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VOLUME TEN, NUMBER FIVE

MAY 1994

#### **MAIN EVENTS**

#### 10 SEED PRIMING AND PREGERMINATION: MAKING TIME

Time is of the essence in sports turf management, and seed priming and pregermination can help speed new turf and overseeding establishment. While methods vary with pregermination, constants include frequent changing of water, maintaining adequate temperature and oxygenation.

#### 16 1993 DIAMOND OF THE YEAR: THE GENOA HIGH ATTITUDE

When the Genoa High School baseball diamond fell into disrepair, coach Jeff Thompson, his staff and players, the school's administration, and the entire community didn't give up — they got busy. Their positive attitude and efforts made this northwest Ohio diamond a winner.

## 24 IRRIGATION EFFICIENCY: ATTENTION PAYS

From a simple catch-can test to check for distribution uniformity to matching precipitation rates of various rotors and heads, paying attention to irrigation system efficiency makes agronomic and economic sense.

# 31 WARM SEASON TURF RENOVATION: PROFILES IN EXCELLENCE

Budget and use drastically affect athletic field renovation practices, but with ongoing effort, excellence is possible in even high-use, low-budget facilities. Chris Bunnell, grounds supervisor for the Escondido Union School District and president of the Southern California Chapter of the Sports Turf Managers Association, details several diverse programs.

### LINE-UP

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ON THE COVER: Because of the ongoing event schedule at San Diego Jack Murphy, shown here on the morning of a Chargers game, renovation procedures are performed year-round. Photo courtesy: Steve Wightman. (Inset) Catch cans set up in park to gauge irrigation distribution.

Photo courtesy: Kurt Mengel.

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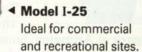


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## THE FRONT OFFICE

## OPINION PAGE

#### Going In Style



7ith players' salaries gone far beyond ludicrous, their disdain for fans skyrocketing, and their Superstar egos matched only by those of the owners, it's nice to see that something in Major League Baseball is getting better.

Ballparks. Today's Major League ballparks are being designed and built with the fan, as opposed to

the seating capacity, in mind.

Two real, natural turf gems opened this season - the Cleveland Indians' Jacobs Field and The

Ballpark at Arlington, home of the Texas Rangers. Both venues seat far less than the average park constructed in the 1960s and 1970s.

While I haven't visited either Jacobs Field or The Ballpark at Arlington, by most accounts they have grace and style similar to Camden Yards in Baltimore or Comiskey Park in Chicago. All four parks were designed to recapture the historic look and feeling of classic diamonds, such as Wrigley

Two groups are served by this "nostalgic" trend. First, the fans are treated to a game played in a more intimate, much smaller venue. The "worst seat in the house" at Jacobs Field or The Ballpark at Arlington is better than the average seat at many domes and stadiums.

Perhaps most importantly, the field is not an afterthought in the new "classic" parks. This may be a positive by-product of today's finicky, professional Superstar ball player, who wants only the best surface and facilities, and the owners, who may be starting to realize that a safe surface is one of the best insurance policies against injuries to high-priced stars. It's no accident that the two newest fields in Major League Baseball are natural turf.

Third, the ballpark owners and surrounding businesses will benefit through better attendance. Who wouldn't want to watch a game at one of these intimate venues?

For the sports turf industry, these parks are good omens indeed. Any highly visible improvement in the industry also elevates it a notch. You'd expect the kind of press Jacobs Field and The Ballpark at Arlington received from Sports Illustrated, but the fact that the Wall Street Journal chose to cover their openings in a March issue is quite significant.

More and more, from Little League to Major League, from Pop Warner to the NFL, fields are beginning to matter, as do the professionals who care for them. They've been important all along, yet it's taken time for the decisionmakers at the professional level to see beyond the bottom-line, or to understand that an intimate venue, coupled with an outstanding natural surface cared for by a first-rate professional, can actually improve it.

Matthew Trulio

## **EVENTS**

## CALENDAR

#### JULY

World Scientific Congress of Golf. St. Andrews, Scotland. Contact the Sports Turf Research Institute/World Congress of Golf at 44/334-75560.

Texas Turfgrass Association 24-26 Seminar. Arlington, Texas. Contact Shirley Duble at (409) 693-1656.

3rd Annual Midwest Grounds Management Conference. Illinois State University, Normal, Illinois. Contact: Chuck Scott (309) 438-2032 or fax (309) 438-7955.

13-16 American Association of Nurserymen Conference. Baltimore, MD. Contact: (202) 789-2900.

24-26 International Lawn Garden and Power Equipment Expo. Louisville, KY. Contact: (502) 473-1992.

### **SEPTEMBER**

11-13 Golf Europe '94 Munich. Munich, Germany. Contact Jerry Kallman, Jr., Kallman Associates at (201) 652-7070.

Florida Turfgrass Conference. 18-21 Ft. Lauderdale, FL. Contact: (407) 898-6721.

#### OCTOBER

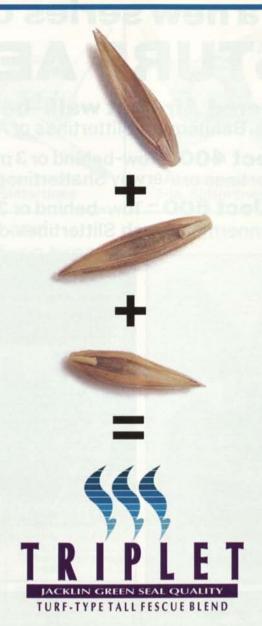
Southern California Turfgrass 5-6 Expo. Orange County Fairgrounds, Costa Mesa, CA. Contact: (619) 723-0947.

10-13 Northwest Turf Conference. Seaside, OR. Contact: (206) 754-0825.

#### **NOVEMBER**

International Irrigation Exposition. Atlanta GA. Contact: the Irrigation Association (703) 573-3551.

Send announcements on your events two months in advance to: Editor, sportsTURF magazine, 68-860 Perez Road, Suite J, Cathedral City, CA, 92234. Fax (619) 770-8019.



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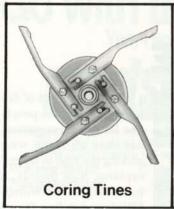
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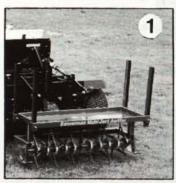


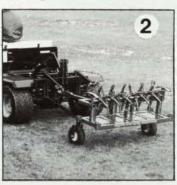






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- 1. Slittertines 3 pt. hitch on Cushman
- 2. Coring tines tow behind with transport wheels
- Coring tines towed by 3-wheeler, transport wheels up
- Slittertines transport position on Cushman
- 5. Aerway Shattertines tow behind on tractor



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#### SEED PRIMING AND PREGERMINATION:

# MAKING TIME

By Matthew Trulio

f all the shortages you can face as a sports turf manager, from staff, to budget, to equipment, perhaps the greatest one is time. There never seems to be enough of it.

That's particularly true for high-use facilities. By the time one event begins, you're looking to the next, which could be a week or so away, or even the next morning. Your goal is to provide the best natural surface possible within the constraints of time and resources. And while neither is a cure-all, or even worth pursuing in all situations, seed priming or seed pregermination can help you reach that goal.

Although the terms priming and pregermination are often used interchangeably, they're decidedly different. According to Dr. Doug Brede of Jacklin Seed, seed priming is a pre-plant process that gets seed ready to grow before it "hits the ground." The process involves partially wetting the seed, allowing it to progress through several steps of

germination, and then drying it back for planting. Priming takes the seed past the innate dormancy mechanisms that prevent or slow it from germinating when conditions are less than ideal.

Pregermination is process of germinating seed in a tank of water before sowing, Brede explains. After pregermination, roots have already broken the seed coat and an occasional leaf blade may be seen. Pregerminated seed demands immediate planting or the seed withers and dies.

In seed priming, the quantity of water fed to the seed during treatment is more limited than in pregermination. The seed doesn't receive enough water to fully germinate, so roots and shoots do not emerge. However, enough water is provided to get the seed started through the initial physiological steps of germination.



For the Tifway 419 bermuda turf at Sun Devil Stadium, Don Follette and his crew pregerminate 450 to 500 pounds of a ryegrass blend for each game. Photo courtesy: Don Follette.



Primed bluegrass seed (bottom), unprimed bluegrass seed (top right) and unprimed ryegrass seed (top left). Photo courtesy:

Jacklin Seed Company.

"There are a lot of different techniques people use for pregermination, but they all begin with soaking the seed in water," explains Nick Spardy, a turf consultant for Wilbur-Ellis based in San Diego, CA. "The goal is to create an ideal environment with adequate moisture, temperature, and oxygen where the seed is ready to germinate. Either the seed has started to swell or the cotyledon has actually emerged.

"In priming, the same concept is applied, but the process is stopped well prior to germination," he continues. "The seed may be swollen, but the cotyledon is far from emerging."

Most priming efforts, Spardy explains, are performed in the laboratory. The "tricky" part of the priming, he notes, is not just stopping the process, which requires precise timing, but storing primed seed. However, a number of companies are working on releasing primed seed varieties. (Check with individual seed companies or distributors for availability.)

In the field, seed pregermination tends to be a

more commonly used technique for speeding turf establishment. In its most simple form, the basic process involves soaking the seed in water, oxygenating the water, changing the water and, once the cotyledon has emerged, "drying" the seed (although allowing it to dry completely would kill it). The pregerminated seed is then applied to the field.

"There are a lot misconceptions regarding seed priming, and everyone has their own ideas," says Spardy, who did his senior project on the subject under the guidance of Dr. Kent Kurtz at Cal Poly Pomona. "One thing we found to be a constant in both germination speed and rate, was keeping the water between 75 and 80 degrees F. Changing the water every three hours, which is optimum, to eight hours is important, because

continued on page 14