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Two water weed specialists are Hyacinth Control Society president T. W. Miller, Jr. (right), and secretary-treasurer Herbert J. Friedman (left). Both officials have predicted a highly successful inaugural meeting this month in Ft. Lauderdale, Fla.

## Hyacinth Control Society's First Annual Meeting Expected to Draw 150

Over 150 persons are expected to gather for the Hyacinth Control Society's inaugural annual convention in Fort Lauderdale, Fla., July 8-11.

Meeting at the Governor's Club Hotel, delegates to this initial seminar plan to outline basic aims of the newly established group, and roll up their sleeves for a hard working series of conferences.

Program for the kickoff conclave sets a keynote of variety and thoroughness which will be carried on each year, T. W. Miller, Jr., HCS president, told a *Weeds and Turf* reporter. Miller is director of Florida's Lee County Hyacinth Control District, and has been active in the society since its inception in July 1961.

Government research agencies, both state and federal, are joining with suppliers' technical representatives and university leaders in a program which should lay low some of the old phantoms of water weed control.

Delegates are apt to be particularly interested in the Tuesday afternoon excursion to the USDA's Aquatic Weed Research Laboratory in Ft. Lauderdale, Herbert J. Friedman, HCS secretary-treasurer, predicts. Friedman is president of Southern Mill Creek Products Co. in Tampa.

President Miller will preside over Monday's opening session which will highlight both general and specific issues.

Included in the first morning's

lectures is a discussion on control of Southern Naiad and other submerged weeds found in irrigation and drainage canals throughout South Florida. This talk is being presented jointly by Drs. R. D. Blackburn and L. W. Weldon of the Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture, Ft. Lauderdale.

Then John B. Hussey of Southern Mill Creek Products Co. will discuss control of submerged weeds with Aqualin.

Another chemical for aquatic weed control, Diquat, will be examined by A. C. White, Field Technical Specialist, Ortho Division, California Chemical Co., Orlando. He follows Drs. Samuel D. Faust and Osman M. Aly of Rutgers University who'll cover some effects of 2,4-D on drinking water quality.

On Tuesday, with HCS vice president A. S. Chipley presiding, speakers continue the analysis of specific chemicals being manufactured to ease the woes of weed controllers. John E. Gallagher, Amchem Products, Inc., Ambler, Penna., brings the conventioners latest information on Amitrol-T for controlling water hyacinths.

Dr. John A. Mulrennan, of the Florida State Board of Health, points up the relationship between mosquito breeding and aquatic plant production. Then Pennsalt's J. C. Frizzell, who's stationed in Montgomery, Ala., talks about use

of his company's Herbicide 47 for submerged weeds in canals and ditches.

Other talks on at least a dozen more topics round out this first yearly meeting, during which time is set aside for business sessions and a social program that includes a festive banquet Tuesday evening.

### Purpose of HCS

According to the articles of incorporation, the Hyacinth Control Society is devoted to improved techniques in control of water hyacinths and other noxious aquatic weeds. Achievement of these improved methods is expected to be reached through research projects encouraged by the society, through scholarships promoted by the group, and through better public understanding of the crucial dilemmas in aquatic weed control.

An office of editor has been created specifically to work up proceedings of each annual meeting, and to issue bulletins to the general and trade press, through which this better informed public may be created. William Dryden presently fills this important post.

President Miller said anyone with an interest in combatting noxious aquatic weeds is eligible to join the Society. Persons who want to join may write him at P.O. Box 1711, Fort Myers, Fla.

Board of Directors of the Society is made up of the 4 officers already mentioned, along with Directors Thomas O. Fultz of Bartow, Fla.; Edwin L. Seabrook, West Palm Beach; and Donald E. Seaman, Ft. Lauderdale.

### July 11, 12 USDA Weed Day

Field evaluation of new herbicides, turf weed research, and sessions on growth regulation and general weed control, will be featured at the U. S. Department of Agriculture's annual Field Day Review of Crops Protection Research, July 11-12.

Meeting at USDA's Beltsville, Md., research complex, weed controllers will spend 2 days in close scrutiny of latest developments in vegetation control, according to program chairman Dr. W. B. Ennis, Jr., administrator of weed investigations at Beltsville.

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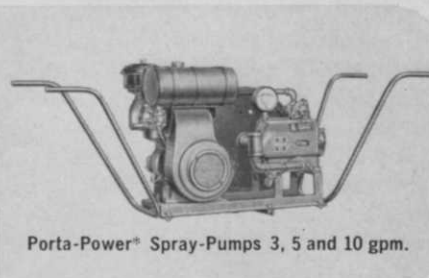
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W-13

## Effects of Crabgrass Killers On Earthworms Studied

Chemicals are available to control crabgrass in lawns without affecting the earthworm population in treated areas, according to Dr. John F. Ahrens of the Connecticut Agricultural Experiment Station in New Haven.

Depending on uses of lawns, and on preference of the users, reduction of the number of earthworms may or may not be considered desirable, Dr. Ahrens says. Applicators may have to vary their treatments to conform to their customers' desires.

Dr. Ahrens' experiments at the Connecticut station showed Dacthal, a commonly used crabgrass killer, had no apparent effect on earthworms. Zytron, another effective herbicide in crabgrass control, had no appreciable effect on the earthworm population when applied at the rate recommended on the label. When this rate was doubled, earthworms were reduced 52%.

Pax, an arsenical complex, is known to be effective against certain soil insects, including beetle grubs. This compound caused an 89% decrease in earthworms.

Tricalcium arsenate, used for pre-emergence control of crabgrass, also controls beetle grubs, and was responsible for 82% fewer earthworms.

Chlordane, when applied at rates recommended for crabgrass control, reduced earthworm populations by 89%.

Diphenatril, tested in Connecticut for the first time in 1961, had no apparent effect on beetle grubs or earthworms, the scientist reported.

## Panogen Fungicide Detailed

Instructions on the use of Panogen turf fungicide, Morton Chemical's new product to fight turf diseases, are now available.

Included on the sheet are dosage recommendations for various turf ailments, antidotes, use precautions, and application methods. For a copy, CAs should write Morton Chemical Co., Soil Pesticides Department, Specialty Products, 110 North Wacker Drive, Chicago 6, Ill. Ask for Bulletin DMI-12.



Sheen X500 flame gun, described by the distributor as a versatile machine which offers new and positive weed control and soil surface sterilization, is now being marketed by the Smrt Import Co., 1105 West Plainfield Rd., LaGrange, Ill. The English-made device features a heavy-duty pump, pressure gauge, and control valve, and can be hand held or operated on a wheeled chassis with a hinged hood. According to Smrt, the Sheen X500 permits continuous use over a large area and provides a steady, completely controllable flame. Applicators may write the company to obtain descriptive literature, prices, and a free booklet on flame gun usage.

## New Nomenclature

New common names for several herbicides have been accepted as standard nomenclature by the American Standards Assn. Here are the new substitutes for technical chemical names:

Amitrole is the common name for 3-amino-s-triazole (or 3-amino-1,2,4-triazole).

Atrazine is new generic term for 2-chloro-4-ethylamino-6-isopropylamino-s-triazine.

Chlorazine is simpler than 2-chloro-4,6-bis(diethylamino)-s-triazine.

Simazine is label for 2-chloro-4,6-bis(ethylamino)-s-triazine.

Trietazine stands for 2-chloro-4-diethylamino-6-ethylamino-s-triazine.

## Folder Lists Cleary Products

Several Chemicals for control of turf weeds and diseases, especially in golf greens and athletic fields, are described in a new W. A. Cleary Corp. bulletin.

Outlined in the illustrated booklet are Cleary's crabgrass killers, fungicides, and other turf chemicals. For copies, write the firm at New Brunswick, N. J.

## More Support for Higher Turf in Control of Lawn Crabgrass

Scientists at the Connecticut Agricultural Experiment Station have more evidence that chemicals alone are not always enough to control crabgrass.

Tests at the station farm in Mt. Carmel, with 11 different turf grasses, showed that raising mowing height from 1" to 2" reduced stands of crabgrass from 33 to 12 plants per square foot.

Twelve crabgrass plants to the square foot is still too many to please most homeowners, so chemical control is necessary.

Of the pre-emergence herbicides tested at the station by Dr. John Ahrens, none gave complete control of crabgrass in all situations with no injury to turf grasses. While several were generally satisfactory, and Zytron and Dacthal continue to be the most promising, Dr. Ahrens says.

Good results were also obtained with calcium arsenate, diphenatril, Bandane, and dipropalin. The latter two were used in limited trials.

Some pre-emergence crabgrass killers, particularly Zytron and calcium propyl arsonate, are also effective against crabgrass in its early seedling stages, the experimenters maintain.

A complete report on the Connecticut series of tests is available to contract applicators on request. Write Publications, Box 1106, New Haven 4, Conn., and ask for Bulletin 649.

## Chapman Has Herbicide Samples

Two new folders on No-Vine and Weed-Free herbicides, with actual samples of the chemicals attached, are available to CAs from the Chapman Chemical Company.

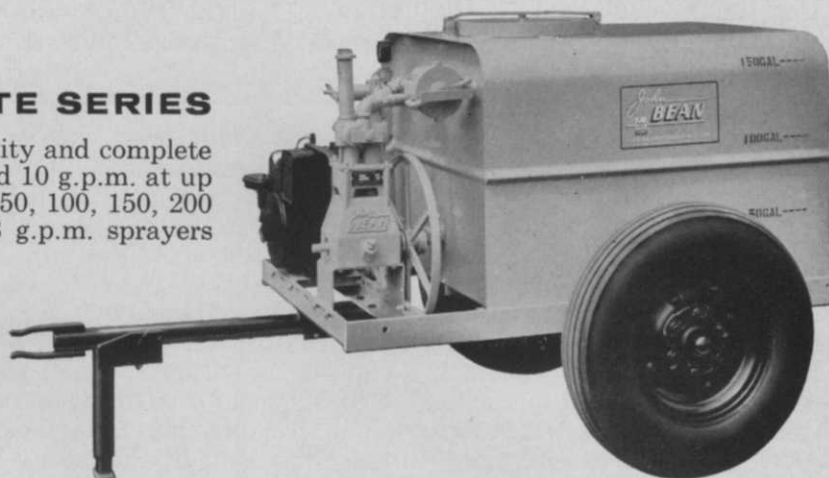
Both booklets are illustrated and contain condensed use-information. The Weed-Free brochure comes with small samples of both granular and wettable powder formulations. No-Vine is a granular form, and a sample of this chemical is included with the descriptive literature.

For copies, CAs should write Chapman at P.O. Box 3158, Mal-lory Station, Memphis 9, Tenn.

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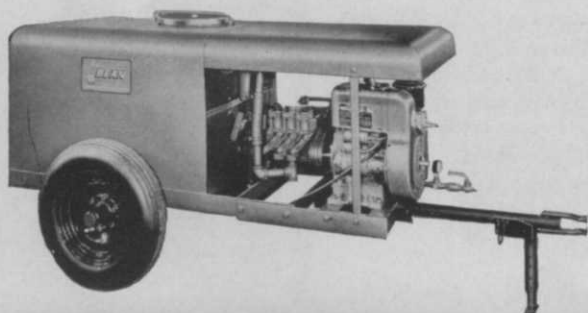
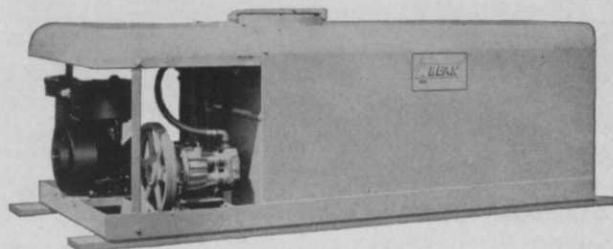
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## Chemical Use in Calif. Up

An increase in use of chemicals for weeds in city lots, and added emphasis on roadside weed control, are two salient developments in the weed control industry in California, William Harvey, business manager of the California Weed Control Conference, told a *Weeds and Turf* reporter recently.

Harvey said because burning weeds contributes to air pollution, and because discing stirs up dust clouds, more and more West Coast cities are turning to chemistry for answers to weed control problems.

The California official also said the danger of fire caused by rampant weeds along roadways and other range areas is causing many communities to investigate chemical weed control. This is particularly true in the southern part of the state, where some spectacular fires have focused attention on the danger.

Harvey's organization now has available proceedings of the 14th Annual Meeting, which was held in January. Copies of the 114 page book are available at \$2 each. Interested CAs may write the as-

sociation manager at the Department of Botany, University of California, Davis.

Next meeting of the California Weed Control Conference is scheduled for Jan. 22-24 in Santa Barbara.

## Herbicide Guide from Stauffer

Instructions for use of Eptam and Tillam, two selective herbicides from the Stauffer Chemical Company, are contained in a 12-page booklet the company has just published.

Included in the illustrated brochure is an outline of weeds controlled by the two weed killers, along with directions for optimum use. Broadcast, band, and lay-by applications are discussed, as well as incorporation equipment and liquid band application.

For copies, write the firm at 380 Madison Ave., New York 17, N.Y.

## What Vineland Has

Specification sheets covering all the herbicides and fungicides manufactured for Vineland Chemical Company's line of turf products

are available to interested applicators.

Vineland's Gustave Hulkower said information sheets on Crab-E-Rad, Super Crab-E-Rad, Pre Emergent Crab-E-Rad, Liquiphene, and Super Crab-E-Rad with Calar are in stock and will be mailed readers who write him at West Wheat Rd., Vineland, N. J.

## 1962 NEWCC Proceedings Still Available at \$4.50

Copies of Proceedings from the 1962 Northeastern Weed Control Conference are still available at \$4.50 a copy, according to Dr. John Meade, secretary-treasurer of the group.

Dr. Meade also said the Conference is anxious to fill out its library with sets of Proceedings for 1951 through 54, and 1959-60. Anyone with surplus copies, or anyone who wants to buy the 1962 publication, is asked to communicate with Dr. Meade at the Department of Agronomy, University of Maryland, College Park.



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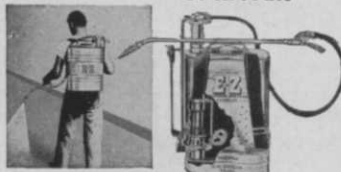
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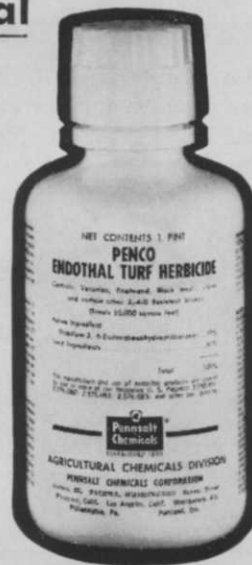
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| sweet clover          | dichondra                | vetch     |
| black medic           | (pony foot)              |           |



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## Book Review

### Weed Identification and Control

by Duane Isely, Iowa State University Press, Ames, Iowa. 1960. 400 pp. \$4.95.

Liberally illustrated and efficiently arranged, this textbook on weeds will be valuable to seasoned applicators and novices alike.

Author Duane Isely, professor of botany and plant pathology at Iowa State University, has included 160 full-page illustrations by artist Frances Fenske. These drawings are sure to help the applicator with species identification. Dr. Isely's book is one of the rare texts which combines weed identification and control in one volume.

Among major areas covered in the book are: importance, behavior, distribution, and identity of common weeds; methods for determining unknown weeds and similar plants; basic principles of weed control; and recent advances

made in herbicidal weed control.

While *Weed Identification and Control* covers the subject from *Abutilon theophrasti* to Zygophyllaceae, and 2,4-D to Dalapon for the professional worker with experience, a special section for the neophyte and serviceman provides simple, nontechnical identification of several hundred common and important weeds. This gives the book value as either laboratory manual or field guide.

There may be some drawback for commercial applicators because the section on soil sterilization is not lengthy. This flaw is overcome, though, by the book's thoroughness in dealing with classification, and by the excellent identification keys. An extensive bibliography is also included.

CAs will find this handsomely bound, moderately priced text a welcome addition to their office library.

## Complete One-Source Coverage

# DISEASES OF TURFGRASSES

By HOUSTON B. COUCH,  
Assoc. Prof. of Plant Pathology  
The Pennsylvania State University.

## How to Identify How to Control

Thoroughly illustrated with line drawings, photographs, and full-color plates.  
May 1962. 6 x 9. 304 pages. \$10.00

HERE is a detailed, comprehensive treatment of the diseases of turfgrasses, including illustrated information essential for the identification and control of both fungus and nematode-incited diseases. This is the most complete, up-to-date work available on the subject of controlling turfgrass disease.



*Diseases of Turfgrasses* is organized so that you can conveniently find the answers to your questions about the identification and control of the diseases that affect fine turf. The author has arranged the sections devoted to specific diseases in the following manner: (1) Symptoms, (2) Pathogen, (3) Hosts, (4) Disease Cycle, and (5) Control. The control sections for the disease groups are further divided into three parts: Cultural Practices — Resistant Varieties — Chemical Control.

This complete one-source reference book is specifically suited to the needs of pathologists, agronomists, turfgrass management specialists, golf course superintendents, park maintenance supervisors, and field representatives serving this rapidly expanding industry.

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## 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.

**Suggested Guide for Chemical Control of Weeds.** Agricultural Research Service Report No. 22-67. 60 p. 1961. U. S. Department of Agriculture, Beltsville, Md.

**A Survey of Extent and Cost of Weed Control and Specific Weed Problems.** 68 p. 1962. Agricultural Research Service and Federal Extension Service Joint Report No. ARS 34-23. U. S. Department of Agriculture, Beltsville, Md.

**Preventive Weed Control for Industry.** Geigy Agricultural Chemicals Bulletin GAC 630. 12 p. il. Geigy Agricultural Chemicals, P.O. Box 430, Yonkers, N.Y.

**Controlling Lawn Weeds with Herbicides.** Home and Garden Bulletin No. 79. 16 p. il. U. S. Department of Agriculture, Washington 25, D. C.

**The Biology and Control of Turf Grubs.** Research Bulletin No. 829. 32 p. il. 1959. Ohio Agricultural Experiment Station, Wooster.

**Lawn Insects: How to Control Them.** Home and Garden Bulletin No. 53. 24 p. il. Superintendent of Documents,

U. S. Government Printing Office,  
Washington 25, D. C. 15¢.

**Recommended Uses for Sevin Insecticide.** Bulletin F-40851. 4 p. 1962. Union Carbide Chemicals Co., 270 Park Ave., New York 17, N. Y.

**Establishing and Maintaining Utility and Pipe Line Rights-of-ways.** Technical Bulletin TC-19. 4 p. Agricultural Chemicals Div., Diamond Alkali Co., 400 Union Commerce Bldg., Cleveland 14, Ohio.

**Keep the Way Clear with a Planned Vegetation Control Program.** Bulletin 137-145-57. 12 p. plus charts. Agricultural Chemicals Dept., Dow Chemical Co., Abbott Rd. Bldg., Midland, Mich.

**Economical and Efficient Industrial Weed and Brush Control.** Bulletin A-22937. 16 p. il. E. I. duPont de Nemours & Co., Inc., Agricultural Chemicals Div., Wilmington, Del.

**Economical, Long-term Brush Control for Rights-of-Way.** Bulletin A-23320. 16 p. il. E. I. duPont de Nemours & Co., Inc., Agricultural Chemicals Div., Wilmington, Del.

**Chemical Mowing with MH-30.** Booklet No. 11. 28 p. il. Naugatuck Chemical Div., U. S. Rubber Co., Naugatuck, Conn.

**Chemical Control of Weeds and Brush Along Roadsides.** Bulletin 624. 32 p. il. 1959. Connecticut Agricultural Experiment Station, New Haven.

**Urox Weed Killer.** Bulletin F-UX CI-261. 12 p. il. Allied Chemical Corp., General Chemical Div., 40 Rector St., New York 6, N. Y.

## Outdoor Market Ripe

(from page W-3)

of job should cost about \$164, leaving a gross profit of \$336. Not included of course are depreciation, administrative expenses, etc.

On the other hand, most termite operators normally expect to produce an average of \$150 per day per 2-man crew, with material cost approximately 10% of the total job. Using the same 2-day basis, the termite crew would produce \$300. With labor cost at \$64 and materials at \$30, gross profit is \$206, compared with \$336 for the weed job.

Termite control is much further advanced; there is presently more repeat work; control procedures have been more or less standardized, and results, in most cases, are fairly well predetermined. Conversely, weed control is in its infancy, and industrial plants, railways, and other prospects have not all been sold yet on the fact that they should pay a sustaining fee to get results which may be more difficult to come by.

It's apparent then that weed controllers should expect more money per unit of work-time, and more gross profit above materials and labor than is realized in structural pest control. It is especially important for an operator just beginning this service to record his material and labor costs accurately, and to compare these with his total volume to make sure labor and material expenses are running well under 40% of total volume.

### Seasonal Variations

In some areas, addition of weed control and turf spraying helps



Redd's operations also include a complete lawn maintenance program. To supplement his contract spraying, the Mississippian offers lawn chemicals and tools for resale.

level out seasonal fluctuations in business volume where a firm does both vegetation work and general pest control. Unfortunately, though, in the South, peaks of each activity coincide closely.

In Mississippi, for example, weed control begins in February and continues at peak through May. This is exactly the time when the heaviest concentration of termite activity is experienced.

Turf pest control, on the other hand, begins in late April and runs through September, reaching its peak in July and August. This also coincides very closely with the peaks of general pest control services.

With new developments in soil sterilization, pre-emergence sprayings, and year-round treatments becoming more and more common in industrial applications, it is hoped the changes in business cycles will be lessened.

Possibly the biggest potential, so far as size of individual accounts, is industrial weed control, although some turf work, such as contract golf course spraying, nets large amounts.

### Potential Volume

A town of 2,000 should have at least 30 varying types of business establishments which could use some kind of weed control. Each account should be worth an average minimum of \$50, or a total of \$1500 for the town. On this basis, potential in weed control in an urban area should be 75¢ per capita yearly. In areas with more than 10,000 people, the potential is probably 50¢ per capita per year, because the number of business establishments per person generally goes down as population goes up.

Using this formula, a town of 10,000 should bring in \$5,000 in weed control accounts yearly, and a city of 50,000 would bring in \$25,000. This does not include parks, railways, or highways.

As population rises above 100,000, other elements prevent using this system of calculation.

Here are only a few immediate prospects for the PCO turned weed controller: parking lots, drive-ins, theatres, junk yards, fence rows, lumber yards, storage areas, perimeters of buildings, paper mills,

## Meeting Dates



**Hyacinth Control Society First Annual Meeting**, Governor's Club Hotel, Ft. Lauderdale, Fla., July 8-11.

**U. S. Department of Agriculture Field Day Review of Weed Control**, Plant Industry Station, Beltsville, Md., July 11-12.

**Cornell Weed Day**, New York State College of Agriculture, Cornell University, Ithaca, N. Y., July 17-18.

**International Shade Tree Conference 38th Annual Convention**, Jack Tar Hotel, San Francisco, Calif., August 5-10.

**National Arborists Association Meeting**, in conjunction with International Shade Tree Conference above.

**American Society of Plant Physiologists**, Department of Botany and Plant Pathology, Oregon State University, Corvallis, Aug. 27-31.

**North Central Weed Control Conference**, Hotel Lowry, St. Paul, Minn., Dec. 3-5.

**Northeastern Weed Control Conference**, Hotel New Yorker, New York, N.Y., Jan. 9-11, 1963.

**Southern Weed Control Conference**, Admiral Semmes Hotel, Mobile, Ala., Jan. 16-18, 1963.

**Weed Society of America Meeting**, Pick-Congress Hotel, Chicago, Ill., Feb. 10-13, 1963.

shipyards, oil refineries, manufacturing plants, drainage ditches, oil tank farms, oil wells, walkways, railway yards, sidings, airports, turnpikes, race tracks; any place where vegetation is undesirable.

Another branch of service becoming increasingly popular, especially in the South, is aquatic weed control in lakes, ponds, rivers, etc. Operators in this field will invariably be forced into a lake management program.

Before any operator begins to diversify, he should:

(1) have confidence in what he is doing;

(2) be willing to take some chances;

(3) immediately begin to learn more about the new service; this knowledge comes from consulting experiment stations, watching others in the field, and reading the periodicals;

(4) give his customers good service; and

(5) have his other business well under control so diversification doesn't hurt his bread and butter,



until he is thoroughly established in the new field.

Whereas weed control may fit into the pattern of service for one PCO, turf and ornamental pest control may fit into the pattern of another. Because a PCO has been successful in integrating any of these services with his structural pest control is no reason why these should be compatible in all cases.

If the initial experience is gained by performing small jobs with equipment and labor that is already available, then the PCO will be in a position to withdraw if he encounters difficulties, or go forward to even greater things.

### Penco Brochure Offered

A brochure covering uses of its Penco Endothal turf herbicide in southern states has been prepared by Pennsalt Chemicals Corp.

Condensed instructions on application and precautionary measures are included in the illustrated bulletin, available to contract applicators. For a copy, write the company at P. O. Box 1297, Tacoma 1, Wash., and ask for Bulletin S12.

### Shoulder-mounted Mist Blowers Good for Weeds, Forester Says

Shoulder-mounted insecticide mist blowers can be used to control "forest weeds" in stands of conifers, according to recent research by a University of Massachusetts scientist.

Trials run in Massachusetts and New Hampshire by Dr. William P. MacConnell, associate professor of forestry at the Amherst school, show these machines are just the thing for applying herbicides in many mixed stands of timber.

Undesirable trees and brush found in forests are controlled by a spray of 2,4,5-T which enters through leaves and flows through the plant's vascular system. Conifers, which have already "hardened off" in August when the mist is applied, are no longer absorbing material through their needles, and are not affected.

This method costs about the same as doing the job from the air, researchers admit, but has other advantages. Ground-applied spray, for example, doesn't drift as far.

This mist blower technique can be used to clear roadsides of weeds, as well as to control mosquitoes and other insects in public parks and picnic grounds.

Another advantage in the shoulder-mounted apparatus, according to Dr. MacConnell, is that while it has an effective range of only about 30 feet straight up, small mist blowers can be carried into areas inaccessible by truck or jeep. And since these shoulder machines spray a low volume of highly concentrated material, only 2½ gallons of solvent per acre are required, an amount easily carried by one man.

### Geigy Debuts Metal Chelate

Sequestrene Fe, a new metal chelate said to be highly effective on ornamentals in addition to the customary agricultural applications, has been announced by the Geigy Agricultural Chemicals Company.

An informative sheet on Sequestrene Fe is available to custom applicators who write Geigy at P.O. Box 430, Yonkers, N. Y. Ask for Information Sheet GAC 388.

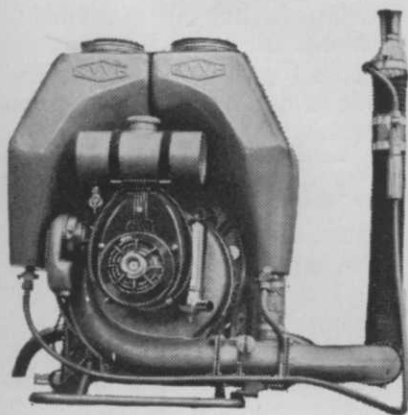
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**NIMBLEWILL**  
(*Muhlenbergia schreberi*)



Nimblewill, a perennial grass that reproduces both by seeds and underground stems, is generally found in lawns, fence rows, and non-cultivated areas. It is often confused with crabgrass and Bermuda grass in lawns. However, both crabgrass and Bermuda grass are prostrate in habit of growth and crabgrass is only an annual. Growth of nimblewill that develops from rooting stems forms dense patches 10 inches or more in diameter.

Stems are slender, branched, and spread along or near the ground's surface. Lower part of these stems is prostrate; upper parts curve upward.

Tiny, inconspicuous flowers and seeds are arranged loosely on nodding or ascending branches along the upper part of the stem. Leaf blades are usually about  $\frac{1}{8}$  inch wide and not more than 2 inches long. Stems that bear seeds are from 2 to 6 inches long. These seeds are very fine and are borne singly. Nimblewill leaves are not hairy, except for occasional marginal hairs at the base.

New growth of nimblewill starts from the underground stems in early spring and continues to grow throughout the summer and early autumn. Roots remain alive all year, but the tops die in autumn, leaving dense brown, stubbled mats in lawns during winter.

Nimblewill is grayish-green and contrasts with the darker green of such turf plantings as bluegrass.

Research in Indiana and Kentucky indicates that nimblewill is controlled with repeated treatments of Zytron. Applications of 30 lbs./acre were made in early June and repeated about a month later.

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

DRAWING BY REGINA HUGHES, USDA, BELTSVILLE

**New Section Needed**

(from page W-1)

provide a continuing source of practical information on how, where and when to apply herbicides and turf pesticides. It can aid in the interpretation and dissemination of the excellent research findings of both public and private agencies. It will be an important news source for new products and uses and for news of industry activities in general.

It is estimated that some \$90,000,000 was spent on herbicides in 1961. Use in agriculture is extensive and there are increasing needs for herbicides along highways, railroads, and other service rights-of-way as well as in multitudinous other industrial type areas. The list of potential markets for herbicides and for custom applicator services continues to grow. Also, it is said that there are some 33 million single family homes in this country of which a majority probably can utilize some form of turf pest control or chemical weed-grass control around the premises.

Truly here is a burgeoning market for qualified energetic, informed operators and this new section of *Pest Control* magazine should provide a valuable assist.

**Bartlett Appoints E. J. Duda**

Dr. Edward J. Duda has been named Director of the Bartlett Tree Research Laboratories. He has been acting director since 1960, and joined the organization in 1951.

Bartlett's laboratories are devoted to research into fundamental problems of entomology, pathology, and physiology that affect shade and ornamental trees and shrubs.

**New Soil Fumigant Book from MC**

Instructions for using Michigan Chemical's Pestmaster Soil Fumigant-1 are contained in a new brochure now available from the firm.

Included are discussions on using the chemical on seed beds, plant beds, golf greens, and lawns.

Copies of the illustrated brochure are available to contract applicators who write the company at St. Louis, Mich.