

You can worry about turf problems caused by too much or too little water, or you can use AQUA-GRO, the water

® management tool. AQUA-• GRO is a blend

of non-ionic organic wetting agents, 100% active ingredient with residual effectiveness in all soils.

AQUA-GRO ELIMINATES LOCALIZED DRY SPOTS ..AND COMPACTION.

AQUA-GRO is the specially formulated wetting agent that reduces water surface tension ensuring faster, more uniform

penetration and drainage. through hard-to-wet soils and

AQUA-GRO also relieves compaction by improving water penetration, drainage and aeration in high traffic areas. There's less need to aerify, or resort to costly rebuilding.

AQUA-GRO INCREASES FERTILIZER AND PESTICIDE ACTIVITY.

You get more from your turf chemical investment with AQUA-GRO. Turf chemicals are uniformly distributed throughout AQUA-GRO treated soils, so chemicals are used by plants more efficiently. And

AQUA-GRO helps turf chemicals penetrate thatch.

AQUA-GRO REDUCES

WATERING COSTS 30-50%. AQUA-GRO reduces irrigation costs, because water is used more efficiently. There's less run-off and less evaporation... you use less water, plants get more. AQUA-GRO helps you get your turf through the hottest weather. And AQUA-GRO lasts, because it won't leach.

Let AQUA-GRO relieve your tension. Available in liquid concentrate or spreadable granular formulations from your AQUA-GRO distributor.

AQUATROLS CORPORATION OF AMERICA, INC. a 1432 Union Avenue, Pennsauken, New Jersey 08110

For free illustrated brochure and more information call TOLL FREE 800-257-7797, in N.J. 609-665-1130.



pioneer in prefab bridges, Continental has engineering the ability backed by years of steel fabricating experience to provide safe economical pedestrian bridges.



Route 5, Box 178 Alexandria, MN 56308

800-328-2047 612/852-7500 in Minnesota

Circle No. 112 on Reader Inquiry Card

JOBTALK

Flowers, fans and football

Hosting the Superbowl adds anywhere between \$50 and \$150 million to a community's local economy, and can result in more in tourism and convention activity down the road. So when the Tampa, FL, was chosen to host this year's 18th football championship, the Florida Nurserymen and Grower's Association (FNGA) chipped in to make sure gridiron fans enjoyed a pleasant visit.

Several members of the Tampa Bay chapter of the association showed up at Himes Avenue, adjacent to the stadium, one day and converted the median into an attractive horticultural display. After installing oaks, leriope, palms and other materials in late September, the volunteers returned in November to add annuals to the display. And two days before the game they added the finishing touch by placing forced blooming azaleas in the islands.

FNGA Super Bowl Committee Chairman Ron Arkay spearheaded the beautifaction project and worked

with the City of Tampa Parks Department in developing a design for the island that was ultimately revised six

80% of the materials were donated by Tampa Bay **FNGA** members

Although the investment in the island came to more than \$13,000 for labor, materials and irrigation, all labor and 80 percent of the materials were donated by Tampa Bay chapter FNGA members. Twenty five nursery firms and gardening associations in the area, some as far away as Hollywood, FL., donated time and energy to the project. An additional six Tampa-area companies also agreed to landscape other median islands for the city to celebtrate Super Bowl XVIII.

DIAPHRAGM PUMPS FROM HYPRO.

Announcing a complete line of low cost, low maintenance diaphragm pumps and accessories. These new pumps feature proven designs, high quality engineering and the reliability you expect from Hypro. Outputs range from 5 to 60 gpm. Pressures from 250 to 850 psi. Pumps are extremely durable and easy to repair. Diaphragm pump applications range from spraying to pressure washing to liquid transfer to

hydrostatic testing. And a full range of accessories plus nationwide Hypro service is available. Get the facts on new diaphragm pumps from Hypro today.



Low pressure diaphragm pumps, to 280 psi, with outputs to 60 gpm.



Medium pressure diaphragm pumps, to 580 psi, with outputs to 13 gpm.

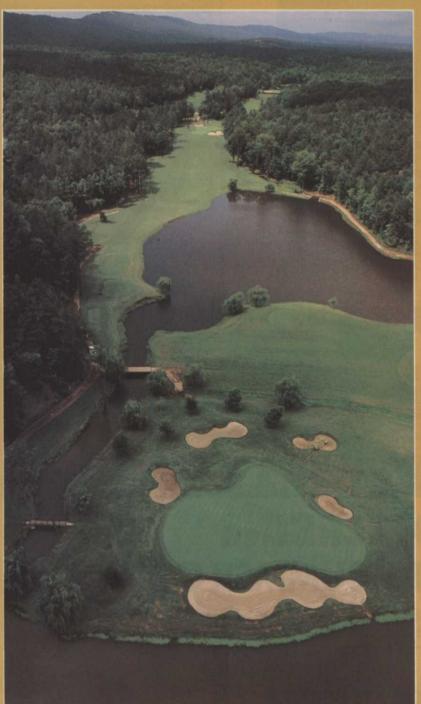


High pressure diaphragm pumps, to 850 psi, with outputs to 50 gpm.



Circle No. 127 on Reader Inquiry Card

1984 PGA putts on PENNCROSS



Shoal Creek, Alabama

At the rugged Shoal Creek course, host of the 1984 PGA Championship August 16-19, 1984, the touring professionals will again be putting on Penncross creeping bentgrass. Penncross and Penneagle, the Penn Pals, are no strangers to the pros. Most of the recent major championships have been played on one or the other. The Western open at Butler was played on Penneagle fairways and greens. The 1983 US Open at Oakmont was played on Penneagle tees, fairways and greens. Maybe you saw the sixty-foot putt on Penneagle.

So, when the Shoal Creek course was designed, it's no wonder Penncross was specified for the putting surface. It was a 'natural' to choose Penncross bentgrass, with its glorious history, for a course with a sparkling future!

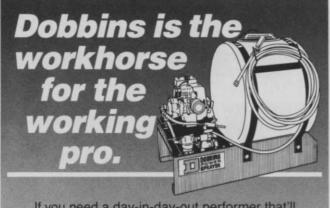
The PENN PALS



18th green at Shoal Creek, Shoal Creek, Alabama

Penneagle's Oregon certified blue tags qualify for cash awards to qualifying turf organizations for turf research. Call our toll-free number for details.

Marketed by **TEE-2-GREEN Corp.**, PO Box 250 Hubbard, OR 97032 1-800-547-0255 TWX 510-590-0957



If you need a day-in-day-out performer that'll handle all kinds of spraying jobs, get the work-horse. A Dobbins power sprayer. Every Dobbins is built smart and tough to help you cut any spraying job down to size.

 Professional design...adjustable nozzle, easy-fill tank.

 Heavy-duty...made with non-corrosive materials for years of reliable service.

 Complete line...from 8 gal. to 300 gal. capacities, skid mounted and trailer type models.

To put a Dobbins power sprayer to work for you, see your local power equipment dealer, call us collect, or write us for free catalog information.

Master Manufacturing Co. P.O. Box 3806, Dept. WTT 384 Sioux City, Iowa 51102 712/258-0108



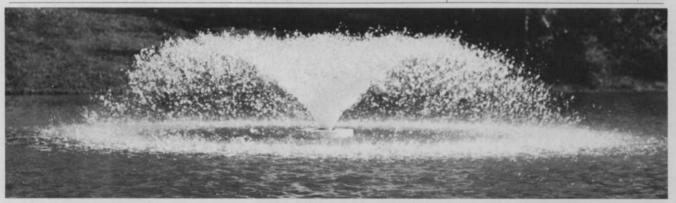
Circle No. 140 on Reader Inquiry Card



"Fastest" hedge trimmer from Green Machine

Engineered especially for the professional landscaper to withstand the rigors of constant daily use, the Model 2400 Hedge Trimmer from The Green





OTTERBINE DAY OR NIGHT...SUMMER OR WINTER



OTTERBINE® Aerators can help you keep unsightly algal growth and objectional odors under control naturally. The fact that OTTERBINES also create beauty— is just one of the many benefits of using our Spray Sculpture $^{\mathsf{TM}}$ Floating Fountains.

WE CREATE BEAUTY WHILE SOLVING PROBLEMS

BAREBO, INC. P.O. BOX 217 • EMMAUS, PA 18049 (215) 965-6018 USA

Circle No. 103 on Reader Inquiry Card

FREE A SUBSCRIPTION FOR PEOPLE WHO WANT TO KNOW ABOUT IBM'S NEW PCir COMPLITER

Learn what to ask before buying

Considering buying the PCjr? **Peanut** Magazine will tell you everything you want—and need—to know in order to make an informed-decision, based on your individual needs. You'll learn about the PCjr's strengths, weaknesses, and its optimum uses. Not only for today, but for the foreseeable future, as well.

Feel right at home with your PCjr

If you've decided to buy the PCjr, **Peanut** Magazine will show you how to get the most out of your new machine. We'll help you develop a working computer vocabulary... understand key words and concepts... keep you up to date on new software programs and peripheral hardware. (We're the only magazine that gives you a comparative rating system for both PCjr software and hardware. So you'll always know which ones are best for you!). Our experts will answer your questions and show you creative new ways to use the PCjr to simplify and enhance your life.

No experience necessary

You won't find a lot of "technicalese" in **Peanut**. This is one magazine designed to be read and enjoyed by just about anyone—no matter how much (or how little!) experience you've had with computers. You'll find every issue of **Peanut** to be as entertaining as it is enlightening, with

intriguing articles and features such as: CAN THE PCjr MAKE YOUR KIDS SMARTER? . . . HOW CAN PCjr SAVE YOU MONEY? . . . WHERE TO GET THE "BEST BUYS" ON SOFTWARE . . . IS "NETWORKING" FOR YOU? . . . DO YOU NEED A PRINTER? WHAT KIND IS BEST FOR YOUR NEEDS? . . . and more.

All this and programs, too!

Every month, **Peanut** also brings you actual programs to clip, use and save. Run them for practice, for fun, sometimes even for profit!

To receive your free subscription to Peanut Magazine, simply complete the card at right, detach and mail back to us today.





SIGNATURE_

(Signature required for free subscription)

New FREE Subscription Card

		Su	oscription car
☐ YES! I ac Magazine		a FREE subs	scription to PEANUT
I currently:	am considering the next 12 months		personal computer in the
	☐ use a personal com	nputer (brand)_ ☐ at home	☐ at my place of work
NAME			10 10 10 10 10 10 10 10 10 10 10 10 10 1
ADDRESS			
CITY		STATE	ZIP

DATE_

B419

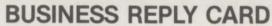
FREE!

Mail this card today for your FREE subscription to

THE MAGAZINE FOR IBM PG/r USERS

Can be seen to be seen the magazine of the magazine for IBM PG/r USERS

Can be seen to b



FIRST CLASS PERMIT NO. 665 DUI UTH, MINNESOTA

POSTAGE WILL BE PAID BY ADDRESSEE

PEANUT MAGAZINE P.O. Box 6336 Duluth, MN 55806 NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BOOKSTORE

Instructional and technical material designed to aid you in your work.

- 625 ADVANCES IN TURFGRASS ENTOMOLOGY \$24.95
- 010 ADVANCES IN TURFGRASS PATHOLOGY \$27.95
- 665 ARBORICULTURE: THE CARE OF TREES, SHRUBS AND VINES IN THE LANDSCAPE \$34.95
- 340 CONSTRUCTION DESIGN FOR LANDSCAPE ARCHITECTS \$39.50
- 345 COST DATA FOR LANDSCAPE CONSTRUCTION 1984 \$28.75
- 410 DISEASES & PESTS OF ORNAMENTAL PLANTS \$29.95
- 660 DISEASES OF SHADE TREES \$23.50
- 610 DISEASES OF TURFGRASSES \$30.00
- 800 THE GOLF COURSE \$35.00
- 350 HANDBOOK OF LANDSCAPE ARCHITECTURAL CONSTRUCTION \$48.50
- 675 HILLER'S MANUAL OF TREES & SHRUBS \$20.50
- 510 HORTUS THIRD \$125.00
- 690 INSECTS THAT FEED ON TREES & SHRUBS \$47.50
- 635 IRRIGATION PRINCIPLES AND PRACTICES \$39.95
- 395 LANDSCAPE ARCHITECTURE \$34.95
- 300 LANDSCAPE DESIGN: A PRACTICAL APPROACH \$19.95
- 370 LANDSCAPE OPERATIONS: MANAGEMENT, METHODS & MATERIALS \$21.95

- 645 MANAGEMENT OF TURFGRASS DISEASES \$24.95
- 575 MODE OF ACTION OF HERBICIDES \$54.95
- 545 MODERN WEED CONTROL \$21.50
- 700 THE PRUNING MANUAL \$15.95
- 790 RECREATION PLANNING AND DESIGN \$39.50
- 380 RESIDENTIAL LANDSCAPING I \$22.50
- 720 SHRUB IDENTIFICATION \$8.00
- 750 TREE IDENTIFICATION \$9.95
- 760 TREE MAINTENANCE \$35.00
- 640 TURF IRRIGATION MANUAL \$22.95
- 615 TURF MANAGEMENT FOR GOLF COURSES \$45.00
- 620 TURF MANAGEMENT HANDBOOK \$18.00
- 110, 120 TURF MANAGERS' HANDBOOK \$28.95 hardcover, \$23.95 paperback
 - 650 TURFGRASS MANAGEMENT \$21.95
 - 630 TURFGRASS:SCIENCE & CULTURE \$27.95
 - 655 TURFGRASS:SCIENCE & CULTURE LABORATORY MANUAL \$12.95
 - 565 WEEDS \$37.50
 - 570 WESTCOTT'S PLANT DISEASE HANDBOOK \$36.50
 - 405 WOODY ORNAMENTALS \$27.00

CLOSEOUTS

ORDER THESE TITLES AT SPECIAL REDUCED PRICES!

- 795 FIRST AID MANUAL FOR CHEMICAL ACCIDENTS \$18.25
- 455 THE GRAFTER'S HANDBOOK \$16.95
- 460 GREENHOUSE ENVIRONMENT \$21.20
- 335 LANDSCAPE DESIGN THAT SAVES ENERGY \$8.50

	s Brace Jovanovic First Street, Duli				
Name	la allalla a	B. 11's	Aller Berlin		
Street Address					
P.O. Box Number	Territory and	-	ALL THE		
City/State/Zip					
Signature	Date				
Phone Number					
Purchase Order Number	PERSONAL PROPERTY IN	ATTENDED IN	ELLEGACION .		
Please send me the following books. I ha Please charge to my Visa, Master Card o Account Number	r American Express	(circle one)			
BOOK NUMBER AND TITLE	QUANTITY	PRICE	TOTAL PRICE		
words accomplish	a assume mand	and the last	ismi D. et		
	acation motors	etter:			
dot adr ason	THE RESERVE AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO PERSONS ASSESSMENT OF THE PERSON NAMED IN COLUMN TWO PERSONS ASSESSMENT OF THE PERSON NAMED IN COLUMN TWO PERSON NAMED IN				
does the job.			7.00		
Albert March					
afot suit ason					
dot sub form					
*Please add \$3.00 per order plus \$ postage and handling	1.00 per additiona	copy for			

Machine, incorporates a host of advancements in design that provide cleaner, faster, cutting and shaping of hedges, vines and ornamental plantings than ever before possible.

Powered by a new lightweight 1.2 hp, 2-cycle engine that produces 6500 rpm, the Model 2400 is able to effortlessly slice through branches of up to one-inch in diameter, and is outfitted with an all-position diaphragm carburetor with positive fuel/air mixture control that allows cutting at any angle.

Weighing only 12 pounds, the wellbalanced Model 2400 can be maneuvered easily in virtually any cutting situation with the trimmer's wide handle spacing of 18.5 inches and fingertip throttle control. At the heart of the cutting assembly lie twin oscillating blades made of aircraft-quality steel for added durability and extended life. Measuring 30 inches in length, the blades are engaged by a twin-shoe centrifugal clutch between 3500 and 3900 rpm. A series can drive with a gear reduction of 3.93:1 pro-

vides a cutting speed of 34 cycles per second, which makes the 2400 probably one of the fastest hedge trimmers available. To insure operator safety, unit will only cut in one direction.

For easy maintenance and longevity, the Model 2400 is externally regreasable and is equipped with needle bearings on the blade drive and heavy-duty ball-type bearings at the main drive point.

The Green Machine Model 2400 Hedge Trimmer has a suggested retail price of \$299.50 and is sold exclusively through authorized Green Machine dealers.

Circle No. 185 on Reader Inquiry Card

Sprinkler adaptors increase versatility

Rain Bird PA-80 adaptor units allow Series 1800 pop-up sprinklers to accept any standard 1/2-inch female



threaded mister, bubbler or shrub head. Adaptors screw directly on the stems of two through 12-inch high spray heads to increase the capabilities of most sprinkler systems by the company

Circle No. 186 on Reader Inquiry Card

Country Club RT is reinforced hose

Country Club RT hose is speciallydesigned for golf course use and other professional turf applications. Its 3/4inch and 1 inch sizes will accomodate the larger water volume a golf course requires. Industrial strength knit reinforcing provides 500 pound burst strength. Special PVC construction gives flexibility, light-weight handling and excellent abrasion and weather resistance.

Heavy duty one-inch coupling is solid brass, octagon shaped for



BON APPETITI

Milorganite supplies nutrients the way plants want them.

Fertilize Nature's Way With Naturally Organic Milorganite.

- No matter how hard scientists have tried, they have failed to match synthetic nitrogen to release with natural growth patterns.
- Granulation does make a difference ... s-l-o-w nitrogen release does the job.



Milwaukee Metropolitan Sewerage District

735 North Water Street Milwaukee, WI 53202

Circle No. 142 on Reader Inquiry Card

We promise to tell the truth the whole truth and nothing but the truth. So help us BPA.

As a member of BPA (Business Publications Audit of Circulation, Inc.) this magazine subscribes to the principle that it takes more than good faith to earn the business of advertisers. It takes good figures.

BPA, an independent, not-for-profit organization. audits our circulation data to make sure that advertisers

get exactly what they pay for: you.

Once a year, BPA auditors examine our circulation list

to make sure it's correct and up to date.

The audit makes sure you are who we say you are. It verifies your name, your company, your industry and your job title. This information enables our advertisers to determine if they're saying the right thing to the right people in the right place.

It also gives us a precise picture of who you are and,

therefore, a good idea of what you want as a reader.

BPA. For readers it stands for meaningful information. For advertisers it stands for meaningful readers. Business Publications Audit of Circulation, Inc. 360 Park Ave. So., New York, NY 10010.

We make sure you get what you pay for.

Scientific Guide To Pest Control Operations



by Dr. L.C. Truman Dr. G.W. Bennett and

Dr. W.L. Butts

Domestic: \$32.50* (hardcover) Foreign \$37.50* (hardcover)

The SCIENTIFIC GUIDE TO PEST CONTROL OPERATIONS is designed to provide a sound basis for studying the scientific aspects of pest control and promote technical competence. It places emphasis on urban and industrial pest problems. This volume also covers the laws and regulations concerning the pest control industry.

The SCIENTIFIC GUIDE TO PEST CONTROL OPERATIONS is written for owners, supervisors, servicemen, salesmen, students, persons preparing for state certification under the EPA/state programs for commercial pesticide applicators, and people interested in structural pest control.

The SCIENTIFIC GUIDE TO PEST CONTROL OPERATIONS - a must for anyone involved in the field of pest control!

Return this coupon to: Book Sales

Harcourt Brace Jovanovich Publications One East First Street, Duluth, MN 55802 Domestic: \$32.50* (hardcover) Foreign \$37.50* (hardcover)

YES! Please send me____copy(ies) of the SCIENTIFIC GUIDE TO PEST CONTROL OPERATIONS.

A check or money order for_____is enclosed.

Please charge to my Visa, Master Card, or American Express (circle one)

Account Number____Expiration Date_____

*Please add \$3.00 per order plus \$1.00 per additional copy for postage and handling.

Name_____request.

 Address
 Zip

 City
 Date

Please allow 6-3 weeks for delivery

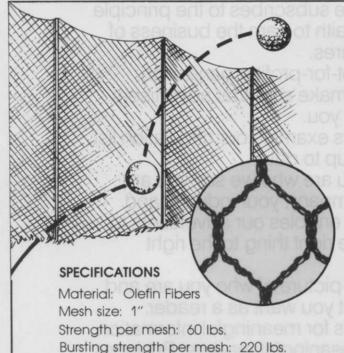


wrench use. Other sizes are equipped with standard garden hose couplings. Country Club RT is available in a full range of diameters and sizes. Circle No. 187 on Reader Inquiry Card

Revised BL-52 blower facilitates loading

Modifications to the BL-52 Billy Goat blower have made the machine easier to load and unload from a vehicle.

The revised BL-52 features a split



Durability: 5 to 10 years

Resistance: Will not rot or mildew

Ball Barrier Netting

New, easily installed, inexpensive way to stop "off course" balls. Produced by the company that makes superior netting for tennis and industry.

- Fast installation 3 times faster than wire.
- Wide widths eliminates 75% of joining pieces.
- No rust or mildew made of olefin fibers.
- Light weight easy to handle.
- Strong, tough and priced right!
- Saves time labor money!

OUTSIDE NEW JERSEY, CALL TOLL FREE (800) 631-2234

J.A. CISSEL MFG.

PO Box 339

Squankum - Yellowbrook Road,

Farmingdale, New Jersey 07727, (201) 938-6600



IBDU GIVES A CONSISTENT GREEN AS A MATTER OF COURSE.

Month after month, nothing performs like IBDU in creating beautifully green turf for lawns, tees, fairways and greens. IBDU releases nitrogen later in the fall, earlier in the spring and more consistently through the summer than any other nitrogen source. Due to its slow, even release pattern, IBDU builds rich turf growth without early flushes and excess clippings.

IBDU is available only in PAR EX® fertilizers. PAR EX products feature IBDU mixed in a variety of formulations designed

to satisfy your turf and soil conditions.

Why not invest in a nitrogen source that promises you the greatest return? In efficiency. In fewer applications.

greatest return? In efficiency. In fewer applications. In lower labor cost. Order the right PAR EX formulation from your distributor. And apply IBDU for a beautiful course, as a matter of course.

PAR EX and IBDU are more quality products of Estech, Inc., Professional Products Division, P.O. Box 1996, Winter Haven, Florida 33880.





PAR EX and IBDU are registered trademarks of Estech, Inc.

BEAUTY LAWN ZOYSIA SOD (Meyer Z-52) for your FAIRWAYS, ATHLETIC FIELDS, PARKS • Zoysia saves big on water, fertilizer, insecticides, fungicides, mowing. • Zoysia provides an outstanding playing surface for fairways. • Stands up to hard usage. • Truck-trailer shipping throughout U.S. ROW PLANTING SERVICE 100 Mile Radius of Louisville, Ky. Jay and John Frick The Zoysia Men The Solution to Old Problems BEAUTY LAWN ZOYSIA

Circle No. 104 on Reader Inquiry Card

Near Cincinnati, Ohio

603 Union Road . Lebanon, Ohio 45036

Our 35th Year

(513) 424-2052

"T" handle which allows the operator to use a dual grip when lifting the



machine. The engine of the BL-52 also has a lift handle.

The BL-52 features a 5 hp Briggs & Stratton ball-bearing, 4-cycle engine with an eight-blade aerodynamically designed fan. The blower is designed with adjustable front or side exhaust for greater maneuverability and has an easy-grip hand throttle conven-

