

**TURF HEAVYWEIGHT CHAMPIONSHIP!**

# BEING FOUGHT WORLDWIDE

**SUPER FIGHT  
TO THE FINISH**

THE ONE! THE ONLY!

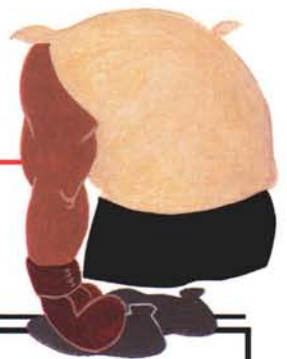
**SAHARA**

NUMEX

TURF-TYPE BERMUDAGRASS

**CHAMPION OF CHAMPIONS!**  
(WEARING GREEN & GOLD)

**vs. YUNO WHO**  
(WEARING OUT FAST)



RINGSIDE TIP:

**DON'T BET ON THE LIGHTWEIGHT  
IF YOUR TURF'S TAKING A BEATING!**

## THE TALE OF THE TURF

### NuMex SAHARA

Since 1986 .....	DOCUMENTED TEST RESULTS.....	?
Worldwide .....	PROVEN PERFORMANCE .....	?
Superior .....	DROUGHT TOLERANCE .....	?
Lush Green Carpet .....	APPEARANCE .....	?
Certified Seed Only .....	SEED QUALITY.....	?
Greater .....	TURF DENSITY.....	?

### YUNO WHO

**"USGA® /GCSAA® Sponsored Variety"**

U.S. Plant Variety Protection #8800010

For further information contact: **fm** FARMER'S MARKETING CORPORATION

P.O. Box 60578 • Phoenix, Arizona 85082-0578 • (602) 437-4058 • 1-800-8SAHARA (872-4272) • FAX: (602) 437-0245

Circle 106 on Postage Free Card

## DEEP AND SHALLOW AERATION:

# MIX AND MATCH

By Matthew Trulio



**Above: Aer Way PTO-driver unit from Holland Equipment.**  
**Right: Verti-Drain deep-tined aerator at work.**



**R**oger Bossard, head groundskeeper at the New Comiskey Park in Chicago, went “from one end of the aeration spectrum to the other” when the facility opened. The transition, says the third-generation superintendent, was no sweat. He had a plan, and he chose the right equipment to implement it.

“At the old Comiskey, I used a tremendous machine, an Aer Way deep aeration unit from Holland Equipment, because the field was built on clay and silt, and it took a lot of work to get any kind of a percolation rate,” Bossard recalls. “I’d use it eight to 12 times a year, in conjunction with slicing, down to five or six inches and it would shatter the soil down to eight or 10 inches. It was amazing.”

When the new ballpark opened, he started using a Ryan Greensaire. “I changed machines because my needs changed 100 percent,” he explains. “I have a sand-cavity field now, and I don’t have any percolation or compaction problems. I probably aerify twice a year now, down to three or four inches. With soil the profile I have now, aerifying

like I used to would be overkill. The change in the program has been one heck of a switch.”

By any name—aeration, aerification, and cultivation—the keys to success in the process of tilling soil without severely disrupting its surface are site- and problem-specific evaluation and flexibility. The challenge, for the sports field manager or golf course superintendent, is choosing the right tool or tool combination for the job.

“Think about the particular conditions you’re trying to treat on the site,” advises Dr. Jim Murphy of Rutgers University’s Extension and Crop Science Department. “What problems are you trying to manage—surface compaction, sub-surface compaction, thatch? Target certain pieces of equipment to address those issues.”

### Reasons To Believe

Murphy is a true believer in the necessity of regular cultivation for sports fields and golf courses, particularly greens and tees. The most commonly cited reason for aeration is compaction.

Compaction not only hampers drainage and infiltration, while decreasing root development, but in sports fields it can also create rock-hard, unsafe field conditions.

There are a number of other good reasons for regular aeration, Murphy notes, including disrupting layers in the soil and thatch control.

“With hollow tines, where you’re actually removing cores, you can help alleviate thatch,” says Murphy. “Aeration can also stimulate and rejuvenate turf because you’re severing stolons and rhizomes, which causes buds to generate new shoots. And with deep tine aeration, you can help stimulate a deep root system. I would consider deep tine aeration anything that goes below four inches. In the last five years, we’ve seen machines that go down five and six inches, and even below the one-foot level [such as the Verti-Drain and the SISIS Airdrain].”

### Weighing The Options

Eric Holm, superintendent at Onodaga Golf and Country Club in Fayetteville,

*continued on page 14*

# Natural Selection



**SISIS**  
are Europe's  
leading manufacturers  
of specialist turf  
management equipment.

The extensive range has been  
developed over 60 years.

Send for fully illustrated  
leaflets now.

#### Dealers

Tresca Industries Inc.  
Jacksonville, Florida  
Tel. 904 268 6741

Tresca Industries Inc.  
Orlando, Florida  
Tel. 407 291 1717

Lewis Equipment Co Inc.  
Winter Haven, Florida  
Tel. 813 294 5893

Colorado General Equipment  
Commerce City, Colorado  
Tel. 303 288 2641

**SISIS, INC.**  
4827 Phillips Highway,  
Jacksonville, Florida 32224  
Tel. 904 292 1611  
Fax. 904 268 3953

**SISIS, INC. Western Office**  
PO Box 1303  
Solvang, California 93464  
Tel. 805 686 2730  
Fax. 805 686 2731

#### Dealers

Turf Specialist Corp.  
Holbrook, New York  
Tel. 516 981 1118

Lyons & Lyons Sales Co Inc.  
Glen Arm, Maryland  
Tel. 301 665 6500

Smith Equipment  
Valley Centre, California  
Tel. 619 749 1271

Master Turf Distributors Inc.  
Dallas, Texas  
Tel. 214 352 0866

## **sisis** golf course maintenance machinery

## Aeration

continued from page 12

NY, describes his cultivation program as "traditional." Using a Core Master 12 from Greencare International, the University of Massachusetts turfgrass management program graduate aerates once in the spring and fall, in conjunction with topdressing, to a depth of 3-1/2 inches, although the unit can aerate to greater depths if needed.

Holm based his selection of the unit on several factors. He needed something PTO-driven that would be compatible with his small tractors. It had to be low-maintenance and had to be able to cover large areas quickly. Yet the most important element of the unit, Holms says, is its versatility.

"The machine has several different implements, so it can do a lot of different areas," he says. "With a lot of aerators in the past, that really wasn't conceivable. Versatility is the key. If your machine can react to a number of different situations, the more power to you."

According to Murphy, shallow aeration is most useful in areas with shallow compaction and thatch problems. However, in the case of deep layering prob-

lems, below three inches, something more extensive may be required.

"In golf courses and athletic field areas, shallow aeration does fine on the surface, but doesn't allow you to address the problems that can exist below that three-inch level," says Murphy. "Because of that, a real interest developed in loosening up the soil below the three-inch level."

Deep tine products such as the Verti-Drain, which can aerate down to 16 inches, and shatter the soil as it does, have become popular among turf managers facing deep compaction problems, Murphy notes. "The Verti-Drain is a pretty radical treatment," he says. "It can create some remarkable changes in the soil's physical characteristics."

### The Role Of Timing

When to cultivate can be as important as how. Aeration during a hot, dry windy period, for example, could lead to grass plant desiccation. Ideally, Murphy notes, aeration should be performed while there is some active growth in the turf, so it can recover from any injury caused in the process.

Unfortunately, most superintendents have more than the seasons to con-

sider when scheduling cultivation. Tournaments, games, and events often play havoc with a turf manager's aeration schedule.

"A lot of people in this business are forced to aerate at times they'd rather not," reveals Jim Ferrin, superintendent of Brookside Country Club in Stockton, CA. "For us, it seems like we're always aerating during Poa annua time. We have new sand-based bentgrass greens, and we didn't want to create large holes that would lead to a Poa problem."

Ferrin's solution was to choose a Toro HydroJect 3000. The unique machine uses tiny streams of water under high pressure to punch holes and fracture the soil down to at least six inches, according to Ferrin, with minimal surface disturbance. Another water injection-type aerator, the Ryan Liquidator, will soon be introduced by Ransomes America Corporation.

"The water injection aerator is different in the sense that it's not a surface cultivator," Murphy explains. "It doesn't adversely disrupt the playing surface, but it cultivates below the surface and provides some compaction relief. It's niche, I think, is in mid-season aeration."

## DISCOVER THE



3 PT Low energy aerifier



pull-type

AER-WAYING IMPROVES. . .

• WATER • AIR • FERTILIZER & CHEMICAL USAGE

WE HAVE A VARIETY OF MODELS  
AVAILABLE TO SUIT YOUR NEEDS

Call or write



HOLLAND HITCH OF TEXAS

P.O. Box 950  
Wylie Texas 75098

**1-800-457-8310**

Dealer inquiries welcome

Aer-Way®

## ADVANTAGE

FAST,  
EFFICIENT,  
LOW COST,  
LOW MAINTENANCE  
ANGULAR TINE



AERATION FOR

ATHLETIC FIELDS  
PARKS/PICNIC AREAS  
GOLF COURSES  
SOD FARMS  
LANDSCAPERS/ESTATES  
CEMETERIES

## SPORTS TURF COATINGS



You have seen Mautz 8-30 for many years on Super Bowls, Pro Bowls, numerous NFL stadiums and universities. Now available world-wide from MISSOURI PAINT SUPPLY.

8-30 WILL NOT HARM GRASS!  
BRIGHTEST WHITES AND  
SHARPEST MATCHES TO  
TEAM COLORS.

- \* National, International Sales.
- \* Complete Line of Natural and Artificial Turf Paints.
- \* Custom Stencils.
- \* Spray Equipment & Accessories.
- \* Warren's Bench Tarps and Field Covers.
- \* Member of STMA.

Contact Larry Davis

## MISSOURI PAINT SUPPLY

Helping You Make Your Mark in the '90s!

5818 Troost, Kansas City, Missouri 64110  
(816) 333-1272 \* Call Us Toll Free (800) 426-0774

## Cultivation Strategies: Mix And Match

The blending of different techniques, according to the Rutgers professor, is one of the most exciting elements of aerification made possible because of advances in aerator manufacturing technology. There are a number of versatile machines on the market that utilize hollow and solid tines, and have adjustable spacing, speed, depth control, and more.

"This enables the turf manager to adjust his program according to the time of year," says Murphy. "I can definitely see people using hollow tines during one portion of the year, and solid tines during another. It's very desirable to 'mix and match' aeration practices based on the particular problems a turf manager faces."

When it comes to mid-season aeration with either solid or hollow tines, Murphy recommends a "spot-treatment" approach. He suggests aerating only those areas that are affected, such as a localized dry spot on a football field or the corner of a golf green, rather than the entire area. The approach, he says, is similar to that of Integrated Pest Management (IPM) for insects and diseases, where one treats only those areas hampered by the problem, instead of using a "blanket" approach.

Considerable research has been done to determine the amount of compaction caused by aeration. Repeated, long-term aeration to a single depth has been found to create a layer of compacted soil at that depth. Yet the cultivation cure, Murphy insists, is not worse than the compaction disease.

"Creating a compaction zone below the soil surface is certainly a 'real' problem, but generally only for courses or sports fields that are 10 years old or more," he explains. "It would be unlikely for someone to cultivate enough to create that problem on a newer facility. I've had a chance to look at some older putting greens, and there is definitely a compaction layer there at three inches. Ultimately, repeated, aggressive aeration of a given area over a number of years will create a layer, but the problem is long-term."

While Murphy adds that the problem may be unavoidable "down the road," there are certain practices turf managers can use to delay it, such as varying the depth of aeration and using smaller diameter tines. Another strategy he frequently suggests is aerating when the soil is somewhat dry, as dry soil

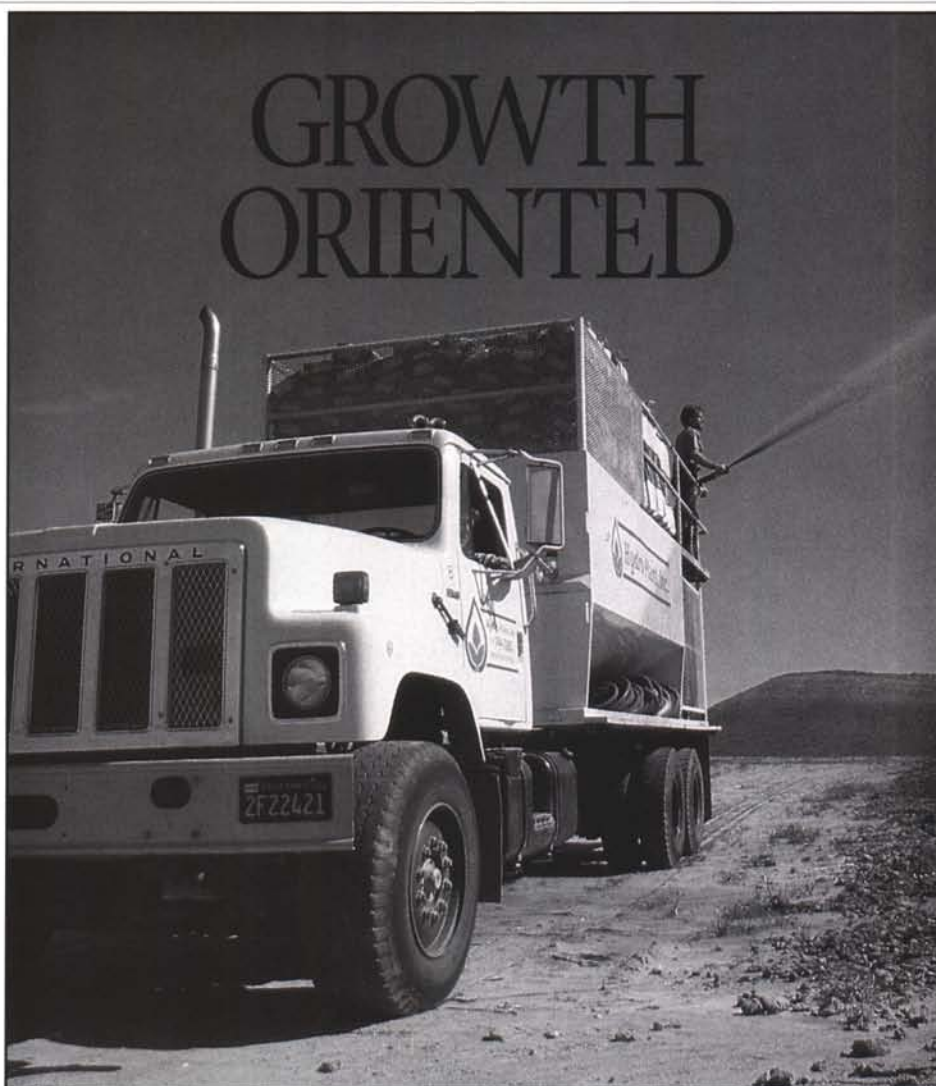
***The cultivation cure,  
Murphy insists, is  
not worse than the  
compaction disease.***

does not compact as easily as wet soil.

"Of course, that strategy is only useful with pretty healthy turf," he says. "It would be a disaster to try that with turf that is wilting."

No aeration strategy is ever "finished," he notes. Constant observation and adjustment is vital to the long-term success of the cultivation program. Flexibility is paramount.

"Reevaluate your aeration program as time passes, because it will cause changes in the soil conditions," says Murphy. "What worked the first few times may not always work. You may have to make a shift in depth or tines, or even back off the frequency. You have to constantly reevaluate, and make adjustments along the way." □



As the game of golf grows, so does the demand for Hydro-Plant. We provide golf courses all over California with seeding, erosion control and stolonizing, and one other very important feature that never grows old — first class service.

If you're considering the services of a hydroseeding company, give us a call and we'll refer you to some golf course superintendents who've grown accustomed to our way of doing business.



**Hydro-Plant, Inc.**

Contractors License #397933

356 South Pacific St., San Marcos, CA 92069 • 619/744-7360 • 714/351-4343 • Fax 619/744-6559

# STMA IN ACTION

## ASSOCIATION NEWS

### WADDLE KEYNOTES MIDWEST CHAPTER'S ANNUAL MEETING



Chicago Bears wide receiver Tom Waddle presented the keynote address to more than 125 sports turf managers during the Midwest Chapter's Second Annual Meeting and Awards Banquet in March. The program consisted of morning educational sessions, a luncheon, and the awards program.

Waddle related his experiences over three years as a professional athlete. He credited the excellent condition of the Bears' Training Center in Lake Forest, IL, for his success in staying well conditioned and healthy. Head Groundskeeper Ken Mrock and his assistant, John Berta, were singled out by Waddle for their contribution to the Bears' organization.

During the morning program, Harvey Foster, baseball coach at Hersey High School, related his experience in getting involved with the grounds maintenance crew on a major ball diamond project. Foster said that the combined efforts of the athletic department and the grounds maintenance department produced a quality field in addition to an improved team record and player pride.

The evolution of athletic field maintenance equipment was addressed by a panel of two distributors and one manufacturer. Rick Johnson represented Illinois Lawn Equipment, Inc. and Steve Stewart spoke for Chicago Turf and Irrigation. Terry Brown and Bill Chestnut with John Deere rounded out the panel.

Arthur Clesen, Inc., was honored for

its active participation, dedication, and service to the chapter. Mike Schiller, sales representative for Clesen, received the President's Award for service from chapter president Greg Petry.

### STMA OFFICERS FOR 1992 ELECTED

The 1992 slate of officers for the Sports Turf Managers Association recommended by the nominating committee was elected during the Annual Conference in San Diego, CA.

Dr. Gil Landry with the University of Georgia in Griffin is president. Greg Petry, superintendent of parks for the Waukegan Park District in Waukegan, IL, was uncontested as president-elect. Larry Perotti with Sharp Brothers Seed Co., in Greeley, CO, is vice president (commercial). Rounding out the slate of officers are Secretary Dr. David Minner with the University of Missouri, Columbia, and Treasurer Ken Mrock of the Chicago Bears.

The five boardmembers elected for 1992 include: Stephen Guise with Santa Anita in Arcadia, CA; Jesse Cuevas,

### PRESIDENT'S MESSAGE

*Dr. Gil Landry, Jr.*

**T**he American Society for Testing and Materials (ASTM) is an international organization whose primary mission is to develop voluntary standards for



materials, products, systems, and services. It provides a forum for procedures, users, consumers and those having an interest to meet on common ground and write standards.

ASTM committee F-8, Sports Equipment and Facilities, is working on two issues which will affect the sports turf industry. The first is the development of a standard method for measuring field hardness. The second is to develop standard guidelines or practices for the design, construction, and maintenance of natural turfgrass fields.

It is generally assumed that such standards would be used in contracts, construction specifications, for deter-

mining liability for injury due to field conditions, etc. These standards should become a tool to obtain equipment, supplies and labor to maintain acceptable conditions.

Such standards may speed up our natural evolutionary process of developing more high-quality sport surfaces and facilities. These standards may also create opportunities for well-trained sports turf managers. In any case, the need for more technically trained sports turf managers will always be with us. As budgets grow, so do the expectations and demands for quality surfaces and facilities.

STMA members directly involved with these ASTM committees include Steve Wightman with San Diego's Jack Murphy Stadium and Dale Hansen with Kramer Sports Surfaces. STMA intends to provide its expertise for these and future issues that directly or indirectly affect our profession. One such issue which might become closely related to these standards is professional certification, which we will discuss in the future.

**Sports  
Turf  
Managers Association**