

## Aerify, Dethatch, Wet, Turf Areas for Dry Spot Control

Dry spots on old turf are thought to be caused by excessive thatch. Other reasons, less understood, may explain why turf will not accept water in certain spots. To test conditions of dry spot development and cultural control methods, farm advisors set up experiments on a green at the Arrowhead Country Club in San Bernadino, Calif. Results of these 1963 tests are described by F. W. Dorman, C. L. Helmstreet, and T. M. Little in the August 1964 issue of *California Agriculture*.

Testers selected a 34-year-old Seaside bentgrass green for their methods experiments. "The old green had developed severe compaction in the center and traffic areas. Four to 6 inches of the surface soil was stratified by regular top dressing with sand and accumulated thatch. Disease control was often a problem," the report discloses.

Test methods included vertical mowing to remove thatch, aerification with 1/4-inch spoons to permit water and air entry to subsod areas, and watering with a commercial wetting agent to make the water "wetter."

The green was treated in strips, some running north-south, others running east-west. Treatments were alternated, every other strip, so that the resulting squares (grid) would each have different combinations of treatment and the differences between squares could be evaluated.

Overall irrigation was adjusted so that the turf would be water-stressed and dry spots would tend to develop. As dry spots appeared they were plotted on a grid map illustrating each of the 100 squares. Hand watering of dry spots became necessary to avoid green injury.

Five vertical mowings were conducted at monthly intervals throughout the summer. Five aerifications at monthly intervals were also performed. The aerifier holes were not back-filled.

The wetting agent was applied



**Whirling cleaver action** of the heavy-duty 410 Rotary Cutter completely splinters thick brush, trees, and growth that can be bowled over by the tractor equipped with front bumper bar, McCormick International reports. Cleavers are pivot mounted and free swinging.

## Int'l. Harvester Introduces Three New Rotary Cutters

Said to be used for the first time in rotary cutters, heavy cleavers of special design, made of extra-tough alloy steel, are principal features in two of three new rotary cutters recently introduced by International Harvester Co.

The McCormick International rotary cutters are available in three-point, trailing, and fast-hitch models. Models 310 and 410 are equipped with whirling cleavers for cutting and shredding any growth from wiry grasses and stalks to heavy brush.

The third model, the 210, is an economy-priced, hitch-mounted

at 4 gallons per acre in 120 gallons of water and watered in with a very high amount of irrigation water; this was carried out only once in late summer.

Weekly treatment of a commercial fungicide could not prevent loss of some grass to *Helminthosporium* because of the water stress.

At the conclusion of the experiment, the test plots were marked off with string and each plot was labelled with a coded tag. Twenty judges, consisting of players, agronomists, and superintendents, were asked to score the appearance of each plot from 1 to 10.

Dry spots were eliminated with monthly aerifying. Scores

on aerified plots were higher than on nonaerified plots.

cutter. All machines are ruggedly built with heavy-duty housings and precision-made, enclosed, bevel-gear drives for long service, the company says.

A slotted top-link hitch point in the three-point hitch protects the units against damage. Cutters are free to float upwards to absorb shocks which would be damaging if hitched solid. Units can be locked solid during travel.

Housings are heavily constructed, to resist pounding. The rotary cutters can be furnished with either a spring-loaded, dry-disc slip-clutch, or shear bolt for protection.

Details are available from the company at 180 North Michigan Ave., Chicago 1, Ill.

on aerified plots were higher than on nonaerified plots.

Vertical mowing did not reduce the number of dry spots until late in the experiment. There was a minimum of thatch when the experiment began, and only late in the test when thatch in other plots began to develop were vertical mowing results observed. Vertically mowed plot scores were lower than those not vertically mowed because the treatment in the summer heat physically damaged the Seaside bentgrass.

Although the wetting agent treatments did prevent dry spot, overall in this one test the wetting agents were detrimental to turf appearance.

## Texan Builds Own Rig

(from page 15)

motor consumes about eight or nine gallons of gas daily.

A filtering unit on the end of the tank between the valves and the feeder lines must be cleaned out regularly. Sleeves and washers on the pump have been replaced twice in ten years. Once when an employee failed to drain the lines in the winter time, Jones had to replace the head on the pump because it froze.

### Tank Easy to Keep Up

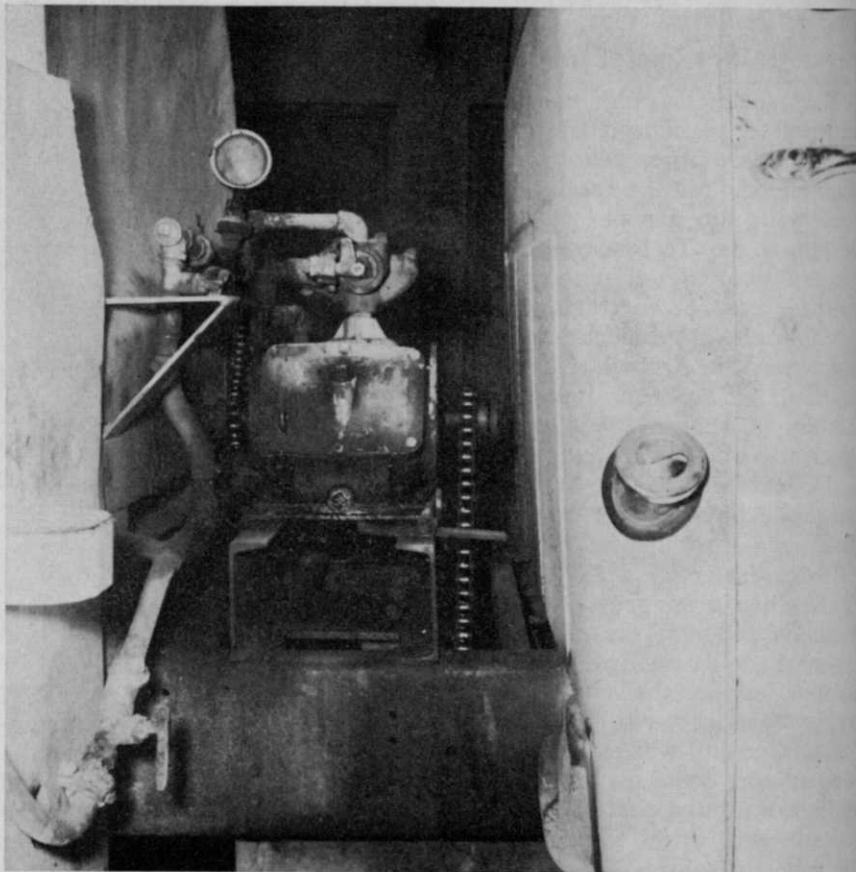
There's no maintenance on the tank interior, either. Jones has used the truck for oil sprays, dormant sprays, insecticides, and fertilizers, though he does not use it for weedkillers for fear of mixing them with other sprays. He never has to clean out the compartments or paint them.

"The tank requires no coatings. I've been using this one ten years—and it was a used tank to begin with. I've never had any trouble with it—though I did buy a new truck three years ago," said Jones.

An agitator operates off the power take-off in the number-one tank. This is used for powder insecticides. The other four tanks have no agitators. As they are used for liquids which stay in suspension, agitators are not required. Spray personnel simply mix these liquids by inserting the spray gun into the compartment. This may be done several times while the work is in progress if necessary.

Jones has found that when a compartment is almost empty, he must let the last 10 gallons run out on the street rather than use them. That is because materials from other compartments may be sucked into the hose as the tank becomes empty.

M. Doster is manager of the lawn service for Southwest Landscape. The truck provides him with a piece of equipment that can be used as an all-purpose tree and lawn service. Spray employees are trained to



Pump is located in open space between truck cab and the tank.

do tree surgery as well as spray and fertilize. Thus when a customer calls Southwest Landscape, he knows he can get the full range of lawn service done quickly and efficiently.

By using the powerful pump, Doster can provide customers with a unique service—subsurface irrigation and fertilization of trees. This is done by forcing liquid fertilizer at 400 pounds of pressure through a special fitting which may be attached to the hose. The fitting is a 1½-inch pipe with split ends which may be plunged for about a yard's depth into the ground.

Special Dallas lawn problems have been case borers in pecans, web worms, girdle beetles, cut worms, chinch bugs, and lawn fungus. Doster can and does take care of them all with one trip.

### Complete Lawn Job in One Trip

Using the spray truck he can spray an entire 100 by 200-foot lot with fertilizer in 15 minutes. He turns a valve and can spray all shrubbery, including the tall-

est trees, in another 20 to 25 minutes. Thus his crew can complete the whole job—surgery, spraying, and fertilizing—in one trip.

Sometimes Southwest Landscape has completed a job so fast that the customer doesn't believe everything has been sprayed. At times Jones has had to add a pound of lime to the spray solution to leave proof on shrubbery that he has completed the job.

In training employees to use the truck, Jones says it is important to make them "valve-conscious." Valves and compartments are both numbered so that employees won't make mistakes. Originally, Jones put a different coloring in each compartment so that employees could immediately tell the difference. Employees must be cautioned to let the last ten gallons of a mixture drain out to avoid mixing with another spray. Sometimes an employee may leave a valve half on and cause a spray burn.

Jones has used a water meter to indicate the amount of spray

consumed, but this has not been too successful except in liquid mixtures. Use of the meter with powder mixtures required frequent and time-consuming cleaning of the meter. Jones used the meter only for a year until employees learned to estimate the amount of liquid they had used.

Red lettering on the white truck advertises the full range of lawn and tree care provided by Southwest Landscape.

"The size of the truck and the signs on it attract attention of other customers in a neighborhood—and this attention has paid for our investment through added contracts," Jones says. "This truck looks like we're properly equipped to do the whole job—and using it, we are."

### Stockbridge to Help Fill Need For Greens Superintendents

Increase in construction of new golf courses and retirement of competent superintendents has created a shortage of golf course superintendents.

To meet this need the University of Massachusetts has created the Stockbridge School of Agriculture. Incorporated into the University's College of Agriculture, Stockbridge offers a highly specialized faculty, a well-rounded curriculum, on-the-job training, and practical extra-curricular activities, all contributing to the training of qualified golf course superintendents.

According to Joseph Troll, turf instructor in the plant and soil sciences department of the University, the faculty teaches at three levels—graduate, undergraduate, and Stockbridge. This permits a larger, more specialized faculty than would be the case if Stockbridge were not located on the university campus.

"Stockbridge is considered a technical school and not a vocational school," Troll says. He also notes that "because of the school's high standards and the curricula offered, credits granted may be used toward a four-year program at many universities."

### Water-Powered Valve Used in John Bean Sprinkling System

The new Sequa-Matic valve, powered by the force of water in a John Bean sprinkling system, eliminates the need for solenoid valves to control water distribution in circuit-by-circuit systems, John Bean Div., FMC Corp. says.

One electrically-operated solenoid valve and the required number of Sequa-Matic valves, make possible a simple, low-cost and completely automatic lawn and garden sprinkling system. The new valve is designed to operate with varying water pressures, Bean reports.

The Sequa-Matic installation consists of one solenoid valve, a timer, and the required number of Sequa-Matic valves. One Sequa-Matic valve serves two circuits, two serve three circuits, etc.

The timer may be set for the day or days of the week sprinkling will occur, and the length of time each separate circuit will operate. Sprinkling time for each area may be regulated according to need. The timer feeds this information to the single solenoid valve, which is opened and closed by the timer.

The solenoid valve releases the flow of water to the sprinkling system with the first Sequa-Matic valve directing water to the first circuit. After the first circuit has sprinkled the pre-selected length of time, the solenoid valve, signaled by the timer, interrupts the flow of water for a few seconds. The



Using the Sequa-Matic valve in a circuit-by-circuit sprinkling system requires the use of only one solenoid valve for the entire system, John Bean says.

first Sequa-Matic valve, reacting to the lack of water pressure, closes its sprinkling circuit, automatically opening the line to the second circuit. This process is continued until all circuits have performed.

The Sequa-Matic valve will work with all types of sprinkler heads, is adaptable to most sprinkling systems, and can be installed with either metal or plastic pipe, the company says. Complete details will be sent to those who write John Bean Div., FMC Corp., Lansing 9, Mich., or San Jose, Calif.

### Oregon Weedmen Meet Nov. 5-6

Plans are nearly complete for the annual Oregon Weed Conference, set for Nov. 5-6 at Salem's Merion Hotel. Topics on this year's agenda range all the way from aquatics to turf, from forest land weed control to cereal crop weed problems.

A record crowd is expected, according to publicity chairman Ronald L. Collins.

"Weed Control in Horticultural Crops" is on tap as a panel discussion, with Clackamas County Agent Bob Smith as moderator.

A panel on "Industrial Applications of Weed Control" will be chaired by contract applicator Earl Parker. The group discussion of forest land weed control, with Columbia County Agent Don Wolrod, will follow.

Four individual lectures on current weed science topics are planned by a quartet of Oregon State University staffers. In the lineup are: Dr. Norm Goetze (Turfweeds); Dr. Bill Furtick (General Weed Control); Dr. Arnold Appleby (Weed Control in Cereal Crops); and Dr. Carl Bond (Weed Control in Fish Ponds).

How to control weeds in Oregon's important grass seed crops will be USDA expert Orvid Lee's topic. Program will be wound up by a panel on new products from industry, with Miller Products Company's Keith Sime holding the gavel. More information is available from Collins at 1387 N.E. Arrowwood Dr., Hillsboro, Oregon 97123.

**POISON IVY**  
(*Rhus radicans*)



Poison ivy is a woody perennial; therefore it should be classed as brush rather than an herbaceous weed. Called by such names as poison creeper and three-leaved ivy, it is found in open deciduous woods, along fences and roadsides, in thickets, orchards, and on wasteland. It will be found either as a short plant on open ground or as a climbing vinelike plant. When found as a vine, aerial rootlets can be seen clasping the vertical surface.

This species is widespread throughout the eastern United States and southeastern Canada. Other very similar species are found across the continent.

Stems are slender and weak even though they are woody. Leaves consist of 3 leaflets which are a smooth, shiny green; they are often found drooping from the petiole attachment (2). Leaflets are at the most 4 inches long and somewhat pointed. Groups of 3 leaflets occur alternately on the stem with other groups of 3.

Poison ivy flowers (4) are very small and are found in clusters which are borne in the axils of the leaves. Each small green flower has 5 petals. Clusters of flowers are from 1 to 3 inches long. A white hard berry (3) is produced from each flower. Stalks of these berries may persist from year to year. Seeds, one in each berry, are grey striped and small.

Roots, which are about the same size as the stems, trail beneath the ground (1). All parts of a poison ivy plant are harmful to sensitive individuals, because of oil within the plant.

Amitrole, Amitrol-T, 2,4,5-T and silvex applied to foliage will kill the plants by translocation of herbicide. Nonvolatile ammonium sulfate is a satisfactory brush killer when there are desirable plants growing nearby which are susceptible to phenoxy herbicides.

*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)

**Treatment of Elm Leaf Beetle  
Now Serves Two-Fold Purpose**

Treatment now for elm leaf beetles will help save elm trees and reduce the problem of beetles invading homes when cold weather arrives. This suggestion is made by Stanley Coppock, Entomologist, New Mexico State University Cooperative Extension Service.

Numerous reports of more-than-usual damage by the beetles this year have come from Albuquerque, Santa Fe, Espanola and Farmington, Coppock says. Control is best obtained in a communitywide spray program, Coppock advised, listing DDT, Sevin, toxaphene and lead arsenate as preferred insecticides.

Damage to trees is caused by the larva which is small, striped and has the appearance of a tiny alligator. Larvae feed on the underside of leaves, particularly of the elm tree. Heavy infestation causes defoliation. Continued defoliation by the insects year after year may kill the trees.

**Beacon Has New CO<sub>2</sub> System**

A new CO<sub>2</sub> pressurizing system specially designed for herbicide and insecticide dispensing equipment has been announced by Beacon Devices Div. of Conax Corp. The system eliminates the need for hand pumping.

These systems are provided in kits that consist of adjustable pressure regulator, connecting hose and fittings, cylinder bracket, safety valves for protection of both pressurizing system and dispensing tanks, and a refillable CO<sub>2</sub> cylinder available in 8-oz. to 5-lb. capacities.

The Beacon piston-type regulator assures optimum control to maximize spraying efficiency. Tanks are changeable with hand pressure.

Detailed information is available from the company by writing to John F. Bergmann, Director of Marketing, Beacon Devices Div. of Conax Corp., 2300 Walden Ave., Buffalo, N. Y. 14225.

# make a killing with **TRITAC**<sup>TM</sup>

*Profit from this powerful new herbicide for control of bindweed, Canada thistle, Russian knapweed, hoary cress, leafy spurge*

Bindweed on May 23, 1963, just before Tritac treatment . . .



looks like this on August 14, 1963. Rate: 15 lb. (7½ gal.)/A.



You can effectively custom-treat an acre for a season or more with as little as four to eight gallons of Tritac.

Used along highways, fence rows and other noncrop land, this economical new herbicide controls certain deep-rooted perennial weeds under a wide range of climatic conditions.

When you want quick foliage top kill or want to prevent seed

formation, use Tritac-D<sup>TM</sup>—the basic formula plus 2,4-D.

Both Tritac and Tritac-D are noncorrosive and low in toxicity to mammals.

Tritac, for the first time, is now available in a new granular form called Tritac-10G.

Liquid Tritac is available in cartons of six 1 gallon cans; also 5 gallon cans and 30 gallon drums;

granular Tritac is packed in 25 pound paper bags.

**Hooker sodium chlorate.** This original one-shot weed killer is available in steel drums of 50 and 100 lb. net.

**Technical help.** Our agronomists will be glad to work with you.

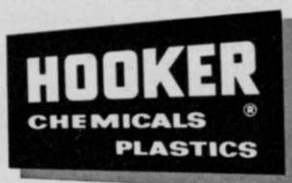
Write us, describing your problem. For technical data, please mail us the coupon.

FOR MORE INFORMATION, check here and mail with name, title and company address:

- Tritac                       Hooker sodium chlorate  
 Tritac-D  
 Tritac-10G

**HOOKER CHEMICAL CORPORATION**

610 Buffalo Avenue, Niagara Falls, New York 14302 **AGRICULTURAL CHEMICALS**



## Brochure Helps to Promote Roadside Spray Programs

A brochure designed to create a positive attitude on the part of those who are opposed to the use of chemicals in the control of roadside weeds was recently published by McMahan Bros., Inc.

Titled, "The Chemically Sprayed Road," the brochure contains numerous color pictures comparing roads that have or have not been subjected to a chemical weed control program. The reading material is brief, picture-associated, and easily understood by the average reader.

The brochure provides a ready answer for officials who receive complaints about the use of herbicides. It is also useful in the promotion and solicitation of roadside spraying contracts. It is said that in Connecticut the brochure was used to overcome sales resistance resulting in an increase of 1,000 miles in road spraying contracts.

Space for imprinting company, association name, or other information on the front and back covers of the brochure is provided. Interested individuals may obtain complete information by writing to McMahan Bros., Inc., Box 261, Tenafly, N. J.



New Homelite XL Brushcutter is lighter than ever, company says.

## New XL Brushcutter Bows

Homelite's new XL Brushcutter, described as a deluxe model which is easier to use, lighter, and more powerful, has just been introduced.

Harness on the new XL hangs over operator's back and shoulders for portable convenience. A new one-finger trigger allows the operator to control blade while still maintaining a grip on the handle.

Engine is the same as the one on Homelite's chainsaw. For details, write the company at Port Chester, N.Y.

## Suppliers' Personnel Changes

Amchem Products, Inc., announces appointment of Edward Suttor, Jr., to its lawn and garden products sales force. Suttor resides in Bremen, Ind., and will represent Amchem in Indiana and Michigan.

California Chemical Co. has named Stanley R. Eubanks sales manager for its new Ortho Div. branch office in Denver, Colo. Eubanks will be responsible for marketing of pesticide and fertilizer products in Wyoming, Utah, Colorado, Arizona, and parts of Montana, Idaho, Oregon, New Mexico and Nebraska. In another move, Robert L. Hoen goes from branch manager in Salt Lake City, to branch sales manager for the Southern California and Las Vegas regions of Ortho Div. He will be responsible for sales and sales personnel training.

Chipman Chemical Co. recently named William J. Nicholas as sales and service representative for the Arizona-Imperial Valley area. Nicholas will work out of Scottsdale, Ariz., under direction of Chipman's Palo Alto, Calif., district office. L. P. Van Gordon is district sales manager.

Dow Chemical Co. advises that it has named Dr. Mark G. Wiltse as head of herbicide development. He succeeds L. L. (Bud) Coulter, who is now manager of bioproducts business development. Dr. Wiltse's promotion from his assignment as project leader of industrial vegetation control was announced by Dr. Keith C. Barrons, manager, plant science research and development for Dow.

Heyden Div., Heyden Newport Chemical Corp., has appointed George Koch as manager, agricultural chemicals, according to W. C. Deakyne, Jr., vice president, marketing. Koch will be responsible for worldwide marketing and commercial development of Heyden's line of agricultural chemicals. Deakyne also informs that Woodson (Woody) Johnson is now sales representative for agricultural chemicals in the North and South Carolinas, Alabama, and Georgia area.

## Literature you'll want

Here are the latest government, university and industrial publications of interest to contract applicators. Some can be obtained free of charge, while others are nominally priced. When ordering, include title and catalog number, if any. Sources follow booklet titles.

**Planting Trees and Shrubs**, 4 pp. il., Agricultural Extension Service, University of Delaware, Newark, Del.

**Melting-Out of Bluegrass Lawns**, Bulletin BP-7-1, Agricultural Publications Office, Agricultural Experiment Station, Purdue University, Lafayette, Ind., 5¢.

**Quackgrass, Description and Controls**, Bulletin L-46, Agricultural Extension Service, University of Wyoming, Laramie, Wyo.

**Home Lawns**, Extension Bulletin 922, 32 pp. il., Agricultural Extension

Service, Cornell University, Ithaca, N. Y.

**Properties and Uses of Atrazine Herbicides**, Technical Bulletin No. 63-1, 16 pp. il., Geigy Agricultural Chemicals, P. O. Box 430, Yonkers, N. Y.

**Lawn Grasses for South Carolina**, 22 pp. il., Circular 495, Extension Service, Clemson University, Clemson, S. C.

**Lawn Insects, How To Control Them**, Supplement 1 to Circular 495, Extension Service, Clemson University, Clemson, S. C.

**Controlling Turf Grass Diseases**, Supplement 2 to Circular 495, Extension Service, Clemson University, Clemson, S. C.

**The Chinch Bug and Its Control**, Circular 223, Publications, Connecticut Agricultural Experiment Station, Box 1106, New Haven 4, Conn.

**The Pesticide Situation for 1963-64**, June 1964, 25 pp., Agricultural Stabilization and Conservation Service, U. S. Department of Agriculture, Washington, D. C. 20250.

## Native Trees Are Better Seed Source, Geneticist Reports

Reflecting upon studies resulting from a forestry improvement project which began in 1955, S. S. Pauley says that native trees tend to be better seed sources than nonnative trees.

This statement was recently made to a group of visitors at the North Central School and Experiment Station, Grand Rapids, Minn. Pauley is Professor of Forestry at the University of Minnesota.

Objective of the project, Pauley said, is to develop improved lines through selection and breeding of genetically superior wild ecotypes of native species and promising nonnative ecotypes and species.

Studies with white spruce, Scots pine, red oak, aspen, and jack pine have shown considerable genetic variability, depending upon the source of seed. Crosses of the natural hybrid between white and black spruce discovered near Cromwell, Minn., are difficult to make, but the hybrid shows promise.

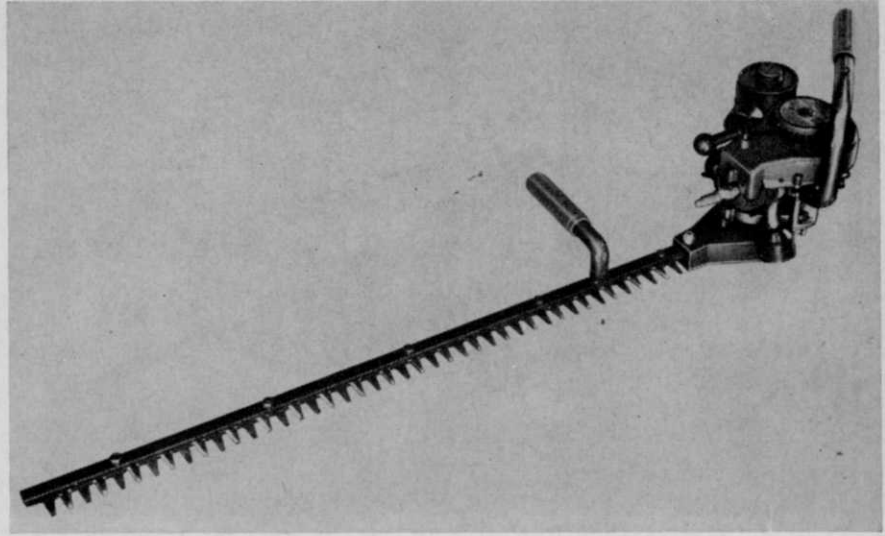
Studies of Scots pine seed sources show all seed sources to be hardy with the exception of Spanish sources. Central European seed sources show the most promise for Christmas tree plantings.

A larch species from Japan appears to be encouraging an introduction to Minnesota. However, the species shows considerable variability in hardiness, but those that are hardy may be acceptable for timber production and ornamental use.

## Poa annua Can Be Stopped

Application of the preemergence herbicide Betasan will prevent *Poa annua* from sprouting and spoiling golf greens, tees, and other turf areas, according to Betasan's producer, Stauffer Chemical Co. With this overwintering pest stopped, the desirable perennial grasses can spread and maintain a good cover throughout the fall playing season and into spring.

Betasan is also effective for



Said to weigh only 10 pounds, and run one hour on a pint of fuel, the Jupiter Trimmer-Clipper will prune trees, trim shrubs and hedge, and mow high grass and weeds. Powered with a 3/4-hp Ohlsson & Rice engine, the machine can be used in remote areas. Complete details are available from Marine Industrial Supply Co., Dept. WT, 645 W. Anaheim St., Long Beach, Calif.

control of crabgrass and goosegrass, Stauffer claims. Applications exceeding twice the recommended rate have been made to bentgrasses, fescues, bluegrass, and other turf grasses without injury.

Betasan is available in granular or liquid form; the liquid formulation is suggested for use on greens. Ten to fifteen minutes of watering immediately after application is essential to move the herbicide down to the soil where contact with weed seed is assured. For more information write the firm at 380 Madison Ave., New York, N. Y. 10017.

## Dual Fertilizer Labels Suggested by Iowa Agronomists

Agronomists at Iowa State University are encouraging dual labeling of the phosphorus and potassium content of fertilizers.

These two nutrients are commonly expressed in the oxide form as  $P_2O_5$  and  $K_2O$ . The agronomists suggest that they also be labeled in the elemental form as P and K.

Expressing the phosphorus (P) and potassium (K) content of fertilizers in the elemental form would place these two nutrients on the same basis as nitrogen (N) and other nutrients already expressed in elemental form, J. A. Stritzel writes in a

recent issue of *Iowa Farm Science* magazine.

If you buy fertilizer with an analysis of 6-24-24, you may think you are getting a fertilizer that contains 6% nitrogen, 24% phosphorus and 24% potassium. The elemental analysis, however, is 6-10-20—6% nitrogen, 10% phosphorus, 20% potassium.

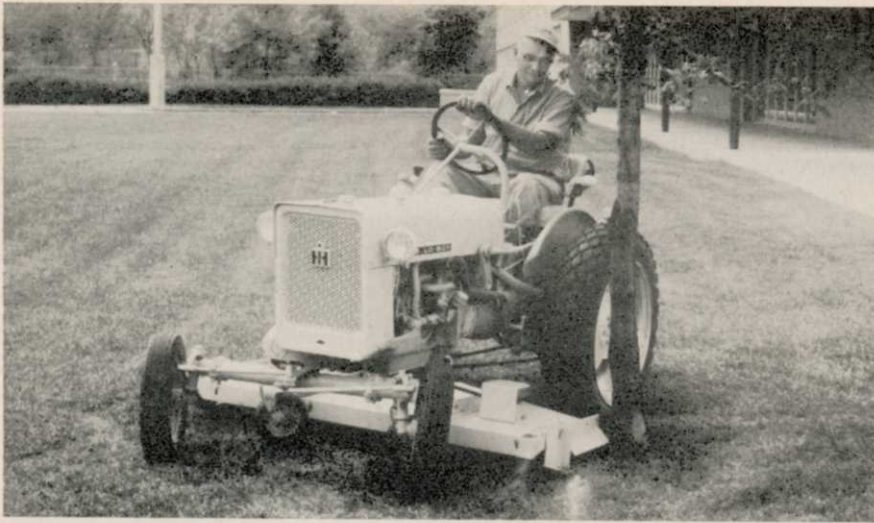
The difference between the elemental analysis and the oxide analysis is the weight of the oxygen. The oxygen weight is eliminated in the elemental analysis, which gives a more accurate proportion of each nutrient in relation to the other nutrients in the fertilizer.

More information is contained in "Better Names for Phosphate and Potash," Reprint FS-1050, available from Publications Distribution, Morrill Hall, Iowa State University, Ames, Iowa.

## Penn State Has Soil Course

"Soil Fertility and Management," is the subject of another correspondence course offered by the Pennsylvania State University. Lessons are prepared by soil experts and include "Garden Soil Management," and "Your Flower Garden."

To learn more about soil and its care, submit name and address to Soil Fertility, Box 5000, University Park, Pa. 16802. Enrollment fee is \$2.25.



New in design and capable of performing many turf management jobs is this Cub Lo-Boy tractor. The 42-inch rotary mower will cut everything from tall weeds and brush to close-clipped turf. The 60-inch rotary is designed specially for fine turf and will mow as much as two acres per hour, International Harvester says.

### I-H Lo-Boy Cub Features Many Tools for Grounds Maintenance

Over a dozen tractor-matched tools, all of them quickly interchangeable, make it possible for the I-H Lo-Boy Cub tractor to perform scores of jobs with economy of operation and low maintenance cost, International Harvester Co. says.

The Cub is a special-sized tractor with specific advantages on many jobs. Principal feature is its size and weight, giving this machine advantages over larger equipment in getting into tight quarters with limited working area, and enabling it to traverse grounds unable to support heavier machines.

In performance and flexibility of operation, I-H says the Cub is in every sense a full-fledged tractor with big tractor features. Built-in stamina results in low maintenance cost.

Equipped with power take-off and hydraulic system, the Lo-Boy performs numerous jobs with its fast-hitch, pick-up-and-go arrangement. Available attachments for the unit are grading blade, sweeper, disk, landscape tiller rake, rotary tiller, 450-pound front end loader, back-filling blade, a 110-volt generator to supply power for electric hand tools, hole auger, and two-wheel dump trailer.

A variety of attachments are available for mowing of grasses

and weeds: a 42- and 60-inch rotary mower, 3-gang mower cutting an 82-inch swath, 5-ft. cutter bar, 48" hammer knife mower, and Pitman-type mower.

Complete information is available in a new catalog available from International Harvester Co., 180 N. Michigan Ave., Chicago 1, Ill.

### Geigy Sets Weed Clinics

Industrial and civic weed control problems will be the subject for a series of clinics to be held during October in northern and southern California. The seminars are sponsored by Geigy Agricultural Chemicals.

In the southern California sessions, Dr. Wm. Isom of the Riverside Experiment Station will discuss weed identification, and others will discuss principles of herbicide application. Dates for these meetings are Oct. 6 at King's Inn, San Diego; Oct. 7 at Disneyland Hotel, Anaheim; Oct. 8 at the Dunes in Riverside; and Oct. 9 at Santa Barbara Inn in Santa Barbara. Programs begin at 9:30 a.m.

The northern study sessions are scheduled as follows: Oct. 26 at The Royal Palms Motor Hotel in Bakersfield; Oct. 27 at Del Webb's Town House in Fresno; Oct. 28 at the Hotel El Dorado in Sacramento; and Oct. 30 at the Thunderbird Hotel in Milbrae. Starting time is 10 a.m.

## Meeting Dates



Rutgers University Turfgrass Equipment and Products Field Day, New Brunswick, N. J., Oct. 10.

Central Plains Turf Grass Foundation Meeting, Umberger Hall, Kansas State University, Manhattan, Oct. 21-23.

Washington State Weed Conference, Chinook Motel and Tower, Yakima, Nov. 2-3.

National Fertilizer Solutions Assn. Meeting, Statler-Hilton Hotel, Dallas, Texas, Nov. 3-5.

Oklahoma Turfgrass Conference, Student Union, Oklahoma State University, Stillwater, Nov. 4-6.

Oklahoma Turfgrass Association Annual Meeting, Student Union, Oklahoma State University, Stillwater, Nov. 4.

Horticultural Spraymen's Assn. of Florida Annual Convention, Pier 66 Hotel, Ft. Lauderdale, Nov. 5-6.

National Weed Committee of Canada, Eastern Section Meeting, Quebec City, Nov. 5-6.

Washington State U. Workshop—Retest for 1965 License, auditorium, Puget Sound Power & Light Co., Bellevue, Nov. 17-19.

Northwest Chemical Applicators Assn. Annual Conference, Chinook Hotel, Yakima, Wash., Nov. 30-Dec. 1.

Washington State U. Workshop—Retest for 1965 License, Chinook Hotel, Yakima, Dec. 2-4.

National Weed Committee of Canada, Western Section Meeting, Royal Alexandria Hotel, Winnipeg, Dec. 1-3.

North Central Weed Conference, Inc., Meeting, Kellogg Center, East Lansing, Mich., Dec. 14-16.

Northeastern Weed Conference, Hotel Astor, New York City, Jan. 6-8.

17th Annual California Weed Conference, Hacienda Motel, Fresno, Jan. 19-21.

Southern Weed Conference, Annual Meeting, Hotel Adolphus, Dallas, Tex., Jan. 19-21.

Southeastern Turfgrass Conference, Tifton, Ga., April 12-14.



## Northwest Applicators Meet In Yakima, Nov. 30-Dec. 1

A broad, informative program has been cast for the annual conference of the Northwest Chemical Applicators Assn., Nov. 30 and Dec. 1, in the Chinook Hotel, Yakima, Wash. The conference is open to management personnel only.

Main subjects of discussion will be taxes and bookkeeping, aimed at small service businesses; finances for the applying business and a study of when and when not to expand; and a view of what is meant by public relations, why it is necessary, and some of the mechanics of how it works.

Applicators attending the luncheon will be addressed by Joe Dwyer, director, Washington State Department of Agriculture.

An equipment display at the Yakima airport will be climaxed with an aerial exhibition.

Included in the schedule are business meetings, election of

officers, addition of a board member, and changes in the constitution.

For details write John G. Wilson, Executive Secretary, Northwest Chemical Applicators Assn., 814 Second Ave., Seattle, Wash. 98104.

## California Weed Conference Meets in Fresno, Jan. 19-21

A program of broad interest to members of the vegetation control industry is being readied for the 17th California Weed Conference meeting Jan. 19-21.

According to Dr. David Bayer, Botany Dept., University of California, Davis, the program will cover various aspects of weed control as a science, losses attributed to weeds and the cost of their control, brush control, selective weed control in crops, range weed control, and equipment.

This year's annual meeting is set for the Hacienda Motel, Fresno, Calif. For details write Dr. Bayer.

## Washington State Workshops Slated for '65 License Retest

Two workshop programs arranged by Washington State U. Extension specialists, in cooperation with the Department of Agriculture, are scheduled to be held in Bellevue and Yakima, Washington, as an aid to retest applicators for 1965 licenses.

The Bellevue workshop is scheduled for Nov. 17-19 in the auditorium of the Puget Sound Power & Light Co. Registration begins at 8 a. m. with emphasis based on treatment of ornamentals.

In Yakima the workshop will be held in Chinook Hotel, Dec. 2-4 with aerial spray and crop work as the primary subject. Examinations for 1965 licenses will be given in the afternoon of the final day of each program.

Applicators planning to attend these workshops are advised to review fundamentals of their work, since the workshops will be devoted to information directed to requirements of the new examination.

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A tree planting ceremony (above) marked August's convention of the International Shade Tree Conference. The tree was presented by ISTC to a Houston historical society. National Arborist Assn. members also elected officers during the affair. Shown below, left to right, are: secretary, Kenneth P. Soergel; second vice president Harry A. Morrison; first vice president Edwin E. Irish; and president Winston E. Parker.



## ISTC Selects Washington for 1965 Meeting; Officers Named

Members of the International Shade Tree Conference were told during the annual convention in Houston Aug. 17-21 that the 1965 meeting will take place in Washington, D.C., August 16-20. Details of the program and the meeting site will be published in *Weeds and Turf* as the information becomes available.

As is customary, the National Arborist Association will meet jointly next year with ISTC members.

The meeting this year in Houston drew 450 delegates.

As part of the annual convention, both the International Shade Tree Conference and the National Arborist Association elect new officers. Chosen to head the ISTC in the coming 12 months is Joseph Dietrich, Park Superintendent for Greenwich, Conn. New vice president is O. J. Andersen of Trees of Houston (Texas). Dr. L. C. Chadwick remains as Secretary-Treasurer and Dr. Paul Tilford is continuing as Editor. In the National Arborist Association meeting, Winston E. Parker was elected president for the next year's period. He runs N. J. Certified Tree Expert Co. in Moorestown, N.J. First vice president is Edwin E. Irish of the Charles F. Irish Co. in Detroit, Mich. Second v-p is Harry A. Morrison, Arborist, Wilmette, Ill. Elected to the secretary's post was Kenneth P. Soergel who runs Soergel Tree Service in Gibsonia, Pa. Assisting the group in the treasurer's position will be John C. Phillips, Sohner Tree Service, San Anselmo, California.

Dr. Paul Tilford is Executive Secretary of the group, headquartered in Wooster, Ohio.

## Ala.-Fla. Turfgrass Meet

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must be used to prevent clogging and the system must be flushed after use to prevent corrosion.

The researcher concluded with a "plug" for soil testing. He said no attempt should be made to establish or maintain a turf without using soil test results for a guide.

The event got underway with Dr. Ben T. Lanham, Jr., Associate Director of the Agricultural Experiment Station, welcoming the group to Auburn University. Speakers at the opening session, and their topics, were: George W. Cobb, Greenville, S. C., architect, "Golf Course Design and Construction"; Bill Rocquemore, Lakeland, Ga., seed and turf dealer, "Soil Fumigation"; and Dr. Raymond L. Self, Ornamental Horticulture Field Station, Spring Hill, "Methods of Grass Planting." O. N. Andrews, Auburn

Extension Service, presided at the opening session.

"Grasses Around the World" was the topic of Dr. Glenn Burton, USDA grass authority from Tifton, Ga., at the annual banquet.

## IT-GC Set Feb. 7-12, Cleveland

The annual International Turf-Grass Conference and Show is scheduled to meet next Feb. 7-12 in the Hotel Sheraton-Cleveland, Cleveland, Ohio.

While of primary interest to golf course superintendents, the educational portions of the yearly affair are of note to all turf-grass professionals. Anyone may attend by paying the standard registration fee.

Sponsored by the Golf Course Superintendents Association of America, the show and conference draw about 1,000 delegates each year. For details, write CGSAA at P.O. Box 1385, Jacksonville Beach, Fla.