



FAX (612) 646-2887

EVENTS

NOVEMBER

17-19: Southern Turfgrass Conference & Show, Memphis, Tenn. Contact: Carl Case. (615) 794-6689.

17-20: Landscape and Grounds Management Conference/Green Industry Expo, Tampa, Fla. Sponsored by ALCA, PGMS and PLCAA. ALCA members call: (703) 241-4004; PGMS members call: (301) 667-1833; PLCAA members call: (404) 977-5222.

19-20: Alaska Greenhouse & Nursery Conference/Polar Grower Trade Show, Fairbanks, Alaska. Contact: Cathy Wright, Alaska Div. of Agriculture, S.R. Box 7440, Palmer, AK 99645; (907) 745-4119.

19-20: Southern Grounds & Turf Maintenance Exhibition and Conference, Nov. 19-20, Myrtle Beach, S.C. Contact: (803) 737-9355.

21-22: South Carolina Urban Forestry Conference. Contact: Debbie Price or Steve Scott at S.C. Urban and Community Forestry Council, (803) 737-8800.

21-24: Landscape Maintenance Association Equipment Show and Conference, Tampa, Fla. Contact: Charles Bingaman, exec. dir. LMA, (813) 584-2312.

25: Water Efficient Landscape Symposium, Marriott Desert Springs Resort, Palm Springs, Calif. Contact: John Wohlmuth, City of Palm Desert, 73-510 Fred Waring Dr., Palm Desert, CA 92260; (619) 346-0611.

DECEMBER

2-4: New Jersey Turf Conference, Garden State Exhibit & Convention Center, Somerset, N.J. Contact: Bea Devine, (908) 821-7134.

2-5: Ohio Turfgrass Conference, Cincinnati. Contact: Phyllis Poureh, 2021 Coffey Road, OSU, Columbus, OH 43210;

(614) 292-2601.

3-7: Sports Turf Managers Association Annual Conference, San Diego, Calif. Contact: STMA, P.O. Box 98056, Las Vegas, NV 89193-8056; (702) 739-8052.

3-5: Rocky Mountain Regional Turf Conference, Denver, Colo. Contact: Rocky Mountain Turf Assn., P.O. Box 903, Parker, CO 80134.

5: Marketing, Advertising & Business Management Short Course, Florida. Contact: Uday K. Yadav, (407) 323-2500.

5-7: Tree Care Industry Expo '91, Columbus, Ohio. Contact: Tom Clancy, (800) 733-2622.

5-7: Landscape Drafting and Design Workshop for Residential Properties, Athens, Ga. Contact: Bill Slack, 310 Hoke Smith Bldg., University of Georgia, Athens, GA 30602; (404) 542-2698.

8-11: Canadian Turfgrass Conference and Trade Show, Toronto, Ontario. Contact: Canadian Golf Superintendents Assn., (416) 602-8873.

REDUCE WATER COSTS, INCREASE TURF QUALITY



THE ISO (ees-o-lite) ADVANTAGE

- Upward to 50% water savings
- Remarkable water holding capacity permanently solves drought problem areas.
- Relieves compaction permanently hard porous granules will not compress.
- Environmentally safe will not effect soil chemistry.
- Hard ceramic granules will not breakdown, shrink or swell in the soil.
- 70% porosity holds water against gravitational and evaporative loss, but releases it to the root.
- Extremely low C.E.C. (1.2-1.9 meg/100g) will not tie up nutrients.
- Low bulk density (.5~.6 g/cc) improves both water and air permeability.
- Low E.C. (.1~.4 mmhos/cm) helps to eliminate salts.

For information on Some or a Distributor in your area.

CALL INNOVA 1-800-533-7165

Circle No. 122 on Reader Inquiry Card

Booths 734 & 736 at Green Industry Expo



Agri-Plex® and Lawn-Plex® micronutrients solve your tank mix problems.

Turf management professionals around the world are finding that AGRI-PLEX and LAWN-PLEX are the liquid micronutrients formulated to truly *buffer* your tank mix to pH 6.0-7.0.

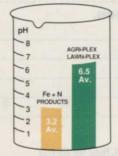
Don't be misled by other claims about pH. Most liquid micronutrients, especially those containing nitrogen, are formulated at a pH of 2.0-3.0 and, at suggested use rates will lower your tank mix to around 3.0-3.5, even when pesticides are added to the tank. Regardless of the water source, these numbers hold true because, practically speaking, water as well as pesticides do not have the ability to resist change in pH. A rare exception is water that is high in bicarbonates.

AGRI-PLEX and LAWN-PLEX provide other benefits since they are *fully chelated* with a patented organic phosphate-citrate chelate. This means you have full tank mix *compatibility* and a longer lasting greenup response without phytotoxicity. Micronutrients con-

taining nitrogen are, at best, only partially chelated and may cause compatibility problems.

AGRI-PLEX and LAWN-PLEX are the micronutrients golf course superintendents and lawn care operators are using. They eliminate problems and provide enhanced results. Now, isn't that a relaxing thought?

Do you want the *FACTS* on pH and micronutrients? See your local RGB Distributor or call



AGRI-PLEX and LAWN-PLEX effectively buffer your tank mix to 6.0-7.0.

us toll free 1-800-879-4766.

Come see us at Booth #1321
at Green Industry Expo

We Specialize in Micronutrients for Turf and Ornamentals

Circle No. 127 on Reader Inquiry Card

INFO

Tree hazards...The International Society of Arboriculture has published a new book titled "A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas." co-authored by Nelda Matheny and James Clark of Inc. The guide contains 156 photos. The book's cost is \$30 for ISA members and \$40 for nonmembers. It can be ordered prepaid from ISA, P.O. Box 908, Urbana, IL 61801 or fax Visa/MasterCard orders with card number and expiration date to: (217) 328-7483.

On certain pesticides... Thomson Publications has recently released its newlyrevised "Agricultural Chemicals Book III" on fumigants, growth regulators, repellents and rodenticides. It lists and describes in detail the miscellaneous pesticides. The book is available for \$16.50 plus tax. For ordering information, contact Thomson, P.O. Box 9335, Fresno, CA 93791; (209) 435-2163 or fax (209) 435-8319.

Training in Georgia..."Introduction to Pesticide Safety" and "Seasonal Color: Annual Bed Preparation and Installation" are two new videos from the University of Georgia Cooperative Extensive Service. The former is 20 minutes, the

latter 13 minutes. Each video comes with an instruction manual, discussion questions and multiple-choice exam. Each video package costs \$34.95, which includes shipping and handling. Make checks payable to DeKalb Extension Service and mail to: Video, DeKalb Extension Service, 101 Court Sq., Decatur, GA 30030-2523. (Special prices are available to members of the Professional Grounds Management Society and the Georgia Green Industry Association. Contact them for pricing.)

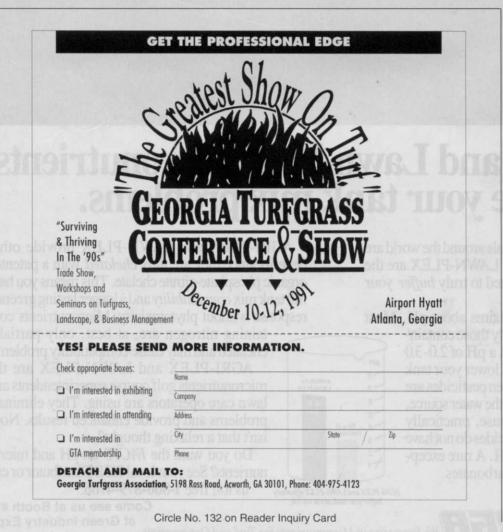
Pesticide glossary...For a free copy of a two-page "Non-

Agricultural Pesticide Glossary," send a stamped, selfaddressed envelope to: Reymont Associates, P.O. Box 114, New York, NY 10276-0114.

An organic fertilizer...
"Cottonseed Meal: A Slow-Release Organic Fertilizer," a full-color eight-page booklet is available through the National Cottonseed Products Association. The booklet tells how cottonseed meal can be used on turf, in flowerbeds and on shrubs. Send your name and address along with 52 cents postage to: NCPA, P.O. Box 172267, Memphis, TN 38187 or phone (901) 682-0800.

On xeriscaping... The Clemson University Cooperative Extension Service is offering "Xeriscape Landscape Water Conservation in the Southeast," a 32-page publication that includes more than 30 illustrations, many in color. Copies of the publication. Extension Circular 672, are \$4.50 each. They are available from local Clemson extension offices or by writing for more information to Poole Agricultural Center, Clemson, SC 29634-5609.

Tree, shrub insects...The revised second edition of "Insects That Feed on Trees and Shrubs," by Warren T. Johnson and Howard H. Lyon, contains 241 color plates and gives the essential IPM facts about more than 950 species of pests. To order, send \$52.50 plus \$3 postage and handling to: Cornell University Press, 124 Roberts Place, P.O. Box 250, Ithaca, NY 14851-0250. MasterCard, Visa and American Express Card orders are accepted. New York State residents should add 7% sales tax.





BEAUTY IS ROOT DEEP

When the New England Patriots switched from synthetic carpet to natural grass, they needed quick sod establishment. That's why they included ironROOTS® Concentrate in their installation program and ongoing maintenance programs. The program designed by R.B.I. with help from Altman & Altman Turf Specialists induced immediate root establishment. "In two weeks we had roots down to 3 inches," stated Mark Altman.

ironROOTS® is the ideal turf maintenance product because it promotes healthy root growth and long lasting green color without promoting excessive leaf growth. It is used on numerous NFL stadiums and practice facilities. Please send for research or call us at 1-800-342-6173 for information on including ironROOTS® in your maintenance programs.

25 Science Park, New Haven, CT 0651 *ROOTS and ironROOTS are trademarks of LISA Products Corporation

SHOWEASE

REVIEW

Ion generator purifies ponds

The Piranha ion generator from Bastech Industries releases copper and silver ions into water, destroying bacteria



and algae in ponds, spas, fountains and water displays.

The process, according to Bastech, does not affect water balance and is stable in sunlight. This water purification system improves chemical effectiveness, achieving an 80 percent savings in chemical expenses, Bastech contends.

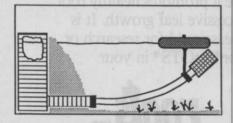
Circuits are fused for safety and easy maintenance. A variety of models for different water requirements are offered.

Circle No. 191 on Reader Inquiry Card

Flotation system keeps inlet clear

Greenscape Pump Services introduces its patented Float-N-Screen, which is designed to keep irrigation pump system inlet screens off the bottom of water sources. This prevents silt and other debris on the bottom from entering the system.

According to the company, the Float-N-Screen reduces pump wear due to silt, reduces control valve failure due to clogged screens, prevents sprinkler clog-



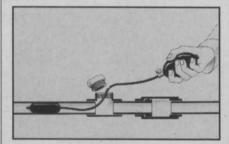
ging due to debris and prevents silt buildup on greens from covered intake screens. Float-N-Screens comes in all sizes to fit all types of intake systems and gpms.

Circle No. 192 on Reader Inquiry Card

Drip stopper simplifies irrigation pipe repairs

Moby Dike, from National Irrigation Specialists, employs a bladder which can be inflated in the pipe to be repaired, holding back residual water until the repair is complete.

With Moby Dike, landscape and irrigation contractors no longer need to stuff pipes with putties or other fillers. Bailing water out of the work excavation is also eliminated, as are re-works and call-backs



to correct water-fouled flue joints.

A small Moby Dike is available for pipes from 3/4 inch to 1-1/2 inches in diameter and a large one is for pipes 1 to 4 inches in diameter.

Circle No. 193 on Reader Inquiry Card

Limiter eliminates irrigation geysers

The Limiter, from Flood Stop of Mission Viejo, Calif., eliminates geysers



caused from broken irrigation heads, thus conserving water.

Once installed, the Limiter will convert the broken sprinkler head to a bubbler, limiting flooding, loss of pressure to the irrigation system, emergency repair and water loss. The product is available for 1/2 and 3/4 inch riser systems with capacity ranging from five gallons per hour to six gallons per minute. It is easily installed with a screwdriver and features a unique knurl design which makes it easy to remove broken risers with a screwdriver.

Circle No. 194 on Reader Inquiry Card

Flagging prevents damage to sprinklers

Golf course irrigation sprinkler heads are safer from mowers, aerators and other damage, thanks to new "Heads Up" flagging from Blackburn Manufacturing.

The "Heads Up" system consists of a specially designed rubber device which attaches with strong 3M adhesive to the top of a sprinkler head. A wire-staff Blackburn marking flag is then inserted in the rubber mount, providing a high-visibility system for irrigation sprinkler heads.

The system, Blackburn claims, does not



interfere with the operation or water flow from the sprinkler head. Flags come in a variety of colors and sizes and can be custom-imprinted.

Circle No. 195 on Reader Inquiry Card

Control system offers on-site management

The second generation of OSMAC (on-site

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0005 Golf courses 0010 Sports Complexes 0015 Parks 0025 Schools, colleges, & universities 0026 Other type of facility (please specify)
B. CONTRACTORS/SERVICE COMPANIES/CONSU Landscape contractors (installation & mainte
0110 Lawn care service companies 0112 Custom chemical applicators
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341 358 WHICH OF THE FOLLOWING BEST DESCRIBES YOU 342 359 TITLE: (MARK ONLY ONE)
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347 364 30 GOVERNMENT OFFICIAL - Government commission
348 365 other government official 349 366 40 SPECIALIST - Forester, consultant, agronomist, pile
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B. CONTRACTORS/SERVICE COMPANIES/CONSU
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Other contractor or service (please specify) _
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SHOWCASE

PRODUCT REVIEW

management and control) is a result of a cooperative agreement between Toro Irrigation and Motorola.



The OSMAC is an easy-to-use, affordable, central-based irrigation control system for golf courses. The central control communicates to the satellites with a paging radio system, completely eliminating the cost and inconvenience of communications wire installation, Toro says. And as a retro-fit controller, the OSMAC is quick and easy to install, often causing no disruption of play.

The basic receiver unit is expandable from 8 to 48 stations, each individually addressed, plus other features. Its handheld radio unit can double as a two-way radio to communicate with the base unit or another portable.

Circle No. 196 on Reader Inquiry Card

Sprinklers feature adjustable arc system

Hunter Industries' I-10 and I-20 geardriven sprinklers are now available with a



new adjustable arc feature. Both the I-10 shrub head and I-20 pop-up can be adjusted from 40 degrees to 360 degrees during installation or while in operation, Hunter says.

For full circle coverage, both are available as fixed 360-degree models.

Both are equipped with 12 interchangeable nozzles to vary the discharge rate from 0.5 to 14.4 gpm. This versatility allows the user to match high application rate sprinklers in a system, or to take advantage of modern low precipitation rates for water and energy savings.

Circle No. 197 on Reader Inquiry Card

Modular drain system has more capabilities

Zurn Industries has developed the "Flo-Thru Pre-Sloped Drainage System" with special design features.



The system offers lightweight assemblies, built-in 0.75 percent molded slope, modular continuity and a radiused smooth channel bottom. These features, Zurn says, simplify installation, produce a smooth and rapid flow, and promote self-cleaning.

This modular drainage system, Zurn notes, has more capabilities than other channel drainage systems.

Circle No. 198 on Reader Inquiry Card

Electronic locators are easily adjusted

A new line of advanced electronic locators for detecting buried pipe and cable, and tracking guided boring tools has been introduced by the Charles Machine Works.

Subsite Discovery Systems is a com-

plete line of receivers and transmitters that allow users to customize locator settings and locating methods to their own



requirements.

New settings can be changed with the push of a button.

Five Subsite locating systems range from simple systems designed to locate plumbing blockages to powerful systems for tracking guided boring tools.

Circle No. 199 on Reader Inquiry Card

Adjustable bypass speeds installation

An adjustable bypass now is offered on all Rain Bird R-50 Series rotors. By making it simple to adjust water flow into the rotor, the adjustable bypass permits fine tuning and allows the rotor to be adjusted for high performance in low pressure applications. It also speeds installation.

Available in standard, shrub and commercial models, the R-50 rotor offers full and part circle capability in each unit and



a choice of a standard 23-degree or low-angle 11-degree trajectory.

In addition, the R-50 rotor provides easy arc adjustment, a patented multifunction wiper seal, color-coded "Quick-Change" matched precipitation rate nozzles and a unique Quick-Flush action, which cleans the pop-up stem.

Circle No. 200 on Reader Inquiry Card continued on page 60

PRODUC

Trimmers, cutters get new engine line

Maruyama Manufacturing has initiated



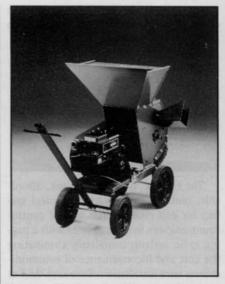
production of its new engines as part of the complete new string trimmer/brush cutter product line.

The new engine on these units features commercial grade heavy duty bearings, chrome cylinders and Walbro injection carburetors. The engine series, Maruyama says, develops a high level of torque at a lower rpm, giving longer engine life and better cutting characteristics under load.

The injection carburetor makes the unit especially easy to start, and it starts at a very low rpm for safety, Maruyama notes. Circle No. 201 on Reader Inquiry Card

Chipper/mulcher is highly efficient machine

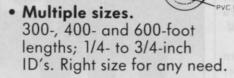
The 500H-5 chipper/mulcher from Roto-Hoe features 1-1/4 inches of chipping capacity, which quickly recycles vegetable



stalks, tree prunings, leaves and other landscape waste into valuable mulch or compost. The powerful Briggs & Stratton 5 hp engine provides 1400 rpms of operating speed for the 21 heat-treated, free-

Green Garde® HIGH PRESSURE SPRAY HOSE

 Braid reinforced. 800 psi working; 3000 psi burst. Lasts longer, saves big in long run.



- Resists kinking easy to use.
- · Won't leave marks on walks: hose color won't transfer.



Circle No. 114 on Reader Inquiry Card Green Garde Division

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