Weather-matic turf irrigation components are higher quality and cost a little more.

Therefore, a Weather-matic System costs more than another system. Right?
Not necessarily.

You see, in a commercial or industrial application, with Weather-matic's superior design capabilities, fewer components may be required for optimum performance. That means you get higher quality, a better functioning system —

and a lower total cost.

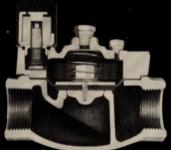
So, you don't always get what you pay for. Sometimes you get more.

For additional information on Weather-matic irrigation systems, write or call:



LAWN AND TURF SPRINKLER SYSTEMS
P. O. Box 18205 / Dallas, Texas 75218 / (214) 278-6131





For fastest-starting turf



### PARK Variety Kentucky Bluegrass

More Park is seeded each year in the U.S. than any other certified variety of bluegrass.

The 1972 seed crop is the best ever. We recommend that you order your supplies early.

Available exclusively from

### TWIN CITY SEED CO.

500 30th Ave. N.E., Minneapolis, Minn. 55418 Phone (612) 789-8821

For More Details Circle (114) on Reply Card

### MD. SOD CONFERENCE (from page 60)

understand fashion. His discussion was extremely pertinent because of Michigan's recent sod market price collapse and their subsequent investigation into the possibility of stabilizing the market with sod marketing orders. Coddington said that a marketing order is a legal tool provided by the government for solving marketing problems. Its purpose is to improve returns to the growers through orderly marketing. Types of market orders would include quantity or quality regulations, market or production research, marketing statistics, regulations prohibiting unfair methods of competition and unfair trade practices or price posting by handlers to aid in stabilizing prices.

The last speaker for the conference was Kathryn D. Williams, Bowen & Diggs, Wheaton, Md. A lawyer in her own right, Ms. Williams discussed the basic elements of contracts for sale of sod and pointed out the weaknesses of oral contracts with their almost certain requirement for litigation. Her discussion of the Maryland code regulating sod sales with relationship to contracts was pertinent and raised many questions.

# COMING IN JULY WTT SPECIAL SHADE TREE ISSUE

### Rocky Mountain Sod Growers To Host ASPA Meeting

Plans for the annual summer meeting of the American Sod Producers Association have been finalized. This year's meeting is scheduled for Denver, Colorado and the host organization for the event is the Rocky Mountain Sod Growers Association. Dates for the meeting are July 16-19.

The three-day program will include educational sessions on the technical aspects of sod production, tours of sod operations at the Richlawn Turf farms, sod installation, equipment field day and the annual business meeting and banquet.

A special program is being planned for women and children.

### American Sod Producers Hold Meeting In Hawaii

Sod producers traveled by charter flight from various areas of the United States mainland and Canada to Hawaii for the winter meeting of the American Sod Producers Association. About 200 attended the eightday trip, including sod producers, suppliers, wives and children. The late-winter meeting provided an opportunity to enjoy the unlimited natural beauty of Hawaii as well as attend exceptionally well-rated educational sessions.

Kauai and Maui islands were selected as the sites for the ASPA activities. These islands exhibit unlimited natural beauty and quietness as contrasted to other areas of intensified development.

The educational sessions were planned as seminar sessions on the business rather than technical aspects of sod production. Dr. James Longstreet, chairman of the finance department, College of Business Administration of the University of South Florida, presented two one-half day seminars on the topic of financial management. His presentations were filled with a constant flow of valuable and useful information for the successful management of sod operations.

In addition, Dr. Longstreet conducted two roundtable discussions that proved to be most helpful in answering questions raised by sod producers attending the seminar sessions. Frequently, specific questions lead to lengthy discussions on certain aspects of financial management as to how it relates to sod production.

During a third seminar session,



for ponds • lakes • lagoons • fountains • fish tanks • farm ponds • waterholes • irrigation canals • reservoirs • therapeutic baths • as well as swimming pools!

### **EFFICIENT • EASY TO USE • ECONOMICAL**

Write Dr. Bob for information on how to get rid of all your algae problems.



Great Lakes
Biochemical co., inc.
6120. WEST DOUGLAS AVENUE,
MILWAUKEE, WIS. 53218

attention was focused on the topic of "General Tax Planning For Sod Producers." Richard Thomas, relayed information on various aspects of taxes, ranging from income tax through estate planning. He is a partner in the nationally known accounting firm of Arthur Anderson of Houston, Texas.

Recognizing the need for better business management in the sod industry, ASPA purposely selected talented speakers with the capabilities exhibited by Dr. Longstreet and Mr. Thomas. Educational seminars of this nature, as well as making available the ASPA Accounting Manual, represent association activities to help sod producers become better business managers for more profitable sod production.

### Wye Institute Research Studies Turfgrass Problems

The University of Maryland's agricultural experiment station, in cooperation with the Wye Institute, is conducting three separate studies in turfgrass management on Maryland's Eastern Shore.

These studies will provide useful information on growing high-quality lawns, according to Dr. John R. Hall, project leader, who is an assistant professor of agronomy at the university's College Park campus.

Over 100 types of Kentucky bluegrass are being studied in the variety trial project. Sixty-four are individual varieties and 36 are mixtures of two or more varieties.

Separate plots are being observed for quality, density, color, disease resistance, seedling vigor and persistence. Ratings are taken on the plots from April until November in order to follow their performance throughout the growing season.

The variety trial project was started in the fall of 1972 and will continue for an indefinite period, It is hoped that a variety adaptable to the Eastern Shore region will result from these tests.

The second project involves variety trials of grasses in shaded areas. There are 32 varieties being tested. These are mainly creeping red fescues, Kentucky 31 tall fescue, and Warrens A34 bluegrass and perennial ryegrass.

One of the major factors being looked at in this project is the persistence of each of the varieties. Some of the grasses on the market now last only four to five years, according to Dr. Hall. When this

experiment is finished, homeowners can plant the variety recommended, knowing it will persist.

Common Bermudagrass is a nuisance invader of lawns on the Eastern Shore. The third experiment that Dr. Hall is running is aimed at eradicating common Bermudagrass from established bluegrass turf. The chemical, siduron (Tupersan), is being used in the study.

Bluegrass plots that have become infested with Bermudagarass at the Wye Institute are being used in the study. Various rates and times of application of Tupersan are being studied

The eradication experiment was started in the spring of 1972. At present, Dr. Hall is pleased with the results of the chemical in his fall evaluation.

With experiments and studies being conducted at the Wye Institute, the Maryland agricultural experiment station hopes to improve the quality of life for the people of the Eastern Shore. These projects are only one means of accomplishing that goal.



### For turf. Any turf.

### 3-D Weedone.

A special blend of three herbicides in one that turns a fairway or a front lawn into beautiful, weed-free turf.

It's powerful. It contains 2,4-D, the standard, time-tested broadleaf herbicide that controls most common turf weeds. Plus Dicamba, to broaden its control to more than 100 species of weeds and woody plants.

It's fast. Silvex speeds up the whole weed-control process and gives you added,



effective control over chickweed, clovers, and other tough weeds.

It's professional. Yet you don't have to be a pro to use it. Just mix with water, spray, and watch the weeds disappear.

Use 3-D Weedone. For great results on turf. Any turf.



Amchem Products, Inc. Ambler, Pa. 19002

### Stop Silver Maple Galls Spraying Is The Answer

Silver maple tree leaves covered with small red, green and black bumps are the result of maple bladder galls, says Donald L. Schuder, Purdue University extension entomologist.

Better spray now to prevent their recurrence, he advises. These abnormal growths are caused by small microscopic mites which feed on the foliage. Mite-feeding stimulates plant cells in such a manner that they form galls which serve to protect the mites.

The wart-like growths may occur singly or in clusters. They may become abundant enough to cause the foliage to appear gnarled and deformed. But even so, they seldom cause enough damage to affect the vigor of the tree, says Schuder.

Galls may be prevented by tree spraying just before bud break. Spraying at this time destroys the mites which overwinter in the cracks and crevices of the tree's bark. Spraying must be done, however, before new leaves are formed, or the mites will feed and galls develop.

plication of one quart of either mal-

The entomologist recommends apathion or lindane emulsion concentrate per 100 gallons water. Dormant sprays of a superior oil or liquid lime sulfur are also effective.

# Pesticide Applicators Train For Safe Chemical Use

Tightening of regulations on pesticide use in Ohio has intensified educational training programs and licensing needs for pesticide applicators in the state. A series of six applicator's schools have been completed across the state with over 1,000 licensed applicators, operators, and other interested persons attending, says John Oren, associate state leader, agricultural industry, Ohio State University.

The continuing program, consisting of education, examination, and licensing, is a joint effort of the Division of Plant Industry, Ohio Department of Agriculture and the Cooperative Extension Service. Training schools annually incorporate latest changes and recommendations in chemicals and their use and revised or added federal requirements.

According to Oren Spilker, spe-

cialist in charge of pesticide regulations for the Ohio Department of Agriculture, 343 applicants took examinations at this year's meetings with the hope of becoming licensed applicators and operators.

To date, the Ohio Department of Agriculture has issued 938 applicators licenses; 933 operators licenses; 557 public operators licenses; and 575 licenses for pesticide dealers, Spilker adds. Another 2,226 users permits have been issued to users of restricted pesticide, he says.

Educational sessions cover latest recommended chemicals and their safe use in field crops, turf and ornamentals, vegetables, and industrial, aquatic and commercial vector control, according to John Oren. Schools are designed for both commercial and public operators as well as applicators of chemicals on a private use basis.

In line with the applicator schools, extension personnel have put together an Ohio Pest Control Handbook which is distributed to applicators, operators and other users of chemicals through the Ohio Department of Agriculture. The handbook includes 22 publications (updated each year) that cover previously mentioned chemical use fields.



# **SYSTEM** . . . For Progressive Sod Growers



Harvest, load, and lay sod FAST, without manual lifting or handling. Let tractors do the hard work. Hand stacking and laying of sod is obsolete. Increases sales by cutting time and cost of installation. Stretches sod 3% to 5%, leaves lawns smoother, with fewer seams and joints. Disposable cardboard tubes are lighter and cheaper than pallets, permit easy loading, as many as 3 rolls at a time, with any fork lift, laying with any tractor.

No need to change over completely. Switch from Big Rolls to your present system in 5 minutes or less. This simple, rugged system can be had for as little as \$100/month.

For more information, write: BECK MANUFACTURING COMPANY P.O. Box 752 • Auburn, Alabama 36830 Tel. (205) 887-3730



# WHAT MAKES DITCH WITCH THE LEADER?

PRODUCT Ditch Witch pioneered the development of the vibratory plow which buries wire, cable, plastic and copper tubing, plastic pipe, — even steel conduit—

without trenching. The Ditch Witch vibratory plow is ideal for use on landscaped areas because it keeps turf damage to a minimum and eliminates costly restoration. Available for R-Series trenchers, the vibratory plow attachment interchanges with the digging assembly providing greater use and economy from the basic trenching vehicle. For smaller plowing jobs, Ditch Witch offers the VP12, a compact self-contained vibratory plow that is fully self-propelled. Providing special tools for special job needs — another reason why Ditch Witch is the leader.



PEOPLE

Can customers influence the quality of the products they buy? Ditch Witch thinks so. In fact, our customers have had an important part in our attaining the position of leadership in the industry. They range from one-man contractors to large construction companies — from rental yards to the big utilities. Each has varied needs so we've developed a varied product line. This has made our product better. And when someone buys a Ditch Witch trencher that means he believes in our product and in us. We view this trust as an important obligation — one to keep on making quality equipment and providing the best possible service. By doing these things, we've become the leader in our field. But we want our customers to know that we know we didn't do it without our customers' confidence and loyal support.

## **FOLLOW THE LEADER!**



... offering a full line of trenching equipment from 7-HP to 65-HP.

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

### LOUISIANA'S FIGHT

(from page 26)

mixing herbicide and chemical in a mixing tank, a metering-mixing device is located on the suction side of the pump. This measures concentrated herbicide thru a metering disc and mixes it with water drawn from overboard. The opening in the metering disc has been sized and the pump calibrated to apply a one-half percent, by weight, solution of 2,4-D amine. This is applied to water hyacinths at the rate of 2 to 4 pounds of the active ingredient per acre of

vegetation.

The present status of our aquatic plant control program is as follows:

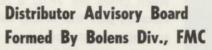
Water hyacinths have been cleared from most of the principal waterways in Louisiana. But because of reinfestation occurring from seed germination and reintroduction from inaccessible areas, retreatment two to three times each year are required.

Alligatorweed quantities have been reduced significantly during the last two years as a result of several adverse factors affecting this plant. These include: feeding damage by

the alligatorweed flea beetle; a combined effect of beetle feeding and 2,4-D application; and, improved growth competition from water hyacinths

Submersed weed problems from a number of species are increasing in many of the waters of the state as a result of increased light penetration that occurs after removal of surface vegetation. To combat this, the Corps of Engineers is funding research at the University of Southwestern Louisiana for control of egeria densa, and at Northwestern State University of Louisiana for a study of Cabomba.

Another facet of Corps of Engineers research in Louisiana is field testing of a laser system for control of water hyacinths. In October 1972, the Corps of Engineers waterways experiment station ran preliminary testing of the laser system in a field location in southeast Louisiana to determine any operational problems connected with the field use of the laser system. In the spring and summer of 1973, additional field treatment of water hyacinths will begin and effects of these treatments on the plants will be determined. □



A distributor advisory board which will assist in retail marketing strategy has been formed by Bolens Division of FMC Corp., Port Washington, Wis.

The distributor board, composed of eight representatives, will aid Bolens in its planning, product development, pricing and other related areas, according to Charles F. Bartlett, Bolens general sales/marketing manager.

Serving on the council are Ralph Jenkins, vice president and general manager, Stull Equipment Co., Chester, Pa.; Richard Miller, division manager, Hayward Distributing Co., Columbus, Ohio; Jack Peart, sales manager, Farmers Supply and Equipment, Brampton, Ontario, Canada; Carey Sellers, dealer sales manager, E. J. Smith & Sons, Charlotte, N.C.

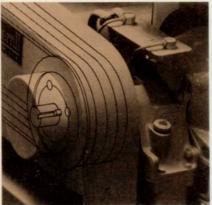
Also John Mercep, sales manager, O. P. E., R. M. Wade & Co., Portland, Ore.; Tom Lesnett, vice president and general manager, Stull Company, Coraopolis, Pa.; Glenn Blackwell, vice president and general manager, Modern Distributing Co., Springfield, Mo.; and Don Fenton, sales manager, Baxley & Burton Power Equipment, South Windsor, Conn.



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:



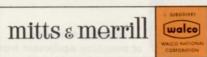
Staggered knife pattern for smoother cutting action. Mounted on an all-steel cylinder that, even without an external flywheel, is heaviest in the industry. Each cylinder revolution gives more cuts, produces smaller chips of uniform size. Self-adjusting knives are reversible; give twice the service between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

### Plus...

• 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.



### Get rid of unwanted green growth before it cuts into your profits.

The weed onslaught is just about universal.

An expensive headache. For utilities, railroads, highway departments, the petroleum industry and industry in general.

But there is a way to con-

trol that costly green tide—with Tandex® herbicide.

It's a urea-carbamate compound that gives outstanding extended control over a range of weeds and grasses.

But it's more than weed control.

It's brush control, too. If you've got to get rid of really tough brush and woody vines, Tandex gets the job done.

You can spray Tandex or apply it in dry granular form.

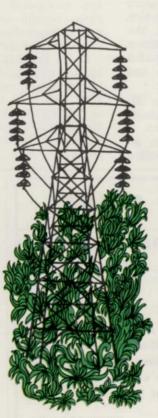
Either way you use it, you'll control that costly green tide.



FOR INDUSTRY



FOR RAILROADS



FOR UTILITIES



FOR ROADS

TANDEX



### Natural Aquatic Conditions Simulated By EPA

The U. S. Environmental Protection Agency put into operation in March a unique \$1 million environmental simulator that is expected to provide scientists with a significant new tool for studying the movement, fate and impact of pollution on rivers.

Known as "AEcoS," which is short for Aquatic Ecosystem Simulator, the facility will bridge the gap between laboratory experiments and uncontrolled field studies.

AEcoS is the result of 10 years of research, design, and construction by the National Pollutants Fate Research Program at EPA's Southeast Environmental Research Laboratory (SERL) in Athens, Georgia, which will operate the new facility. The simulator will be dedicated March 7 at Athens, in ceremonies attended by congressmen, EPA, State and local officials.

The concept of Dr. Walter M. Sanders, who heads the pollutants fate research at SERL, AEcoS is a channel of water housed in an environmental chamber controlled

and monitored by a computer system. Computerization will permit researchers to maintain precise controls over light quality and intensity, air and water temperature, humidity, and water quality.

### Cutrine Granular Algaecide Registered By EPA

Applied Biochemists, Inc., has been granted registration by the Environmental Protection Agency for Cutrine Granular, a copper complex algaecide, to control chara, nitella and other forms of bottom-growing algae.

The product is simply a granular form of Cutrine which is registered for use in potable water reservoirs; fish, fire and farm ponds; lakes and fish hatcheries. Cutrine Granular drops rapidly to the bottom and then releases the copper ions directly around and onto the algae.

Chara particularly is difficult to control with liquid algaecides. It is a hardy plant, most often encrusted with lime, thus the common name of "stonewart." By applying Cutrine Granular, the active ingredient can be put in direct contact with the plant.

Cutrine Granular is applied at the rate of 100 pounds per surface acre of water to be treated, and can be dispersed by using a dry spreader or by hand. The material will also be effective against filamentous algae at the time the plant is developing at the water bottom.

# New Distributor Added By Kohler Co.

Kohler Co. has appointed one new engine central distributor and has assigned additional area to a second distributor.

The new engine distributor is Charlie C. Jones, Inc., Battery & Electric Company, Phoenix, Arizona, who will be responsible for Kohler engine sales and service throughout Arizona. Cecil Mentzer is president of the firm.

Spencer Engine & Magneto, Inc., Tampa, Florida, which has been serving all of northern Florida except the western tip, has been assigned southern Florida as an additional responsibility. Fred E. Spencer is chairman of the board and president.

### SIGNS AND STAKES



High impact plastic STAKES AND SIGNS designed to direct golf carts and golfers away from wet, worn, seeded or sodded areas. Design provides wedge type rope notch for economical installation and removal. Choice of 14 sign inscriptions fit over any stake.

12" stakes	\$30.00 per hundred
14" stakes	\$34.00 per hundred
Signs	\$40.00 per hundred
(Choice of a	ny mix of inscriptions)
	\$25.00 per thousand ft.
	lypropylene—yellow)
	\$50.00

Write for FREE samples

### COURSIGNS, INC.

6502 N. Clark St. CHICAGO, ILLINOIS 60626 (312) 465-6330

### **HI-RANGER®** for MORE JOBS

Model 4E-35PI Hi-Ranger speeds operators to many overhead jobs . . . lighting and signal maintenance, power lines, road and street signs, painting and repairs . . . quickly and more productively. Available as truck, track vehicle, or lift-truck mounted. Exceeds utility requirements, to 69 KV.



MOBILE AERIAL TOWERS, INC. . Dept. N . 2314 BOWSER AVE. . FORT WAYNE, IND. 46803

# MERTECT 140-F. Tough on disease. Easy on you.

You can easily control the major turf diseases with nonmercurial MERTECT 140-F. It works systemically against dollar spot, brown patch, and

Fusarium patch.

But along with that, it also saves you time and money.

Measuring, mixing, and dispersion are

easier because MERTECT 140-F is flowable. It won't clog spray nozzles even in low-

volume fairway spraying. Its long residual (2-3 weeks) control means fewer applications. And the low dosage rate makes it economical.

Follow the simple instructions on the label. MERTECT 140-F is not phytotoxic to grasses when used as directed. See your Merck distributor for a supply now. Or write us for his name.

Agricultural Products, Merck Chemical Division, Rahway, N.J.07065.





Measure out the recommended amount of MERTECT 140-F (1-2 fl oz in 5-10 gal of water/1,000 sq ft). Notice the handy pouring spout included with each gallon.



Pour the measured amount directly into the spray tank. No need for a slurry, no hard-to-handle powder to mess with.



Just spray on the effective disease control of MERTECT 140-F. MERTECT 140-F requires minimum agitation and does not clog spray nozzles even in low-volume fairway spraying.

# INTERSTATER®!

# MONEY MACHINE BY MOTT

ONE TRACTOR ONE OPERATOR THREE MOWERS SAVES TIME TIME IS MONEY

MOWERS ARE HAMMER KNIFE® SAFETY FLAILS

SAFETY IS MONEY

MOTT® HAMMER KNIFE® FLAILS

MOW LAWNS ® SHRED WEEDS

MULCH LEAVES ® RENOVATE

IN AREAS CLEAN OR TRASHY

IN CONDITIONS DRY OR WET

YEAR AFTER YEAR AFTER YEAR

(WOULD YOU BELIEVE UP TO 10-20 YEARS?)

THEY PRODUCE

PRODUCTIVITY IS MONEY

MOWERS YOU NEED MOWERS WE'VE GOT FROM 24" WALK BEHINDS TO 19 FOOT GANGS

COMMUNICATE — WE'LL DEMONSTRATE YOUR COST? JUST A LITTLE OF YOUR TIME.

### MOTT CORPORATION

514 SHAWMUT AVE., LA GRANGE, ILL. 60525





Work crews from the Lower Tule Irrigation District remove alligatorweed with a backhoe. Mats of the weed become so thick that water cannot flow along the ditches.

### ALLIGATORWEED ERADICATION PROBLEM IDENTIFICATION (from page 52)

ment whereby funds from three areas are used to subsidize our eradication program. The state-county agreement provides \$7,000; the Los Angeles County Flood Control has budgeted over \$50,000; and, the U.S. Army Corps of Engineers District has been asked for \$13,000 and is cooperating in the control efforts.

Our program objectives are: 1. to remove the foliar mats of alligatorweed by use of foliar sprays or by hand. Each node in the stem is a reproductive part which can infest or re-infest if care is not taken in normal removal procedures. 2. to kill the perennial root structure of the plants.

Through these objectives we have been able to appreciably diminish the original 40 acres of alligator-weed mat. This has been aided somewhat by the removal of 800,000 tons of soil under quarantine restrictions that have accumulated over several years of silt deposit. Though large quantities of alligatorweed roots remain in the area, the working agencies have prevented reestablishment of the previous mat. They have also attempted to maintain general vegetation control in an effort to chip away at the rootstock of alligatorweed.

It should be pointed out that general vegetation control in the entire infested area is a constant battle. Ample sub-surface water or occasional inundations bring forth a variety of brush species and broadleaf and grassy annuals and perennials. Yet it is needed in order to more quickly identify and control alligatorweed.

As the downstream reinfestation potential is reduced by our eradication efforts behind the dam, we expect to begin eradicative work on the infestations in the spreading grounds. Then too, we will pay closer attention to alligatorweed growing in the cracks of the concrete river bottom.

Our program will lead to success. This is evidenced by the excellent eradication program in Tulare county. Perhaps of more importance is the awareness we've created of a specific weed problem and the potential threat it harbors to agriculture and recreational fresh waters in California. Agencies, departments, individual citizens and others have expressed genuine concern and cooperated in making the eradication program for this tri-county area work.

We recognize that as we make progress the workload becomes bigger. Spraying big mats is easy. Finding isolated surviving plants, hidden in a jungle of other vegetation requires hours of intensive search by dedicated men. It is this dedication that is the foundations for a successful alligatorweed eradication program. □