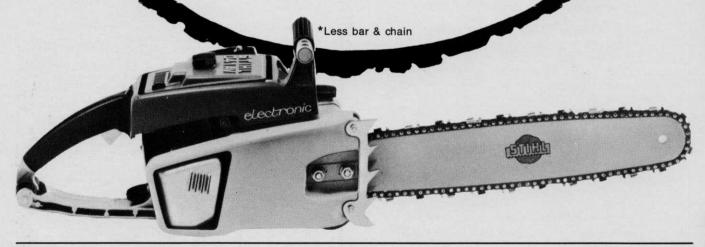
STIHL O41 AV electronic

In keeping with our policy of offering the most advanced and most dependable in chain saws—we have incorporated solid state ignition into the STIHL 041 AV Electronic Saw. Other than eliminating the need for points and providing a molded circuit that is impervious to moisture, dirt, and temperature extremes—this model offers big horsepower performance coupled with a light 12 1/2* pound weight and the fabulous new vibration absorbing AV handle.

first and only lightweight chain saw with built-in shock absorbers plus solid state ignition





STIHL American, Inc.

194 Greenwood Ave., Midland Park, N. J. 07432, Code 201-445-0890

7364 Lee Industrial Boulevard, Mableton (Atlanta) Georgia 30059, Code 404-941-1730

23962 Clawiter Road, Hayward California 94541, Code 415-785-9100



Dirty hands and aching backs are obsolete with the Ryan Sulky Roller. This rugged unit attaches to a Ryan Heavy Duty Sod Cutter, enabling *one man* to cut and roll up to 15,000 yards of perfect sod per day.

The Sulky Roller operator rides while cutting sod to any length. At the same time it rolls sod up to 24" wide and gently pushes each roll from the cutting path.

If you own a Ryan Heavy Duty Sod Cutter, all you do is order the Sulky Roller with a conversion kit. It attaches quickly and easily with six bolts into existing holes. In minutes you've got a "sod harvester", ready to cut your labor costs and cut big payloads of quality sod.

If you're in the market for a Ryan HD Sod Cutter and want the Sulky Roller, it comes as a complete unit from the factory. The HD Sod Cutters will be equipped with a powerful 12 HP Briggs & Stratton engine.

For information about the Sulky Roller and other fine Ryan sod farm products, write for the NEW Turf Equipment Catalog.



RYAN EQUIPMENT COMPANY

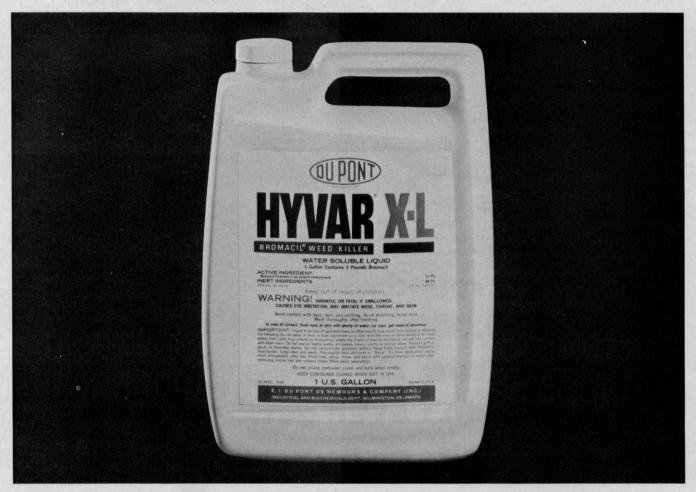
2055 White Bear Avenue St. Paul, Minnesota 55109 Telephone 612-777-7461 SUBSIDIARY OF OUTBOARD MARINE CORP.



RYAN SULKY ROLLER ATTACHMENT

Converts the Ryan HD Sod Cutter into a one-man "sod harvester". It's available with conversion kit for your present Ryan cutter or can be purchased with a new one. It'll quickly pay for itself!

New DuPont HYVAR® X-L Now you can have the performance of "Hyvar" in an easy to use liquid



Remember how "Hyvar" X and "Hyvar" X-WS performed for you in the past? How annual weeds were controlled at low rates of application, and perennial weeds and grasses were cleaned up at higher rates? Thorough and long-lasting, wasn't it? You can get this same dependable performance with "Hyvar" X-L bromacil weed killer.

This new liquid can be purchased in 1, 5 or 30 gallon containers. All you do is add water and spray. No special



Better things for better living ... through chemistry

preparation, nothing to add, nothing messy to handle or harm equipment or clothing.

"Hyvar" X-L makes it tough on weeds, easier on you. Order some easier-to-use "Hyvar" today. Or, for more information, fill in and send us the coupon today.

With any chemical, follow labeling instructions and warnings carefully.

| Du Pont-Industrial and I | Biochemicals Dept. |
|--|--|
| Room 2533-1-L Wilming | ton, Delaware 19898 |
| Please send me more bromacil weed killer. | information on Du Pont "HYVAR" X-L |
| Name | Steer and Start must have his |
| Title | |
| Firm | |
| Address | manufacture of the control of the second |
| City | |
| State | Zip Code |

Special for This Issue

| Installation Specifications for Turf Irrigation Systems Sprinkler Irrigation Association's specifications subcommittee has compiled a 41-point check list to help you obtain proper irrigation installations. | 14 |
|---|----|
| Irrigation by Computer Ted Woerhle, superintendent of Oakland Hills Country Club, Birmingham, Mich., sees the day when weather, plant, and soil characteristics will be programmed in a computer to determine proper watering practices. | 18 |
| Eight Good Ideas for Golf Course Irrigation Austin Miller, Miller Sprinkling Systems, offers tips for trouble-free operation of irrigation systems. | 20 |
| Large-Area Irrigation | 22 |
| A Florida rig called the Hydro-Turbine provides 24-hour unattended operation. It's in use on sod farms. | |
| Beauty, Upkeep, Status Push Commercial Turf Irrigation A. Brown, vice-president, sales, for Turf Irrigation Corporation sees a rapidly expanding use of irrigation on commercial and industrial grounds. | 26 |
| Where There's Smoke, There's Fire of Protest | 32 |
| California report indicates wood and grass burning is highly criticized, though photochemical pollution is relatively low. Tips are given on how to burn with least offense to the public and least contribution to air pollution. | |
| | |

Regular Features

| Editorial: Pesticides or Suicide? Perhaps, the Way We Talk | 8 |
|---|----|
| Industry People on the Move | 31 |
| Sod Industry Section: 40th Michigan Turfgrass Conference | 36 |
| New Products: Especially for irrigation | 42 |
| Industry News: Weed Science Society of America Report | 44 |
| Insect Report | 48 |
| Meeting Dates | 52 |
| Trimmings: High dosages of erroneous information also dangerous | 54 |
| Classifieds | 54 |
| Index to Advertisers | 55 |

The Cover

A turf irrigation system is a pleasing sight, on or off. It's pleasing when it's off because of the green "residue" it leaves — healthy green grass. It's pretty when it's working, particularly when the spray creates a rainbow. The system on the cover is on the grounds of Turf Irrigation Corporation, Commack, N.Y. The rotary popups cover an acre. A. Brown, vice-president, sales, talks about the mushrooming demand for turf irrigation on commercial grounds. His article is on page 26.



WEEDS TREES and TURF is published monthly by The Harvest Publishing Company. Executive, editorial headquarters: 9800 Detroit Ave., Cleveland, Ohio 44102.

Single Copy Price: 50 cents for current issue; all back issues 75 cents each. Foreign \$1.00.

Subscription Rates: WEEDS TREES AND TURF is mailed free, within the U.S. and possessions and Canada, to qualified persons engaged in the vegetation care industry and related fields in controlled circulation categories. Non-qualified subscriptions in the U.S. are \$7.00 per year; Canada and other countries, \$10.00 per year. Controlled circulation postage paid at Fostoria, Ohio 44830.

© The Harvest Publishing Company, 1970



WEEDS TREES

Volume 9, No. 3

March, 1970

Gene Ingalsbe Editor

Arthur V. Edwards Editorial Director

A. J. Michel Advertising Production

Hugh Chronister President and Publisher

Dan M. Humphrey Vice-President, Advertising

> Roy Bever Director of Circulation

ADVERTISING SALES OFFICES

Cleveland, Ohio 44102 9800 Detroit Ave./216+631-6468 William Schmunk, Mgr.

Chicago, Illinois 60601 333 N. Michigan Ave./312+236-9425 Richard Scrymiger, Mgr.

> Shawnee Mission (Kansas City), Kansas 66202 6811 W. 63rd St./913+722-5900 Austin Schnacke, Mgr.

New York, New York 10017 757 Third Ave./212+421-1350 Herbert Laager, Mgr.

Columbus, Ohio 43212 1350 W. Fifth Ave./614+486-9638 Gilman Calkins, Mgr.

Lansing, Michigan 48906 4415 N. Grand River/517+372-5254 Paul Bundschu, Mgr.

Los Angeles, California 90005 The Eschen Company 3142 Wilshire Blvd./213+382-8391 Henry Eschen

> San Francisco, California 94104 The Eschen Company 57 Post St./415+781-7440 Al Pierce

Take the trouble

Diamond Shamrock gives you The System of weed and disease control.

With the 1-2-3 punch that knocks out weeds and diseases before they can give you trouble.

- **1. Dacthal** kills crabgrass and other undesirable weeds and grasses before they come up.
- **2. Dacamine** effectively eradicates growing broadleaf weeds.
- **3. Daconil 2787,** the ONE fungicide, controls a broad spectrum of turf disease organisms. Try these three great ways to take trouble out of turf.



out of turf.

Dacthal 1.

is the premium preemerge herbicide proven most effective through field testing and years of use. Controls crabgrass, Poa annua, and 14 other undesirable weeds and grasses. One application lasts all season. For Poa annua control follow label directions.

Dacamine



herbicide controls broadleaf weeds such as dandelion and plantain without hurting your grass. Kills deep—down to the root tips—for complete weed eradication. But only where you spray it—non-volatile Dacamine won't vaporize to injure desirable plants.

Daconil 2787

—the ONE fungicide—handles a broad spectrum of disease organisms not just one or two. And it does it right through the time you need it most. Turf grasses have exceptional tolerance to Daconil 2787, even in hot, wet weather. So you can maintain lush, deeper green turf all season.

If you're looking for a way to have healthier, more beautiful turf, ask for our folder AG-207. From Agricultural Chemicals Division, Diamond Shamrock Corporation, Dept. H 2170, 300 Union Commerce Bldg., Cleveland, Ohio 44115.



Diamond Shamrock Chemicals

THE system of weed and disease control.



TRENCHING EQUIPMENT FROM 7-HP TO 60-HP . . . BUILT BY PROFESSIONALS FOR PROFESSIONALS!



the 30-HP unit from Ditch Witch can dig up to 1,200 FPH at depths up to 6', widths to 12''. It features four-wheel-drive, four mechanically-selective digging chain speeds, plus reverse, and full hydraulic control. While trenching, travel speed is controlled hydraulically, allowing full mechanical power to be used independently for selective digging chain speeds. Positive hydraulic power steering allows V30 to trench straight or on a curve. Attachments are available, including backhoe, vibratory plow and boring units.



the most powerful Ditch Witch with 60-HP performance and full hydraulic control convenience. The R60 can trench up to 2,000 FPH, at ranges up to 7' deep, 2' wide. It features four-wheel-drive, four mechanically-selective digging chain speeds, plus reverse. While trenching, travel speed is controlled hydraulically, allowing full mechanical power to be used independently for selective digging chain speeds. The R60 does it all—trenching or backfilling, it has no match! A full line of attachments is available, including backhoe, vibratory plow and boring units.

DITCH WITCH

CHARLES MACHINE WORKS, INC. . 100 ASH ST. . PERRY, OKLA, 73077

Pesticides or Suicide? Perhaps, the Way We Talk

Two efforts to give a positive swing to the pendulum of public opinion about chemicals are worth reporting.

If anything needs to be banned right now, says Dr. E. P. Sylvester of Iowa State University, it's "pesticides" — the word, that is. The term has acquired an undeserved shady reputation, as have a number of other good English words, for one reason or another.

It is time, he believes, to "accentuate the positive and eliminate the negative," to borrow a phrase from a song popular during World War II.

How does Dr. Sylvester speak of ridding farm fields of weeds and insects? He advises using "Crop Protection" chemicals.

Now why didn't we think of that approach before?

Environmental purification is the national hangup at the moment. Yet the makers and users of chemicals have thought that's what they were trying to do all along — preserve and improve that which is desired and beneficial; eliminate that which is noxious or unwanted. How then did the chemical image get on the dirty side of the fence?

Publicity of damage from chemical misuse was a big factor, to be sure. But perhaps an unconscious factor was terminology.

Classification names of chemicals focus on the negative means rather than on the constructive end results. To wit: herbicide, pesticide, fungicide, insecticide, rodenticide, and endlessly on . . . a language syndrome of kill, kill, kill.

The industry has done a better job of brandnaming specific compounds. For the most part, the names have tended to be brief to aid recall, yet they carry a hint of something scientific. Is there room for improvement?

One chemical compound comes to mind that seems to be named perfectly for the times. It's benefin. Note that the word connotation is good.

Perhaps it would be worth thinking public relations twice as environmental chemicals are named and talked about.

A second effort to publicize the contributions of chemicals is contained in a non-commercial film put together by the Du Pont Company. It tells the weed control story on Washington state highways.

It's an excellent film. Scenes show how beauty is achieved, how safety is increased through reduced driving hazards from fire and smoke, how crews are trained and operate, how maintenance costs are reduced.

The film is keyed to the interests of civic groups, conservationists, agricultural students, or really most anyone.

Copies will be made available on an extended loan basis to weed specialists, agriculture instructors, highway maintenance engineers, and film libraries. Requests should be addressed to Public Relations Department, d-5082, Du Pont Company, Wilmington, Del. 19898.

More films like this one are needed — with one added ingredient: drama, to arouse emotion favorable to chemicals. Scenes are needed to counter the shock of seeing hundreds of dead fish, or the grotesque forms of dead birds, or the "terrifying cloud of death" spewing from a spray plane.

What the public needs to see is a malaria-strickened child, a pest-riddled crop field, the tragedy of a refinery or warehouse fire that started in dry weeds, the agony of an automobile accident caused by an obstructed crossroad, some of the innumerable crises that could develop with a power failure caused by trees breaking power lines, the disaster of a train wreck from a weed-infested and weakened roadbed or a burned-out trestle. Then there are always the rats.

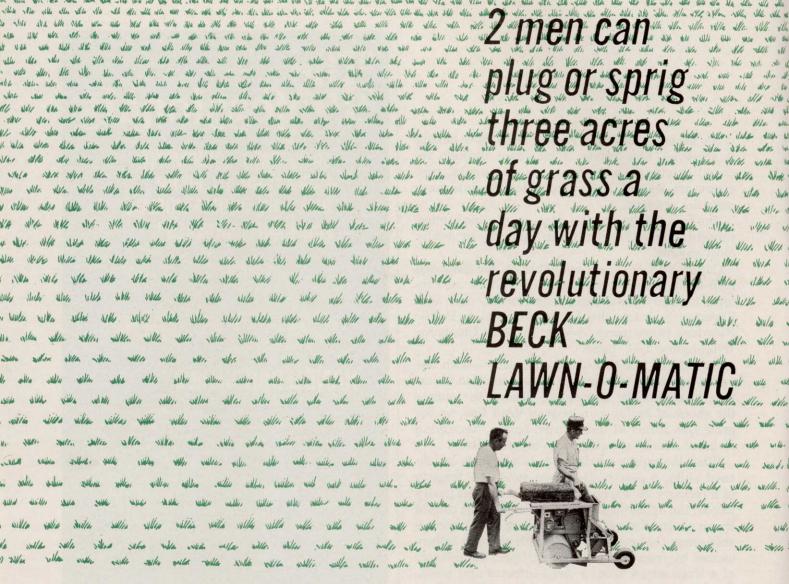
Overly dramatic? Perhaps. But this is the very technique a Montreal television station, CTV, used recently to substantiate its show title, "Pesticides or Suicide." Facts were exaggerated, some claims completely false, projections absurd, but the emotional impact contrived against pesticides was superb.

Ironically, the film was shown the second night of a gathering in that city of the best minds of two countries on the subjects of pesticides and herbicides — some 600 members of the Weed Science Society of America. Though the meeting site had been selected two years in advance, the television station somehow missed the opportunity to find out the real story about pesticides. It didn't even send a reporter to cover the meeting.

What's worse, perhaps, is that this editor asked at least a dozen WSSA members if they had seen the TV report. Only one had . . . and that may indicate another problem in itself.

Gene Ingalske





Two men can plug or sprig three acres a day of Zoysia, Bermuda, Centipede, or St. Augustine grass. The self-propelled Lawn-O-Matic automatically digs three furrows, cuts $1\frac{1}{2}$ " x 2" plugs from 1' x 2' sod blocks, inserts them in the furrow, and then closes the

soil around the planted grass with the heavy duty roller.

The three-row Lawn-O-Matic places the grass plugs or springs 8" apart in rows 7½" apart.

Planting grass at the rate of 300 square feet per minute, five average lawns, front and back, can be planted in one day with two men.



Your first ten days of full operation will pay for the Lawn-O-Matic; labor-saving is over 90%.

The Lawn-O-Matic creates profits for you whether you offer a lawn plugged or sprigged, or whether you rent the Lawn-O-Matic to "Do-it-yourselfers".

The versatile Lawn-O-Matic serves as a sod carrier and easily moves five square yards.

The U.S. Patented Lawn-O-Matic is available in 1, 2, or 3 row machines and is priced at only \$895.00. This machine was developed by Alabama's largest grower of sod.

Write Box 752, Auburn, Alabama for more information.

Inquiries from manufacturers representatives and distributors invited.

BECK MANUFACTURING CO. • Box 752 • Auburn, Alabama 36830

Phone 205/887-3730 — 821-0969

