

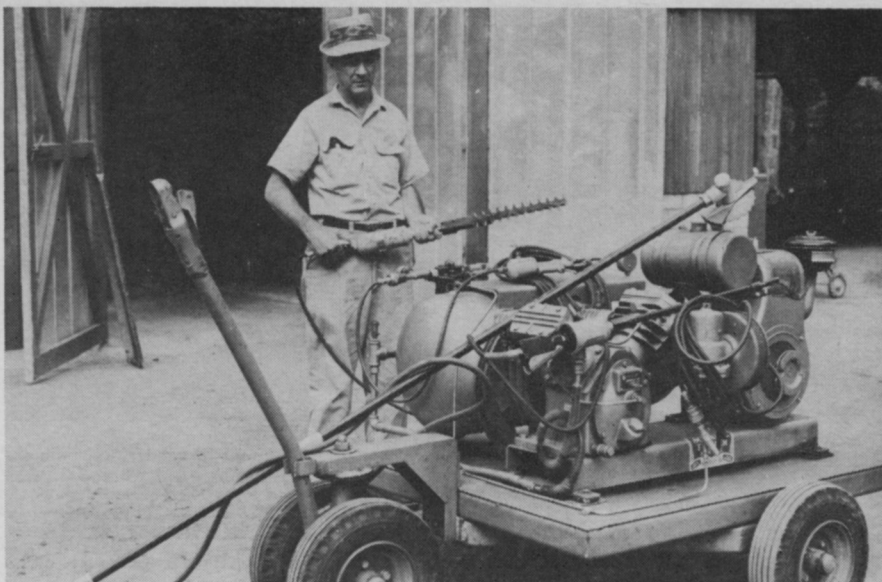
Small hand tools are stored in locked boxes.

In our shop, we also construct our own large wooden signs, which are used on driveways within the gardens. We are presently routing them out of redwood. Our router has a simple attachment for a suction unit to remove dust. We find that a radial arm saw is very good for sign work. For a very inexpensive one we use a laminated sign, consisting of poster board, laminated in Mylar. Signs are prepared on a typewriter equipped with very large characters, or they are sometimes hand printed, and then run through the laminating machine. We use our own machine for engraving laminated plastics for signs and small labels.

One real labor-saving device, which we have used for at least 10 years, is a soil auger. We have augers, varying in diameter from 6 to 24 in. and which, in an average day, can drill 300-400 holes, equivalent of one day's work for a crew of about 20 men. We made an interesting adaptation to this auger several years ago, when we made a blueberry planting. We had to mix organic matter into the soil directly in planting holes. To do this, we made up a simple mixing unit, which, when attached to the auger unit, mixed the peat moss and organic matter with soil already in the hole. This soil mixer has also been used in other planting areas where the basic soil is good and where we only had to add organic matter to the area.

We prepare our own planting soils, usually averaging 300-400 loads of prepared soil each season. Our normal planting schedule includes placing some 10,000 permanent plants each year. We use a front-end loader for soil mixing.

Unfortunately, since we're in an area where very little farm manure is available, we must make our own compost. We use a forage or silage harvester for collecting green material, which can then be composted. We have concrete storage bins where this material is placed for breaking down into organic matter. Each storage bin is 20 x 40 ft. with the



Small tractor unit, sometimes pulled by hand, with pneumatic equipment for pruning.

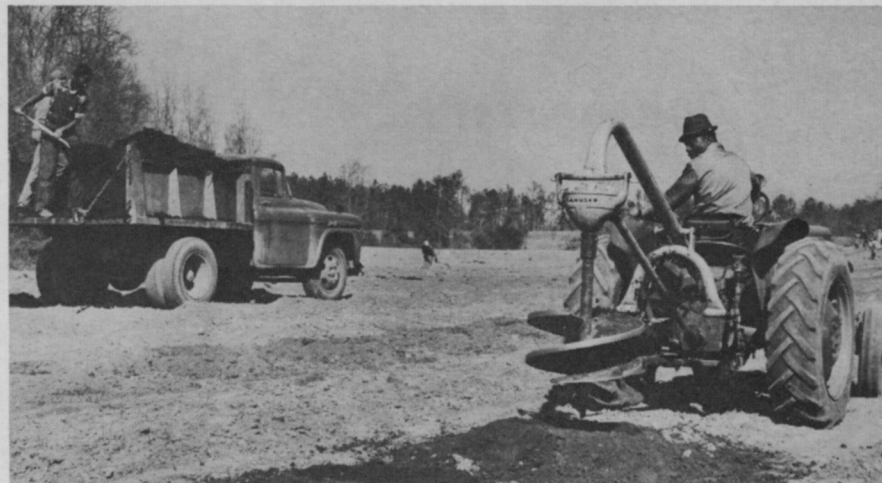


Loader feeds bark through compost grinder.

Howard Rotovator shown here proved excellent for soil preparation. Callaway Gardens has three of them, as well as one tractor unit.



Here's how Callaway Garden's 24-in. soil auger digs holes for new blueberry plantings.





1 1/2-ton truck with 500-gal. tank and small pump for fighting fires, if needed. In winter, Collaway Gardens keeps several 50-gal. drums on hand for similar use with pickup trucks.

side walls 5 ft. high; each bin has internal drainage. The effluent from these bins goes into a large septic tank, where it can be pumped back into compost bins to activate new batches of material.

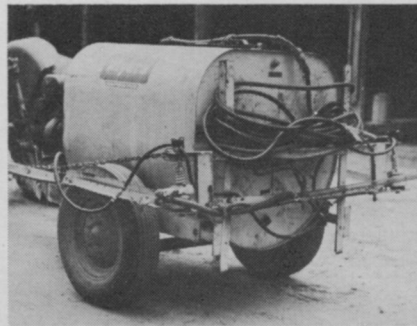
#### Steam Storage Bins

We also sterilize these bins. We use a large 100-hp steam unit, and we lay galvanized pipe which has holes to release the steam, placing these on the bin floor and building the compost pile on top of it.

In many cases, when we plan to mix soil and compost together, we use a Howard Rotavator, a tractor-mounted unit, to mix this material on the apron in front of bins, and then put it into the bins with the loader. We also made our own compost grinding unit. It works much like a ham-

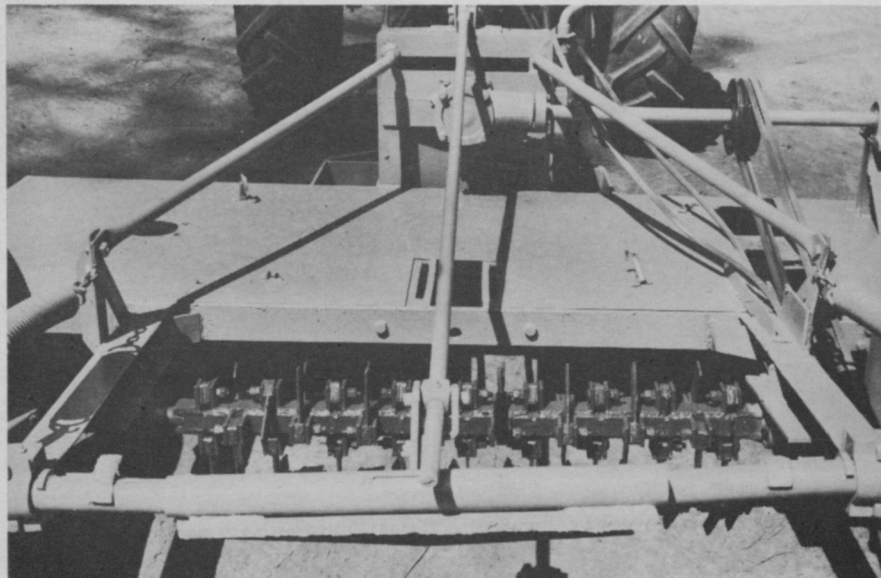
mer mill, but it utilizes the tractor's power take-off (PTO).

Several sizes of screens can be mounted for blocking various



200-gal. power sprayer used for spraying herbicides. Unit has handgun and boom rig.

materials. We can also shred block sod of bermudagrasses to establish new lawns. This machine breaks sod and we can work out stolons for developing new lawn areas. It is a rugged



Hammer knife or verticut mower made from old mower frame. Knives are 3 in. apart and covered with heavy metal shield when in operation. Unit is believed to be one of first made.

piece of equipment and, since it is homemade, we feel that it is very practical and well worth the expense. The unit can also be used for grinding corncobs, and also for grinding pine bark and other coarse material which we can utilize as mulch.

Collecting mulch for our plantings is a major job, as is cleaning up more than 15 miles of drives within the gardens. Over 10 years ago, we devised a leaf-suction machine, using a 12-in. suction hose at its base and a 25-in. heavy industrial fan. This unit is powered by a 20-hp Wisconsin motor. Later, we put in a vacuum trailer unit on the back of this and now we can go back along the drives and pick up leaves. We still use the large hose and small trailer unit in different areas. This is pulled by a dump truck; the bed is enclosed and leaves are drawn into it.

We have a wide range of mowing units, from a 12-ft. rotary mower for large areas, to the small individual 24-in. units. In many areas, where we are cutting near the public, the Mott Mower is one of our more important units. It is a very safe mower to use around people. We have made several small trailers for moving equipment; rear gates drop down to make a runway for mowers.

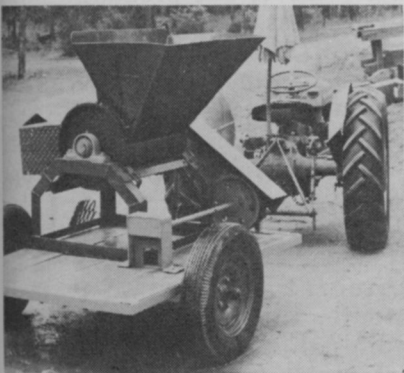
#### Test New Chemicals

We try to keep informed of all new herbicides available to see how they might be used in our operations. Many times, we test and evaluate some materials for chemical companies.

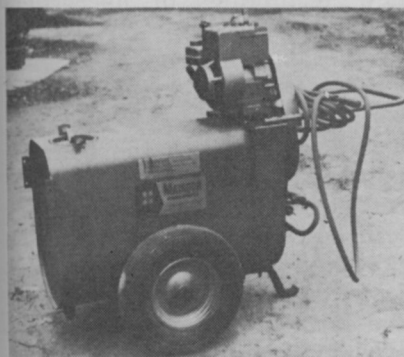
We have two different sets of spraying equipment, one for use with herbicides and one for general insecticides and fungicides. All spray equipment used for herbicides is marked as such, so these units are not used for general insecticides and fungicides. We also have a back-pack duster and mist unit, as well as a large mist blower.

Summer irrigation can be a major problem. We have several portable pumps we can move to our many lakes for irrigation. Many pumps we use operate on LP gas and others are operated

from the PTO of a tractor. Pipe trailers for hauling irrigation equipment are necessary for getting equipment to the area. We have nearly two miles of irrigation pipe, consisting of 2-to-6-in. sizes. Various adapters are needed so pipe sizes can be assembled. We found that a tensiometer is a great aid in measuring irrigation require-



**Homemade** compost grinder powered from PTO on tractor. Garden workers add large hood when moving loads with a front end loader.



15-gal. sprayer used in planting beds.



Garden's back pack mist blower or mister.

ments. Small porcelain Bouyoucos units are buried to a depth at which we wish to read soil moisture, and they become permanent installations. Small battery units are placed on cables attached to underground units, and a reading is obtained for soil moisture needs.

A few years ago, we began using pneumatic pruning equipment. We have a small trailer unit, which we pull by a vehicle or by hand along trails where we can use pruning shears or saws. We made two modifications on our hedge shears for a special pruning job in a grape vineyard. We shortened the blade, and with two units running, we reduced time involved in pruning a 25-acre muscadine vineyard to one-third the time normally needed to prune by hand.

#### Buy Latest Literature

Office equipment is also necessary for our operation. We have proper storage of catalogs and equipment literature. It is vital that we refer to these files continuously. Also, we try to keep up with the latest publications. Unfortunately, there are many books of little value, and we must evaluate them before buying. After purchasing, we see that they are read by various people within the organization, rather than just occupying space on a shelf.

Storage of photographic slides is a major problem with us. We found that Multiflex cabinets are very good. We do not number slides, but file them under subject matter. It is very simple to pull slides and assemble them into groups for slide presentations.

We are continually on the alert for new and better equipment and for a re-evaluation of our own equipment to see how it is holding up, and to see if there can be some adaptations or modifications to make it more useful.

We have also had good cooperation with major equipment companies. This we feel is very important, for a source of equipment and parts is very essential. With this cooperation we have been able to do a better job throughout our operations.



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Please send me your new brochure on aquatic weed control. I'm interested in treating:

Pond  Lake  Dock or Beach Area  
Approximate size of area to be treated

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City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

## CURLY DOCK

(*Rumex crispus*)



Curly dock is a perennial which reproduces from seeds. It may be termed yellow dock, sour dock, or narrow-leaved dock by local inhabitants. It is found in fields, pastures, lawns, meadows, and roadsides throughout the United States and southern Canada. Although there are several other species of *Rumex* called dock, this species is the only one with wavy leaf edges.

Stems (1) which arise from the root crown in the spring are smooth and stout. They may grow to 4 feet high. Several stems may arise from one root crown.

Leaves are lance-shaped, but with curly, or crispy edges. They appear alternately on the stem. Fewer leaves occur on the upper portions of the plant stem. Leaves have no hairs and are smooth.

Flowers are borne on stalks called racemes (*ra-as* in rabble, -seems) which grow from the axils of small upper leaves (2), and from stem ends. The flowers are petalless and small, occurring in whorls about the raceme stalk. Having no petals, they appear greenish, and as they mature, they turn reddish brown. Each flower will have developed 3 seeds, and each group of 3 seeds is surrounded by 3 papery wings, or bracts, which are somewhat heart-shaped (3). These 3 wings under some conditions cause the pod to be borne on the wind for a short distance.

The root is a yellow, deep, stout taproot. The plant is not killed by digging unless the stem is cut off well below the ground line. For this reason, mowing does no permanent good.

Spray in the spring with 2,4-D. Two or three sprayings will kill curly dock.

Prepared in cooperation with Crops Research Division, Agricultural Research Service, United States Department of Agriculture, Beltsville, Maryland.

(DRAWING FROM NORTH CENTRAL REGIONAL PUBLICATION NO. 36, USDA EXTENSION SERVICE)

## WTT's New Monthly Sod Section Debuts in July

A complete section devoted to professional sod production in the United States will be a regular part of *Weeds Trees and Turf* starting next month.

Months in preparation, this new regular feature will discuss subjects of unique interest to the hundreds of sod producers now in business throughout the country. *WTT* editors say thousands of turf professionals in allied pursuits who sell or install sod, or who are called on to treat it, will also find the section interesting.

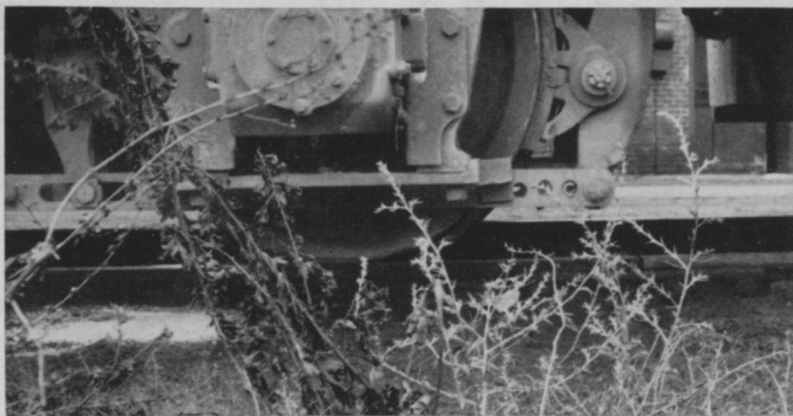
Called the Sod Industry Section, the department will be an integral part of *WTT* each month, although it will contain editorial and advertising material pertaining only to commercial turfgrass sod production and handling.

Subjects to be covered include new techniques of harvesting, materials handling on the sod farm, labor management, marketing, seeding, irrigation, and similar topics.

In keeping with the editorial approach characteristic of the rest of the magazine, articles will be use-oriented and will be prepared by leading authorities from the field, including major sod farm executives, experts from universities and government agencies, and the *WTT* technical staff.

Inauguration of Sod Industry Section is a result of the editors' awareness that one of the most striking aspects of the overall professional turf market as it exists today is the rapid growth of commercial sod farming. Surveys by this magazine show hundreds of companies are now actively engaged in the business, and more are entering the field every day, in answer to a dramatically increased demand from affluent homeowners, from institutional groundskeepers wanting "instant lawns," and from others who consume this "crop" at an enormous pace.

Be sure to watch for the first Sod Industry Section in *WTT* next month, and every month thereafter.



## Three powerful Hooker herbicides for noncrop land

These nonselective weed killers offer broad-spectrum weed control at a low cost.

Used along highways, fence rows, on railroad and industrial sites and other noncrop land, they control a large variety of deep-rooted perennial weeds under a wide range of climatic conditions.

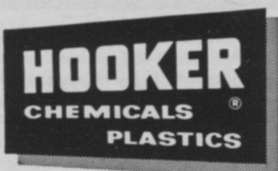
Our new MBC<sup>(TM)</sup> is fast, easy, highly effective. It gives quick knockdown of vegetation and residual control of broad-leaved and grassy weeds.

Tritac<sup>(TM)</sup> is a very economical herbicide. As little as four to eight gallons can treat an acre for a season

or more. Three formulations—liquid, liquid with 2,4-D, and granular—provide flexibility of treatment.

Hooker sodium chlorate, the original one-shot weed killer, has a forty-year reputation for efficient control.

Our agronomists will be glad to advise you on handling, storing and application of Hooker herbicides and to help with your weed-control problems. Please write Agricultural Chemicals, Hooker Chemical Corporation, 406 Buffalo Avenue, Niagara Falls, N. Y. 14302.



AGRICULTURAL CHEMICALS

## Fla. Applicators Take "Bull by Horns," Set Up National Spraymen's Association

"To be or not to be" . . . a national spraymen's association?

This earnest question is currently being posed by applicators from all corners of the nation. They need an answer. They want a nationwide organization.

Involved in this problem is not so much "if," but rather "how?", according to the stack of letters and inquiries that has passed through the *Weeds Trees and Turf* mailbox during the past several months.

A possible solution to the enigma has been offered by a Floridian who has his sights set on such a unification. Larry Nipp, president of American Power Spraying in Fort Lauderdale, recently announced to *WTT* that he took the first giant step:

"There has been a tremendous amount of interest shown in forming a national spraymen's association. I believe the best way to get the show on the road is for me to get some of these people together."

### Committee Formed

Nipp has done just that—and more. He has congregated some 20 contract applicators, who call their new organization the "National Spraymen's Association;" it is currently headquartered in Fort Lauderdale.

This committee has named Nipp acting president, and Craig Anderson, Fort Lauderdale, temporary secretary-treasurer, until the full membership can gather to elect officers.

Nipp told *WTT*: "I know this action may seem presumptuous on our part, but someone had to do something to get the ball rolling. Each Florida member of the board sent Anderson \$10 to help defray expenses incurred by the Association. If all interested controllers would do likewise, we would really be on the road to unity."

Association members have drafted bylaws, which they believe will be acceptable to all

members. "Of course, the bylaws will be submitted to the full membership for its approval at our national meeting," Nipp explained.

Such a convention is proposed to be held in Cleveland later this year, but no definite plans are in the offing.

Nipp also pointed out that money contributed will help pay for distribution of a monthly newsletter to all charter members; its purpose is to keep applicators abreast of all developments, proposals, etc., in the field.

Ten NSA directors are also members of the Horticultural Spraymen's Assn. of Florida, Inc.: Jack Cuthrell, Jack Cuthrell Co., Fort Lauderdale; Thomas Hamall, Bow Arrow Gardens, Miami; Charlie P. Johnson, Charlie P. Johnson Spray Co., Inc., Miami; Pierre B. and Winnie Nobs, Northwest Power Spray Service, Inc., Miami; Ted Kaplan, King Spray Service, Miami; Marvin Meyer and Raymond Meyers, American Power Spraying of Orlando; Paul Meyers, Florida sprayman; and Lee Horning, Fort Lauderdale applicator.

Rest of the proposed board is: Charles D. Webb, editor, *Weeds Trees and Turf* magazine, Cleve-

land; William Owen, president, Pesticide Sprayers Assn., Clackamas, Ore.; James Omura, representative, Colorado Applicators Industry, Denver; Robert Cockburn, president, Northwest Chemical Applicators Assn., Everett, Wash.; and industryman Carl Ripper.

Nipp requested that all applications, subscriptions, or any questions about the new organization be mailed to Craig Anderson, Secretary-Treasurer, National Spraymen's Assn., Box A-777, Fort Lauderdale, Fla.

He summed up his feelings like this: "It's my thought that we could charter the NSA in a spot more centrally located than Florida, perhaps somewhere in the Midwest. But no matter where we locate, our main intent is to work with others to establish an organization that will work for the best interests of every sprayman in every state."

### WTT Shown in Germany

*Weeds Trees and Turf* magazine is being put on display at the Frankfurt (Germany) Trade Center Plant and Equipment Maintenance Show, set June 9-16 in Frankfurt. Copies are available for visitors.

A booth sponsored by the U.S. Department of Commerce is displaying *Weeds Trees and Turf*, along with other leading U. S. trade magazines.



Over 250 attended the recently completed 31st annual Iowa Turfgrass Conference, in Ames, Iowa. Pictured are 1965 officers for the Iowa Golf Course Superintendents Assn. From left are: Harold McCullough, superintendent, Oakcreek Park golf course, Des Moines, member of board of directors; Richard A. Burns Jr., parks commissioner and superintendent, Washington Park golf course, Cedar Falls, president; Don Westfall, superintendent, Highland Park golf course, Iowa Falls, vice president; Fred Carey, superintendent, Finkbine golf course, Iowa City, secretary-treasurer; and Harold Kerr, superintendent, Valley Oaks golf course, Clinton, board of directors. This organization presented its 1965 distinguished service award to Herbert Klontz, retired superintendent of Cedar Rapids Country Club in Cedar Rapids. A group spokesman said monthly meetings are planned through November.

## How to Use the New Turf Coloring Compounds

(from page 18)

ily come off. Coveralls, which are expendable or disposable, and rubber boots to protect the sprayman, are advised.

Grass should be dry when color spray is applied; while the turf may be moist, there should be no dew or water droplets on grass blades, since these will prevent color from sticking. Spraying can be performed any time the temperature is above 40°F. In the lower temperature ranges above 40°, drying is slower. Normal drying time averages 15 minutes to ½ hour. Some companies suggest that travel on treated grass be avoided for an extra hour after grasses "feel" dry. Formulations should not be frozen. Gradual thawing without agitation will restore frozen colorants.

### How To Spray

Suppliers recommend ordinary hand sprayers for small jobs, and power rigs with booms and hand guns for large jobs. One company produces a special applicator for use with its grass colorant.

Even though power sprayers can be used on large jobs, smaller sprayers might help apply spray to delicate areas along walks and near structures.

For large areas, fine mist spray nozzles are recommended to get uniformity of coverage. In close areas, where misting and drift must be avoided, coarser nozzles or reduced pressure can be used to prevent spray on driveways, etc.

Working pressures for both hand and power sprayers should be from 30 to 60 lbs. psi. One manufacturer suggests that nozzles be mounted on a boom 10 in. apart in opposite directions at 10 to 15 degrees off perpendicular to give desired coverage. The boom should be high enough to be sure all grass blades are sprayed from both sides.

For boom rigs, it is advised that booms be rear-mounted so that wheel marks won't show. Some hand-controlled, small power outfits can be pulled instead of pushed. Spraymen with



**Northeast Weed Control Conference's** executive committee gathers to begin making plans for its 1966 conclave, planned Jan. 5-7 at the Hotel Astor in New York City. Dr. Gideon D. Hill, (seated center) supervisor of herbicide research for E. I. du Pont de Nemours, Inc., Wilmington, Del., is 1965 president of the Conference. Other committee members are: (standing from left) Dr. R. A. Peters, University of Connecticut, Storrs; John E. Gallagher, Amchem Products, Inc., Ambler, Pa.; Eric W. Ashton, Hooker Chemical Co., Niagara Falls, N.Y.; Dr. John Ahrens, University of Connecticut. Seated from left are: Dr. Homer M. LeBaron, Geigy Chemical Corp., Ardsley, N.Y.; Dr. Richard D. Ilnicki, vice president, Rutgers University, Rutgers, N.J.; Dr. Hill; Dr. John A. Meade, secretary-treasurer, University of Maryland, College Park; and Dr. Arthur Bing, secretary-elect, Cornell University, Farmingdale, N.Y.

hand guns should work backward, so they do not track through portions which have just been painted.

Mixing instructions vary with the product. In general, however, most recommend basically 1 gal. of finished spray mix to treat each 250 to 500 sq. ft. Sometimes this recommendation is hidden within the directions. One product label may instruct the user to make up a batch of 16 gal. and, on a hasty reading, the user may get the impression that 16 gal. will treat 16,000 sq. ft. Careful examination of the label tells the reader that 16 gal. will treat 16,000 sq. ft. once, but here again, the "desired green intensity" may not be obtained unless "2 or 3" or even "3 or 4" passes with the spray machine are made. This cuts mileage down considerably. Applicators should consider the greatest amount of greenness per dollar spent. Costs per gallon of spray concentrates range from \$5 to over \$15 per gallon. Prospective users should read label directions and brochures carefully to be certain they know what they are getting.

Directions for most spray concentrates suggest that users partly fill sprayers before adding concentrates, so that the paint emulsion will not adhere to tank sides. Backflow or recycling mixing is not advised because of excessive foaming, but mechanical agitation is recommended.

Since paint residues may tend to harden in the spray rig after application, producers tell users to rinse equipment quickly after use with either plain water, or in some cases, water with some detergent added. Nozzles should receive special cleaning attention.

For very small jobs, a hose-proportioner device may be used to draw and mix concentrate and water; however, these devices normally do not have the desired fineness of nozzle opening and even coverage will require more spray. Thus there may be some waste with spray penetrating into the soil.

### What To Watch Out For

In some latitudes, midwinter warm spells may cause grass to begin growth. If the turf has been painted, and growth begins, then stops and enters dormancy again, the spray job will be ruined. Dormant turf will show its "yellow roots."

Some formulations can be combined with small amounts of phenoxy herbicides, such as 2, 4-D. This may be important to applicators in the South and West where dormant lawns weaken and permit broadleaf winter weeds to invade; 2,4-D in a paint mix will destroy most broadleaf weeds. Do not, however, try to mix fertilizers with paint emulsions, manufacturers warn.

Several colorant producers rec-

commend their products for use on new or model home lawns to "increase the sales potential." Coloring of lawns in a development will certainly make homes appear more attractive; and the idea seems fine if the grass which is sprayed is quality turf to begin with. However, applicators should avoid collaboration with unscrupulous developers who may want to spray a "lawn" of pasture sod and pass it off as quality grass.

Artificial turf-colorant sprays may be considered as an added service for turf maintenance contractors, but as pointed out earlier, color sprays are not a substitute for good maintenance practices.

#### List of Suppliers

Following is a list of products, manufacturers and their addresses, for those who wish to inquire further about turf color sprays:

Auragreen\*; Mallinckrodt Chemical Works, 2nd & Mallinckrodt Sts., St. Louis, Mo. 63160.

C-9\*; Cornell Chemical & Equipment Co., 1115 N. Rolling Rd., Baltimore, Md. 21228

Envy\*; S. C. Johnson & Son, Inc., Racine, Wis.

Greenstuff\*; Krieger Color & Chemical Co., 6531 Santa Monica Blvd., Hollywood 38, Calif.

Greenzit\*; W. A. Cleary Corp., New Brunswick, N. J.

Lawn Tint\*; Luminall Paints, Inc., 3850 Westside Avenue, North Bergen, New Jersey.

Nu-Type\* Green Lawn Spray; The Gregg Co., Box 149, Riverton, N. J.

Stayz-Green\*; O. E. Linck Co., Inc., Jct. Routes 3 & 6, Clifton, N. J. 07015

Winterlawn\*; Graniteville Co., Graniteville, S. C.

\*Trademark names.

Products made by Graniteville Co., Luminall Paint Div., The Gregg Co., and O. E. Linck Co., have the same patent number: 2,870,037.



New Bolens Husky 1000 has extrawide tires to protect turf, 6 forward and 2 reverse speeds.

### Two Unusual New Mowers Unveiled by Bolens Div.

Two new "workhorses" designed for professional turf maintenance have been announced by Bolens Div., FMC.

The new Husky 1000, said to be designed for all-day duty on the largest lawns, park areas, and country-sized gardens, is powered by a 10-hp Wisconsin short-stroke, 4-cycle, industrial-type engine. It has a power range lever with six speeds forward and two reverse, and a Bolens exclusive controlled differential for elimination of wheel spinning on heavy jobs.

The compact Estate Keeper is described by the manufacturer as a radical departure from compact tractor design. It can circle trees and shrubs, cut square corners, and edge up to walks.

For complete details, write Bolens Div., FMC Corp., Dept. 78, 215 South Park St., Port Washington, Wis.

An ideal way for lawn spray firms to offer contract mowing at moderate investment is found in Bolens' Estate Keeper, company says.



## Meeting Dates

New York State Nurserymen's Assn. Summer Meeting, Cornell University, Ithaca, June 7-8.

Mississippi State Turfgrass Conference, Mississippi State University, State College, June 14-15.

Missouri Assn. of Nurserymen Conference, Holiday Inn, Columbia, June 20-22.

International Shade Tree Conference Western Chapter, Miramar Hotel, Santa Barbara, Calif., June 20-23.

Hyacinth Control Society, 5th Annual Meeting, Seabreeze Holiday Inn, Palm Beach, Fla., June 28-30.

Indiana Assn. of Nurserymen Summer Meeting, Richmond, Aug. 3-4.

Massachusetts Nurserymen's Assn. Summer Meeting, Mahoney's Rocky Ledge Nursery, Winchester, Aug. 4.

Louisiana Nurserymen's Assn. Meeting, Municipal Auditorium, Lafayette, Aug. 5-7.

Southern Nurserymen's Assn. Meeting, Golden Triangle Motor Hotel, Norfolk, Va., Aug. 8-10.

Midwestern Nurserymen, Summer Seminar, J. V. Bailey Nurseries, St. Paul, Minn., Aug. 9-11.

Michigan Assn. of Nurserymen Annual Conference, Kellogg Center, East Lansing, Aug. 11-12.

Rutgers University Lawn & Utility Turf Field Day, New Brunswick, N.J., Aug. 11.

Rutgers University Golf & Fine Turf Field Day, New Brunswick, N.J., Aug. 12.

Texas Association of Nurserymen, Shamrock Hilton Hotel, Houston, Aug. 15-18.

International Shade Tree Conference Annual Convention, Washington-Hilton Hotel, Washington, D.C., Aug. 15-20.

Midwest Regional Turf Field Days, Purdue University, Lafayette, Ind., Aug. 16-17.

Pennsylvania Grassland Council "Forage Progress Days," Milton Hershey Farms, Hershey, Aug. 27-28.

Arkansas Nurserymen's Assn. Annual Meeting, Arlington Hotel, Hot Springs, Aug. 29-31.

Illinois Turfgrass Field Day, University of Illinois, Urbana, Sept. 10, 13.

Penn State Turfgrass Field Day, on campus, University Park, Pa., Sept. 15-16.

Tennessee Nurserymen's Assn. Convention, Holiday Inn, Nashville, Sept. 19-20.



## Suppliers Personnel Changes

Amchem Products, Inc., Ambler, Pa., has named J. Lee Van Deren agricultural chemical sales representative in southern California, Arizona, and New Mexico. Van Deren was previously manager of the Marana-Tucson plant of Best Fertilizer of Arizona.

John Bean Div., FMC Corp., releases a joint statement issued by Tracy Carrigan, general manager, and Coleman Buford, general sales manager, announcing Buford's plans to retire July 1, 1965, after 29 years service with the company. Assistant agricultural sales manager John C. Fegtly has been named agricultural sales manager to succeed Buford. He joined the organization last year.

Heyden Newport Chemical Corp. has acquired the services of Dr. Richard J. Marrese and Robert Lindemann, both of whom were formerly associated with Diamond Alkali Co., Cleveland, O. Marrese will assume the

new position of coordinator of agricultural chemicals development. Lindemann has been assigned to Heyden's synthetic program as a chemist investigating new materials and testing new compounds relating to agricultural herbicides. In another field move Ron Cheves has been named Southwest regional sales manager for agricultural chemicals. Cheves makes his headquarters in Houston, Texas, and will service accounts in Texas, Oklahoma and New Mexico. He was formerly with Rohm & Haas.

Smith-Douglass Co., Inc., recently promoted Robert C. Richardson to district sales manager, nonfarm sales, in the Midwest. Richardson formerly supervised Smith-Douglass activities in Michigan. In another move Albert L. Fary, nonfarm sales manager, announced that Stark Royall is now district sales manager in the Southwest. In his new assignment, Royall will supervise and develop Nutro sales in Oklahoma, Kansas, and Texas.

U. S. Borax Technical Department vice president Dr. D. S.

Taylor, announces appointment of Grover G. Collins to the position of executive assistant to the vice president, Technical Department. George W. Griggs advances to manager of new product development, the post vacated by Taylor.

## USDA Registers Thiodan

Damage to ornamentals by rose chafer beetles can now be halted with the use of Thiodan (endosulfan) insecticide, Niagara Chemical Div., FMC Corp., recently announced. Thiodan has received U.S. Department of Agriculture registration for use in controlling this pest on bushes, shrubs, and flowers.

The new chafer control should be applied to ornamentals at a half pound actual Thiodan per 100 gallons of water. Application should be made when insects first appear and then be repeated as often as required. Thiodan was previously registered for control of aphids, whitefly and cyclamen mite.

# IMPORTANT ANNOUNCEMENT TO CONTRACT APPLICATORS

The Agricultural Division of SIGNAL CHEMICAL has developed CALSONATE-W, an unusual new industrial weed killer for long-lasting, economical, non-selective weed control.

## NEW DEVELOPMENT

CALSONATE-W, recently developed by SIGNAL is an unusual non-selective herbicide that is different from existing weed control chemicals. SIGNAL is applying for a patent that covers the unique features of CALSONATE-W.

CALSONATE-W is more effective than existing weed killers because every element chemically combines to act on weeds. The inerts in CALSONATE-W either have weed killing qualities or act as penetrating and sticking agents.

## MIX YOUR OWN CONCENTRATE

CALSONATE-W can be purchased in dustless pelleted form and either applied dry in "no-drift" areas, or easily dissolved in water before application. By working with the raw material and making your own liquid, storage problems are eliminated, and cost is as low as 32c per gallon.

CALSONATE-W dissolves quickly and stays in solution even in the hardest water. Easy to apply, non-clogging, goes on quickly with any type of spraying equipment. Gives you more weed kill, more coverage, at less cost than competing products.

## YOU CAN BE A DISTRIBUTOR-CONTRACTOR

Mail us the coupon below and get a **FREE 5 LB. SAMPLE** of CALSONATE-W and full details on how you, as a Contract Applicator, can be a *full-discount distributor* of CALSONATE-W.

**AGRICULTURAL DIVISION  
SIGNAL CHEMICAL MFG. CO. INC.  
BEDFORD, OHIO 44014**

Please send full details on CALSONATE-W and your Distributor Program.

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**Turf experts**, Robert T. Jones (left), one of the nation's foremost golf course architects, and his coworker, Dr. O. J. Noer, agronomist with Robert Trent Jones, Inc., Milwaukee, Wis., admire new "Tifdwarf" grass, recently released by experiment station in Tifton, Ga.

## **Hyacinth Controllers Plan Field Trip, Actual Herbicide Application June 28-30**

Hyacinth Control Society delegates will get a firsthand look at aquatic weedkillers actually being applied during that organization's 5th annual get-together, June 28-30, at Seabreeze Holiday Inn in Palm Beach, Fla.

Afternoon of the first day is set aside for this demonstration at West Palm Beach field station, Central and Southern Florida Flood Control District.

Featured speakers and their topics Tuesday, June 29, will be: O. C. White, field technical specialist, California Chemical Co., San Francisco, "Status Report on Diquat and Paraquat As Aquatic Herbicides"; Roy R. Younger, aquatic biologist, "Pennsalt's Aquatic Weed Program"; and A. Tabita, Corps of Engineers in Jacksonville, "Control of Obnoxious Aquatic Plants in the Southeast."

How private companies can effectively and profitably use aquatic weedkillers will be explained by Charlie Johnson, president, Charlie P. Johnson Spray Co., Inc., in Miami. Johnson is a longtime commercial applicator.

A panel discussion on perennial aquatic control headaches,

incorporating questions and answers from the convention floor, will climax Conference activity, Wednesday morning, June 30.

Those desiring further details of the Hyacinth Control Society Conference can write James D. Gorman, Mosquito Control Director, County of Hillsborough, P.O. Box 1731, Tampa, Fla. 33601.

### **LBJ May Attend ISTC**

President Johnson has been invited to the International Shade Tree Conference's 41st annual convention, planned Aug. 15-19 at the new Washington-Hilton Hotel in Washington, D.C.

Edward A. Connell, public relations chairman for the Conference, said the chief executive might be on hand for the meeting's highlight . . . planting and dedication of a scarlet oak tree.

A unique corollary feature, now being arranged, is the simultaneous planting of trees on each of the 50 states' capitol grounds. For details, write Edward A. Connell, chairman, Public Relations Committee, International Shade Tree Conference, c/o City of Stamford, Conn.

### **Golf Cart Damage to Turf Discussed at S.E. Conf.**

A discussion of the ways golf carts damage turf highlighted activities at the 19th annual Southeastern Turfgrass Conference, concluded recently in Tifton, Ga.

"Number of motorized carts in the nation has grown from 1,000 in 1952 to 100,000 in 1962," Tom Mascaro, president of West Point Products Corp., West Point, Pa., pointed out to some 135 delegates. He called for more efficiency in golf course management. A complete job, such as good fertilization, irrigation, and aeration of soil, will help offset compaction and other harmful effects of cart traffic.

Another important talk came from Dr. Glenn W. Burton, geneticist at Coastal Plain Experiment Station in Tifton. He described a new grass, "Tifdwarf," which he said has just been released to certified seed growers by the station. The new grass is thought to be a Bermuda mutation.

Other subjects discussed during the three-day gathering were irrigation equipment and its use, water movement in soil, mechanics of fertilization, soil problems, and overseeding Bermuda grass with cool-season grasses.

### **Va. Turfgrass Council Reelects Watson**

A. L. Watson of Richmond was reelected president of the Virginia Turfgrass Council as more than 150 attended the 5th annual Virginia Turfgrass Conference in Richmond.

Also named to serve another term were John F. Cook, also of Richmond, vice president; and R. D. Cake, Norfolk, secretary-treasurer.

Watson, supt. of Greenwood Memorial Gardens, and also president of the Central Virginia Turfgrass Assn., presented Cake with a five-year service award during the Conference banquet.

Featured banquet speaker was Dr. E. W. Aiton, director of the Agricultural Extension Service at the University of Maryland, College Park, Md.