

WIRELESS REMOTE IRRIGATION CONTROL

Nighthawk Systems introduces HYDRO IVTM, the newest in a line of "Plug" and "Play" wireless remote controls that uses paging signals for activation. Its primary function is to receive a command from a user-generated page and interrupt irrigation time clocks via the sense terminals.

NightHawk Systems, Inc/303-337-4811
For information, circle 121 or
see <http://www.oners.ims.ca/2910-121>



SOIL FUMIGANT

Curfew soil fumigant, a nematocide manufactured by Dow AgroSciences LLC, has been granted a 24(c) label from the EPA making it available for use on turf throughout South Carolina and Georgia. This is in addition to the existing 24(c) label presently in place in Florida.

Dow AgroSciences/317-337-3000
For information, circle 099 or
see <http://www.oners.ims.ca/2910-099>

COMBAT FIRE ANTS

EPA has approved Wellmark International's Extinguish Plus for combating imported red fire ants. The product combines the killing speed of an adulticide with the long lasting control of an insect growth regulator (IGR) and provides a tool to minimize imported red fire ant infestations.

Wellmark International/800-877-6374
For information, circle 119 or
see <http://www.oners.ims.ca/2910-119>



roots® Turf Food

Now contains

6 patented strains

of

Novozymes® Microbes

roots® Turf Food is a natural based *nutrient delivery system* designed to enhance the biological balance of the soil and turf ecosystem. **roots®** Turf Food feeds and enhances soil microbial activity; adds "beneficial microbes" back to the soil environment; "conditions" the turf grass plant with stress-reducing compounds; and provides a balanced fertility "base" for turf nutrition.

These are the Novozymes® microbes in **roots®** Turf Food

• <i>Bacillus amyloliquifaciens</i> SB3002	Produces hydrolytic enzymes that release nutrients in soil
• <i>Bacillus pasteurii</i> SB3003	Effective at low soil oxygen levels, produces hydrolytic enzymes that release nutrients in soil
• <i>Bacillus cereus</i> SB3124	Produces natural chelate that enhances nutrient uptake
• <i>Bacillus laevolacticus</i> SB3006	Breaks down organic matter to release nutrients
• <i>Bacillus licheniformis</i> DA-33	Phytohormone producer, effective at higher soil temperatures
• <i>Paenibacillus azotofixans</i> SB3154	Converts atmospheric nitrogen into a form useable by plants



Novozymes Biologicals, Inc. www.novozymes.com
5400 Corporate Circle, Salem, VA 24153 1-800-342-6173

Circle 138 on card or www.oners.ims.ca/2910-138

"NUTRIBOOSTERS"

Trees looking yellow or suffering from poor leaf growth? One application of ArborSystems Nutriboosters can relieve symptoms from iron chlorosis and certain deficiencies of iron, manganese, phosphorus, and potash. Developed for use with Direct-Inject Tree Treatment system.

ArborSystems/800-698-4641

For information, circle 111 or

see <http://www.oners.ims.ca/2910-111>



ALTERNATIVE GROUNDCOVER

PPW has begun distributing GroundScape, a recycled alternative, and multi-purpose groundcover with a mulch-like appearance that can be used for landscaping, playgrounds, pool surrounds, and walkways. Available in two styles and two colors and has a 10-year warranty. The product is safe for children, does not harbor insects, and does not encourage mold and mildew growth.

PPW/800-845-6160

For information, circle 095 or

see <http://www.oners.ims.ca/2910-095>



USER-FRIENDLY PACKAGING

Syngenta Professional Products' redesigned 10-gal. LinkPak packaging system is now available. Products available are Banner MAXX, Subdue MAXX, and Primo MAXX. Features include: color-coded by brand; top indentation with a flush mounted nozzle; and complete and clean drainage when in the horizontal position.

Syngenta/800-395-8873

For information, circle 101 or

see <http://www.oners.ims.ca/2910-101>

The game must go on.

No more wet, muddy or frozen fields. Ever. Whether you play on grass or artificial turf, the Airfield® sports drainage system is for you. We move water 13 times faster and reduce irrigation requirements by up to 70% over any other system, with a Gmax rating up to 15% lower for enhanced player safety. And if that wasn't enough, our Airforce® system keeps your field cool during high temperature play and warm to prevent snow and ice buildup. With all that you have going on above your turf, isn't it time you thought about what you have going on beneath it?



441 S. Fretz
Edmond, OK 73003
Office: 405.359.3775
Toll Free: 888.287.9657
Web: airfieldsystems.com



Circle 139 on card or www.oners.ims.ca/2910-139



AerWay® Groundhog for Sports Fields

It's about Time... YOUR TIME!

Sports turf experts agree, regular aeration is the one thing that will immediately improve turf health and vigor, reduce fertilizer costs and optimize the use of valuable water.

The all new AerWay® Groundhog allows you to aerate a sports field in less than 1 hour, and play right away.



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- for a SAFE and PLAYABLE field

for further information call **1-800-457-8310**

Advanced Aeration Systems

www.aerway.com email: aerway@aerway.com

Circle 140 on card or www.oners.ims.ca/2910-140



DECODER, NOT SATELLITES

The IDS is a new 2-wire decoder that's housed in a stainless steel or plastic pedestal for vandal-resistant commercial applications. Only one high-capacity IDS controller and a system of decoders are needed to control more than 100 stations, instead of a series of standard field satellites.

Hunter Industries/800-733-2823
For information, circle 115 or
see <http://www.oners.ims.ca/2910-115>

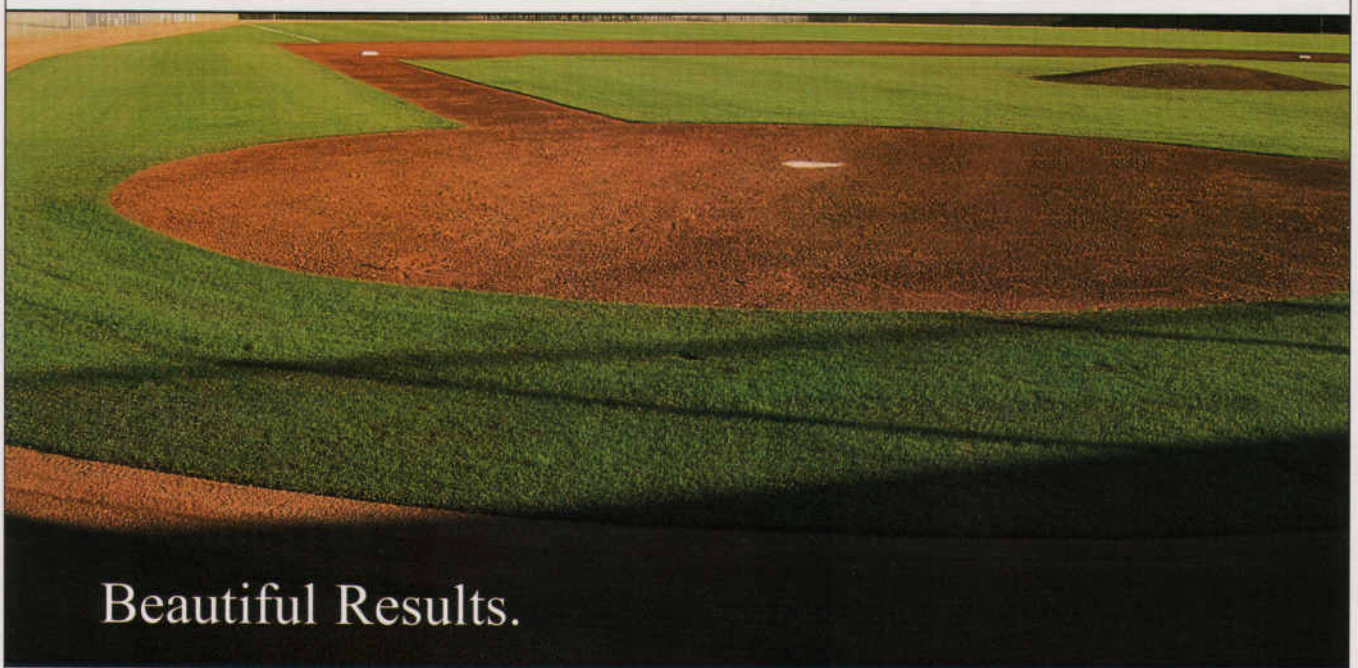
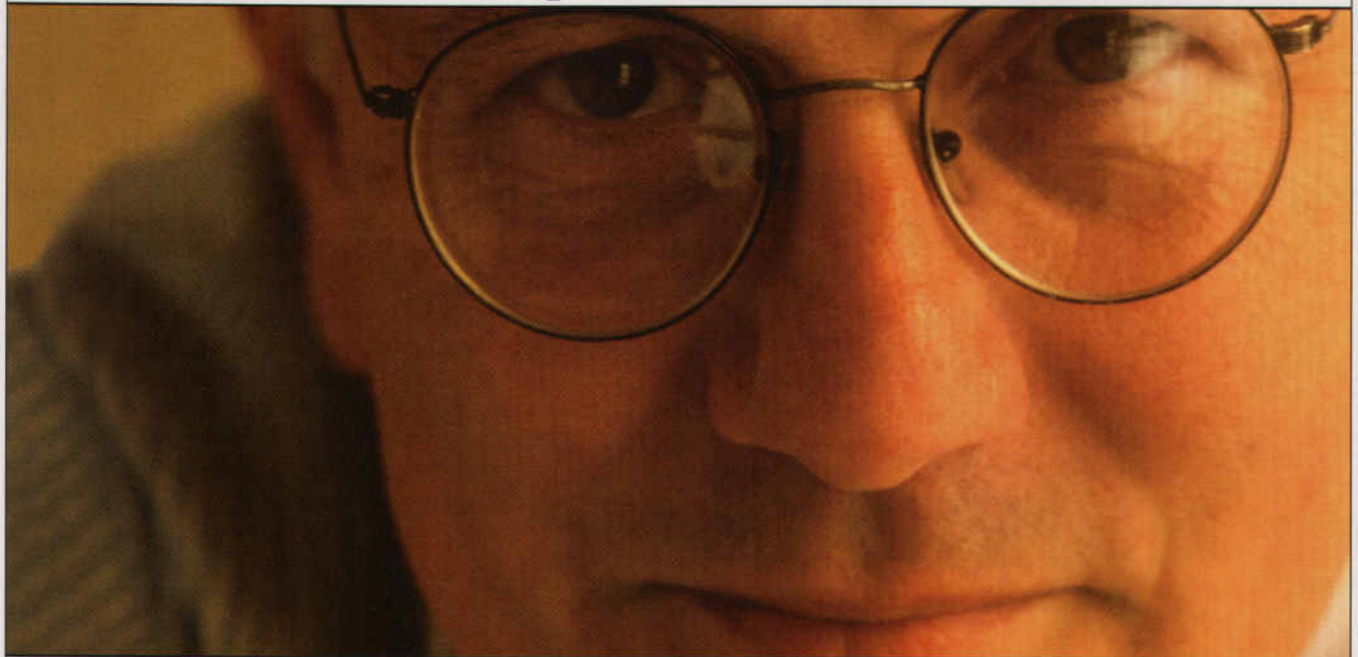
Flexterra™

"FLEXIBLE GROWTH MEDIUM"

Profile Products has introduced Flexterra, a hydraulically applied blanket that serves as a flexible erosion control medium that can accelerate seed germination and plant growth as well as provide reliable erosion control. Product is composed of long strand, thermally processed wood fibers, crimped, interlocking fibers and performance enhancing additives.

Profile Products/800-207-6457
For information, circle 097 or
see <http://www.oners.ims.ca/2910-097>

Excellent Sales Rep.

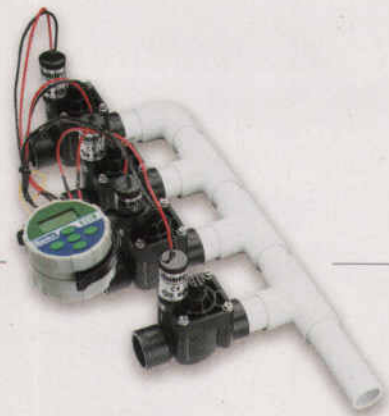


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It's all about who you know. And getting to know one of our Excellent Sales Reps can be an important step toward helping you achieve truly beautiful results. ProSource One is a first-rate supplier of plant protection products, fertilizers and seed. We carry all the major brands including our own proprietary Proforma line of premium products. But more importantly, you'll appreciate our knowledgeable sales reps who keep up with all the latest product offerings, and are ready to provide you with the technical expertise and practical solutions you need.

Isn't it time you got to know ProSource One?



WIRELESS CONTROLLER

Hunter Industries has available the SVC-400, a four-station battery-operated controller for use on sites with restricted access to electrical power. The product works with standard battery latching solenoids and installs directly into the valve box. Also can be used to add zones to an existing system without trenching additional wires.

Hunter Industries/760-744-5240
For information, circle 117 or
see <http://www.oners.ims.ca/2910-117>

Circle 141 on card or www.oners.ims.ca/2910-141

CALCULATIONS FOR TURFGRASS FERTILIZATION

This information was adapted from *Turfgrass Fertilization: A Basic Guide for Professional Turfgrass Managers*, prepared by Dr. Peter Landschoot for Penn State's College of Agricultural Sciences.

Proper fertilization practices require that precise amounts of nutrients be delivered. Small mistakes in area measurements or fertilizer rate calculations can mean poor results or serious turf injury.

To calculate the area of irregularly shaped areas, divide the area into common shapes, calculate the areas of those shapes, then add the areas together.

A fundamental problem in turfgrass fertilization involves determining how much fertilizer is needed to supply a specified amount of nitrogen (or any other nutrient) per 1,000 sq. ft. Use the following examples to learn how to solve this type of problem.

Example: You have a 50-lb. bag of 26-5-10 fertilizer that you want to apply to a lawn at a rate of 1.0 lb. nitrogen per 1,000 sq. ft. How much of the 26-5-10 fertilizer will you need to apply per 1,000 sq. ft?

The quickest way to solve this problem is to ignore the weight of the fertilizer bag and simply divide the amount of nitrogen desired (1.0 lb. nitrogen per 1,000 sq. ft.) by the percentage of nitrogen in the bag (26%). When using percentages in calculations, convert the number to its decimal form (e.g., 26% = 0.26, 5% = 0.05).

One pound nitrogen per 1,000 sq. ft. divided by 0.26 equals 3.8 lbs. of a 26-5-10 fertilizer is needed to supply 1.0 lb. nitrogen per 1,000 sq. ft.

Here's another example. To find out how much phosphate and potash you are applying to the turf when you apply 3.8 pounds of the 26-5-10 fertilizer per 1,000 sq. ft., multiply the amount of fertilizer you are applying by the percentage of phosphate in the bag (5%). Do the same for potash (10%). Remember to convert the percentages of phosphate and potash to their decimal forms (3.8 lb. fertilizer per 1,000 sq. ft.) x 0.05 phosphate = 0.19 lb. phosphate per 1,000 sq. ft.; 3.8 lb. fertilizer per 1,000 sq. ft.) X 0.10 potash = 0.38 lb. potash per 1,000 sq. ft.

Another common problem involves determining the area that a bag of fertilizer can cover and how many bags are needed to cover large sites. For example, how much area can be covered with a 50-lb. bag of 26-5-10 at the rate of 1.0 lbs. nitrogen per 1,000 sq. ft.? Now that you know 3.8 lbs. of 26-5-10 fertilizer will cover 1,000 sq. ft., determine how many times 3.8 lbs. goes into 50 lbs. 50 lbs. divided by 3.8 lbs. = 13.2.

Now, multiply 13.2 by 1,000 sq. ft.: 13.2 X 1,000 = 13,200 sq. ft. Thus, a 50-lb. bag of 26-5-10 covers 13,200 sq. ft. at a rate of 1.0 lb. nitrogen per 1,000 sq. ft.

How many 50-lb. bags of 26-5-10 will you need to fertilize a 30,000 sq. ft. area at 1.0 lb. nitrogen per 1,000 sq. ft.? If a 50-lb. bag of 26-5-10 fertilizer covers 13,200 sq. ft. at 1.0 lb. nitrogen per 1,000 sq. ft., determine how many times 13,200 goes into 30,000: 30,000 divided 13,200 = 2.3 bags of 26-5-10 will cover 30,000 sq. ft.

Occasionally fertilizer recommendations given as lb. nitrogen per 1,000 sq. ft. must be converted to lb. fertilizer per acre. If you must determine how many pounds of a 16-8-8 fertilizer should be applied per acre if the recommendation call for 0.75 lb. nitrogen per 1,000 sq. ft.

First, find out how much fertilizer will be needed per 1,000 sq. ft. (see previous example). (0.75 lb. nitrogen per 1,000 sq. ft.) divided by 0.16 = 4.7 lb. fertilizer per 1,000 sq. ft.

Then, since there are 43,560 sq. ft. in an acre, multiply the amount of fertilizer needed per 1,000 sq. ft. by 43,560, then divide by 1000. (4.7 lbs. fertilizer X 43,560) divided by 1,000 = 205 lbs. of a 16-8-8 fertilizer per acre. **ST**

Determining the area of a site to fertilize

Square:



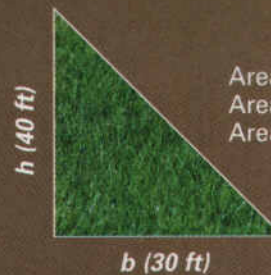
Area = a x b
Area = 100 ft x 100 ft
Area = 10,000 sq. ft

Rectangle:



Area = l (length) x w (width)
Area = 200 ft x 100 ft
Area = 20,000 sq. ft

Triangle:



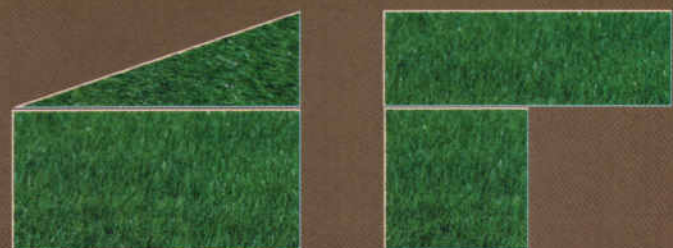
Area = 0.5 x b (base) x h (height)
Area = 0.5 x 30 ft x 40 ft
Area = 600 sq. ft

Circle:



Area = (always 3.14) x r²
Area = 3.14 x 5²
Area = 3.14 x 25 ft
Area = 78.5 sq. ft

To calculate the area of irregularly shaped areas, divide the area into common shapes, calculate the areas of the shapes, then add the areas together.



FENCES AND RELATED PRODUCTS

Here are some manufacturers of field fencing products:

Ball Products	800-767-2255
Beacon Ballfields	800-747-5985
Covermaster	800-387-5808
CoverSports USA	800-445-6680
Little Beaver	936-327-3121
M. Putterman	800-621-0146
M.A.S.A.	800-264-4519
Mancino Mfg.	800-338-6287
Nylon Net Co.	800-238-7529
Partac Peat/ Beam Clay	800-247-2326
Signature Fencing	800-569-2751
Sportsfence II	800-553-3623
Van's Enterprises	847-367-7828



SAFETY FENCING

All Sports safety fence systems flex upon impact then return to their original position. When installed with ground sleeves, these systems can be put up and taken down in minutes. Various styles and colors available. Partac Peat/Beam Clay/800-247-2326 For information, circle 057 or see <http://www.oners.ims.ca/2910-057>

SEE THIS!

We gave the wrong address for Fielders Choice in our listing of Field Construction Companies in the Dec. 2003 issue. Their correct address is Fielders Choice, 5829 W. Sam Houston Parkway N, Suite 1202, Houston TX 77041., We regret the error.

Fielder's Choice Inc/888-853-4353
For information, circle 055 or see <http://www.oners.ims.ca/2910-055>



BE A CROWD PLEASER!

When it comes to pleasing fans, nothing beats a great game played on real turf maintained to perfection. Anderson's Professional Turf™ (APT) products help you get the cheers you deserve when the teams hit the field.

Our line up of all-star products — over fifty different formulas — has been developed to offer you maximum flexibility in toppling turf care challenges and to assure your ability to attain optimum results. From the infield out and goal to goal, APT products help you keep your turf healthy and hearty under the most demanding of game conditions. And if insects or weeds attempt to get in on the action, we can help you

give them the boot with our undefeated special teams of control products.

For nearly 40 years, The Andersons has been refining the art and science of producing turf-specific fertilizers, pest control products and fertilizer/pest control combination products. And we've never been more fired up about serving your needs. We want you to see those Turf Heads in the stands get up to give you a **standing "O"!**



For a free selection guide and more information about The Andersons complete line of Professional Turf products call toll free, 1-800-225-2639.



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Circle 142 on card or www.oners.ims.ca/2910-142



FENCE PADDING

CoverSports USA has SafeFoam padding for fence tops, rails, posts and poles. Designed to protect your players, it goes over any chain link fence top, pole or rail 2 in. or less in diameter. Standard grade is a full 1-in. thick; premium grade is 3/4-in. Available in green, red, blue or yellow with matching tie wraps. Sold in 8-ft. sections, and pre-slit. CoverSports USA/800-445-6680 For information, circle 058 or see <http://www.oners.ims.ca/2910-058>

SOFTRAIL

SOFTRAIL by Covermaster is designed to virtually eliminate serious injury when a player makes a running catch over a chain link fence or guardrail. The product consists of a core of dense foam laminated to heavy-gauge vinyl covering. Quick-fasten, self-locking nylon ties holds it in place. Available in any length and any color. Covermaster/800-387-5808 For information, circle 054 or see <http://www.oners.ims.ca/2910-054>



WIDE FENCE INVENTORY

Ameristar has a wide range of fence sizes, materials, styles, and colors for perimeter and pedestrian traffic control applications around sports and recreation complexes and facilities. The Aegis steel and Echelon aluminum ornamental picket fences incorporate the ForeRunner "invisible" fastening system. Ameristar Fencing Products/888-333-3422 For information, circle 056 or see <http://www.oners.ims.ca/2910-056>



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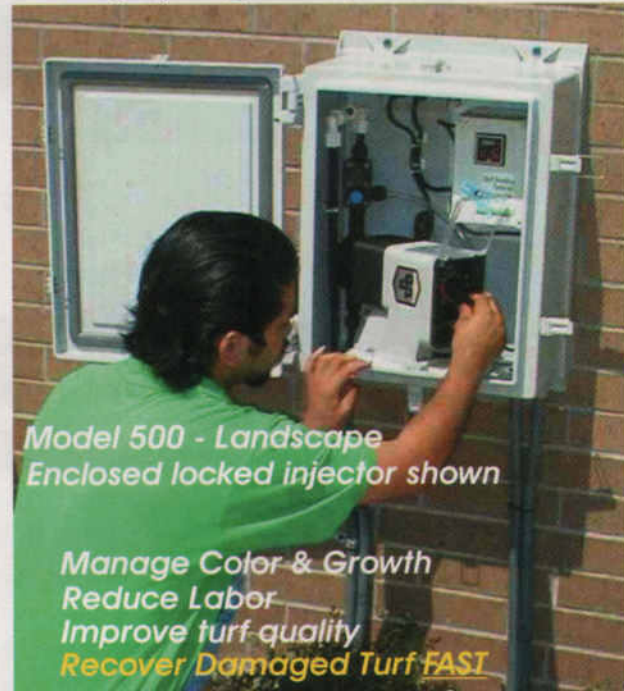
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Circle 144 on card or www.oners.ims.ca/2910-144

Sports Turf Managers Association Membership.



Experts on the Field, Partners in the Game

Sports Turf Managers Association (STMA) members are experts on athletic field maintenance, renovation and construction. Members possess the knowledge and reliability required to manage the safest playing fields, protecting the well-being and future of every athlete. Members come from all areas of sports including professional teams, colleges and universities, other schools, and parks and recreation departments. STMA is also represented by the top commercial and academic industry leaders. Combine science and art to produce playing surfaces that are safe and aesthetically pleasing, and be dedicated to the sports turf profession. Become an STMA member!

Member Benefits Include:

- Educational Opportunities
- Certification
- Networking Opportunities
- Local Chapters
- Research
- Annual Conference & Exhibition
- Interactive Website/Publications
- Annual Awards

In order to take advantage of all association benefits and become a member of STMA contact STMA headquarters at 1-800-323-3875 or join online at www.sportsturfmanager.com.

Call or logon now to join!

SportsTurf
MANAGERS ASSOCIATION

Experts on the Field, Partners in the Game.

Regional Calls Benefit All

The STMA Chapter Spring Regional Conference Calls were conducted from April 7 through April 14. The Chapter Sponsors fund these calls: Gold level - John Deere; and Silver Level - Alpine Services, Inc.; Hunter Industries; Stabilizer Solutions; and Syngenta. The calls provide a forum for Chapter Presidents and other key Chapter leaders to interact with Dave Rulli, the Chapter Relations Committee Chair; Abby McNeal, CSFM, the STMA Board liaison to the Chapter Relations Committee; with STMA Headquarters personnel, and with each other.

The STMA Chapters have been divided into six geographic Regions to better facilitate the networking opportunities between Chapters and to insure that all the participants on each Regional call have the opportunity to provide input and to ask questions. Groups in the process of forming Chapters are invited to participate in the call for their Region. Each Region has a volunteer serving as the Regional



Contact to further facilitate Chapter interaction and this individual also participates in the call.

Discussions includes information updates from STMA Board initiatives, ideas for membership promotion on the national and chapter levels, information on services available to Chapters from STMA Headquarters, and any questions or concerns the Chapters may have. The greatest benefit of these calls may be the idea exchange between the Chapter leaders. This may range from suggestions for improving newsletters, to specifics on making a Chapter's golf tournament a great fundraiser, to ideas for interactive workshops that will draw bigger crowds. The Chapters also are willing to share their experiences with ideas that sounded wonderful, but didn't turn out that way.

This is just one more example of Chapters working together to make things even better for their members! **ST**



SAFE Springs to Action

The Foundation for Safer Athletic Field Environments (SAFE) was created by the Sports Turf Managers Association (STMA) to provide research, educational programs and scholarships geared to sports fields. The SAFE Foundation Board of Trustees met in Chicago last March with the primary objective to set definite parameters to help SAFE meet its goals. The Board recognizes that SAFE has much work to complete before it can supply the sports turf industry with the desired level of programs. Additional funding is needed to fulfill all three arms of our mission: the scholarship program, research, and education. SAFE's major thrust for 2004 will be seeking greater funding for sports specific research, finalizing the research criteria, and beginning assessment of research projects for funding. The Board made positive steps in all of these areas.

First, significant scholarship funding is available thanks to the funds raised through the combination of the Jacobsen-sponsored SAFE Golf Tournament, and the Raffle, Silent and Live Auctions held in conjunction with the STMA Conference in San Diego last January. The SAFE Board has authorized the allocation of up to \$18,000 in direct Scholarship dollars and funds toward travel and lodging expenses to allow the recipients to attend the STMA 2005 Conference in Phoenix. Scholarship application information and application forms are sent directly to STMA Student and Educator members as well as to 2- and 4-year Colleges and Universities offering turf programs. These materials also are posted in the SAFE section of the STMA website.

Next, progress is already being made on the research criteria and forms being developed for research grant applications. Sports turf managers are

encouraged to provide their input on specific areas of sports turf-related research needs by contacting SAFE via email: SAFE@st.omhcoxmail.com or by calling 800-323-3875. These research suggestions will augment the information gathered in an earlier call for research recommendations.

It is the intent of the SAFE Board and the SAFE Research Committee to identify key areas of research needs and then solicit these needs to the researchers. Thus it is important that this research needs information come from STMA members, STMA Chapters and other sports turf managers. SAFE intends to focus on research that is applicable and repeatable, i.e., practical research the meets the needs of sports turf managers.

To facilitate the level of fund raising necessary to make a major impact in the turf industry, the SAFE Board is in the process of seeking a dedicated fundraiser or fundraising organization. Work has begun on developing the request for proposals to be sent to targeted individuals and organizations for this purpose. A key component of the overall program and the decision-making process in making the selection is development and submission of a step by step program to reach the targeted goals and an achievable timetable for doing so.

A safe, playable field is the strong foundation of any game. Working together, we can build the SAFE Foundation into a strong resource for sports turf managers around the world. Contact Steve Trusty (Steve@st.omhcoxmail.com) with your ideas and for more information on making contributions to the SAFE Foundation. **ST**