**Happenings**

**Disney World Sports Hires Cook**
Murray Cook has been hired by Walt Disney World Sports as its new baseball stadium manager for the new Disney Sports Complex. Mr. Cook will handle management of the sports fields and operations for the World Champion Atlanta Braves.

Most recently, Mr. Cook served as stadium manager and director of stadium operations at West Palm Beach Municipal Stadium, the spring training home for the Atlanta Braves and the Montreal Expos.

The Disney Sports Complex is a 92-acre facility designed to provide professional athletic fields for baseball, soccer, football, track and field, tennis, and softball, in addition to many indoor sports.

**GCSANC Schedules Educational Showcase**
The Golf Course Superintendents Association of Northern California (GCSANC) has announced the dates for their educational showcase, The Golf Course Institute. This year’s event, to be held in Santa Cruz at the popular Coconut Grove, is scheduled for Monday, November 11, and Tuesday, November 12. The program begins with golf on Monday at one of legendary golf course architect Alister McKenzie’s finest, Pasatiempo Golf Club.

This year’s seminar will feature two central themes: drainage and waste management. Attendees will be exposed to the principles of drainage, water movement in soils and drainage solutions in the morning session, and topics such as managing liquid and solid waste in the afternoon. The seminar will conclude with an informative panel discussion on drainage, featuring three talented superintendents. Contact the GCSANC office at (916) 626-0931 for more information.

**Lofts Seed Opens Web Site**
Lofts Seed, a contributor to the turfgrass industry since 1923, launched its home site, www.turf.com, in March, and it’s been growing ever since. It’s designed to serve a wide array of customers, from the homeowner to the professional turf manager.

At www.turf.com, you will find answers to commonly asked questions, timely tips, news releases (which provide information on Lofts’ newest developments), product information, a dealer locator, free literature offers and an opportunity to “Ask the Expert,” where you can e-mail any type of question or comment directly to the company and it will be personally answered.

---

**Our New Pattern Will Change the Way You Top Dress.**

Turfco’s patented chevron belt handles all types of top dressing mixtures from sand to compost, wet or dry. The belt’s chevron ridges, combined with ground drive, make sure that material flows consistently and spreads evenly. The top dresser assists in leveling out depressions and providing good drainage. Because there are no hydraulics the top dresser can be hooked up to any tractor or turf truck. There’s less maintenance, lower costs, and no oil leaks on your field. Top dressers since 1961. Call 612-785-1000.

---

**Turfco Manufacturing Inc., 1655 101st Avenue Northeast Minneapolis, MN 55449-4420, (612) 785-1000 Fax (612) 785-0556**
Fall is for Soccer?

By STMA members across the U.S.

While many dedicated sports fans across the country think fall is for football, the steadily growing numbers of soccer players may tip the scales of balance.

Soccer is a "when the grass is green" sport in most sections of the U.S. In cold weather climates, soccer play begins as soon as spring turf pops through the melting snow and continues into November, when frigid temperatures and snow shut it down. In warm-weather climates, with year-round schools and competitive soccer leagues for all ages, only the worst periods of the rainy season temporarily stop play.

Sports turf managers in charge of soccer fields, even those with multiple game and practice fields on their facilities, face escalating demands for field use. Keeping playing surfaces in good condition when maintenance practices must be squeezed into such tight schedules is a feat in itself. Sports turf managers from across the country have contributed the following tips on getting that job done right.

Work Smart with Maintenance Practices

Aerate fields as frequently as possible to reduce compaction. If time and funds are limited, concentrate aeration on game fields and the heavy-use areas of practice fields. Reduce crew time by leaving cores on the field and allowing mower traffic to pulverize them.

Overseed frequently. Seed that is placed for germination will take hold when there are openings in the existing turf cover and conditions are right. Often, the times when you need to get seed down are the times you're least able to get it done. Keep pre-germinated seed ready for application in key locations when quick response is required.

Set up your own sod farm. Borrow a bit of space along the edge of fencing, beside a building, or in the outer area of the property to grow sod for emergency replacement of worn areas. Use the same grass varieties growing in the soccer fields and follow your standard maintenance procedures so the sod will match the field's existing turf.

Gradually move mowing heights up or down to accommodate field use and weather conditions, rather than making sudden height adjustments that stress the turf. Plan to mow prior to games to create the best possible playing conditions.

Use soil testing at least annually to tailor fertilization programs to exact needs. Time fertilizer applications to turf growth patterns and "typical" weather cycles and, of course, field use schedules.

If funding is less than adequate, work with booster clubs, field-user groups, or community businesses to secure access to the equipment and supplies necessary for a complete maintenance program. Fundraising projects focused on specific goals generally get the best cooperation and support, but each community differs. Don't give up if your first attempt for funding support fails. Just move on to other alternatives. Remember to acknowledge the assistance and say thank you — publicly and personally.

Field Preservation Techniques

Establish a system to guard against field use in circumstances that could pose a safety hazard for players. Discuss specifics with school administrators or facility owners or managers to set parameters and determine who has the "final say" and who is responsible for getting the message to officials and coaches. Bring all user groups together to explain the policy and the reasons behind it — and enlist their cooperation.

When possible, set up fields with enough bordering space to shift total field placement periodically. For example, if the normal field runs in a north-south direction, allow enough space to create temporarily two parallel fields across the regular field running side by side in an east-west direction. This alternates placement of the heavy wear areas in the center of the field, at the goal mouths and along the sidelines. With multiple field facilities, plan to keep the total number of active fields the same during these direction and placement shifts.

Players gathering along the sidelines cause excess wear. Alleviate concentrated wear by moving players' benches two or three times during each week. During multiple-game tournaments, move the benches once or twice each day. Periodically place both sets of benches on one side of the field, freeing the other side for aeration, overseeding and topdressing — and a brief rest.

Limit the use of properly placed, on-field goals to games. Coaches and players may insist that they must practice with the goals in their proper place on the field, but soon discover, through multiple-goal placement on the practice fields, that players get even more practice.

The greatest wear in the goal area usually occurs during the concentrated action of pre-game warm-up. Marshal the support of the facility's management and leaders of field-user groups in banning pre-game warm-up in the goal area. Then post signs on the goals prior to the game stating that fact. Be prepared to reinforce the restriction when it is first instituted. Once the reduced wear becomes apparent, you'll have more willing cooperation and less need to remind coaches and players of the policy.

With a three-referee system, the two linesmen continually travel back and forth across the same general area during the entire game. That wear intensifies with multiple games during tournaments. Added compaction occurs during wet conditions. Since the sports turf manager can't move the linesmen, the alternative is to move the field. In some cases, space is great enough to shift the entire field several feet in one direction, moving that area of wear periodically to allow maintenance and a resting period for
the previously worn area. It also may be possible to vary the sideline measurements in stages from the widest to the narrowest regulation dimensions allowed for the specific levels of play held on a field. This accomplishes the same purpose as the "field shift."

**Tips for Cold Climates**

Control of perennial broadleaf weeds is most effective in the fall. Time control applications to coincide with the weeds' natural cycle of concentrating nutrients in the roots in preparation for winter.

Plan the last core aeration of the season for approximately one month prior to the onset of winter weather. Core aeration too late in the season exposes the turf surrounding the core holes to excessive desiccation.

Drill seed if possible for late season over-seeding. Temperatures within the soil will be higher than those at the soil surface, stimulating more rapid germination. Seeds also will be more protected from dry conditions and gusty fall winds.

A late season application of slow-release fertilizer provides some immediate nutrients if weather conditions remain warm later than usual and an early season feeding if crews are unable to get on the fields the following spring.

Apply a light topdressing to all fields after play has ended for the season. It provides a bit of extra protection from winter desiccation for turf crowns.

If turf is thin at the end of the playing season and no spring pre-emergent application is planned, make a dormant application of seed. The freeze and thaw cycles of winter will allow the seed to work its way to the soil surface where it will be ready to germinate as soon as the soil warms to appropriate levels in the spring.

**Tips for Warm Climates**

"Fall" soccer in warm climates may begin in early August and run into February. Temperatures in some regions may keep bermudagrass fields going strong. In other areas, overseeding with perennial ryegrass provides an actively growing turf within the added cushioning of the dormant bermudagrass.

Timing the phase-in of the ryegrass is critical. Keep detailed records of timing, temperatures, rainfall, irrigation schedules, fertilization and any other conditions that affect turf growth. The more complete the history of success — and failure — the more likely a successful transition program can be developed.

Weather patterns can change day to day during the active play period. Adjust irrigation programs daily to fit soil conditions, turf growth and weather conditions.

Plan a period of downtime for each field each year. Spread one field's normal practice and game use among several other fields whenever possible to avoid undue stress on the fields in use. Take advantage of the downtime for damage repair and such maintenance practices as dethatching; core or deep aeration; topdressing; seeding, sodding or sprigging; fertilization; and weed, insect or disease control.

**Share Your Secrets**

Finally, pass it on. If you come across or invent a maintenance practice or management technique that saves you time, money or effort or that improves field conditions, let other sports turf managers know about it. Though it may seem like a "little thing" to you, overall quality improvement usually comes through a combination of small steps forward.
What are the three main commandments of dealing with pesticides? Safety! Safety! Safety! Safety towards oneself; safety towards others; safety towards the environment. Failure to follow published and common-sense safety practices eventually leads to harm, which in turn often leads to lawsuits.

The safest way to handle pesticides is not to use them at all, relying instead (whenever possible) on IPM or cultural solutions to pest problems. Unfortunately, sports turf undergoes so much stress that pesticides are almost unavoidable.

If you deal with pesticides either as an applicator or as a manager, test your knowledge of fundamental safety practices by taking the following quiz. It comes from the "Mixing, Loading and Application" section of the national pesticide applicator training core manual — Applying Pesticides Correctly — a book that is available for $5, plus $3 shipping, from the Environmental Programs Office, University of Nebraska, 101 Natural Resources Hall, Lincoln, NE 68583-0818; or free on the Internet at the following site: http://ianrwww.unl.edu/ianr/pat/pat.htm. If you cannot supply reasonably close answers to the questions below, consult the manual or another authority for more detailed information.

Applicators should always follow label guidelines for protective clothing, while remembering that some applications may require more personal protective equipment than the items specified.

In other words, you best do some studying. Your life and livelihood, as well as those of others, depend upon your expertise.
Test Your Knowledge of Mixing, Loading & Application

Q-1. What two precautions should you take to avoid getting pesticides into your water source at a mix-load site?

Q-2. What four types of personal protection, beyond what you need during application, should you consider wearing while mixing or loading pesticides?

Q-3. What should you do with an empty pesticide container?

Q-4. What types of empty pesticide containers can be rinsed?

Q-5. What two methods of rinsing can you use?

Q-6. What are the three ways to help you decide whether you can safely mix two pesticides together for application?

Q-7. Name at least four types of pesticide application activities that might require more personal protective equipment than that specified on the pesticide labeling.

Q-8. What safety procedures should you follow each time you apply a pesticide?

Q-9. When you are finished with a mixing, loading, or application task, what should you do right away?

Q-10. What should you do with rinsate that you create when you clean your pesticide equipment?

Q-11. When you are finished with pesticide handling tasks, what steps should you take for personal cleanup?

Q-12. Why should you keep records of pesticide applications?

Q-13. What are closed mixing and loading systems?

Q-14. What are enclosed application systems?

Q-15. When should you consider installing a pesticide containment system?

Q-16. What are the advantages of pesticide containment systems?

Answers

A-1. Two precautions to avoid contaminating water at a mix-load site are:

I. Keep the water pipe or hose well above the level of the pesticide mixture, and use a device to prevent back-siphoning, if necessary.

II. Avoid mixing or loading pesticides in areas where a spill, leak, or overflow could allow pesticides to get into water systems.

A-2. Four types of extra personal protection for mixing or loading are:

I. Front protection — a bib-top apron made of butyl, nitrile, or foil-laminate material; the style of apron that includes built-in gloves and sleeves is especially protective.

II. Face protection — a face shield to keep splashes and wafting dusts off your face and out of your nose and mouth. Or, if you need to wear a respirator, goggles or shielded safety glasses, which will fit better with a respirator than a face shield.

III. Protection from dusts — a dust/mist respirator with NIOSH/MSHA approval.

also wear eye protection, such as shielded safety glasses, goggles, or a face shield.

IV. Protection from vapors — eye protection and a vapor-removing respirator with NIOSH/MSHA approval.

A-3. When pesticide containers are empty:

I. If containers are rinsable, rinse them as soon as they are empty. Remember, all liquid containers are required to be rinsed (the pesticide that clings to the inside of the container can be dangerous).

II. Return all empty pesticide containers to the pesticide storage area or the container holding area when you finish your task. Do not leave them unattended at the mixing, loading, or application site.

III. Crush, break, or puncture empty containers that cannot be refilled.

continued on page 26

Aerator line of choice.

Ever gotten the feeling that the dealer is pushing you to buy the only model he has? It's only natural to be skeptical. That's why Verti-Drain® offers you twelve different models — the broadest line in the business. After all, only you can choose the right size, speed and price aerator for your needs.

Each built with the same integrity that you've come to expect from the leader in the industry... the original choice — Verti-Drain.

Verti-Drain®
Works like a pitchfork, only better.

Emrex, Inc., Box 1349, Kingston, PA 18704 (717) 288-9360

Circle 113 on Postage Free Card
Pesticide
continued from page 25

reconditioned, recycled, or returned to the manufacturer. (This will make the containers unusable and may also save storage space.)

IV. Dispose of containers in accordance with labeling directions and with any laws or regulations that apply.

A-4. Rinsable pesticide containers are:
I. Glass, metal, and plastic containers.
II. Plastic-lined paper or cardboard containers.
III. Unlined paper or cardboard containers that can withstand the rinsing process.

A-5. Two methods of rinsing are triple rinsing and pressure rinsing:

- To triple rinse a container:
  1. Empty the container into the tank. Let it drain an extra 30 seconds.
  2. Fill the empty container 10-20 percent full of water.
  3. Replace the closure and rotate the container for about 30 seconds. Invert the container so the rinse reaches all the inside surfaces.
  4. Drain the rinse water from the container into the tank. Let the container drain for 30 seconds.
  5. Repeat steps 2 through 4 two more times for a total of three rinses.

- Some pesticide equipment includes a mechanism to pressure rinse containers by
  A. inserting a pressure rinse nozzle into the container,
  B. rotating the nozzle and rinsing for at least 30 seconds, and
  C. draining the container thoroughly into the mix tank.

A-6. Three ways to determine if pesticides can be mixed are:
I. Check the pesticide labeling. It may list the pesticides (and other chemicals) known to be compatible with the formulation.
II. Get a compatibility chart, which is available from several sources.
III. Test a small amount of the mixture before mixing large quantities of the pesticides together.

A-7. Application activities requiring extra personal protection include:
I. Hand-carrying application equipment.
II. Entering the path of the released pesticide.
III. Walking into a just-treated area.
IV. Using high-exposure application methods where the pesticide may engulf you.
V. Applying pesticides in enclosed spaces.
VI. Adjusting pesticide application equipment.
VII. Immersing hands and forearms in pesticides.
VIII. Applying into or across air currents.
IX. Applying concentrated pesticides.

A-8. Safety procedures during applications include:
I. Delivering the pesticide to the target site.
II. Checking the delivery rate.
III. Checking for appearance.
IV. Avoiding nontarget organisms.
V. Avoiding nontarget surfaces.
VI. Operating equipment safely. (Whenever you pause to take a break, to move to another site or to make any adjustments or repairs, turn off the equipment, and depressurize any pressurized tanks. Turn off the main pressure valve on the tank and release any pressure remaining at the nozzles. Also, check hoses, valves, nozzles,
hoppers, and other equipment parts occasionally while you are applying chemicals. If you notice a problem, stop immediately and fix it.)

A-9. Immediately after mixing, loading or application:
I. Wash your pesticide equipment and then wash yourself.
II. Return equipment to its designated place.
III. Safely store or dispose of all pesticide materials and other chemicals that you have used.
IV. Be sure that your work site presents no hazards to people or to the environment. (Never leave the site unattended until everything has been cleaned up and put away. Carefully wash any vehicles that may be used for transporting unprotected workers or for family use. Do not allow rinsates to flow into water systems. Do not leave puddles that children, unprotected persons or animals could get into.)
V. Record what you have applied and the conditions at the application site.

A-10. After you create rinsate from cleaning equipment:
Collect the rinsate. Reuse it, if possible, or dispose of it as excess pesticide.

A-11. During a personal cleanup after pesticide handling tasks:
Wash the outside of your gloves before taking them off. Then carefully peel back your personal protective equipment to avoid getting pesticides on your skin. Remove any other clothing that has pesticide on it. If you cannot take a shower right away, use a mild liquid detergent and warm water to wash your face, hands, forearms, and any other area that may have pesticides on it. As soon as you can — no later than the end of the work day — wash your whole body and hair thoroughly with a mild liquid detergent and plenty of warm water.

A-12. Reasons for keeping pesticide records are:
I. Records can establish proof of proper use.
II. Good records can save you money by improving your pest-control practices and your efficiency.
III. Records can help you reduce pesticide mistakes or misuse.
IV. Good records can help you reduce carryover by showing exactly how much was needed last time.

A-13. Closed mixing and loading systems are:
Systems designed to prevent pesticides from contacting handlers or other persons during mixing and loading. (There are two primary types: one uses mechanical devices to deliver the pesticide from the container to the equipment; the other type uses soluble packaging.)

A-14. Enclosed application systems are:
Enclosures, such as a cab, that surround occupants and prevent them from contacting pesticides outside of the enclosure.

A-15. You should consider installing a pesticide containment system:
If you often mix and load pesticides in one place, or if you often clean equipment at one location.

A-16. Advantages of pesticide containment systems include:
They can save time and money. They make spill cleanup easier, and they reduce pesticide waste by allowing reuse of rinse water and spill cleanup water. They also help prevent the harm that spills and runoff can cause to the environment or to people.

---

No more water hassles

...Just Remove It!

Don't let standing water interfere with your golf tournaments or other scheduled athletic events. The WaterHOG Jr. picks up the water from most playing surfaces. It's simple to use, efficient and inexpensive!

You can't stop the rain, but you can be ready for it.

Star Transportation Products, Inc.
7700 E. Arapahoe Road, Suite 350
Englewood, Colorado 80112

1-800-495-4429
303-843-6243; FAX 303-843-9284

WaterHOG Jr.
New Turf Special from Kubota

Kubota has recently introduced its powerful M4700 Turf Special, which features impressive design and performance innovations. With its 42 PTO horsepower, the M4700 Turf Special is designed to supply power and performance for specialty turf applications demanding extra slow creep speeds.

The M4700 Turf Special has Kubota's innovative E-TVCS (Emission Three Vortex Combustion System), 5-cylinder, liquid-cooled diesel engine. Featuring a synchro-mesh shuttle transmission, the Turf Special allows operators easily to change directions, either forward or reverse, with one simple movement of the shuttle lever.

Other special safety and performance features on Kubota's newest M-Series include a two-post ROPS, a fully adjustable suspension seat with retractable seat belt, power steering and a large capacity fuel tank.

KUBOTA TRACTOR CORPORATION

Circle 119 on Postage Free Card

---

YOU COULD BE HONORED BY THE PROS!

Why not enter your baseball field in the Beam Clay® Baseball Diamond of the Year Awards contest? You need not be a customer, member, or subscriber; and there is no entry fee. You could be featured in sportsTURF magazine and receive an official awards plaque.

The Awards are sponsored by Beam Clay®, sportsTURF magazine, and the Sports Turf Managers Assoc., in recognition of excellence and professionalism in maintaining outstanding, safe, professional quality baseball diamonds.

Entries will be judged in three categories: professional diamonds; college diamonds; and school, municipal or park diamonds.

Send the information below to enter:
1. Age of baseball diamond (year of installation).
2. Geographic location (city and state).
3. Description of maintenance program.
4. Operating budget for baseball diamond.
5. Irrigation: None _____ Manual _____ Automatic _____
6. Total number of maintenance staff for field.
7. Does baseball field have lighting for night games?
8. Number of events on baseball diamond per year.
9. Types and number of events on diamond other than baseball?
10. How many months during the year is the field used?
11. Why you think this field is one of the best?
12. IMPORTANT: Send two sets of color slides or prints.

Deadline for entries: Entries must be postmarked no later than November 30. Selection of winners will be made by the Awards Committee of Four Major League Head Groundskeepers.

Mail entries to:
Beam Clay Awards
Kelsey Park
Great Meadows, NJ
07838

---

CLASSIFIEDS

- Display Rates: (Per Column Inch)
  1x: $140  6x: $115
  3x: $130  12x: $100
- By The Word Rate:
  8.95 per word, per insertion. Initials and abbreviations count as full words. Minimum charge $55.
- Business Card Rates:
  1x: $300  6x: $275  12x: $250
- Deadline:
  The 15th of the month prior to publication date.
- Note:
  All classifieds are payable in advance. Ads using cuts or special borders will be charged at display rates. Ads are non-commissionable. Blind ads will be charged an additional $10.
- For Space Reservation Contact:
  Linda Serio, Classified Sales
  2101 S. Arlington Heights Road
  Arlington Heights, IL 60005-4142
  (847) 427-2085 • FAX (847) 427-2006

---

POND AND LAKE LINERS

Buy direct from fabricator
20, 30, 40 mil PVC, Hypalon, HDPE & Polypropylene.
Custom fabricated panels of up to 25,000 S.F. Material only, Material & Supervision or Complete Installation Service available.

Colorado Lining COMPANY

(800) 524-8672
1062 Singing Hills Rd.
Parker, CO 80134
(303) 841-2022
FAX: (303) 841-5780

continued on page 30
STMA 8th Annual
Conference & Exhibition

JANUARY 15 - 19, 1997 -- COLORADO SPRINGS, COLORADO

Make plans now to join your colleagues at the Red Lion Hotel amid the beauty of the foothills of the Colorado Rockies.

CONFERENCE HIGHLIGHTS

Two optional Seminar on Wheels Tours - One on Wednesday to Colorado Springs sites - the Olympic Training Center, Sky Sox Stadium and the US Air Force Academy. One on Sunday to Denver sites - Coors Field, Mile High Stadium and the Denver Broncos Training Facility.

Optional Friday Night Fun Excursion back to the Old West at Cripple Creek.

Silent Auction and Raffle of valuable sports memorabilia.

New Indoor Exhibition Format - Share an evening reception with exhibitors in the exhibit hall. Then follow up with a second opportunity to view exhibits and connect with suppliers the next day.

Annual Awards Presentations for the Fields of the Year, Excellence in Research, and the Harry C. Gill Memorial Award: STMA Groundskeeper of the Year.

Rocky Mountain
High-er Education

EDUCATIONAL SESSIONS FOCUS ON:

- Communications / Preventing Injuries
- Turfgrass Selection / Mowing and Marking
- Soils / Soil Test Results / Fertility / Maintenance
- Water Management / Problem Diagnosis / Insects
- Snow Removal / Tarping and Covering
- Overseeding Bermudagrass / Transitioning
- New Multiple Choice Round-Table Discussions
- And Much More!

WANT TO KNOW MORE?

CALL 800/323-3875 - or
write STMA, 1375 Rolling Hills Loop,
Council Bluffs, IA 51503 - or
Fax: 712/366-9119 - or
e-mail: TrustyTips@aol.com - or
check our web page: www.aip.com/STMA
HELP WANTED

TECHNICAL GROUNDS PRODUCTS REP

Opti-Gro, a division of a world-wide manufacturing corporation, is looking for a motivated individual with a life-science background. We manufacture and market a complete line of technical grounds care products. Our sales representatives enjoy financial growth and the opportunity to advance. Customers include municipalities, institutions, industry and many others. We offer:

• Thorough Training
• Local Territory
• Repeat Sales

If you have a successful background and are willing to make a commitment, please send resume to:

John Hawkins
Opti-Gro
One Mack Centre Drive
Paramus, NJ 07652
or fax resume to 201-261-7882

Positions available in the North East

TURF MANAGER, The City of Johnson City, Tennessee, is now accepting applications for Turf Manager. Position plans and designs development of land areas for projects such as ball fields/yard areas and supervises workers engaged in ball field renovation and establishment of Bermuda/fescue sports turf. Compiles/analyzes data on such site conditions as geographic location, soil vegetation, rock/drainage, and structure locations. Also confers with city/engineering personnel and architects on overall program. Requires a four-year degree in horticulture or Agronomy with experience in landscaping design on a supervisory level. Prefer experience working on a backhoe/bobcat/rotary and reel-type mowers. Rate of Pay: $10.96-$17.08 Per Hour, Deadline for Applying: October 31, 1996, Apply to: Department of Human Resources, City of Johnson City, TN, 601 East Main Street, PO Box 2150, Johnson City, TN 37605. Equal Opportunity Employer. We do not discriminate on the basis of race, religion, color, sex age, national origin or disability.