protection at Mile High Stadium. In Denver, snow often falls in pockets, creating a blizzard at the stadium while the city is clear — or blanketing the city and by-passing the stadium. Lujan covers the field whenever events are scheduled and snow is forecast, so if removal is necessary, snow is cleared from the cover, not the field. Crews create a giant squeegee on the snowplow attachment of a 4 x 4 pickup truck by removing the skids and attaching two strips of half-inch thick rubber that extend the length of the plow. With this, they push the snow off the cover for

removal from the stadium. Covers also are used during periods of cold, windy, dry weather to reduce turf desiccation.

## Managing Adversity

Mike Andresen, head groundskeeper for the Iowa Cubs Sec Taylor Stadium in Des Moines, managed field cover usage to help turf pull through almost constant rains and double flooding during the 1993 season. The field was originally constructed of native black soil over an old landfill site at the point where two rivers — the Des Moines and the Raccoon — converge. The soil profile has been augmented over the last several years with annual applications of calcined clay.

During the rains, which fell on 60 of 80 days, the field was kept covered to retain the possibility of play. Yet some exposure was necessary because when the cover remained on for too long a period, the ground surface below the cover became dry and hard.

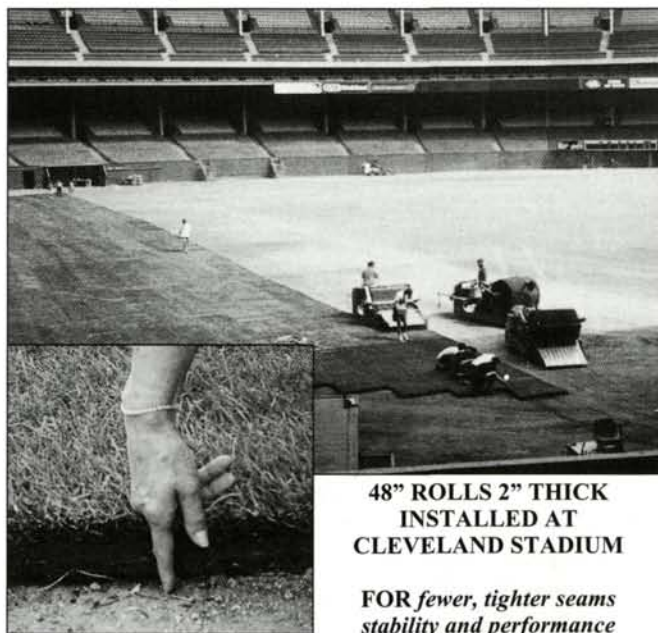
Then the field was flooded, once by river overflow and once by sewer back-up caused by the inability of the river to take on more water. The flooding also disabled the city's water system.

Just before the first flooding, Andresen and his crew had slit-seeded the field with pre-germinated seed. After silt from the flood had been removed twice, they concentrated on restoring the existing turf and forcing growth of the seed that remained. The cover was put in place. Then, as the field moisture beneath the cover reached field capacity, and a water source was still unavailable, Andresen changed his strategy. The field was covered at night to allow soil moisture to rise to the surface, encouraging the new seedling growth, then removed during the day unless more rains threatened.

Wise cover management can speed turf establishment, extend field playability earlier and later into the season and protect fields from the need for extensive repair. The material and labor costs saved through any of these processes may more than offset the initial cost of the cover. □

*Steve and Suz Trusty are partners in Trusty & Associates, a consulting firm located in Council Bluffs, Iowa. Steve is assistant chairman of the public relations committee of the national Sports Turf Managers Association.*

***Wonder why major stadiums call **CYGNET** when they need emergency repairs or new installations?***  
(It must be our rapid response and quality installations!)



**CONSISTENT 2" CUT  
YOU CAN'T INSTALL  
TURF BETTER**

**48" ROLLS 2" THICK  
INSTALLED AT  
CLEVELAND STADIUM**

**FOR fewer, tighter seams  
stability and performance  
when you are ready to install  
give **CYGNET** a call!**

4111 Insley Road  
North Baltimore, Ohio 45872



**KAUFFMAN STADIUM, KANSAS CITY  
48" ROLLS - 3/4" THICK**

CYGNET is able to harvest 48" WIDE ROLLS consistently from very thin to over 2" thick. We can install these rolls without pulling or pushing them along the ground (no stretching or tearing). Our patented machines carry the rolls, turn them at ground speed, and install down a controllable slide for tighter seams.

**NO ONE ELSE CAN MAKE THIS CLAIM**  
U. S. Pat. #5,215,248 & 5,307,880



**CYGNET TURF  
& Equipment**

Phone: (419) 354-1112  
Farm: (419) 655-2020  
Fax: (419) 352-1244