

the herbicide, emphasized, "There are reports Dacthal is altogether off the market and not available at all this year. This is not true.

"Our Greens Bayou, Tex., plant is producing the herbicide at a greater rate than ever before," he said, "And we are continually increasing supplies in the market.

"We're giving it our best effort, and trying to get the Dacthal where it belongs," Wolf said.

Overwhelming acceptance in the turf and agricultural fields has tightened Dacthal supply lines, but Diamond Shamrock stresses there are no plans to remove the product from the market and efforts are being made to eliminate any supply difficulties which may be occurring.

Child Pesticide Accidents Target of EPA Programs

Children under five years old were involved in roughly 70 percent of the possible pesticide accidents reported to poison control centers around the country during the past several years, according to the Environmental Protection Agency.

To counteract this problem, EPA now has several programs underway: 1) Under the 1972 Federal pesticides law, the EPA makes certain that the labeling precautions on pesticides are understandable and adequate to protect persons using pesticides and the general environment; 2) EPA is now developing proposed regulations for child-resistant packaging for certain household pesticides; 3) The Agency is seeking to put into effect a nationwide toll-free telephone number for gathering research information of pesticide accidents and misuse and to serve as a way of disseminating general safety advice to interested citizens.

The EPA also participated, along with other government agencies and private organizations, in National Poison Prevention Week in March. This effort to alert consumers to the dangers of accidental poisoning has been sponsored for the past 14 years by the National Planning Council.

Two free publications dealing with pesticide safety and poison prevention — "Pesticide Safety Tips" and "Safe Pesticide Use Around the Home" — are now

available from the EPA Information Center, (PM-215), Washington, D.C. 20460.

Toro, Scott Combine Efforts In Youth Training Program

The Toro Company's Young Entrepreneur program will be expanded this year into 18 new territories, enabling additional hun-

dreds of teenagers to gain on-the-job training in free enterprise.

The program, launched in 1973 on an experimental basis and operated last year in a dozen states, provides schooling and counseling to help youngsters organize and operate a profitable lawn-care business.

A new experimental phase will
(continued)

Why Not Spray the DEPENDABLE Way ...

SMITHCO

Why are Smithco Sprayers ALWAYS ON THE GO?
They're dependable ... THAT'S WHY!

All Smithco Sprayers feature long lasting corrosion resistant fiberglass tanks, (guaranteed for 3 years) centrifugally cast for added strength and appearance. High capacity strainers with stainless steel screen and, mechanical tank agitation. For big jobs select from five models of the HAWK. For smaller requirements there are the LARKS.



A Size for All Occasions

Smithco sprayers are equipped with pumps that produce 10-20-25 GPM up to 800 PSI with tank capacities from 110 to 500 gallons. Available either trailer or skid mounted; gas engine with V-belt drive or PTO; convenient drains, hose and boom outlets.



The Golden Eagle Pump

Dependable, four cylinder, positive displacement, short stroke design for pulsation free operation. Plunger cups that are guaranteed for one year, and Timken Tapered Roller Main Bearings guaranteed for two years. Ceramic valves with Nylatron seats. Longer pump life than any other pump.



SMITHCO

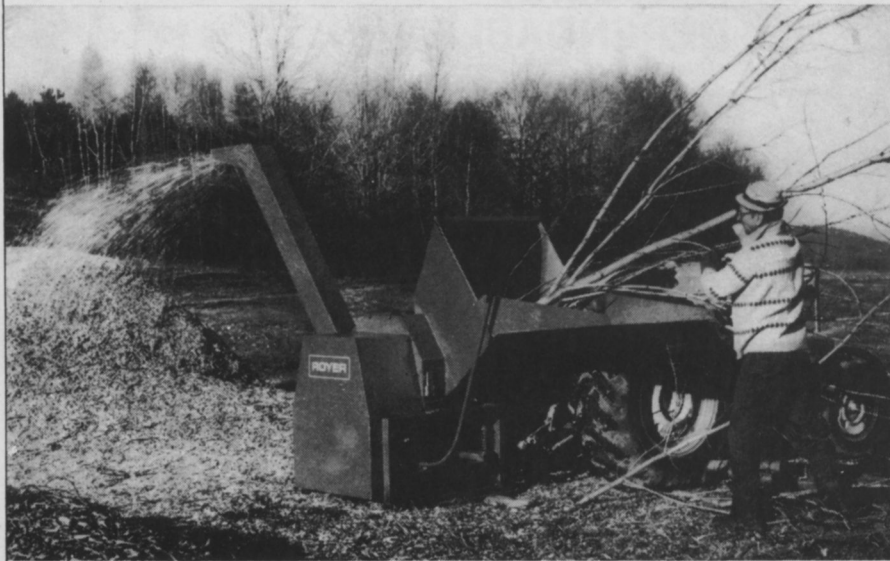
MAKES SENSE FOR '75

SMITHCO, INC., WAYNE, PENNSYLVANIA 19087

The Royer Chipper.

You won't scream
at the cost.

The chipper won't
scream at you.



PTO three-point-hitch model 2600

...thanks to a new design concept

Royer's new "2600" Series Chippers are designed to be a lot easier on your budget and your ears. They provide an exceptionally fast, low-cost way to convert brush, branches, trimmings and stalks into chips. And, they're specifically designed to meet the needs of small commercial applications . . . are available in both PTO (three-point-hitch for tractor operation) and self-powered models.

The new chippers feature a design that combines a *rotating anvil** with a heavy-duty chipping rotor that also serves as a blower and flywheel. A unique design that delivers high-output, low-maintenance operation. And quieter operation, too. With a lot less "chipper scream" — because of an operating principle that cuts way

down on output.

Here's how it works: As material is placed in the deep-throated hopper, the rotating anvil self-feeds the material to a high-speed chipping rotor. Steel blades, projecting through slots in the rotor, then slice the material into chips for immediate discharge by the integral blower. Very simple. But very different from other chippers.

We believe you'll like everything about our new chippers. Their performance. Their lower cost. Their quieter sound. You can get complete details by requesting "2600" literature.

ROYER

ROYER FOUNDRY & MACHINE CO.

186 Pringle St., Kingston, Pa. 18704

* Patent pending

NEWS (continued)

be introduced this year in three areas — Chicago, Grand Rapids and Philadelphia — where sponsorship will be shared with dealers of O.M. Scott & Sons, producers of grass and turf seeds, fertilizers, herbicides and pesticides. Scott's representatives will provide additional training on the treatment of common lawn problems and the use of fertilizers, pesticides and herbicides, and will review examinations required for permits to handle agricultural chemicals.

Charles B. Lounsbury, Young Entrepreneur coordinator for Toro, explained that this experiment may lead to further involvement of O.M. Scott as the Young Entrepreneur program is expanded to all states.

In all areas, youngsters will receive free instruction in safe operation of outdoor power equipment, economics of a small business, care and maintenance of outdoor power equipment and an introduction to agronomy.

Each graduate has access to free counseling from a Toro distributor or dealer during the growing season.

In most localities, the training will be conducted during April at two three-hour sessions. Where O.M. Scott & Sons are co-sponsors, there will be an additional two-hour class.

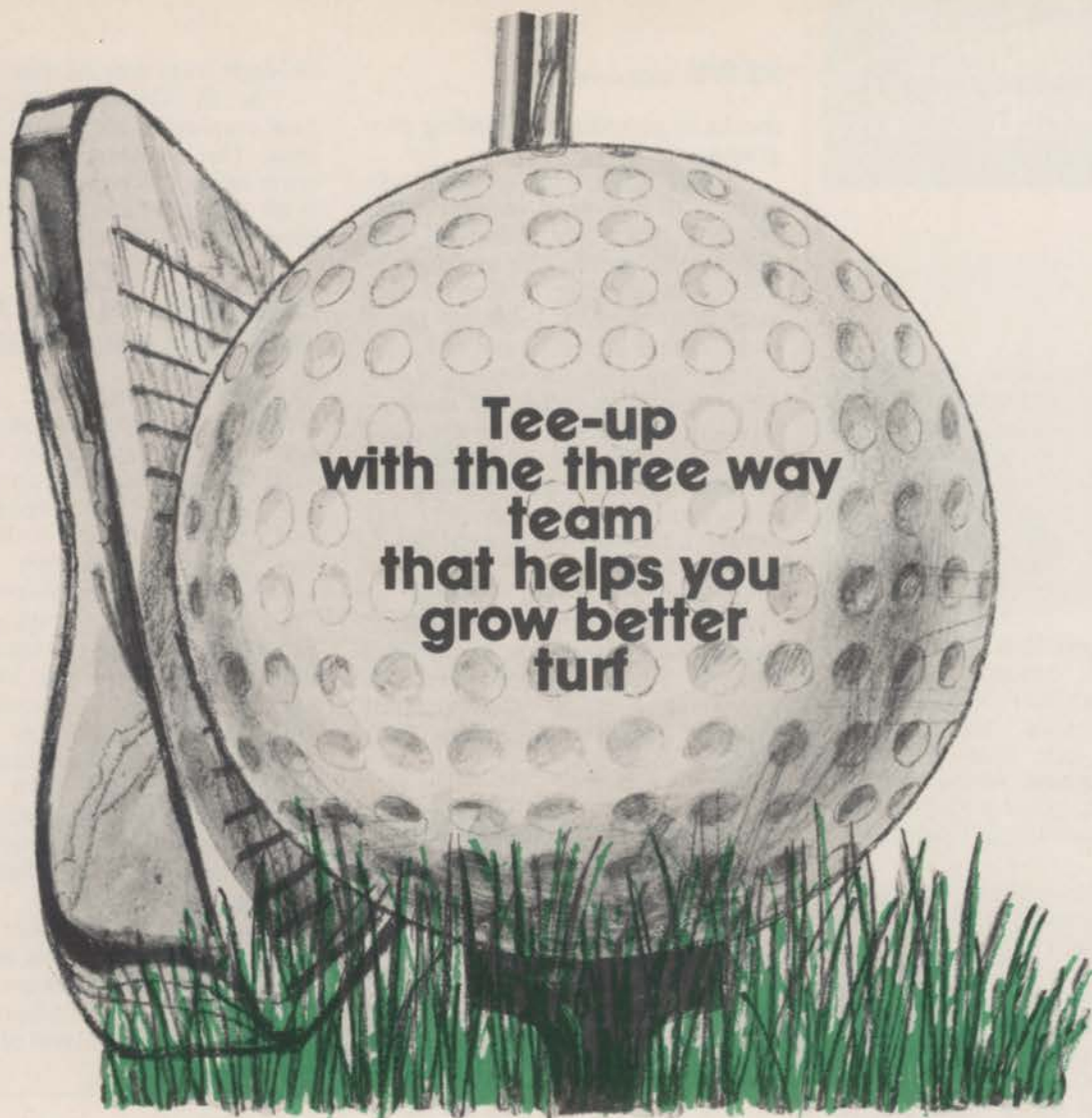
USDA Publishes New Book On Seeds of Woody Plants

The first reference book on seeds of U.S. trees and shrubs issued by the federal government in more than a quarter century has been released by the U.S. Department of Agriculture.

"Seeds of Woody Plants in the United States" is the culmination of five years of effort by more than 100 scientists at Forest Service research laboratories and special project locations throughout the U.S.

It is a compilation of practical facts about the seeds of some 800 species of trees and shrubs — how to gather, how to store and protect, how, where and when to plant and what to expect. The new 883-page handbook is a completely rewritten and greatly expanded successor to USDA's 1948 "Woody-Plant Seed Manual." It was issued to answer numerous requests from people who, professionally or avocationally, deal with seeds of trees or

(continued)



**Tee-up
with the three way
team
that helps you
grow better
turf**

KERB[®], FORE[®] AND TRITON[®] CS-7

Three proven products from Rohm and Haas to make your job a little easier and your course or grounds more attractive. KERB 50-W herbicide stops *Poa annua* in Bermudagrass, can be applied anytime from pre-germination to seed formation. FORE fungicide protects turf and ornamentals from a wide range of fungus diseases including Brown Patch, Fusarium blight and certain other damaging diseases of turf. TRITON CS-7 wetting agent has been shown useful in removing dew from greens, and as an aid in increasing water penetration. Ask your chemical supplier for additional information on teaming up these products this year.

**ROHM
AND
HAAS** 
PHILADELPHIA, PA. 19105

MUNICIPAL SPRAYING NEWS



Century's powerful Mist Blower/Sprayer is 4 sprayers in 1. Blower rotates through a 210° arc. 3-point mounted unit equipped with 25-gal. "Poly" tank. Includes sturdy, trigger-type, brass 2-ft. hand-gun with 25 foot hose. Also has brackets for boom or jet spraying. Delivers 150-mph mist with swath up to 150 feet.

Becomes a hand-gun sprayer just by turning a valve, adjustable from fine mist to driving stream. Useful in parks, camping/



recreation areas, lagoons and swamps, around buildings and storage areas. Can kill weeds in ditches hard to reach with conventional sprayers.

Hook this New 50-lb. Portable Fogger to the 12-volt battery of your pickup or larger truck, tractor or passenger vehicle.



Fill the 5.5-gal. tank with oil-base chemical. Press hand-gun switch and you're ready to fog an atomized, killing mist anywhere your vehicle will take you. Wipe out mos-

quitoes, flies and weeds. Works well even in sub-zero weather. Has 15-ft. durable, hi-pressure hose; 3/4-hp. motor, 1200-psi. pump pressure.

Write for further details on sprayers, portable heaters and washers, and central cleaning system.

CENTURY

CENTURY ENGINEERING CORPORATION
221 4th Ave. S.E., Cedar Rapids, Iowa 52401

For More Details Circle (121) on Reply Card

NEWS (continued)

shrubs in planting and seeding programs.

The Handbook contains two sections. The first gives general methods for producing, handling and germinating seeds. The second provides data and information on species, alphabetically listed by genus units, giving scientific and common names, flowering and fruiting dates, methods of fruit collection, seed extraction, storage and other data useful for grower and marketer. The volume includes a collection of drawings and photographs for checking the identification of fruits, seeds or seedlings.

Priced at \$13.60, "Seeds of Woody Plants in the United States" (Agriculture Handbook No. 450) is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Louisiana Ciba-Geigy Plant Awarded for Safety Record

The first National Freedom safety Award ever presented to a manufacturing plant has been awarded to the St. Gabriel, La., manufacturing facility of Ciba-Geigy Corporation's Agricultural Division.

The award is the highest safety recognition given by the Insurance Company of North America and marks only the second time it has been presented during eight years of existence.

Employees at the plant had previously earned several other safety awards and earlier this year broke Corporation records for days without a lost time accident.

Overall safety, continued efforts to upgrade safety activity and reduction in accident frequency were all criteria used in evaluating the plant for the award. Of the 19 categories reviewed, the facility ranked at the highest possible level for 17 categories and just below that level in the remaining two.

Accepting the award for all plant personnel, Plant Manager John Mincy said, "We are extremely proud that of the many thousand plants reviewed in this safety program, we are the first one to achieve this distinction. Our program's goal, like the award's name, is designed to create a working environment with a

freedom from fear of injury.

"At St. Gabriel," Mincy said, "our employees are a most valuable asset. Our program is designed to think safety not only on the job, but in all aspects of life. Each of our 285 people is a safety engineer."

Dixon Initiates New Plant With Open House and Tours

Dixon Industries, Inc., builders of the ZTR riding lawn mower, recently held an open house and tour of their new manufacturing facilities. Located in the Airport Industrial Park at Coffeyville, Kan., the new 52,000 square feet plant is heated by an energy-saving, gas fired infra-red ray system and lighted by mercury vapor lights. Shipping and receiving areas feature two power operated adjustable-height loading ramps.

"We built a plant around the production of our ZTR mower, rather than adapt an existing building to the production requirements of the mower," K. O. Dixon, company president, said.

According to Luther Webb, production manager, the new facility will allow him to cut man-hours, improve working conditions, and maintain the Dixon level of production efficiency.



**Robison's
Lawn
and Golf
bags it!**

NITROFORM*
organic nitrogen

The nitrogen that pampers delicate turf.
Feeds slowly instead of causing surges
of growth that can cause stress.

5TH74-20BR



HERCULES
INCORPORATED

Turf and Horticultural Products, Synthetics Dept.
Wilmington, Delaware 19899

* Registered trademark of Hercules Incorporated

For More Details Circle (143) on Reply Card
WEEDS TREES and TURF



E-Z-GO's GT-7 Truck, which was discontinued in 1970, has been reintroduced to the turf maintenance industry this year.

Manufacturer Reintroduces Utility Truck to Turf Industry

E-Z-GO, one of the nation's leading golf car manufacturers, reintroduced their GT-7 Truck at the Golf Course Superintendents Association of America's International Turfgrass Conference in New Orleans, La.

E-Z-GO's re-entrance into the turf maintenance industry was heralded in New Orleans in the form of firm orders. Sam W. Mays, E-Z-GO vice president, sales, said "The golf course superintendents' recep-

tion to our GT-7 Truck was extremely positive. Their general comments reinforced our feeling about the need for a heavy duty, versatile, all-purpose turf vehicle."

Bill Lanier, GT-7 product manager, said the three-wheeled utility vehicle was introduced the first of this year, having been discontinued in 1970. "We've always had the GT-7's reintroduction in the back of our minds. It was a popular item, especially with golf course superintendents," Lanier said.

Lanier told WTT that the new GT-7 is quite similar to the original model. Powered by a 20 hp Onan engine and with a two-speed axle as standard equipment, the vehicle has a rated payload of 1,500 pounds. Lanier reported that the truck also features an optional pto.

E-Z-GO is a Georgia-based division of Textron, Inc. The firm is America's foremost manufacturer of golf cars, with distribution throughout the United States, and in Canada and the Caribbean.

For more details, circle No. 701 on the reply card.

ProTurf's Jim Converse Honored by Univ. of Maine

Jim Converse, director of technical services of the ProTurf Division of O. M. Scott & Sons, was recently recognized by the University of Maine's College of Life Sciences and Agronomy and the Maine Golf Course Superintendent's Association for his outstanding achievements in turf education. The special award was presented by Dr. Vaughn Holyoke, extension

(continued)

WEEDS CHOKING YOUR LAKE?

Whatever your lake fun, it's MORE fun when you don't have to contend with smelly, unsightly and cumbersome water weeds.

AQUATHOL® K

controls water weeds — fast, efficiently, economically . . . and without harm to the environment or fish when applied as directed. **AQUATHOL K** may be easily applied* to control water weeds around docks or lakefront beaches. For your free weed identification guide and the name of the **AQUATHOL K** supplier in your area, write: Weed Identification Guide at the address below.



Before using be sure to read and follow directions and precautions on the label of the product

*Many states legislate chemical use in water. Check with your dealer.

PENWALT
AGCHEM

AGRICHEMICAL TECHNOLOGY
1713 SOUTH CALIFORNIA AVENUE
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For More Details Circle (164) on Reply Card

Pacific Agro bags it!

NITROFORM*

organic nitrogen

The odorless, dust-free, pathogen-free organic nitrogen. Applying Nitroform doesn't interfere with normal use of turf areas. **5TH74-108R**

HERCULES
INCORPORATED

Turf and Horticultural Products, Synthetics Dept.
Wilmington, Delaware 19899

* Registered trademark of Hercules Incorporated

For More Details Circle (141) on Reply Card
MAY 1975

NEWS(continued)

crop specialist, on behalf of Dr. Frederick Hutchinson, dean of the College.

Converse, a recognized authority on turf and turf maintenance, is an accomplished author, illustrator and photographer. Known throughout the turf industry as editor of the

quarterly ProTurf magazine and for his two definitive works on monocot and dicot grass identification, Converse was invited to speak at the conference on the topic of photographic techniques as they pertain to turf. His talk included slides of many scenic golf courses, turf insects and diseases and several examples of aerial photography, all of which Converse has produced during the past two decades.

Converse accepted the special award by, in turn, presenting Holyoke and Jack Small, president of the Maine GCSA, autographed copies of his two books, *The ProTurf Guide to the Identification of Grasses* and *The ProTurf Guide to the Identification of Dicot Turf Weeds*.

Toro's Irrigation Division Offers '75 Product Catalog

The Irrigation Division of The Toro Company has announced the availability of its 1975 catalog.

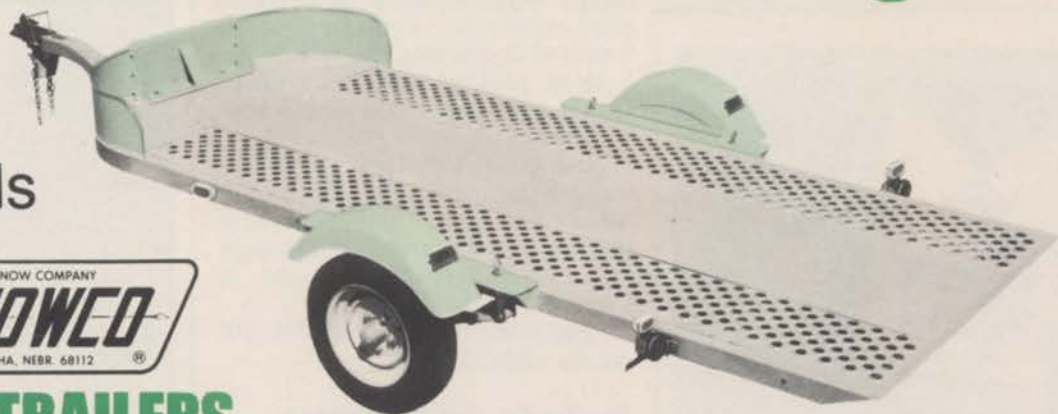
The 50-page booklet gives full descriptions, illustrations and specifications for the seven product



Jim Converse (left) of ProTurf accepts a special achievement award from Dr. Vaughn Holyoke of the University of Maine.

The Low-Down on Hauling...

10
Models



UTILITY TRAILERS

Capacities 900 to 3,500 Pounds.

Originally designed to handle wheeled equipment—up to and including small standard tractors—Snowco trailers actually are used, by the thousands, for a multitude of hauling jobs.

They're easy to load and unload with low slung, rugged, all-steel decks that tilt (and the tilt mechanism is hydraulically operated on the two largest in a line of eight models). A low center of gravity assures towing stability at all legal speeds.

Two other models with solid decks set over the wheels are also available. Decks equipped with stake pockets. Capacities 900 and 1,200 pounds.

THE SNOW COMPANY

Division of Beatrice Foods Co.
Box A, 4386 McKinley, Omaha, Nebr. 68112



More information, please—including prices—on your Utility Trailers

Name _____

Firm _____

Address _____

City _____ State _____ Zip _____

categories for both hydraulic and electric irrigation systems: automatic controllers, automatic valves, residential shrub and pop-up spray sprinklers, commercial rotary sprinklers, large area rotary sprinklers including valve-in-head models, impact heads and quick-coupling valves, and accessories and installation equipment.

The 1975 catalog contains detailed information of the design, materials and performance capabilities that ensure the equipment's efficiency and durability.

There also are illustrated explanations of the workings of automatic controllers and the various types of control valves, plus a layout that shows how controller, valves, heads, pipe, pump and hydraulic or electric control lines are assembled for a complete, typical irrigation system.

Toro makes 4-station, 11-station and 23-station controllers and a wide assortment of automatic valves for both electric and hydraulic systems.

Sprinklers range in size from tiny bubblers to the giants of Toro's 690 series, capable of discharging as much as 95 gallons per minute over a 235-foot diameter circle.

Copies of the new catalog may be obtained from any Toro irrigation distributor.

New Slate of Officers Picked For Landscape Association

The National Landscape Association elected a new slate of officers and directors for 1975 during their recent joint Management Clinic with the Garden Centers of America in Louisville, Ky.

Donald D. Johnson, Johnson Nursery & Garden Center, Sioux Falls, S.D., will take over the presidential duties from Tom Gilmore, Gilmore Plant & Bulb Co., Julian, N.C. Gilmore will serve another year on the Board as director-at-large.

The new vice president is Dale K. Manbeck, Manbeck Nurseries, New Knoxville, Ohio, and Richard Kauffman, of J. Franklin Styer Nurseries, Inc., Concordville, Pa., will assume the responsibilities as secretary-treasurer.

The current directors now include: Richard L. Ammon, Ammon Garden Center & Landscaping, Florence, Ky.; Frank N. Tomlinson,

Tomlinson's Select Nurseries, Whittier, Calif.; Gerald W. Harrell, Landscapes Unlimited, Houston, Tex.; and Joe Wayman, Forrest Keeling Nursery, Elsberry, Mo.

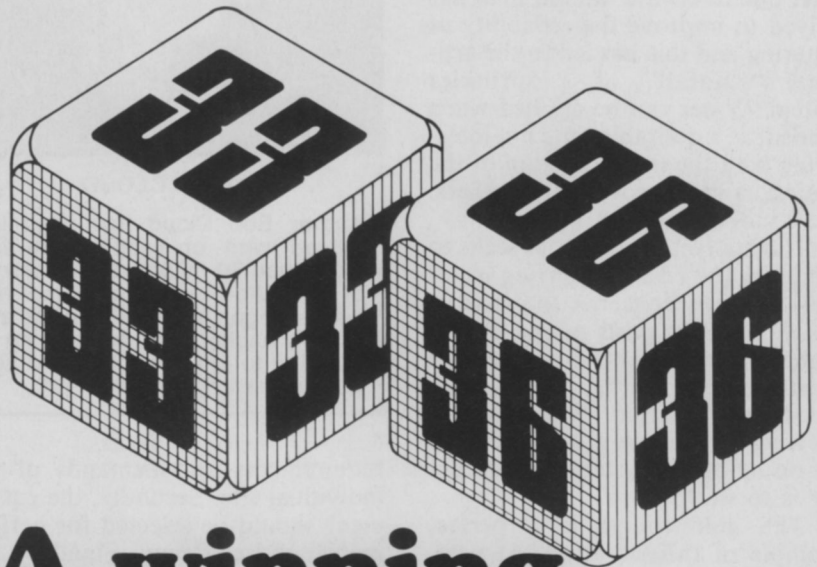
USDA To Back Research On Environmental Stress

Effects of environmental stresses upon ornamental crops throughout the United States will be studied by

Oregon State University's Agriculture Experiment Station, Corvallis, Ore., under a cooperative agreement with the USDA.

USDA's Agricultural Research Service (ARS) will provide \$25,000 for this five-year study. The EPA is providing funds to get the project underway.

Environmental stresses include air pollution, drought, excess water, *(continued on page 40)*



A winning number every time...3336

Take the gamble out of your disease control program by using one of the most talked about new fungicides on the market today. . . Cleary's 3336 Turf Fungicide. 3336 prevents and controls all 7 major turf diseases for up to 4 weeks with just one application. Stay out of trouble by using Cleary's 3336 tees and fairways preventative program. Follow label instructions and control Dollar Spot, Fusarium roseum, Red Thread, Brown Patch, Copper Spot, Helminthosporium (Leaf Spot) and Stripe Smut.

On greens, weekly sprays during the disease incidence season has resulted in disease free greens all season long.

Pick a winning number and be a winner every time. . .Cleary's 3336.



W·A·CLEARY
CORPORATION
SOMERSET, NEW JERSEY 08873

Protecting Your Investment In an Irrigation Installation

AN IRRIGATION system is not needed by and for itself; the sole purpose of the system is to assure plant survival and growth. In many areas of the United States, this need can be met by Mother Nature, however, due to erratic rainfall man has strived to improve the reliability of watering and this has led to the artificial "rainfall" of a sprinkler system. Water can be applied when needed, at a desirable time not interfering with the main function of the project, and improving the esthetic quality of the project as well.

Naturally, the consumer seeks to minimize the cost of applying water and (as a new concern), to conserve water. In many parts of the United States, an increase of 10 percent and greater per year in the cost of water has been witnessed. With projects growing in size, so grows the need for an irrigation system if landscaping is to survive.

The golf course is a perfect example of this situation. At present, a minimum single row type system in the East can cost approximately \$100,000; the "wall to wall" type coverage needed in the West can cost upward of \$400,000. It's obvious that the consumer should be interested in protecting this size of investment. It is not uncommon, however, to find projects with an expenditure of 50 percent over the actual value of what was received, and in other cases, the expenditure is only 50 percent of that actually required. It is not uncommon to find a golf course requiring, as a result of inadequate planning, a complete revision in less than 10 years — or the system incapable of providing the required amount of water in a period of time that does not interfere with play on the course. It is not uncommon to find systems incapable of assisting in maintenance and lowering the maintenance operation cost. And worst of all, it is not uncommon today to find collusion in the promotion and sale of an irrigation system to a golf course.

The first requirement in an effort to obtain the ideal irrigation system is that the system be planned for the



BOB CLOUD

Author Bob Cloud has been involved with or responsible for more than 70 million dollars worth of irrigation systems since his career began in 1948. With this extensive background he feels he is qualified to offer criticism and advice to the irrigation industry.

requirements and demands of the individual site. Secondly, the equipment should be selected for performance and economy. Finally, a set of clear, concise and complete plans and specifications should be supplied to insure competitive bidding, all bids being based on the same criteria, resulting in the most economic cost figures. Even if the consumer has met all of these requirements, he still needs quality control, someone to supervise the installation and see that the demands of the plans and specifications are upheld. Unfortunately, errors are covered up and may take a number of years to become evident. It really makes little difference whether the error is unintentional or deliberate, the end result is the same. If such errors are allowed to go uncorrected, an untold expenditure can be involved at a later date. All too often, a sprinkler system is conceived by a manufacturer or supplier, designed by a manufacturer or supplier, adjusted by the contractor during the installation and, upon completion, immediately modified by maintenance personnel in order to adequately do the job intended. Too low a cost can explain why a system is a failure, on the other hand very often the cost is great enough to

have paid for a satisfactory system. The prejudiced attitudes that prevail in our industry prevent achieving a system in the client's best interests. For the majority of golf courses today, the three major equipment manufacturers render the design, always utilizing their equipment. This design is generally rendered to the consumer at "no cost." Superficially, this seems like getting something for nothing, however, the consumer is intelligent enough to know that he gets what he pays for.

Generally in a situation like this, the contractor recommended by the manufacturer owes his allegiance to this manufacturer for having referred the lead, therefore, the consumer cannot discuss the pros and cons of the design with his contractor, because the contractor's comments will be slanted to where his "allegiance" really lies. When the supplier provides the design, a similar situation prevails; most suppliers favor a certain line of equipment, based on economic factors. Once again, the consumer cannot discuss the pros and cons of the design with the supplier because he will receive a prejudiced view. What the consumer fails to understand in these situations is that the people involved with sprinkler systems are in one camp — the owner and his money are in the other. He has no one to look out for his best interests and to advise him how the task can be accomplished with greater efficiency and minimal cost. The consumer ends up having no rights at all, other than paying the bills.

If the situation is not stacked against the consumer enough in the previously mentioned procedures, a new twist is now turning up. The manufacturer, supplier or contractor will retain the services of an irrigation consultant to design the course, and will pay all costs involved. The consultant is acting as the professional, but is retained by one of the purveyors and is now under his control. The consumer will ultimately have to pay for all of the costs incurred, but unfortunately he

again has no right to discuss the project with the irrigation consultant and expect an unbiased opinion. The consultant owes his allegiance to his client, and is dictated to regarding equipment and installation methods, and is not retained to supervise the installation.

“I truly believe if our industry is to prosper, certain changes in attitude and an increasing concern for the consumer, will have to occur.”

It is readily accepted that an architect designing a building will receive approximately 6 to 10 percent to develop and oversee the project. Most independent consultants don't charge that much, and I feel render an equal service. The one thing the consumer should watch for is paying the consultant too low a fee. In this case, the consultant is more receptive to offers of remuneration from the manufacturer, supplier or contractor to compensate for the inadequate fee.

Beside the biased opinions resulting from low fees, a system is often poorly designed and/or installed because the people involved in the planning are incompetent or ignorant of all the many factors that go into making up a complete system. Inadequacies most frequently occur in pumping plants; if designs are executed by the manufacturer, supplier or contractor, the requirements are usually very vaguely explained and the plant is not thoroughly engineered to meet the requirements and complexities of the irrigation system. This occurs on other features, too; features that could be incorporated into the system for the benefit of maintenance are ignored for fear of costing too much, and the proposal being rejected by the client. However, if the client had been informed of the savings that will result over a period of time, the initial cost does not seem out of line. This information is not supplied through ignorance, and such features are overlooked.

I have yet to see two projects requiring the same type of system, each project is unique and what is
(continued on page 45)



V30

Today, More Than Ever...
**DITCH WITCH
TRENCHERS**
Make \$ense!



J20



MODEL C

If your job calls for trenching, it makes sense to look to the people who have the most experience in the industry: Ditch Witch. Ditch Witch built the world's first service-line trencher more than 25 years ago and today offers the most complete range of trenching equipment available. The Ditch Witch Trencher Series is designed strictly for trenching. It includes two compact handlebar units and two four-wheel-drive models — the 18-HP J20 and 30-HP V30. If you require larger equipment, outfit one of the four Modularmatic vehicles as a trencher. The power range is from 30-HP to 100-HP. From 7-HP compact to 100-HP main-line equipment, Ditch Witch has the right machine for your trenching job. That's why today, more than ever, Ditch Witch makes sense.

Ditch Witch . . . equipment from 7 - to 195-HP.

CHARLES MACHINE WORKS, INC.
P.O. Box 66
Perry, Oklahoma 73077



NEWS (from page 37)

nutrient excess or deficiency and cold temperatures. These stresses may alter leaf and root systems in a manner that enhances activity of soil microorganisms. Many of these soil microorganisms are fungi which cause root diseases in plants.

ARS, Oregon State and EPA will cooperate in this study. Dr. Thomas C. Moore, head of the Botany and Plant Pathology

Department at the university, is the principal investigator and Dr. David T. Tingey, EPA plant physiologist, is the EPA investigator. Dr. Robert G. Linderman, ARS plant pathologist, is the ARS representative.

Golf Course Builders' Pres. Re-elected to Second Term

For the first time in its five year history, the Golf Course Builders of

America (GCBA) has reelected its president and chosen a West Coast contractor as president in 1976.

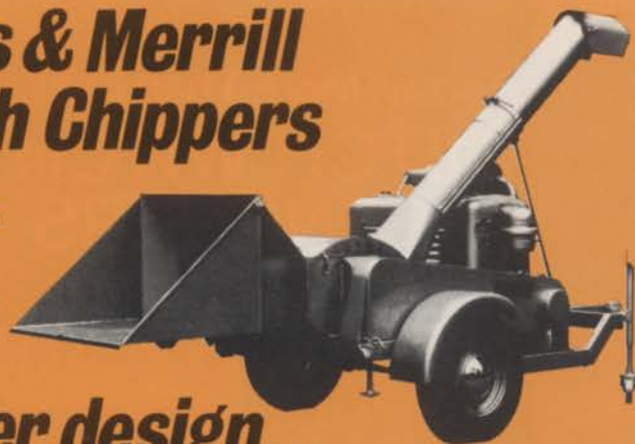
Frank A. Underwood of Bowie, Tex., was reelected to a second term as president of the contractors' association. Underwood, in addition to heading the Underwood Golf Course Construction Co., is a well-known golfer. He was first elected president of GCBA in 1974 and will remain in the post until the association's 6th annual meeting in Minneapolis next February.

Nick A. Siemens of Fresno, Calif., was named president-elect of GCBA and will become president next year. Siemens is president of Siemens' Contracting, Inc. In the past 10 years he has built more than 50 golf courses in the West from Arizona to Washington. He is a former school teacher and landscape contractor.

Other officers elected at GCBA's New Orleans February meeting were: Edward A. Hunnicutt of Spokane, Wash., vice president; Eugene W. Witter, Findlay, Ohio, secretary; and Eugene M. Brown, Greenville, N.C., treasurer. Witter is a sales executive with the Hancor Company drainage specialists; Brown is president of Hendrix and Dail, a golf course fumigation firm; and Hunnicutt is president of Krause Landscaping, Inc., golf course builders in the Pacific Northwest.

Mitts & Merrill Brush Chippers For...

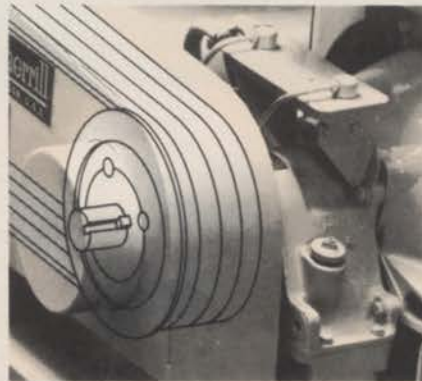
better design... more efficiency



For more than 115 years Mitts & Merrill has been making specialized machinery for industry. A major part of our business is equipment to reduce scrap and waste. This experience is incorporated into design features on our brush chippers that result in higher efficiency and longer, trouble-free service for you. Only Mitts & Merrill brush chippers offer features like these:



Staggered knife pattern for smoother cutting action. Mounted on an all-steel cylinder that, even without an external flywheel, is heaviest in the industry. Each cylinder revolution gives more cuts, produces smaller chips of uniform size. Self-adjusting knives are reversible; give twice the service between sharpening.



Optional torque converter isolates engine and transmission from cutting shock to minimize maintenance. Makes operation virtually fully automatic; increases operator productive time. Available on all models.

- **Positive safety-lock pin** for greater operator safety
- **Swing-away, folding feed chute** protects cutting chamber; allows instant access and increases maneuverability
- **Heavy duty construction** includes coil spring, torsion-type suspension, and box tubular steel frame.

mitts & merrill



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For More Details Circle (104) on Reply Card



Herbert Portz (left), Southern Illinois University at Carbondale professor of plant and soil science, presents student Mark Slugoeki of Chicago a scholarship from the Golf Course Superintendents Association of America for special interest in turfgrass.