Why the Ballard Bombers Prefer Medalist America Athletic Field Seed Products.

On some of the toughest fields anywhere, you’ll find Medalist America athletic turf. Products painstakingly developed for the stomped-on, trampled-down world of schools, parks and athletic fields – anywhere superior quality and durability are critical. The result is wear resistance, excellent footing and a turf that looks great under the most brutal conditions.

To find out more about Medalist America sports turf products, call us at 800-568-TURF. We’ll help you play – and win – on your home field.
Specify AXIS, the soil amendment that lets you manage air and water in the root zone 4 times better than clay.

**AXIS vs. Clay Amendments.**

AXIS is very different from clay-based soil amendments. Clay treated to make larger pore sizes can’t stand up to freeze/thaw cycles. It turns to mush. When clay is treated to last longer, it creates pore sizes too small to release water that benefits turf. AXIS is designed by nature to last indefinitely.

**Pore Sizes**

**Designed by Nature to Absorb and Release Water.**

AXIS gives you more leeway managing the delicate air/water balance in turf root zones. You see, in soil amendments water can’t enter and release easily when internal pores are too small. Only AXIS comes from a unique American source of diatomaceous earth, comprised of the ancient remains of microscopic sea organisms with internal pores naturally sized to accommodate water movement.

AXIS was proven at Ohio State University to increase both readily available water and water retention in USGA root zone mixture. Independent tests show 80% of the internal pores within AXIS are suitable for absorbing and releasing water at normal pressure levels. The pores in clay products can hold water so tightly it’s like trying to water plants with a damp brick.

**Non-Compacting and Stable,**

**AXIS Aerates Soil While Providing a Firm Surface.**

Water coming and going into AXIS particles brings air into the soil, and, unlike polymers, it is stable and does not change shape. The lower bulk density of AXIS, less than half the weight of sand, provides the ideal soil environment for the easy movement of air, helping prevent anaerobic soil better than clay-based amendments.

**Proven in the Lab and in the Field.**

AXIS has made it much easier for many sports turf managers to manage the air/water balance in turf. For new construction, renovation and topdressing with core aerification, the results are real and very cost-effective.

**Ask for Your Free AXIS Fact Kit.**

You’ll find case studies, independent testing reports from the best in the business, and end-user references. Call today for information and your local dealer.

1-800-270-TURF

Distributed nationally by AGRO-TECH 2000 INC. PLAINSBORO, N.J.

Manufactured by Eagle-Picher Minerals, Inc. Reno, Nevada
MAIN EVENTS

10 Self-Cultivation: An Alternative to Mechanical Aeration?
Stephen Guise has witnessed the impact of plastic mesh elements when mixed into the root zone of sports turf. He reports on his experiences and research on three continents.

16 Autumn Aeration Tips: Keeping Ahead of Compaction
Mary Owen, turf specialist with the University of Massachusetts, explains why busy sports turf managers should find time to aerify in the fall. Compacted soils will make your job more difficult if you don't.

18 Making Athletic Fields Safer
Over 20 percent of football injuries can be linked to field conditions, half of which occur on practice fields. Athletes spend 90 percent of their time on practice fields, yet only 20 percent of maintenance budgets are spent on these areas.

20 Fall Overseeding Update: Gaining Control Over Transition
Overseeding warm-season fields with perennial ryegrasses or rough bluegrass in the fall is now the standard in a growing part of the country. A little history on overseeding and an update on Poa trivialis.

24 New Wave: Campbell Guides Tennessee Back to Natural Turf
The University of Tennessee was the first outdoor stadium to install artificial turf. After two decades, Bob Campbell has convinced the school to return to a natural turf surface. He made sure no mistakes were made.

LINE-UP

6 FRONT OFFICE
6 EVENTS
8 STMA IN ACTION
33 ROOKIES
37 CLASSIFIEDS
37 AD INDEX

On The Cover: Australian Rules football under way at the Melbourne Cricket Club in Melbourne, Australia. Photo courtesy: Neton.
RPS is an educational video series that brings research findings to the practicing arborist. Four times a year "Research Practically Speaking" will report on some of the most important arboricultural research from around the world in terms that are both understandable and practical.

To serve you better, a new pricing structure has been implemented for the "Research Practically Speaking" Video Series. You can now order tapes individually at $25 each. In addition, upon successful completion of tape related questionnaires, which will be mailed along with your tape(s), you can earn 1.5 CEU's per tape. Simply return the completed exam along with $20 to the ISA Research Trust.

Listed below is the material covered on the first four tapes:

**Volume 1**
- Girdling Roots on Norway Maples
- Crabapple Preferences for Japanese Beetles
- Soil Treatment for Urban Trees

**Volume 2**
- Highlights of the ISA European Congress
- Bike Paths and Tree Roots
- Tree Growth Regulators
- Tree Wraps Revealed

**Volume 3**
- Amsterdam Tree Soil
- De-Icing Salt Problems on Trees
- Assessing Tree Root Damage
- Successful Tree and Shrub Transplant Strategies

**Volume 4**
- Constructing a Soil Profile Using Steel Rods
- Landscape Design for De-Icing Salt Plant Protection
- Experts from North America and Europe Choose Their Top Three Trees For Urban Planting

For more information please call Laura Lynch at (217) 355-9411.

---

**Order Form**

Research Practically Speaking

I would like to order the following VHS tapes:

<table>
<thead>
<tr>
<th># of Tapes Ordered</th>
<th>Cost per Tape</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tape 1</td>
<td>Tape 3</td>
<td>$25.00</td>
</tr>
<tr>
<td>Tape 2</td>
<td>Tape 4</td>
<td></td>
</tr>
</tbody>
</table>

Make checks payable to ISA.

If paying by credit card, give number and expiration date:

Signature: ________________________________

Please send completed form to:
RPS, ISA Research Trust, P.O. Box, GG, Savoy, IL 61874-9902
So You Think You Need An Agent????

The baseball strike has made me think that every working person should have an agent. These calculator-toting arbitrators of salaries and incentives would make sure we all get our "fair share," plus 10 percent for their trouble. They'd cover up all our financial weaknesses, such as team spirit, fan appreciation, and love of sports. These traits make us wimps at the bargaining table.

Major League baseball is a business, not a pastime. Stadiums used to be called ballparks, bleacher seats were two bucks, players hung out after games to autograph baseballs on the edge of the grass diamonds. The very same attributes that make minor league ball so popular today made the Big Leagues what they were before the '60s.

Owners of minor league clubs expect to make a profit too. Those billboards on the outfield fence cost advertisers something. The pop, beer, hot dogs, peanuts and pretzels generate a profit. The hats, miniature bats, and banners also produce a chunk of revenue.

Somebody has to stick around the park after games and count the cash. No star player gets a percentage when the crowd goes over 3,000. There's no carpet on the floor of the locker room or on the field outside. And, it's not unusual for the backup catcher to be the groundskeeper too.

Maybe I'm completely naive, but I think some of today's owners still love the game and aren't as greedy as the agents (not the players) seem to think. These owners don't flinch when their groundskeepers ask for a better mower, modern irrigation system, or association dues. They recognize the field as a critical part of the sport. The smell of grass is vital to the atmosphere of the ball park. The firmness and stability of the skinned areas have a major impact on the confidence of the players. Better fields mean better action.

Baseball has always benefitted from having stars on the roster. But at some point, the fans stopped making players stars. They were replaced by agents who claimed to know what fans thought. Owners listened to the agents rather than the fans. That's when baseball turned into a bidding war and forgot about the fans.

On second thought, I don't think agents are what working people need. I'd rather keep the 10 percent and just enjoy the game.

Bruce F. Shonk
**EVENTS**

**NINTH ANNUAL PACIFIC SOUTHWEST MAINTENANCE MANAGEMENT SCHOOL**

13-19 Ninth Annual Pacific Southwest Maintenance Management School. UCLA Conference Center, Lake Arrowhead, CA. Fee is $610 and includes instruction, course materials, reference notebook, all meals and housing for the full five-day program. For information, call (800) 796-NRPA.

**NATIONAL GOLF FOUNDATION GOLF SUMMIT '94**

18-20 National Golf Foundation Golf Summit '94. Scottsdale, AZ. Contact: (407) 744-6006.

**NORTH CENTRAL TURF EXPO**


**DECEMBER**

30-1 Rocky Mountain Turf Conference. Colorado Convention Center, Denver, CO. Contact: (303) 688-3440.

5-7 Texas Turfgrass Association Conference and Show. Fort Worth, TX. Contact Shirley Duble, (409) 693-1656.

6-8 Twenty-Fifth Annual Georgia Turfgrass Conference and Show. Georgia International Convention Center, College Park, GA. Contact Douglas Moody, (404) 975-4123. Fax (404) 975-4044.

6-9 1994 Ohio Turfgrass Foundation Conference and Show. Columbus Convention Center, Columbus, OH. Contact: (614) 261-6750.

7-9 New Jersey Turfgrass Expo. Atlantic City, NJ. Contact: (908) 932-9271.


**JANUARY 1995**

9-20 Tenth Annual Cornell Turfgrass Short Course. Ithaca, NY. Contact: (607) 255-1789.

---

**LARGE AREA TOP DRESSING?**

**NO PROBLEM!**

*And only 12 to 18 P.S.I. with the 4-wheel GO ANYWHERE walking beam suspension.*

**4 CUBIC YARDS!**

The benefits of top dressing are proven and effective, as shown by the growing number of large area top dressing programs throughout the United States and Canada. With the 4 YARD TD-400 from TY-CROP, you’re working smarter instead of harder, and saving thousands of dollars annually. In fact, a recent study showed how you can save nearly $10,000.

The TD-400 is extremely versatile. Use it for spreading top dressing mixes, stone for cart paths, grass clippings, compost, dirt, gravel, almost anything! Don’t worry, the TD-400 can take the punishment. Every new unit comes standard with a heavy duty rotating beater drum that breaks up the material before the high speed finishing brush evenly spreads it over the entire 60" width.

The TD-400 is equipped with an incredible 4 WHEEL “GO ANYWHERE” WALKING BEAM SUSPENSION that results in only 12 to 18 psi when fully loaded. No other machine can offer these features.

For more information on how you can see the TD-400 in action and for the location of your nearest Ty-Crop Turf Equipment dealer, call us toll-free at 1-800/845-7249.

---

**Send announcements of your events two months in advance to:** Editor, sportsTURF magazine, 68-860 Perez Road, Suite J, Cathedral City, CA 92234. Fax (619) 770-8019.
PRESIDENT'S MESSAGE
By Greg Petry

Did you know that three-fourths of the individual member associations and more than a third of corporate member associations in the United States have chapters, branches or state or local-affiliated organizations? For all intents and purposes, a chapter is defined as a branch of a state, regional, national or international association. Chapters play an important role in the delivery of an association's products and services. Chapters also are the principal players in membership development by the parent association, and vice versa. There is a mutual dependence.

Because of the interdependent role between STMA and its chapters, a healthy communication link between the two groups is the key to a mutually-fulfilling relationship.

Forming new chapters can be one of the most effective association membership development activities. It often results in quantitative membership growth that may continue for several years, sustained by the group dynamic that accompanies new organizations.

Vibrant chapters are instrumental to long-term membership stability and growth for STMA. In many national associations, the members perceive chapter activities as the most tangible benefit. It stands to reason, then, that the STMA must be concerned with the organizational health of its chapters.

The STMA staff, administrative support and help for ailing chapters is an area that we have to monitor. Despite the best intentions of STMA or its chapter leaders, not every chapter will succeed all of the time. Ailing chapters can do much to drain the resources of the national STMA.

An informed and motivated chapter leadership is the foundation for its development as a vital active chapter. Recognizing this, I encourage chapter leaders to attend the annual conference.

Roundtable discussions are held where chapter leaders can discuss the nuts-and-bolts responsibilities of their chapter positions. At the conference, chapter leadership can review the chapter handbook detailing chapter administrative procedures. Leaders can be cautioned about potential pitfalls in their job, in addition to being supported and motivated by members.

Iowa Chapter The Iowa STMA will hold a meeting at the Atlantic High School, Atlantic, IA, on Nov. 5 from 8 a.m. to noon. While the program will emphasize football field care at the high school level, the topics addressed will cover the broad scope of field maintenance. Chapter members, school, municipal and public-grounds personnel, and all others connected with sports turf field care are invited to attend. Registration will be held in the Atlantic High School auditorium.

For more information on this meeting, contact Dr. Eldon Everhart, (712) 755-3104. For information on the Iowa Chapter, or other chapter activities, contact Gary Peterson, (515) 791-0765.

Chesapeake Chapter The Chesapeake Chapter is currently reworking plans for the Regional Institute to be held in conjunction with the National Sports Institute at UCLA on Wednesday, Oct. 12. The institute will focus on building a winning team with coaches, administration and turf professionals. This event will combine education sessions, a tour of UCLA sports turf facilities, and a top-notch trade show.

Featured speakers will include: Dr. Jim Beard, chief scientist for the International Sports Turf Institute Inc.; Steve Cockerham, superintendent of agricultural operations, UC Riverside and key member of World Cup Soccer’s ACT team; Steve Wrightman, turf manager of Jack Murphy Stadium, San Diego, CA; Neal Beeson, owner of Sports Turf & Facility Management Company, Anaheim, CA; and members of the UCLA coaching staff. Keynote speaker, UCLA Head Football Coach Terry Donahue, will present, “A Winning Game Plan.”

For more information about the institute, call Dave Ashman, (310) 206-6662. For more information about the Southern California Chapter and upcoming activities, contact Chris Bunnell, (619) 432-2421.

Midwest Chapter In conjunction with the National STMA, the Midwest Chapter will hold the Midwest National Sports Institute at Northwestern...
University’s Dyche Stadium in Evanston, IL on Sept. 27.

Registration is 8:30-9 a.m. At 9 a.m. STMA Executive Director Bret Kelsey and STMA President Greg Petry will present, “Get Serious with STMA.” This will include a report on recent developments and STMA growth. This will be followed at 9:30 with “World Cup Reviews,” presented by Jim Brogiel, Jim Lewandowski and Joe Marley. They were the groundskeepers in charge of the practice facilities used by international teams playing at Soldier Field. The session will also include sports turf managers affiliated with other World Cup ’94 venues.

Following a “Tailgate Lunch Under the Tent at Dyche Stadium,” afternoon sessions begin with “New Pitch for Protection,” covering the new proposed guidelines for safety measures for young baseball and softball players—and the probable effect on sports turf. “Sports Turf at Northwestern University” will be presented by Groundskeeper Randy Stonberg. He will address his turf maintenance calendar for the game and practice fields at NU; Gary Barnett, head football coach, will present his perspective of the playing surfaces of Big Ten schools; and Jack Freeman, athletic facilities manager, will present details on the recent resurfacing of the artificial surface of Dyche Stadium. After a raffle, there will be a tour of the stadium and the surrounding athletic fields.

For more information on the institute, contact Nancy at the Waukegan Park District, (708) 360-4725. For more information on the chapter and upcoming activities, call the Chapter Hotline, (708) 439-4727.

**Minnesota Chapter**
The Minnesota STMA is one of eight green industry member associations of the Minnesota Turf and Grounds Foundation that are cooperating in the Conference, Dec. 7-9 at the Minneapolis Convention Center. For more information on this event, contact Steve Turtinen of the Minnesota GCSA, (612) 473-0557.

For more information about the Minnesota STMA and its future activities call: Tom Rudburg, University of St. Thomas, St. Paul, MN, (612) 962-6545; Mike McDonald, Bierman Athletic Complex, University of Minnesota, Minneapolis, (612) 625-6079; or Brian Deyak, St. Cloud Sports Center, St. Cloud, MN, (612) 255-7223.

**New England Chapter**
The New England STMA and the University of Massachusetts Cooperative Extension System hosted a successful Athletic Turf Management Field Day on Aug. 10. The 210 attendees from all over New England, and more than 20 exhibitors had an information-packed day. Special events included a presentation by Dr. Bridget Rueemmele, turfgrass specialist from the University of Rhode Island, on the selection of turfgrass seed and sod for athletic fields; and also a series of demonstrations of equipment, field marking and painting, and irrigation and sprinkler head comparisons for baseball and football fields.

For more information about the chapter or its upcoming events, contact Mary Owen, University of Massachusetts, (508) 892-0382.

**Florida Chapter #1**
For information on the South Florida Chapter and upcoming activities, contact John Mascaro, (305) 938-7477.

**Colorado Chapter**
For more information on the chapter or future activities, contact Joe Adams, (303) 350-9340.

**Heartland Chapter**
For more information on the Heartland Chapter, contact Mark Diller, (913) 782-7625, or Jack Schwartz, (816) 792-2808 or (800) 344-8873.

___

**Rain Forest Rescue: To Help Save Half Of The Plants And Animals On Earth**

In the rain forest, the sounds of fires and bulldozers are replacing the sounds of nature.

Recent studies show that the destruction of the rain forests wipes out 17,000 plant and animal species each year. That’s about 48 extinctions per day, two per hour. These are plants and animals that will simply cease to exist, gone forever from the planet. And the toll mounts every day.

Even though they occupy less than 2% of the earth’s surface, rain forests are home to over half the world’s plant and animal species.

Join The National Arbor Day Foundation and support Rain Forest Rescue to help put a stop to the destruction. When you join, the Foundation will preserve threatened rain forest in your name.

An area of rain forest the size of 10 city blocks is burned every minute. Help stop the destruction. Before the sounds of nature are replaced by the sounds of silence.

To contribute to Rain Forest Rescue, call 1-800-222-5312

---

The Margay is one of many species whose habitat is threatened rain forest.
Self-Cultivation –

An Alternative to Mechanical Aeration?

Establishment and maintenance of a thriving turf field for athletic activity requires the proper environment for optimum grass growth. Mechanical aeration has for years been a vital part of the maintenance regime implemented to stimulate development of deep, healthy roots; to increase pore space for water, air and nutrient movement through the soil profile; and to improve percolation rates.

Turf professionals have considered the time and labor that could be saved if these same benefits could be achieved by the addition of a long-lasting material to the soil profile, rather than through repeated multiple aerations each year. Various combinations of many types of materials with differing properties and in a multitude of sizes have been tested within the soil profile to attain the desired conditions with less need for aeration.

Researchers at Texas A & M University conducted a series of tests on the stabilization of high-sand rootzones by incorporating interlocked, randomly-oriented polypropylene mesh elements. The improved health of the turfgrass in those plots with the mesh elements in the rootzone was