

# 4

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For waste water, industrial, turf, drip, ornamental, residential and commercial installations.

Combination angle/globe configuration with plug cuts inventory costs • Bodies of 30% glass-filled nylon are corrosion resistant and nature proof • 1", 1½", 2" and 3" sizes • Low pressure loss • British thread (BSPT) optional

### ELECTRIC

- 2-way 24 VAC solenoid.
- Buna N nylon reinforced diaphragm.
- Internal parts removable for service.



Model 20504  
2" FPT

### PRESSURE REGULATING

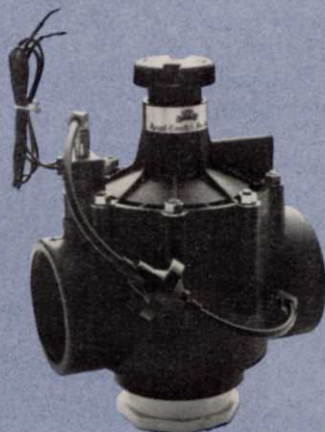
- Adjustable pressure regulator features a locking device to maintain pressure settings.
- Steady outlet pressure regardless of changing inlet flow.



Model 20106  
3" FPT

### CONTAMINATION RESISTANT

- 3-way solenoid normally closed.
- Handles dirty water and effluent systems.
- Accessible external strainer.
- Manual bleed and flow control.



Model 20906  
3" FPT

### HYDRAULIC

- Normally open.
- Flow control with bleed screw.
- Metal studs molded in for strength.



Model 21603  
1½" FPT



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\*Royal Coach/Buckner has acquired the Valtronix product line



### Golf, maintenance continue to grow

Golf is alive, thriving and growing, according to Sandy Eriksson, director of research for the National Golf Foundation, North Palm Beach, FL. At the recent International Turfgrass Conference and Show in Atlanta, Eriksson said there has been a 26.1 percent increase in golf activity over the past five years. New courses opened for play numbered 688 which included 582 regulation, 75 executive and 31 par-3 courses. The short course trend is toward the executive course. The steadily decreasing percentage of private golf facilities will hopefully reverse itself as the post World War II baby boom babies attain more discretionary income and see the private course as an avenue for business and social contacts, according to Eriksson.

The leading states in golf course openings were Florida (127), California (46), Michigan (44), Texas (42), Arizona (32), South Carolina (32), Ohio (18) and Minnesota (15). In the Sunbelt States, especially South Florida, golf courses attached to real estate ventures are still the best drawing card with retirees swelling the golf ranks.

What all these golf courses translate to in maintenance costs, according to a National Golf Foundation estimate, is \$778 million in 1978 as opposed to \$1.2 billion in 1982; that's roughly \$92,000 per course per year average. Those costs can be affected in the future by dropping petroleum prices, better players, better designed courses and superintendents becoming better educated in maintenance procedures, according to Eriksson.

According to the NGF fourth quarter survey, golf activity in 1982 shows that play increased 7.6 percent during 1982 to an estimated 425 million rounds. That figure represents a gain of 30 million rounds over 1981. The U.S. golfing population in 1982 was comprised of 54 percent males, 17 percent females, 7 percent junior (18 and under) and 22 percent seniors (55 and older).

### E-Z-Go's Patterson appointed director

Ronald V. Patterson, president of E-Z Go Golf Car Division of Textron Inc., has been named to the National Golf Foundation's Board of Directors. The announcement was made by NGF Board Chairman Jerry D. Martin.

An Ohio native, Patterson has been in the golf car business for the past 15 years, first as an independent distributor of E-Z-Go golf cars in Ohio and later joining the E-Z-Go sales force as regional manager in February 1972.



### GOLF

### IGA elects slate of officers

The International Association of Golf Administrators has elected Dennis Davenport, Chicago District Golf Association Executive Director, its 1983 president. Davenport succeeds James Sykes, executive director of the Golf Association of Philadelphia.

The IAGA was founded in 1963 and has an international membership of 53. Its membership is golf administrators, primarily executive directors of golf associations around the world. The Association provides a forum for exchanging ideas and methods of operation, according to Brian Fitzgerald of the Western Golf Association.

At its annual meeting, the IAGA also elected the following officers: Eugene Haas, Wisconsin State Golf Association, vice president; Jan Taylor, Toledo District Golf Association, secretary; and Hal Van Hoy, Carolinas Golf Association, treasurer. Each will serve for a year.

### CHEMICALS

### Stauffer makes executive changes

Stauffer Chemical Company has announced several executive changes in its Agricultural Chemicals Division, including the appointment of two assistant general managers.

John J. Burke and Donald J. Martin have been named assistant general managers. Joseph S. Chirtel has been named director of manufacturing and David F. Martin is director of marketing. Rodger M. Hankins becomes manager of manufacturing plants and M. Dirck Reichard has been named director of industry relations for the Division.

### GOLF

### Radko honored with ASGCA Ross Award

Alexander M. Radko, former National Director of the Green Section, United States Golf Association, has been named the 1983 recipient of the Donald Ross Award presented annually by the American Society of Golf Course Architects to a person who has made significant contributions to golf course architecture.

*continued on page 16*

inquiries received for 90 days from date of issue. For those countries outside the U.S., please apply appropriate postage before mailing.

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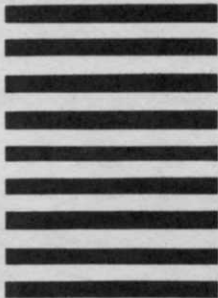
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The L355SS model digging in here is a good example. A 4-cylinder 29 PTO diesel work-horse, it does all kinds of commercial landscaping, industrial and loader tractor jobs.

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The L355SS and all Kubota B- or L-Series models are guaranteed to be dependable for a long time. Our two-year limited warranty is unmatched by other manufacturers. Your dealer has complete details.

So stop by your Kubota dealer soon. While you can't drive our tractors into the ground, you can take 'em for a test drive.



 **KUBOTA**  
Nothing like it on earth.



### Co-winner announced in Irrigation award

The Irrigation Association awarded the National Water and Energy Conservation Award to the Denver, Colorado Water Department and the Associated Landscape Contractors of Colorado. The award, presented annually, recognizes the two groups' efforts to promote water conservation through creative landscaping in an urban environment through their "Xeriscape" program. Sheldon G. Pooley, president of the Irrrometer Company, Inc. of Riverside, CA was the recipient of an Honorable Mention.

### ASLA test booklet available

An updated, comprehensive manual on how to prepare for, how to take and how to do well on the Uniform National Exam (UNE) for Landscape Architects has been published by the American Society of Landscape Architects (ASLA). In order to be licensed to practice in many states, landscape architects must successfully complete the UNE. The examination is prepared annually by the Council of Landscape Architectural Registration Boards (CLARB) in Syracuse, NY.

The Uniform National Exam Study Guide for Landscape Architects is aimed at maximizing a candidate's study time and performance on the exam. The guide provides a methodology which allows the candidate to understand what he or she needs to know in order to be adequately prepared for the exam. The guide was written by professors of Landscape Architecture at the University of Florida and Ohio State University.

The study guide is available to ASLA members for \$12 per copy and to non-ASLA members for \$17 per copy (plus \$2 per copy UPS postage and handling). The ASLA is located at 1733 Connecticut Ave. NW, Washington, D.C. 20009.

### NLA honors landscape designs

Thirteen Superior Design Awards, including a special Judges Award and seven Certificates of Merit were presented to landscape firms during the National Landscape Association Awards Luncheon recently. Eight projects were selected in the Single Family Residence category: Ireland's Landscaping, Inc., New York; Theodore Brickman Co., Illinois; and Soter Companies, Inc., Oregon. Fininvest Landscape Inc. won the Judges Award. Six entries received superior ratings in the Active Use category: Schlick Landscaping Inc., New York; Landscape Innovations Inc., New York; Steven Dubner Landscaping, Inc., New York; Goldberg & Rodler, New York; and Contemporary Landscapes Inc., New Jersey. Three won in the Passive Use category: Synnestvedt Landscape Co., Illinois; and Ireland's Landscaping, Inc. Kale's Nursery & Landscape Service, New Jersey, was awarded a Certificate of Merit.

called the father of American golf course architecture.

"Al Radko has long worked with golf course architects to provide American golf courses with the best turfgrass in the entire world," said ASGCA President Jack Snyder. "He is an industry leader of national prominence, a dedicated educator and a professional with great personal character."

Snyder said Radko's work as primary editor for the new USGA book,



*Turf Management for Golf Courses*, helped provide information and guidelines that will prove useful to all those interested in good golf courses for many years.

Previous recipients of the Donald Ross Award include Robert Trent Jones, Herbert Warren Wind, Herb and Joe Graffis, Joe Dey, Gerald Micklem, Gov. James A. Rhodes of Ohio and Geoffrey Cornish.

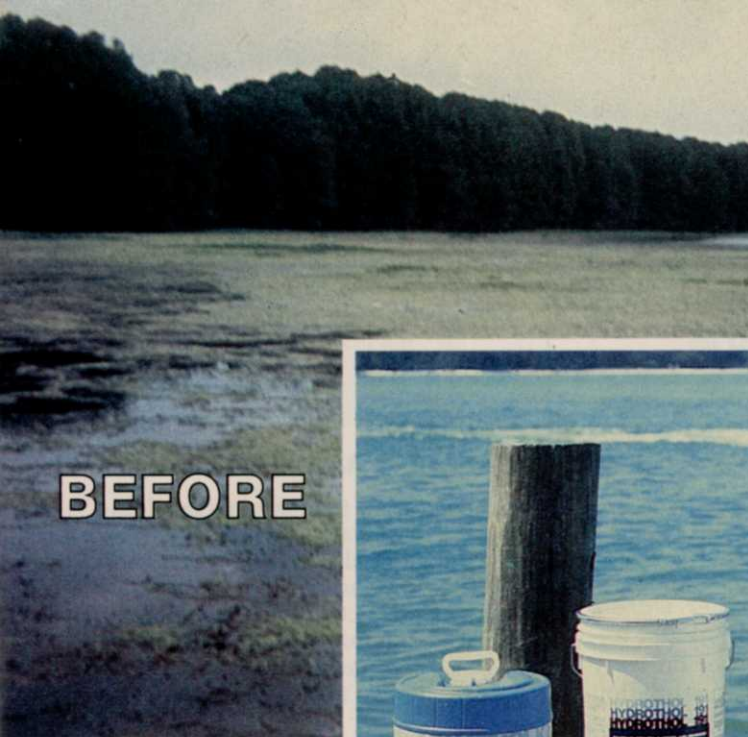
### HERBICIDES

#### Label additions expand Princep versatility

Princep herbicide from Ciba-Geigy, long used for broadleaf control in corn, citrus, deciduous fruits, nuts, turfgrass, tree plantings and alfalfa, will offer growers more versatility in 1983 with label additions and new tank mixes accepted by the EPA.

Princep herbicide now may be used alone to control winter annual weeds in fairways and lawns of bermudagrass, centipedegrass, St. Augustinegrass and Zoysia grass. Weeds controlled include annual bluegrass, burclover, carpet burweed, chickweed, corn, speedwell, henbit, hop

*Continued on page 18*



**BEFORE**

Before and after treatment for control of hydrilla with AQUATHOL® K Aquatic Herbicide.



**AFTER**



# Get results like this with Pennwalt Aquatic Herbicides

Pennwalt products control many troublesome weeds and algae, including hydrilla, coontail, milfoil and pondweeds.

### Biodegradable

All Pennwalt aquatic herbicides are based on endosulfan. Endosulfan salts disappear rapidly from the water and soil through microbial degradation and do not accumulate in the food web. Prop-

erly applied, Pennwalt aquatic herbicides provide a satisfactory margin of safety to birds, mammals, and aquatic fauna. And Aquathol formulations have a wide margin of safety to fish.

### Contact Action

Pennwalt aquatic herbicides kill weeds by contact. For best results, they should be applied as soon as the aquatic weed

problem appears and weeds are actively growing.



### Flexible Application

The application of Pennwalt aquatic herbicides can be fast, precise and economical. Application of liquid or granular formulations may be made by

air, by boat or from the shore to treat small or large areas of lakes, ponds, rivers and canals.

### Complete Line

The Pennwalt line of aquatic herbicides and algicides: an effective way to get rid of weeds and algae.

- AQUATHOL® K** Aquatic Herbicide
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All pesticides can be harmful. Read label carefully and use only as directed.

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### **Tougher, more reliable EPA could result under Ruckelshaus**

The Anne Gorsuch Burford reign at the Environmental Protection Agency may have been the most pro-industry in the 12-year life of the agency, but it was also the most attacked. The return of William Ruckelshaus, the original administrator of the agency, will hopefully lend assurance to the chemical industry. Their investments in research data and product development will not be wasted.

The agency has waived from one extreme to another. During the Carter years, the agency was known for environmental extremists as much as the Gorsuch years were known for industry extremists. Posters in the halls of EPA openly urged cancellation of many major chemicals during the Carter years. With such a mood inside the agency, manufacturers had reason to worry about the fate of their products, since each carries millions of dollars of development costs.

During the Burford years, progress was made by chemicals tied up for years in previous administrations. But, costly data was carelessly provided to competitors by EPA staff in a few cases. Progress also came from State Local Needs labels, where manufacturers could direct certain product registrations at key states rather than wait for a Federal label.

But these advances were in jeopardy since the Burford administration was drawing so much fire from environmental groups and the media. Reliability in Burford policies was failing.

Ruckelshaus has the support of both environmental and industry groups. He is knowledgeable about herbicides from his years as vice president of Weyerhaeuser, a major forestry company. He was the first implementer of the laws which created EPA. And, he doesn't play political games, evidenced by his refusal to carry out Nixon's orders during Watergate as assistant attorney general.

Clearly most of his attention will be drawn to the implementation of the Toxic Substances Act, not pesticide programs. The one chemical in jeopardy in this industry is 2,4-D. Ruckelshaus is very familiar with 2,4-D's benefits as well as its risks. Any chance for major changes in pesticide policy is therefore reduced and the ability of chemical companies to plan is increased.

Chemical company plans also depend heavily upon their liability in pesticide disposal. The sooner these policies are clarified, the better chemical companies can plan and function with confidence.

**Bruce Shank**

### **Former EPA head joins watch group**

Douglas Costle, administrator of EPA during the Carter presidency, is part of a group of former Carterites who organized recently to oversee activities of the Reagan administration. Citing a lack of conscience, the group plans to develop studies, testify before Congressional committees, provide daily comment, and serve "as a harbor for whistleblowers." Members of the group served Carter in the Department of Agriculture, OSHA, National Highway Safety Commission, Consumer Products Safety Commission, and the Federal Trade Commission.

clover and spurweed. The herbicide should be applied after October 1 but before winter annual weeds emerge, or in late winter for control of annual summer weeds. Two applications of Princep are permitted a year.

#### CHEMICALS

### **Diclobenil 4G changes name**

Diclobenil 4G, formerly marketed under the trade name Casoron, will now be sold as Dyclomec and Norosac by pbi/Gordon Corp. under the Acme label. The product has not been changed and remains an effective pre-emergence herbicide against a wide spectrum of annual and perennial weeds.

#### HERBICIDE

### **Banvel-720 labeling is revised**

Several tank mixes recently approved by the EPA and a more flexible water dilution range are among revisions in the labeling of Banvel-720 herbicide, a water soluble herbicide used for brush and broadleaf weed control in industrial vegetation management programs.

For control of annual and deep-rooted perennial broadleaf weeds, Banvel-720 may now be mixed at a rate of one gallon in 14 to 400 gallons of water. Previous labeling specified use of one-half to one gallon of Banvel-720 in 100 gallons of spray mixture only.

According to Dr. Hugh Crowley, product development representative from Velsicol Chemical Corporation, the change in the dilution range of Banvel-720 offers user advantages through improved convenience, more favorable economics and in equipment flexibility.

"This change gives applicators much more flexibility according to the job that's being done," Crowley says. "Where you can get good weed control with lower volumes of water, it's more convenient to use less.

"Also, where water availability becomes a critical factor in the cost of performing a job, it's more economical to be able to use lower volumes of water. Where high water volumes are necessary, such as in a handgun application on thick vegetation, the ability to use up to 400 gallons of water is beneficial.

Banvel-720 may now be mixed with Hyvar, Karmex, Krenite, Pramitol, Spike, Velpar, Msma, 2,4-D or paraquat.



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# Manhattan II guarantees greener turf or greenbacks.

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Manhattan II's astonishing density surpasses any other ryegrass you can buy.

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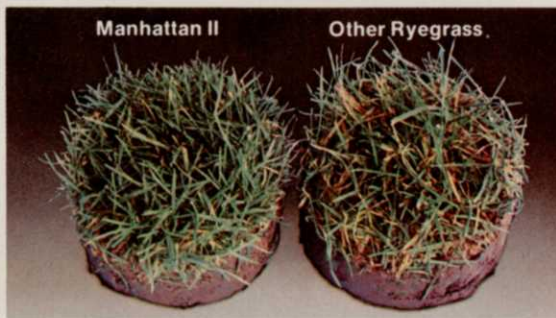
Manhattan II is not only beautiful, it's beautifully practical. Because of its unusual density, it actually crowds out weeds. So it needs less herbicides. And it cuts clean and sharp, with no frayed leaf tips.



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Manhattan II wears better, looks better, lasts longer! Super density does it! This was the best you could get - until Manhattan II.

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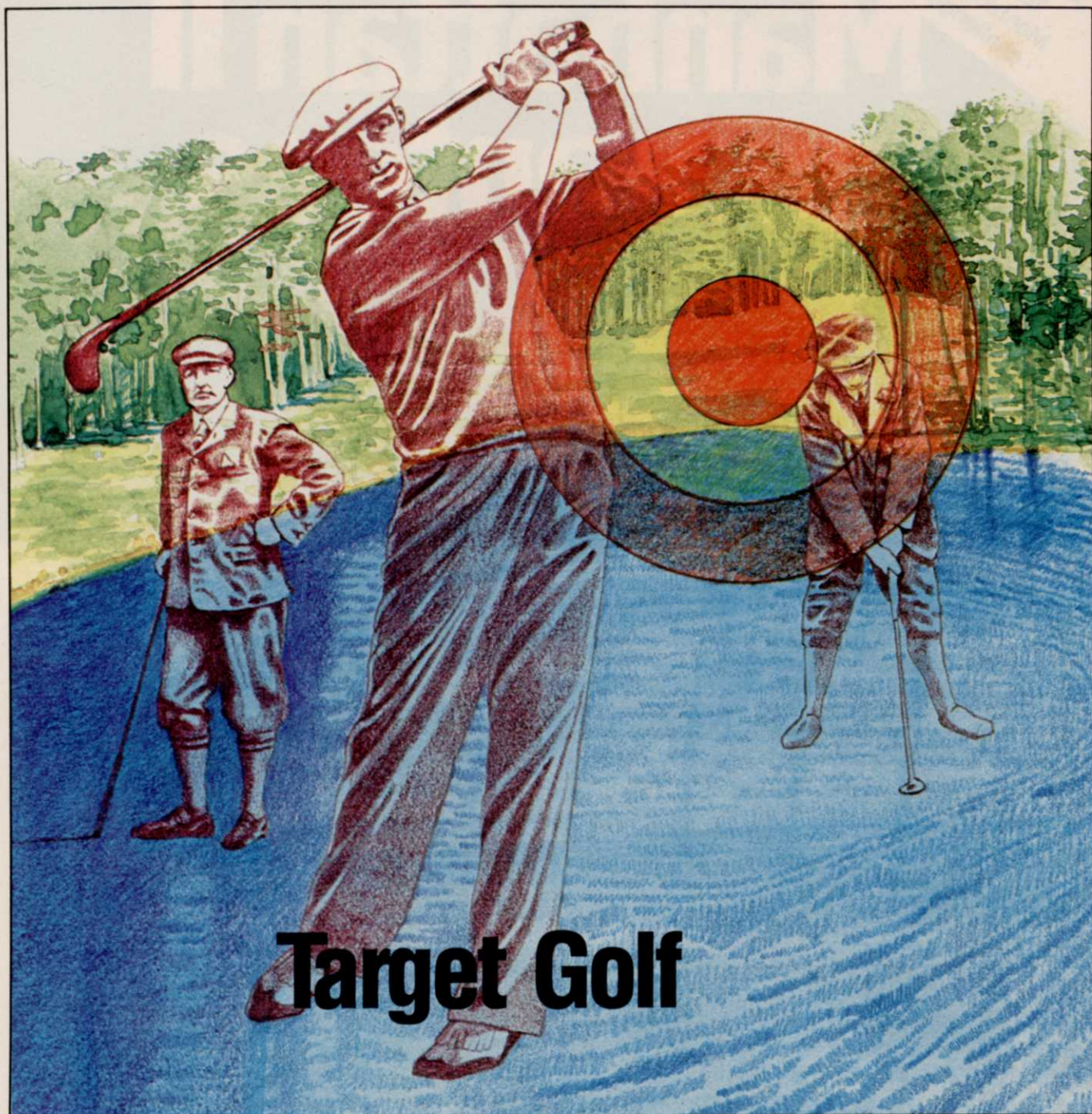
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# Target Golf

Superintendents and architects work out details to make American golf go forward into the past

By Michelle Palmer