

# TURFGRASS SCIENCE AND CULTURE

JAMES B. BEARD



**Turfgrass: Science and Culture** by James Beard  
This is the comprehensive basic text and reference source used in many leading university turf programs. It includes findings of current research compiled from more than 12,000 sources. 658pp. BK-630-\$62.95

**Turf Irrigation Manual** by James Watkins  
The perfect guidebook for engineers, architects, designers and contractors. Keeps pace with the latest developments in turf and landscape irrigation. Specific chapters deal with rotary sprinkler design systems, golf course design systems, and expanded engineering and reference materials. 364pp. BK-640-\$32.95

**Turf**

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**Turf & Ornamental Chemicals Reference**

## 1993 Turf and Ornamental Chemicals Reference

2nd. ed. For every professional who makes decisions about the selection, proper use, storage, and handling of chemical products. Provides fast access to new developments. Includes complete product label and information organized by manufacturer, tabbed for quick reference, indexed six different ways, by brand name, manufacturer, product category, common name, plant and site use, pest use. Complete product Material Safety Data Sheets alphabetized by company and brand name, HazCom, SARA and OSHA regulations, table of DOT shipping information, storage requirements, application/record keeping chart. 930pp. BK-645-\$110.00

**Compendium of Turfgrass Diseases** by Dr. Richard Smiley, Peter Dernoeden, Bruce Clarke  
2nd. ed. Contains important new information on biological disease control, root-infecting fungi that cause patch disease, diseases, disorders, and causal agents. Over 60 color photos for easy disease identification. Covers abiotic agents of noninfectious diseases, foliar and/or root diseases, disease diagnosis and control strategy. 128pp. BK-650-\$30.00

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## EVENTS from page 59

**10: Cornell Turfgrass Field Day**, Ithaca, N.Y. Contact: Cornell University Dept. of Floriculture & Ornamental Horticulture, (607) 255-3134.

**11: Sports Turf Workshop**, Loras College, Dubuque, Iowa. Contact: Gary Peterson, Iowa Sports Turf Managers Association, (515) 791-0765.

**16: Lofts Seed Annual Field Day**, Martinsville, N.J. Contact: Cindy Kinnette, (908) 560-1590 or (800) 526-3890.

**16: Chesapeake Sports Turf Managers Association meeting**, Meadowbrook Maint. Facility, Chevy Chase, Md. Contact: STMA/Chesapeake, (301) 865-0667.

**17-18: Park & Recreation Design Symposium**, Little Rock, Ark. Contact: National Institute on Park and Grounds Management, (414) 733-2301.

**22: Diagnosing Landscape Disorders**, University of California, Riverside, Calif. Contact: Ted Stamen, (909) 683-6491.

**30: National Midwest Regional Sports Turf Institute**, Wheaton College. Contact: STMA/Midwest, (708) 439-4727.

# Forestry comes to the city

**HARRISON, Neb.**—A statewide pilot project aimed at bringing forestry conservation practices to town in order to enhance the quality of Nebraska communities is under way here.

"Today, rural forestry is heading to town—literally," says state forester Gary L. Hergenrader at the University of Nebraska-Lincoln.

The project, called Conservation Forestry in Communities (CFC), is being implemented here through a cooperative effort of the Center for Semi-Arid Agroforestry and the Nebraska Forestry Service.

Hergenrader says conservation trees in a community performs a host of functions:

- protect schools, hospitals, shopping and recreation areas;
- improve water quality;
- stabilize stream and lake banks;
- act as living snow fences;
- screen unsightly areas;

- improve wildlife habitat;
- aid in noise abatement; and
- provide aesthetics.

Thirteen CFC demonstrations have begun, including an 11-row living snow fence of trees in Harrison, Neb. It will consist of many species, but will emphasize shrubs and conifers because of their snow-catching capabilities. Additional benefits, Hergenrader contends, might include reduction in city utility bills and energy consumption, and a decrease in the cost of snow removal.

Another long-term project involves planting a green belt around the town for both added protection and landscape beautification.

"By applying what we have known for decades about the value of conservation trees in protecting farms and ranches, communities can reap the benefits of cleaner, quieter and healthier surroundings," Hergenrader says.

## INFO CENTER

### Useful literature and videos for LM readers

**MONEY TALKS...**The American Association of Nurserymen is offering a 90-page book titled "Financing Your Business." If you've ever needed to borrow money, green industry consultant Frank Ross tells you how to go about it: evaluating your company's credit worthiness, identifying potential money sources. To order a copy, mail \$91.50 (non-AAN members) or \$51.50 (members) to: AAN, 1250 I St., NW, Suite 500, Washington, DC 20005. MasterCard, Visa orders accepted.

**HAZARDOUS STORAGE...**Safety Storage Inc. has a video, "Professional Hazmat Solutions," concerning safe storage and containment of chemicals and hazardous materials. It explains how the company's pre-fabricated buildings and secondary containment products can be used to ensure compliance with regulations. The VHS video is available *free* by writing Safety Storage, 2301 Bert Dr., Hollister, CA 95023; or by phoning (408) 637-5955.

**WHAT PRICE?...**"How to Value Any Business" describes an accurate, simple technique to value any business. You are

provided with all the formulas and information you need, and guided step-by-step through the evaluation. Ninety-two rules of thumb included. Send \$39.95 (Texas residents add \$3 sales tax) to: Wayne R. Irwin, Dept. LM, P.O. Box 2096, Baytown, TX 77522; or order by phone (713) 424-7651 to charge to MasterCard or Visa.

**TREE IDENTIFICATION...**Now you can identify and label any trees on customers' properties with the "Tree I.D. Kit" from the Lawrence Co. The kit contains a fully illustrated booklet, weatherproof plaques, a permanent ink marker and rust-proof nails. Each kit describes 39 commonly-found trees, with comments on more than 60 additional species. For more information, phone (800) 643-7468.

**ENVIRONMENTALISM...**New training videos entitled "Lawn Management—In Balance with Nature" are now available for LCOs and landscapers. They train employees and inform the public about turf care with an environmental focus. The set comes with a comprehensive eight-page manual. The videos are sponsored by

Monsanto Co. in cooperation with the PLCAA, PGMS and ALCA. They are not product-specific. The two-video set is available by phoning (800) 323-1421 or writing to Monsanto Fulfillment, 1325 N. Warson Rd., St. Louis, MO 63132. They are *free* (one set per request), while supplies last.

**ABOUT AERATION...**The second edition of "Lawn Aeration: Hard Soil to Cold Cash" shows how to start a lawn aeration department or a complete business for less than \$500. Author is Robin M. Pedrotti. To order, send \$29.95 to Prego Press, P.O. Box 23945, San Diego, CA 92193. For overnight shipping, add \$10.

**ON PRUNING...**A new, updated *free* video "The Power Pruner...Safest Way to the Top" is available Technic Tool Corp. It presents use of the Power Pruner's 2- and 5-foot extensions and other accessories, including the circle saw and automatic oiler. To receive a copy, write or call Nancy Keller, Technic Tool, P.O. Box 1406, Lewiston, ID 83501; (208) 746-9011 or (800) 243-9592.

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For best results, apply AMDRO insecticide as a broadcast application when ants are actively foraging. For individual colony control, spot treat with AMDRO. You'll find AMDRO is not only easy to use, but economical as well.

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## AMDRO® KILLS THE QUEEN.

# PRODUCT SHOWCASE

## New mower engine first CARB certified

American Honda's new GX120 general purpose engine became the first gasoline engine certified to meet the nation's toughest emission standard—the 1994 California Air Resources Board (CARB) emissions standards for small engines. American Honda plans to convert all other engine models to CARB-approved models by Jan. 1, 1994.

The GX120, a 4 hp overhead-valve horizontal-shaft lightweight engine, received approval of compliance from CARB almost one year before the effective date of the standard. The GX120 is used in edgers, pumps, small construction equipment and reel-type lawn mowers.

Honda professional mowers come equipped with

American Honda engines.

American Honda also recently introduced its new line of OHV horizontal-shaft V-twin engines. The 18 hp model is available in recoil and electric start while the 20 hp is available in electric start only. Options include Oil Alert, control box, high mount and side mount mufflers and various shaft sizes. All meet the CARB

standards. The V-twin line joins the GX (horizontal shaft) and GXV (vertical shaft) series engines. All three lines offer:

- overhead valve engine design on 4-hp and above
- chrome top piston ring
- vibration-reducing counter balancers on 8 hp to 13 hp engines
- electronic ignition

- dual element air cleaner on 4 hp and above

Optional engine features include:

- Oil Alert low oil warning system
- electric start
- 3 to 20 amp charging capable
- spark arrestor

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on Reader Inquiry Card**



## SHOWCASE PRODUCT REVIEW

### Winter-hardy buffalograss requires little moisture

Bison buffalograss was cooperatively developed and released by Oklahoma State University and the USDA's Agricultural Research Station.

Johnston Seed Company of Enid, Okla., retains the production and marketing rights.

Bison is a synthetic variety, derived from the male and female parents of the "Mesa" variety plus a superior plant of each sex, selected from a Syn-1 generation planting of the Txoka variety.

The outstanding feature of Bison is that it is adapted to dry climates and is very winter-hardy, which allows it to be grown in the most northern regions, where buffalograss can be grown.

Bison is a sod-forming grass, dark green and fine textured. It spreads by both seed and stolon.

Bison is recommended for use on commercial and residential sites, athletic fields, golf courses, and locations requiring

erosion control.

Bison is a semi-arid grass adapted to survive under very low rainfall. It requires both sunlight and well-drained soil, and does not do well in areas with shade or excessive moisture. It grows best on heavy soil types rather than sandy soils, with a pH range from 6.0 to 8.0.

Bison buffalograss is an attractive and ecologically sensitive lawn grass requiring less fertilizing, watering and mowing, therefore aiding in water conservation and creating fewer clippings for disposal.

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### Conduct disease detection, diagnosis on the site

Neogen Corporation announce that it has completed the acquisition of the Alert and Reveal plant diagnostic tests kits from Agri-Diagnostics Associates.

The on-site plant disease detection test kits are rapid testing tools that allow users to conduct highly accurate disease detection and diagnosis without needing an

equipped plant pathology laboratory.

The tests are based on immunoassay methods in which antibodies have been



developed to recognize specific plant pathogens. By reading a color change, the user can determine if the pathogen is present and semi-quantitate the pathogen load.

The Alert test kits are available for detection of pythium, phytophthora, rhizoctonia and xanthomonas.

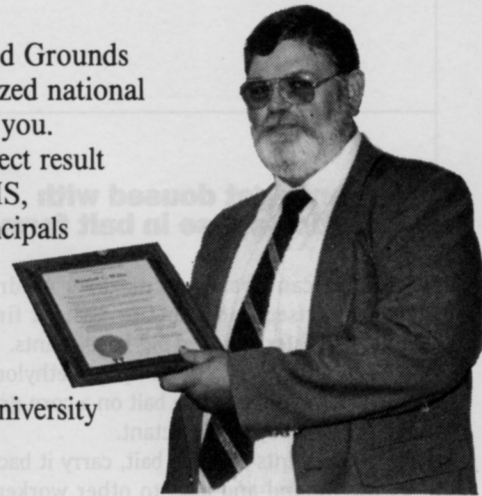
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Randy Willis, CGM  
Grounds Supervisor  
NW Missouri State University



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- certified grounds manager program
- training manuals
- discounts - rental cars, books
- membership directory
- awards
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\*Conferred by PGMS, grounds manager certification is a program of developing and administering a program of voluntary peer review to establish acceptable competence levels, and to help the grounds professional attain his personal goals.

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# PRODUCT REVIEW

## Fire ants get doused with insecticide, use in bait form

American Cyanamid markets Amdro fire ant insecticide for use against fire ants, harvester ants and big-headed ants.

The common name is hydramethylox, and it is formulated as a bait on a corn grit carrier with soy oil attractant.

Worker ants find the bait, carry it back to the mound and pass to other workers and the queen.

The poison acts slow enough so as not to kill ants before they return to the colony.

Typical control occurs in several days to several weeks.

Broadcast application for wide area suppression or ant mound treatment for individual colonies.

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## Engine treatments protect, thanks to better lubrication

Petrolon markets Slick 50 products, engine treatments for both air- and water-cooled two-cycle engines.

The main benefit of these products is improved lubricity, meaning greater protection against engine scuffing and seizure.

According to Petrolon, tests have shown that there is a reduction in operating temperatures following treatment with Slick 50, and many users report increases in power output.

The Slick 50 two-cycle products are formulated zinc-free, specifically for two-cycle engines.

Petrolon recommends that two-cycle engines be treated every 2000 miles or 50 hours.

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## Broad spectrum granular labeled for industrial sites

American Cyanamid's Vegetation and Pest Control Department recently began to market its new TopSite 2.5G herbicide for use in a variety of industrial markets.

TopSite 2.5G is a broad spectrum, easy-to-use granular herbicide that controls many annual and perennial broadleaf



weeds and grasses. It is labeled for more than 100 plant species, including:

- johnsongrass;
- bermudagrass;
- foxtail; and
- quackgrass.

It may be used on a wide variety of sites, including electric utility substations, industrial facilities, railroad signal and light posts, equipment yards, petroleum and gas wellheads, and many other areas.

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## New model pruner now has a much longer reach

Technic Tool has 2-1/2 and 5-ft. extensions for its new insulated Model D Power Pruner.

The extensions are easy to install and reduce the need for ladders or bucket trucks. Operators can prune branches as high as 22 ft. above, while staying away from falling limbs.

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# REVIEW PRODUCT



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# SHOWCASE PRODUCT REVIEW



## Turf Tender carries, spreads big load

T.I.P. Inc. introduces the Turf Tender, a multi-purpose, high-capacity unit to transport and unload high-density material such as sand, gravel, dry topsoil, fertilizer, etc.

Chores it can be used for include: spreading flowable mixes; filling top dressers (over 1800 lbs. of top dress in less than a minute); traps and trenches; spreading stone for cart paths; top dressing fairways, driving ranges, tees and athletic fields.

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## Tree irrigation system helps trees establish deep roots

Salco Products Inc. says its new subterranean tree irrigation system can be installed when a tree is planted or retrofitted to existing trees.

"Trees are often planted in turf areas," says Sam Tobey, company president, "and the grass is often grown directly to the tree trunk. Water allocations for turf are often not sufficient for the deep water requirements of most trees. Or, the opposite could be true with trees requiring less water than is being applied to the surrounding grass. Either way, the tree suffers."

Water is irrigated from a 6-inch length of 1/2-inch slotted PVC pipe. The slots are about 0.004 inch and located around the side of the pipe. This permits the water to easily flow to the root ball of the tree but restricts contamination from entering the drip irrigation system.

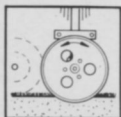
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## TURFCO EDGE-R-RITE MULTI-PURPOSE TURF EDGER

Just like a small sod cutter, the Blade does not spin, the oscillating motion does not throw debris.

Self-propelled and push models available.

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Disc Blade for cutting straight edge along sidewalks and driveways.



Right Angle Blade for golf course sand traps, and flower beds.



"V" Blade for removing a strip of turf along a sidewalk.

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More  
information  
on products  
available by  
circling the  
numbers on

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## Sandoz's new biopesticide controls lepidoptera in turf

Sandoz Agro Inc. Turf & Ornamental's Steward biological insecticide provides cost-effective, consistent control of lepidoptera in turf without applicator toxicity problems.

With Steward, according to Sandoz Agro, operators do not have to undergo regular cholinesterase testing related to organophosphates. Steward is safe for all humans, pets, birds, bees and natural predator insects. Steward is a wettable granule that is easy to mix.

Its two modes of attack effectively eliminate a variety of worms, including armyworms, cutworms, sod webworms and several varieties of caterpillars and moths. Steward is ingested by the insect, and within one to three days kills the pest by breaking down into small, toxic protein units that adhere to the stomach lining, disintegrating the cells of the lining.

In addition, the pests are poisoned by bacterial spores that germinate and multiply in the gut area, before passing through the gut wall causing septicemia.

Steward, a wettable granule, provides control for up to four days after application.

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