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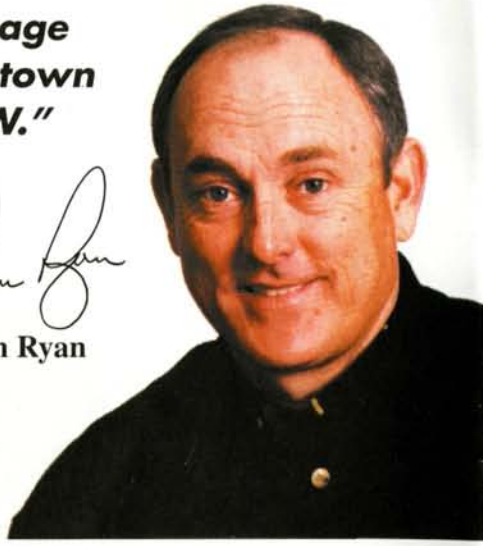

Nolan Ryan

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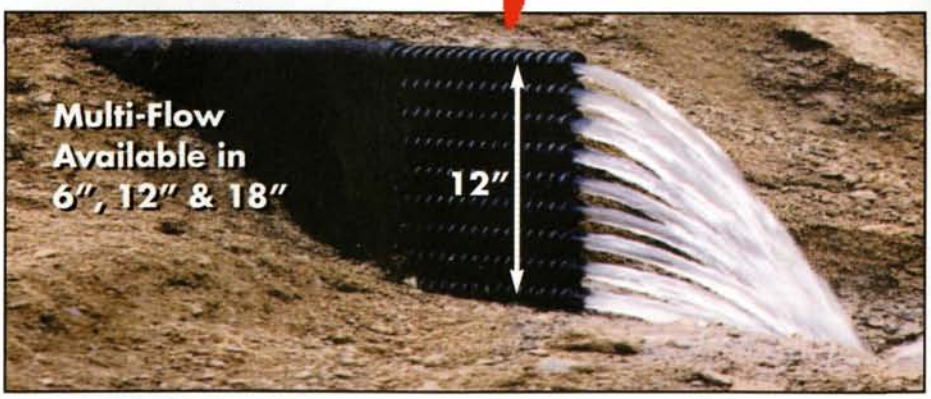

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STMA

'96 Sports Turf Solutions Showcase!

Sports Turf Managers Association 7th Annual Conference & Exhibition Jan. 24-28, 1996 • Anaheim, CA

Sports Turf Managers Association

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- **Future "Hall of Famer" Tony Gwynn will keynote our annual awards banquet where STMA will present nine awards of distinction including the Harry C. Gill Memorial Award for the Sports Turf Manager of the Year.**
- **A panel discussion on sports field safety and sports torts, budgeting workshop, a workshop on understanding soils, the art of mowing, what's bugging your turf clinic, panel on drainage system technology, new approaches to improving wear tolerance and much more!**
- **And don't miss the silent auction and raffle of valuable sports memorabilia.**

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Promoting Better and Safer Sports Turf Areas

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Sports Turf Managers Association

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VOLUME ELEVEN, NUMBER TEN OCTOBER 1995

MAIN EVENTS

LINE-UP

On the Cover:
The Green Bay Packers and the Detroit Lions battle during a cold winter day in Lambeau Field. The field, however, was a picture-perfect spring green, thanks to an underground turf-heating system. ***Photo courtesy: the Green Bay Packers.***

STMA MESSAGE

Sports Turf Managers Association

STMA Invests in the Future

By Greg Petry

Those of you who attended STMA's Sixth Annual Conference and Exhibition in Florida last February may recall the touching moment when Daniel Bergstrom of Iowa State University was given STMA's 1995 Scholastic Achievement Award.

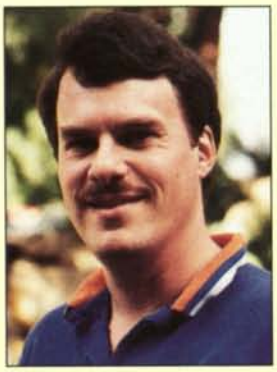
Of course, I won't forget his comment about cash meaning so much to a college kid. The fact that Daniel took the time to come to Bradenton for the educational experience says that he is serious about his future in the sports turf industry.

It's that type of person we are looking for this year to award our 1996 scholarship. If you have had a summer intern or know someone who is working their way through college in the sports turf area, please make sure they get in touch with STMA headquarters to get a scholarship application.

We recently received a substantial donation to the STMA Scholarship Fund that has formerly been part of the Dr. Fred Grau Scholarship Fund. These funds will allow STMA to continue to develop its scholarship program to reach more students and fulfill a major objective of the organization. If you would like nomination information, contact the STMA National Headquarters, (312) 644-6610.

THE FRONT OFFICE

OPINION PAGE



Going Underground to Prepare for Winter

Just as squirrels gather acorns for the winter, so too must sports turf managers prepare their fields for the coming of winter. Except for a few soccer fields in the South, most athletic fields in the U.S. are not in use during the winter. Many sports turf managers have already completed their fall fertilization programs (which we looked at last month) and are currently in the process of preparing their facilities to face cold temperatures and difficult weather conditions.

Most sports turf managers do an excellent job of preparing their fields for the winter. Some of the most important preparation takes place underneath the turf. This month's issue of *sportsTURF* highlights some of the underground preparations that can make a big difference in the health of turf come springtime.

This month's issue includes a look at underground heating systems for athletic fields. While underground heating systems have been around for years (the Packers have had one in Green Bay since 1968), the concept has become more popular in recent years. New systems have been installed at Coors Field and Mile High Stadium in Denver, and the Chicago Bears are considering the possibility of installing a system at Soldier Field. What's more, underground heating systems are not just for cold-weather fields anymore. Arizona State University has a hot water system at Sun Devil Stadium that is used to extend the warm season for the bermudagrass — or, more precisely, to present the illusion of springtime conditions so that the bermuda does not go dormant until after football season is over.

A sports turf manager's plate is so full during the fall season that some things can easily be overlooked. One task that is sometimes overlooked — but shouldn't be — is winterizing irrigation systems, and this month's issue includes some suggestions for making sure the job gets done right. Whether an irrigation system is fully automated or manually controlled, proper winterization will ensure that your system is ready to go to work again in the spring.

Sports programs on the professional, college, high school and municipal level will be back in full swing again next spring, just as the turf on the athletic fields comes back to life. Sports turf managers want their turf to be ready when the players are ready. The best way to make sure athletic fields are ready for use in the spring is by looking under the field and making the necessary preparations for winter right now.

Mike Augsdorfer

Mike Augsdorfer

EVENTS

CALENDAR

November

5-8 Twenty-fifth Annual Conference and Show, sponsored by the National Institute on Parks and Grounds Management. Toledo, OH. Contact: National Institute, (414) 733-2301.

7-9 Penn State Golf Turf Conference, sponsored by the Pennsylvania Turfgrass Council Inc. Nittany Lion Inn, University Park, PA. Contact: Dr. Peter Landschoot, (814) 863-1017 or PTC, (814) 863-3475.

7-10 Turf and Grounds Exposition, sponsored by the New York State Turf Association and Cornell University. Rochester Riverside Convention Center, Rochester. Contact: (800) 873-TURF or (518) 783-1229.

12-16 PGMS 84th Annual Conference and Sixth Annual Green Industry Expo. Worthington Hotel, Ft. Worth/Tarrant County Convention Center, Ft. Worth, TX. Contact: PGMS, (800) 609-7467 or Eleanor Ellison, (770) 973-2019.

27-29 North Central Turfgrass Exposition, Pheasant Run Resort, St. Charles, IL. Contact: Illinois Turfgrass Foundation, (312) 201-0101.

December

5-8 Ohio Turfgrass Foundation Conference and Trade Show. Columbus, OH. Contact: (614) 261-6750.

6-8 Forty-second Turfgrass Conference and Trade Show, sponsored by the Rocky Mountain Regional Turfgrass Association. Currigan Hall, Denver, CO. Contact: (303) 688-3440.

Send announcements of your events two months in advance to: Editor, sportsTURF, 68-860 Perez Road, Suite J, Cathedral City, CA 92234. Fax: (619) 770-4380.

Guarding Against Winter Turf Diseases

By Helen M. Stone

Winter is a time for dormancy. Even in the warm-climate zones of the country, plant growth slows or stops. But even as turf "sleeps," an insidious enemy lurks beneath blankets of snow. *Typhula* blight, or gray snow mold, may come as an unwelcome surprise when the warmer temperatures of spring reveal discolored and/or dead patches of turf up to two feet across. In areas where there is no snow, but long periods of cool, wet weather is the norm, turf managers are often faced with pink snow mold.

Gray Snow Mold

There are two pathogens that produce gray snow mold. *Typhula incarnata* occurs in the Eastern states, while *T. ishikariensis* affects turfgrass stands west of Michigan. The blight targets almost all cool season grasses, including annual and Kentucky bluegrass, tall and fine-leaf fescue and perennial ryegrass. Although the disease is normally found under snow, it also can occur under leaves or mulches. The blight is more serious where snow is gathered in deep drifts or when it melts slowly in the spring.

Gray snow mold appears as patches anywhere from three inches to two-feet across, although six- to 12-inch patches are the most common. The patches are covered with a gray or white growth of mycelium (a fungal structure consisting of multi-branched, thin "tubes"). The mycelium and dead grass plants often mat together, and the patch may be surrounded by a fluffier ring of mycelium.

If you examine the grass blades closely, you should be able to detect small sclerotia (closely-packed mycelium awaiting ideal conditions to germinate; a sort of "fungus seed").

The first step to controlling gray snow mold is proper fertilization. Turf that goes into cold weather with lush new growth induced by large quantities of nitrogen is espe-cially susceptible to the blight. Although late fall fertilization can give turf a jump-start when the weather warms up in spring, be sure the fertilizer is applied after the grass plants are dormant.

If you are in the position to select turfgrass cultivars for new plantings, there are resistant varieties that will minimize infection.

Chemical control is dependent on identifying which type of pathogen you are dealing with. *Typhula incarnata* can be treated with chloroneb (Termec SP, Proturf Fungicide V), fenarimol (Rubigan), triadimefon (Bayleton, Scotts Fungicide VII) and propiconazole (Banner). However these fungicides are not as effective on *T. ishikariensis*. Combining iprodione (Chipco 26019, Rovral, Scotts Fungicide X) and chlorothalonil (Daconil 2787) will control both types of *Typhula* blights, as well as controlling pink snow mold as well. Application is made before the first permanent snow cover. Some manufacturers also suggest a second application during a mid-winter thaw.

Pink Snow Mold

While pink snow mold is sometimes found in combination with gray snow mold, its range stretches much further south. It is one of the most serious diseases facing turf managers in the Pacific Northwest, but can occur anywhere where cool, wet weather continues for an extended period of time. Pink snow mold, or *Microdochium* patch (formerly known as *Fusarium nivale*), can kill annual bluegrass, bentgrass and perennial ryegrass. Kentucky bluegrass and red fescue are also affected, but with less severity.

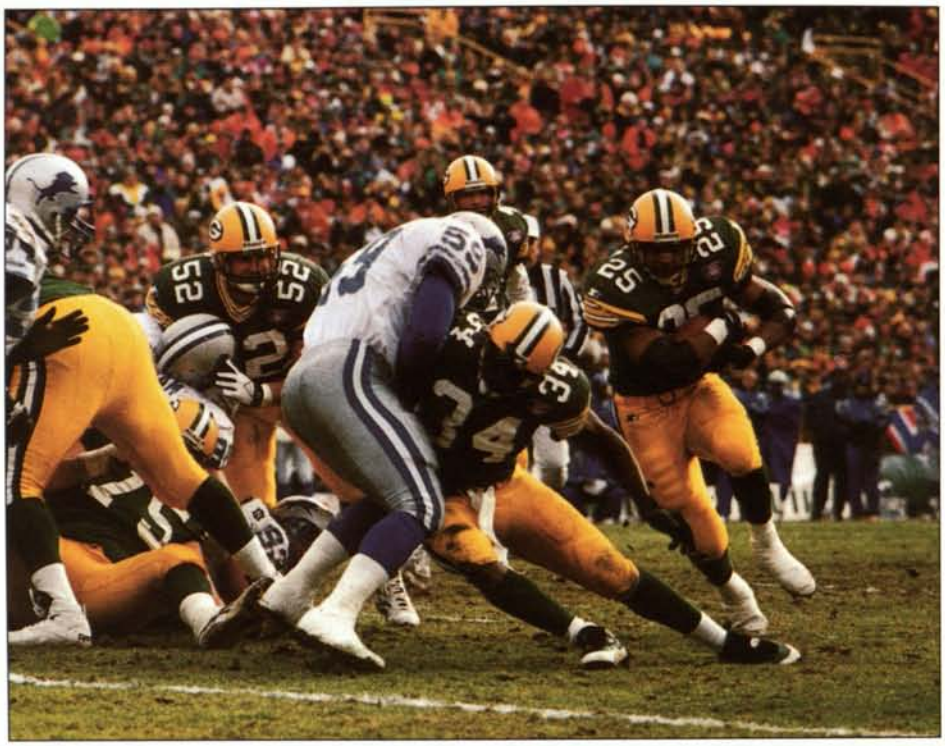
Pink snow mold differs from *Typhula* blight because it does not necessarily need snow or other cover to flourish. Symptoms include spots ranging anywhere from one-inch in diameter to eight inches or larger. Turf turns reddish-brown in the affected areas. Usually where there is no snow cover, mycelium are not seen. In areas with snow, the pink mycelium can be seen at the edges of the infected patches after snow melt.

As with gray snow mold, turfgrass is more susceptible to *Microdochium* patch when it is lush. Therefore, be careful not to encourage growth with nitrogen going into the winter months. Since the pathogen survives as mycelium and spores on thatch, controlling thatch, (i.e., vertical mowing, correcting soil pH, supplying adequate fertility and topdressing) can also aid in controlling the disease.

Many of the fungicides that control gray snow mold also work on *Microdochium* patch. Additional choices include benomyl (Tersan 1991), mancozeb (Fore, Formec 80), PCNB (Terraclor 75, Scotts F + F, Turfcide II and Pennstar), thiram (Tersan 75, Spotrete, Thirmad) and thiophanate methyl (Fungo 85, Clearys 3336). Fungicides should be applied before the first permanent snow cover. In areas with no snow, they can be used on either a preventative or curative basis. Be sure to read and follow label instructions at all times.

If snow mold is a problem in the turf you manage, the time to control it is now. By planning ahead, you can avoid any unpleasant surprises when the snow finally melts next spring. ❑

The Invisible Sun:



The electrical heating system underneath the field has survived since the Lombardi era in Green Bay. Photo courtesy: Green Bay Packers.

Heating Soil From Below

By Mike Augsdorfer

Steam rises from the head of a defensive tackle as he takes off his helmet and trots to the sideline. Nearby, the punter shivers beneath the coat thrown over his shoulder. The referee dodges another snowball thrown from the stands. In the offensive huddle, the quarterback's face is shrouded by the frozen cloud formed by his breath as he barks out the snap count. Meanwhile, the barefoot placekicker contemplates the relative merits of frostbite and his high salary. The team lines up for the potential game-winning field goal, gratefully acknowledging that — win or lose — they will soon be back in the locker room taking hot showers to stimulate the circulation in their frozen bodies. The kicker winces, knowing that the football will be rock hard when he kicks it. The ball is snapped, and frozen foot meets frozen ball ...

The grass beneath the players' frozen feet is green — a particularly nice shade of green, considering the frigid conditions. Just a few inches below the frosty scene, the roots of the turfgrass bask at a comfortable, if not balmy, temperature. How can the roots be toasty warm when the surface temperature is below freezing? The answer is simple: the soil is heated from below by a system designed to keep the roots warm, even when the surface temperature is better suited for ice hockey than football.

Several high-profile athletic facilities in the U.S. utilize soil heating systems to maintain consistent soil temperatures regardless of the weather. At least five NFL teams play home games on fields that feature below-ground soil heating systems. Coors Field in Denver, home of the Colorado Rockies baseball team, also has an underground heating system, and several major colleges utilize underground heating for their football game fields. Some field heating systems operate by pumping hot water through underground pipes to maintain a constant soil temperature. Other systems utilize underground electric wires or cables to heat the soil.

Electrical Heating Systems

When the Minnesota Vikings moved to the climate-controlled Metrodome, Lambeau Field in Green Bay, WI, inherited the reputation of coldest field in the NFL. While the fans and players in Green Bay brave sub-zero temperatures for their late-season games, the turf at Lambeau benefits from an underground heating system that keeps the roots at a comfortable temperature. The electric heating system underneath the field has survived since the Lombardi era in Green Bay. "It's 27 years old," says stadium turf manager Todd Edelbeck. "The last few years we've been to 20-below, but our winters haven't been too bad." Edelbeck admits that the team is exploring the possibility of installing a new hot-water system at the stadium. The current electric system features cables planted approximately six and a half inches below the surface. They run 12 inches apart at the center of the field. "Up until last year we turned it on a week or two before the last game," says Edelbeck.