Two for the Show.

HARCOURT BRACE JOVANOVICH PUBLICATIONS AND



It takes two. It takes the double-team power of two smoothly coordinated business units to bring out the best in a trade show. The best Audience. Best Exhibitors. Best Conference. The best in growth, prestige and earnings for the sponsoring association or group.

The two business-building units needed are here and now. For market reach and influence; Harcourt Brace Jovanovich Publications, the largest publisher of business magazines and journals in America. For the expertise to research, create, develop, manage and produce; HBJ Expositions and Conferences.

Are You One for the Money?

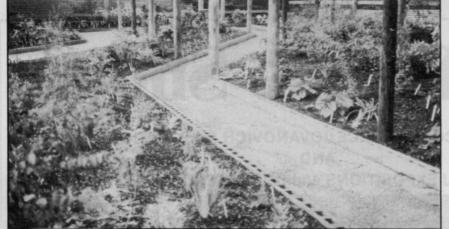
Perhaps your organization is considering the new business advantages of creating a Show. Or you want the Show you now sponsor to grow in size and profitability. You might even own an established Show available for acquisition.

If so, contact Rod Ellis at HBJ Expositions. There are infinite means by which we can bring out the best for you.



HBJ EXPOSITIONS and CONFERENCES

P.O. Box 2044 / 383 Main Street / Ridgefield, CT 06877 Phone (203) 438-5012 Telex 968918



Lathhouse enables North Carolina landscapers to view 1,500 species not usually found in the state.

ARBORETUM from page 31

While most arboreta try to grow the perfect, large specimens, Raulston philosophy of plant management is diversity. From rhododendrons to large trees, his intent is to grow them for a few years and when they become too large, remove and replace them with small plants again.

Plans have already been developed with the campus landscape architect to move the entire magnolia collection to a place where these trees can achieve maturity after they have grown at the arboretum for a few more years, and the dwarf conifer collection may soon be decorating the front of the horticulture building. In the meantime, all of this material has been propagated by students so that small replacements are available.

Education for the market

Raulston works closely with Dr. Ted Bilderback, associate professor of horticulture at the university. Bilderback has been teaching an arboriculture course which he restructured this past year, and it is now presented as a total maintenance course. The department has found that maintenance offers the most jobs for its graduates and the most lucrative, so the emphasis has shifted in that direction.

The horticulture department offers a degree in ornamental horticulture and also one in landscape horticulture, but Raulston says that today many of the students opt for a double major, so they are prepared to handle everything from small liner plants to huge trees-including production, sales and maintenance.

The department's staff builds economics into all the teaching programs. For example, in the grounds maintenance course, there is an entire section on figuring the real costs of items like labor and machinery—and teaching the students how to estimate and bid on jobs. In the nursery production course, each student must do a thorough financial work-up on a complete nursery operation—the land, equipment, labor, supplies, sales and marketing costs. Raulston has seen several students take these analyses to banks, receive loans and start their own businesses. The emphasis at NCSU today is on developing skilled plantsmen who are also practical businessmen and women, ready to compete in the real world beyond the university.



Circle No. 143 on Reader Inquiry Card

TWO EASY TO READ BOOKS

by Carl E. Whitcomb

Professor of Horticulture, Oklahoma State University

PLANT PRODUCTION IN CONTAINERS

- 1. A Wealth of Experiments and Experience.
- Practical Solutions to Problems in Nurseries and Greenhouses.
- Straight-Forward and Easy to Understand.
- Everyone Growing Plants in Containers Will Find This Book Useful.
- 5. Numerous Photographs Supplement the Text.
 6. 640 Pages, Hard Back.
 7. \$29.50 Postpaid (U.S.)



KNOW IT & GROW IT II

A GUIDE TO THE IDENTIFICATION AND USE OF LANDSCAPE PLANTS

- 1. 1600 Black and White Photographs Supplement the Candid Text Covering 500+
- 2. Common and Scientific Name Index.
 3. 8½" by 11", Large Reference Book.
 4. 720 Pages, Hard Back.
 5. \$31.95 Postpaid (U.S.)

Lacebark Publications

Route 5. Box 174 Stillwater, OK 74074

Circle No. 126 on Reader Inquiry Card

NEW ... HARLEY Double Roller Landscape





PULVERIZES, LEVELS & RAKES ROCK, roots and other trash. Double Roller gives deeper penetration and allows moving of several windrows into one for faster pickup. New scarifier. Also ask us about Harley **Rock Pickers**



Toll Free 1-800-437-9779

Circle No. 120 on Reader Inquiry Card

Harold Yuker is Provost of Hofstra University. He has cerebral palsy.

President's Committee on Employment of the Handicapped Washington, D.C. 20210

THROUNTIVE!

When there's a lot on the line, professionals choose TORO!



That's why TORO was a key performer at Munich, Montreal and Los Angeles

Stadiums that hosted three of the last four Olympic Games chose Toro 640 sprinkler heads for the vital task of irrigation when the eyes of the world were focused on their turf. No wonder! Toro 640s are safe. with a very small 21/4-inch exposed surface. And they install 1/2-inch below grade. They pop up 23/8" for efficient watering, then fully retract with heavy duty stainless steel springs. To top it all, these superior sprinklers are backed by Toro's 7-year warranty. Oh, about the fourth Olympic site, Moscow? Well, we really don't know, but we'd be willing to bet that the Russians wish they had invented the Toro 640! Toro. the leader in sports field and large turf irrigation products.

The Toro Company, Irrigation Division Dept. WT-285, P.O. Box 489, Riverside, CA 92502





Excellence in Irrigation™

PROBLEM SOLVERS

by Balakrishna Rao, Ph.D., Davey Tree Expert Co., Kent, OH

Chinch bug alternative

Problem: This year we had serious problems with chinch bugs. We have used diazinon in the past as well as this year and had variable results. Are there any better products on the market which we can use next year? I would appreciate your comments in this regard. (Pennsylvania)

Solution: I agree with your observations and experience. I have also seen chinch bug problems in many lawns this summer. By the visual symptoms, the problem can be misdiagnosed as disease or drought.

However, upon closer examination of the affected areas, particularly the thatch, a large number of chinch bug nymphs as well as adults may be found. Reports indicate that these destructive, sucking insects can build up in numbers very quickly because of their potential to lay 312-766 eggs per female. Both nymph and adults feed on turfgrass and are highly mobile: therefore, they can relocate readily,

For successful management of chinch bug problems, it is important to correctly identify the problem first, and then apply recommended insecticides when the pests are active. In your area chinch bugs

usually have two generations.

The first generation of chinch bug matures in mid-summer and produces a second generation that continues to feed and develop until the weather gets colder. The variable results you have experienced with diazinon treatments may be related to improper timing and/or the product performance itself.

Reports from Penn State University indicate that diazinon - AG500 gave 75.5 percent control, while Dursban provided 93.7 percent control. Therefore, I would suggest you consider trying Dursban.

Aeration will help

Problem: We are dealing with a number of landscape plants which are subjected to heavy traffic and compaction over the root area in several properties. Soil types around the trees could all be classified as clayloam. These soils tended to be compaction prone and heavy in texture. Fertilizing or irrigating these plants presents a serious problem. Surface runoff of water and fertilizer which is difficult to soil inject are among our major concerns. Any suggestions to dealing with the problem is appreciated. (New York)

Solution: Correction of soil compaction presents a major problem where heavy traffic is unavoidable. Whenever possible the compacted surface area within the drip-line of trees should be aerated by removing soil cores to improve air, water and nutrient movement. If desired, these areas can then be topdressed with coarse sand. Reports from Massachusetts indicate that, when dealing with compacted soils, the use of wetting agents such as Aqua-Gro at 1 oz. per 3 gallons (Aquatrols Corporation of America) can reduce surface runoff problems.

Creeping bent the culprit

Problem: Creeping bentgrass presents a serious problem in many Kentucky bluegrass lawns. Would you please suggest some guidelines to follow in dealing with this problem. (Ontario, Canada)

Solution: Kentucky bluegrass lawns are susceptible to contamination from creeping bentgrass, which spreads by stolons and produces roots at the nodes.

It starts as a small patch and begins to establish in lawns which were usually cut very short and received good irrigation. Once a Kentucky bluegrass lawn has become contaminated, it is very difficult to eradicate it completely.

Any lawn maintenance program which would inhibit bentgrass and favors other desireable grass is suggested for its control. The most important factor is controlling the amount of water applied. Heavy or frequent watering practices favors seed germination

and seedling establishment.

Even under low mowing and heavy watering practices, bentgrass plants produce more surface rooting than bluegrass. By withholding water until the deep-rooted Kentucky bluegrass plants show drought symptoms, the more shallow-rooted bentgrass will be stressed. This stress inhibits bentgrass. The bentgrass will turn brown and will allow bluegrass plants to dominate. Another factor to consider is the removal of clippings. Broken stem pieces should be removed during mowing because, if the conditions are favorable, they can establish in new areas. Vertical mowing to break the stolons and removing them also is beneficial in managing the problem. Vertical mowing may be done at any time during the months of May, early June, September and October, but should not be done during July and August because of high temperatures. After vertical mowing, the area can be seeded with desirable grass seed. There is no product on the market which would selectively remove bentgrass from a Kentucky bluegrass lawn. Some reduction of bentgrass can be obtained by the application of Killex (Trimec) or 2,4-D herbicides applied two to three times during the growing season.

Remember that whenever these herbicides are used in lawns, there is a possibility of some adverse effects on desirable grass roots. Therefore, multiple applications should be done with this reservation.



Balakrishna Rao is Director of Lawn Care **Technical Resources for Davey Tree** Expert Co., Kent, OH.

Questions should be mailed to Problem Solver, Weeds Trees & Turf, 7500 Old Oak Boulevard, Cleveland, Ohio 44130. Please allow 2-3 months for an answer to appear in the magazine.

LANDSCAPE LOG

by the Editorial Advisory Board, Weeds Trees & Turf magazine

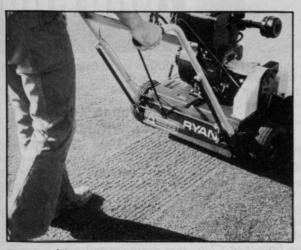
Transition, cleanup dominate March

Six experts willingly share their knowledge with Weeds Trees & Turf readers. Please write the magazine if there are specific areas of landscape management you would like addressed on a monthly basis.

March is a month of transition no matter where

you work.

In the Southeast, overseeded cool-season grasses are surrendering to native warm-season turf as temperatures reach the 80's. Preemergence herbicides should have been applied in late January and February, but final applications may be in order says Bruce Augustin. Application of a complete fertilizer (including potassium and micronutrients) is appropriate at this time to help the bermuda, St. Augustine, bahia, or centipedegrass. Augustin does not recommend application of preventative insecticides because of insect resistance to organophosphates experienced the past few years.



Power raking or verticutting is a common March practice to remove thatch, debris, and leftover snow mold.

Calibration of irrigation systems is strongly advised for March as temperatures climb. You need to know that your system is putting down one-inch of water upon initial signs of wilt. After irrigating, wait for wilt symptoms again before irrigating. Augustin says turf diseases are not as much a problem in the late winter as in the fall. Mowing programs should be in full swing by March.

As cool-season turf fades, so do the annual beds which provided color all winter. Mulch the beds to

prevent serious weed encroachment until next fall.

Great Plains landscape managers contend with left over snow mold and start cleanup in March. Robert Shearman recommends power raking,

Robert Shearman recommends power raking, aerification, seeding, and initial mowing of turf. Look for overwintering sod webworm larvae. Prepare for late March or April applications of fertilizer and preemergence herbicides.

Trees and ornamentals should receive dormant oil sprays in March for scale insects. Spray sycamores for anthracnose and spruces for gall aldegids. Prune winter-damaged branches, wrap up transplanting work, and fertilize perennials.

Make sure you have the needed chemical and equipment inventory for the upcoming busy season. Carefully check all irrigation and spray equipment for accuracy.

for accuracy.

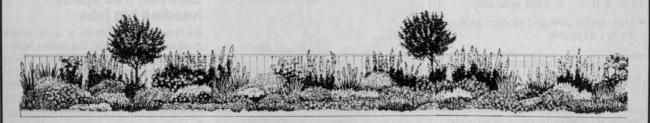
Midwest landscape managers should begin their insect control programs late in the month says Harry Niemczyk. Preventative treatments for grubs, chinchbugs, and billbugs should be made to susceptible areas. Check for mite damage.

Remove winter protection and remulch plantings in March says Doug Chapman. Bare root planting can begin. Prune out winter damage in trees and cut down deciduous shrubs for rejuvenation. Do not prune shrubs which flower on old wood.

Northeast deciduous trees should be pruned to remove fire blight damage says Martin Petrovic. Sodding can begin and soil ammendments can be applied. Watch for initial symptoms of leaf spot disease and white grub feeding.

Purchase fungicides for leaf spot, stripe smut, and red thread. Check supplies of preemergence herbicides for crabgrass and postemergence broadleaf herbicides. All mowing and cultivation equipment should be ready to go.

Editorial Advisory Board members are: Bruce J. Augustin, extension turf and water specialist, University of Florida, Fort Lauderdale, FL; Douglas Chapman, horticulturist/director, Dow Gardens, Midland, MI; Kent Kurtz, professor of horticulture, California Polytechnic Institute, Pomona, CA; Harry Niemczyk, professor of entomology, Ohio State University, Wooster, OH; Martin Petrovic, assistant professor of turfgrass science, Cornell University, Ithaca, NY; and Robert Shearman, associate professor of turf, University of Nebraska, Lincoln, NE.



Estate Turf Spreader Model 700

\$365.00 Freight Included sand or Spread seed. de-icers fertilizer, lime,

- Big 800 lb. capacity
- Ground driven
- Rugged Steel chassis with Polyethelene hopper
- Unique double-action drag chain prevents clogging while calibration is provided by 0 to 2½ sq. in opening



Perfect for spraying fruit trees, shrubs, yards, or pastures.

- · Heavy duty 15-gal. poly tank.
- · Adjustable booms sprays 10-ft.
- · Comes with hand held sprayer, and 10 ft. hose.
- · Sprayer operates on 12-volt power, with easy access on/off switch.
- Lightweight, easy to store, (41 lbs.)



- 1-ton hauling capacity with hand operated hydraulic dump system
- Heavy structural steel frame
- Removable Side Racks
- High Flotation Tires
- •5 ft., 6 ft. & 7 ft. beds available
- Also, single axle and tandem axle trailers available

Country Manufacturing, Inc. P.O. Box 104 K-3 Fredericktown, OH 43019 (614) 694-9926

Circle No. 108 on Reader Inquiry Card

PRODUCTS

Brouwer introduces new sod cutter

The Brouwer Mark 2 sod cutter is a snap to transport because it features adustable fold down handles and its weight has been decreased to 175 lbs. It is available in 12 and 13-in. widths of cut. New dethatcher, edger, and turf stripper blades are optional. The



thickness of cut is quick and easy to adjust with the Mark 2. The sod cutter comes equipped with a 5-hp engine. Circle No. 190 on Reader Inquiry Card

Two new rammers from Ditch Witch

Ditch Witch has introduced two new lightweight, hard-hitting gasoline rammers, the DR-50 and the DR-65.

The DR-50, a 3.3 hp rammer has an operating weight of 115 pounds and delivers a maximum impact of 1,750 pounds. The DR-65 is a 4 hp rammer with an operating weight of 150 pounds, delivering a maximum 2,400 pounds of impact.

Both units feature solid steel handles to help protect major components, simple electronic ignitions, oilbath lubrication and heavy-duty spring boxes for maximum impact.

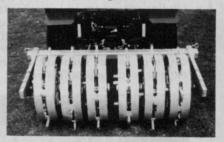
The DR-50 has a 6.5 by 13 inch shoe size, the DR-65 has a 11.2 by 13.3 shoe size. Both feature 27 wood lamina-



tions, with a tempered steel plate for long life and shock absorption. Circle No. 192 on Reader Inquiry Card

Crane aerifier heavy-duty unit

The new pull-behind aerifier by Earl J. Crane is a heavy-duty, drum-type aerifier for commericial use. The heavyweight pull-behind models can be expanded or narrowed depending on the need. Crane is expected to have a walk-behind version of the aerifier this spring. The tines of the Crane aerifiers can be stored in an up position for turf rolling or for travel.



Circle No. 191 on Reader Inquiry Card

Say adios to weeds with De Witt fiber

De Witt's Weed Barrier, a needlepunched fiber, is the answer to keeping weeds out and letting moisture in. The woven, flat, ribbon polypropylene is superior to polyethylene and other plastic films because it is permeable, durable, and permanent.

Although it will not puncture or tear during installation, it can be cut with regular household scissors. The Weed Barrier will not rot, mildew, or decompose either. As a superior mulch, it allows for more plants per area. It can also be used as a soil seperator and as a ground cover fab-

It is available in rolls and in attractive retail display cartons in a variety of widths from 36 to 188 inches.

Circle No. 195 on Reader Inquiry Card

Burkeen tree spade handles big jobs

Burkeen introduces a new truckmounted tree spade, the Arbor Master 65. It has six spades for easier ground penetration and a 4,000-lb root ball for less root damage and better tree livibility. The six spades allow better holding of the root ball during ball and basket operations. The controls are



They do. It's their job to know things <u>first</u> and then pass that information on to you <u>fast</u>. Things like new turf management techniques, effective methods of insect and weed control, what really works...and what won't.

LOOK FAMILIAR?

They should. You've seen them often at turf shows, seminars, conventions, wherever industry news is in the making. They're the editorial and sales management team of *WEEDS TREES & TURF*. Please meet (seated I. to r.) Ron Kempner, Bruce Shank, Dick Gore, and Maureen Hrehocik; (back row I. to r.) Bob Mierow, Kevin Cooney, Joe Kosempa, and Bob Earley.

THERE'S NO GRASS GROWING UNDER THEIR FEET.

They apologize for not always being in when you call, but great stories are found in the field, not in the office. These pros know the only way to really cover the green industry is to get out and be a part of it. From turf test plots in Oregon to the corridors of our Nation's Capital, they're following leads, surveying markets and interviewing the landscape

professionals who make our industry hum. Then, they use their years of experience to pull it all together, analyze it and present it to you in a crisp, easy-to-read and easy-to-use style. That way, you have the information you need to do your job better, faster and more effectively.

The next time you want to know something in the green industry, give them a call. If you can't reach them at the office, don't worry. They'll reach you in the pages of **WEEDS TREES & TURF.**

WEDSTRESEURF ABB

(HBJ) A HARCOURT BRACE JOVANOVICH PUBLICATION

3091 Maple Drive, Suite 312, Atlanta, GA 30305 (404) 233-1817

Incomparable

Rated No. 1
IN UNIVERSITY TESTS



THE GREENER
KENTUCKY BLUEGRASS®



*U.S. PLANT PATENT NO. 3150

For information contact:

J&L ADIKES, INC. Jamaica, NY 11423 JACKLIN SEED CO. Post Falls, ID 83854 Tangent, OR 97389

NORTHRUP KING CO. Minneapolis, MN 55413

VAUGHAN SEED CO. Bound Brook, NJ 08805

Bound Brook, NJ 08805 Downers Grove, IL 60515

ROTHWELL SEEDS LTD. Lindsay, Ont., CAN K9V 4L9