Rockland Chemical Co., Inc. Passaic Ave., W. Caldwell, N.J. Rohm & Haas Co., Washington Sq., Philadelphia, Pa.

Schmitz-Schoenwaldt-Turner Co., 20 Vesey St., New York 7, N.Y Schnee-Morehead Development Corp., Schnee-Morehead Development Corp
111 N. Nursery Rd., Irving, Texas
Selco Supply Co., 109 Elm St.,
Eaton, Colo.
Shell Chemical Co., 50 W. 50th St.,
New York 20, N.Y.
Shepard Port A. New York 20, N.Y. 425 Park Ave., New York 22, N.Y.
Sinclair Mineral & Chemical Co.,
6349 N. Clark St., Chicago 26, Ill.
Southern Fertilizer & Chemical Co.,
P.O. Box 1158, Savannah, Ga.
Southern Mill Creek Products Co., Southern Mill Creek Products Co.,
1906 Armenia Ave., Tampa 7, Fla.
Standard Oil Co. (Ohio),
Midland Bldg., Cleveland 15, O.
C. W. Staples, Inc., P.O. Box 328,
Presque Isle, Me.
J. U. Starkweather Co., Inc.,
241 Allens Ave., Providence 1, R.I.
Stauffer Chemical Co.,
380 Madison Ave., New York 17, N.Y.
Stecker Chemicals, Inc.,
45 N. Broadway, Ridgewood, N.J.
Steidle Chemical Co., Inc.,
1613 N.W. Pkwy., Louisville 3, Ky.

Taylor Chemical Co., Inc., P.O. Box 337, Aberdeen, N.C. Tennessee Corp., 612 Grant Bldg., Atlanta 3, Ga.
Thompson Chemical Corp.,
3600 Monon St., Los Angeles 27, Calif.
Thompson-Hayward Chemical Co., P.O. Box 768, Kansas City 4, Mo. Toledo Solvents & Chemicals Co., 4051 South Ave., Toledo 14, Ohio Triangle Chemical Co., 206 Elm St., Macon, Ga. George Uhe Co., Inc., 76 Ninth Ave., New York 11, N.Y.

Union Carbide Chemicals Co.,
270 Park Ave., New York 17, N.Y.
United Chemetrics, 600 S. 4th St.,
Richmond 4, Calif.
U. S. Borax & Chem. Co., Box 75218,
Sanford Station, Los Angeles 5, Calif.
U. S. Sanitary Specialties Corp.,
1001 Calif. Blvd., Chicago, Ill.
Utility Chemical Co., 145 Peel St.,
Paterson, N.J. Paterson, N.J.

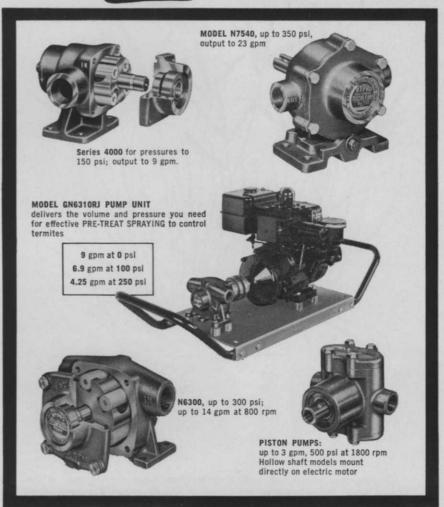
Velsicol Chemical Corp., 330 Grand Ave., Chicago 11, Ill. Vineland Chemical Co., Vineland, N.J. Virginia-Carolina Chemical Corp., 401 E. Main St., Richmond 8, Va. Virginia Chemicals & Smelting Co., West Norfolk 10, Va.

#### W-X-Y-Z

W-X-Y-Z
White Cross Labs, Inc.,
1860 Broadway, New York 23, N.Y.
Wilbur-Ellis Co., P.O. Box 1286,
Fresno 15, Calif.
Wisconsin Solvents & Chemicals Co.,
1719 S. 83 St., Milwaukee 14, Wisc.
Wolverine Solvents & Chemicals Co.,
2940 Stafford, Grand Rapids, Mich.
Wood Ridge Chemical Corp.,
Park Place East, Wood Ridge, N.J.
Woodbury Chemical Co., 702 S. 4th St.,
St. Joseph, Mo.
Woolfolk Chemical Works, Ltd.,
Fort Valley, Ga.
York Chemical Co., Inc.,
23 Dean St., Brooklyn, N.Y.

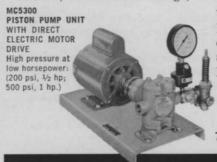
**BUYERS' GUIDE FOR PEST CONTROL OPERATORS** 

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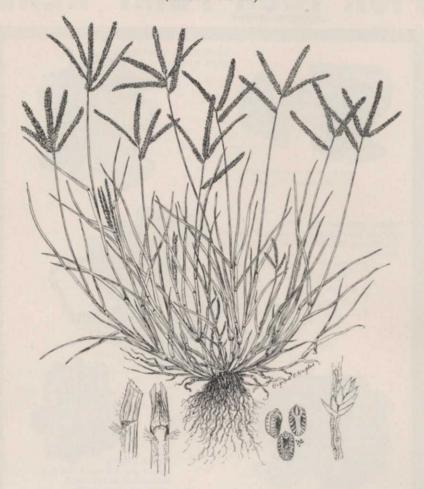
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#### GOOSEGRASS

(Elusine indica)



Goosegrass, sometimes called Wiregrass and Yardgrass, is an annual grass found in urban areas, lawns, yards, roadsides, and waste places. Widespread throughout eastern United States, goosegrass was introduced from the warmer parts of Asia. It is somewhat similar in appearance to crabgrass, but differs in that the digital spikes which bear the seeds are much broader than crabgrass spikes, and goosegrass does not root from joints on the prostrate stems as crabgrass does. Though described as pale green, goosegrass is a darker green than crabgrass. Goosegrass is particularly bothersome during the months from June to September.

Stems are flattened, smooth, and cover the ground in prostrate mats in tufts from fibrous roots. The stems may be from 6 inches to 2 feet long. Leaves are smooth, pale green with loose, flattened, and overlapping sheaths. Two to 10 spikes radiate from near the top of the stem. Spikes are ½ inch wide, 1 to 3 inches long; each has a row of spikelets attached on one side extending to the tip of the rachis (long axis).

Each of the 5 mm. long spikelets holds 3 to 5 tiny flowers, which produce seeds. Seeds are about 1.5 mm. long, reddish-brown, and cross-ridged.

Pre-emergent control is effected with calcium arsenate applied before seeds germinate in April or May. Additional treatments using disodium methyl arsonate (DMA) may be necessary if a few weeds get through. This should be applied when the weed is tender and actively growing.

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

DRAWING BY REGINA HUGHES, USDA, BELTSVILLE

# Florida Spraymen's Convention Set for Miami Beach Nov. 8-10

Almost every branch of a contract applicator's business will be analyzed at the third annual convention of the Horticultural Spraymen's Association of Florida, Nov. 8-10, Deauville Hotel, Miami Beach.

Nearly 300 delegates are expected at the annual affair, association publicity director Thomas Hamall told *Weeds and Turf* at presstime.

An added feature at this year's meeting is the invitation to outof-state spraymen who may wish to attend the Florida meeting. Hamall said all contract applicators may attend.

No three-day convention ever featured more fact-filled sessions, or a more delightful social program.

After HSAF president Larry Nipp officially opens the convention Thursday morning, an all-day series of talks and discussions will be offered.

Highlights of Thursday's program include an address by Dr. Stratton H. Kerr, entomologist from the University of Florida.

Basic lectures on the biology and control of insects, nematodes, and plant diseases, followed by a "question and answer period with the old pros," will round out Thursday's slate.

Thursday night, in the Deauville's pool area, delegates and their families will gather for a Hawaiian Luau.

Friday morning spotlights safety, with a talk by William J. Wiswesser, from the Industrial Hygiene Dept., Willson Products Co., Reading, Pa. Willson manufactures safety equipment.

"Equations for Small Business," a talk designed to help smaller companies operate more efficiently, will be offered by Dr. Grover A. J. Noetzel, Department of Economics, University of Florida, Gainesville.

Business meetings, visits to supplier's exhibits, a cocktail party, and a banquet are scheduled for Saturday.

CAs who would like to attend the HSAF annual convention should write Thomas Hamall, Publicity Director, 3291 N. W. 103rd. St., Miami Beach, Fla.



# Kill all weeds and grasses either way with these powerful new herbicides from Chapman

WEED-FREE G for dry application—Applied dry in delivered form, by hand or with mechanical equipment. Contains Diurion, trichlorobenzoic acid (TBA) and sodium trichloroacetate (TCA) • Effective on all broad and narrow leaf weeds and grasses and woody vines • Excellent for spot treatment • Use in Spring, Fall and Winter.

NO-VINE for controlling vines—Applied dry in delivered form, by hand or with mechanical spreader • Contains granular form of 2, 3, 6 trichlorobenzoic acid • Kills top growth and root systems • Particularly effective on bindweed and other woody vines • Low application rate, long residual effect make No-Vine particularly economical.

WEED-FREE S for spray application—Wettable powder for application with mechanical or hand spraying equipment • Contains Diurion, Dalapon, and 2,4-D • Knocks down all weeds and grasses quickly; use during growing season • Non-corrosive to metal spraying equipment • Powerful... dependable...economical.

weed free Aerosol bomb readyto-use pressurized spray—Sell this convenient aerosol weed-killer for extra profits • Perfect for edging, trimming, and spot treatment of weed patches • Contains 3% Pentachlorophenol • Turns vegetation brown in only a few hours • E-Z Applicator extension wand makes it easy to use.

Chapman also distributes other weed control products from leading chemical manufacturers



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Offices and warehouses in principal cities

#### Mail for more information

Chapman Chemical Company P. O. Box 3158, Mallory Station Memphis 9, Tenn.

Please send me more information on Chapman herbicides.

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YOU ALWAYS GET
PERFECT PERFORMANCE...
WITH THE DEPENDABLE...



## HARDIE AERO-MIST SPRAYER DUSTER

Here's the one unit that gives you just what you want . . . when you want it. The famous Hardie Aero-Mist Sprayer. It embodies the recommendations of State & Federal authorities; tree service organizations and foresters who sought in one unit a high-velocity ample air volume sprayer for any type job, along with low price.

With its high velocity, 150 mph, it is of special value in the treatment of trees infested with the bark beetle. Public Health officials also use the Hardie for mosquito control. With the attachment of the Hardie Duster, you have two machines in one. You can use either spray materials; dust or granular materials. Write for full details.



Book Review

#### Weed Control As A Science

by Dr. Glenn C. Klingman, John Wiley and Sons, Inc., New York, 1961. 421 pp. \$8.50.

Used either as a textbook, reference, or manual, Weed Control As A Science by Dr. Glenn C. Klingman, should be a part of the library of every person engaged in weed control.

Dr. Glenn C. Klingman, professor of field crops at North Carolina State College, assisted by Lyman J. Noordhoff of the United States Department of Agriculture, has produced a very complete and scientific work on weed control.

Dealing first with basic botany and chemistry, the book is adequately illustrated with some 200 drawings and photographs for easy understanding. Types of weeds, principles of seed dispersal and dormancy, as well as fundamentals of herbicide action on plant tissues, are discussed.

The author outlines not only the standard controls which have been used for years, emphasizing chemical methods, but also explains new developments in chemical control and specific new herbicides. Descriptions of the chemicals, their structure, and composition, aid in understanding these important facets of weed control.

Several of its 24 chapters are divided into applied phases of control: agricultural, industrial, aquatic, and horticultural. There is even a section on the mechanics of spraying apparatus. Others deal with types of soil, drift, sterilants, lawns, turf, and ornamentals.

Included also is a helpful appendix on weeds and susceptibilities of these plants to certain herbicides. Conversion factors for correctly formulating chemicals in any quantity are particularly useful. Charts of application rates, spray patterns, and speeds of spraying vehicles add to the book's practical value.

This book is excellent for the modern contract applicator.

# 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.

2,4-D for Post-Emergence Weed Control in the Everglades. Bulletin 532. University of Florida Experiment Station, Gainesville.

Bindweed: How to Control It. Bulletin 366. 40 p. il. Kansas Agricultural Experiment Station, Manhattan.

Chinch Bug Control and Subsequent Renovation of St. Augustine Grass Lawns. Bulletin. University of Florida Experiment Station, Gainesville.

Weed Control in Lawns. Folder F-261. Agricultural Experiment Station, Michigan State University Bulletin Office, P.O. Box 231, East Lansing.

Insects and Other Pests of Lawns and Turf. Bulletin S-96. University of Florida Experiment Station, Gainesville.

Recommendations for Commercial Lawn Spraymen. Bulletin S-121A. University of Florida Experiment Station, Gainesville.

Weed Control Practices for Home Lawns. Bulletin 61-7. 8 p. 1961. College of Agriculture Extension Service, University of Connecticut, Storrs. A Comparison of Lawn Grasses. Bulletin 210. University of Florida Experiment Station, Gainesville.

Chinch Bugs. Leaflet 290. 2 p. Bulletin Clerk, New Jersey Agricultural Experiment Station, New Brunswick.

Home Gardeners' Lawn Insect Control Guide. Bulletin 213. University of Florida Experiment Station, Gainesville.

St. Augustine Lawn Grasses. Bulletin 217. University of Florida Experiment Station, Gainesville.

Quackgrass Control. Bulletin NCR-71. 1961. Agricultural Experiment Station, Michigan State University Bulletin Office, P.O. Box 231, East Lansing.

Turfgrass Disease Control Guide. Bulletin 221. University of Florida Experiment station, Gainesville.

Prevention and Control of Crabgrass in Lawns. Bulletin 642. 8 p. 1961. Connecticut Agricultural Experiment Station, New Haven.

Controlling Insects on Flowers. Agricultural Information Bulletin 237. Superintendent of Documents, Government Printing Office, Washington 25, D.C. 406

Slick Spreader-Sticker. Technical Bulletin 101. 3 p. il. Star-Bar Div., Agricultural Specialties, 12200 Denton Dr., Dallas 34, Texas.

Principles of Selective Weed Control. Circular 505. California Agricultural Experiment Station, Public Service Office, 131 University Hall, 2200 University Ave., Berkeley 4.



With 26 blades and 52 cutting tips, West Point Products Corp.'s VC-3A Verti-Cut vertical cutter improves turfgrass surfaces by trimming runners and long grass.

# West Point Products Offers Turfgrass Guides and Tools

West Point Products Corp., manufacturers of equipment for mechanical weed control, recommends the following program for turfgrass management, especially of golf greens:

(1) Aerify with either open or thatch spoons; (2) mow with a vertical cutter; (3) top dress; (4) mat; (5) aeri-spike; and (6) mow.

Tools available from West Point for the mechanical operations involved include 3 models of a vertical cutter, which the firm notes will remove the leaves from broadleaf weeds, crabgrass, clover and other weeds, allowing turfgrass to gradually "shade out" the undesirable foliage. The company emphasizes that weed leaves should be removed only as rapidly as the desirable turfgrasses can grow into the voids, noting that two vertical cuttings are usually sufficient.

Model VC-3A Verti-Cut, with 26 blades and 52 cutting tips, operates up to 4 mph, powered by a 4-HP Briggs & Stratton engine. Weighing 255 lbs., the model has an 18 inch cutting width and 27 inch over-all width. Height of cut is adjustable in ½2" increments.

Aerification loosens the soil beneath the surface, producing a triple effect: cores of soil are scooped out so surrounding packed soil has room to expand; openings are made from surface to rootzone to admit air, water, and fertilizer; and walls for the openings are loosened so roots can penetrate

into the surrounding soil. Five models or aerifiers are available from the firm.

To close openings created by aerification, and to open soil to water and fertilizer, West Point offers an aeri-spiker, which pushes the top dressing down into the turf. Controlled decomposition of the thatch is more easily accomplished when the top dressing is spiked, the firm notes.

West Point Products Corp. also offers interested CAs two free booklets, "Improving Athletic Field Turfgrass," and "Fall Renovation of Greens and Fairways." For copies of the booklets, and more information on any West Point products, write the company at West Point, Pa.

# Calif. Studies Aquatic Weeds

With the establishment of a project in Davis, Calif., USDA Central Research Fund-supported studies of aquatic weed problems have begun in four areas. Other locations include Alabama, New York, and North Carolina.

In the Davis project, a laboratory has been especially fitted for chemical and plant physiological work. A screen house and culture tanks will soon be available for growing aquatic weeds for experiments

Problems are being approached from the viewpoint of both basic and applied aspects, and a program for the entire state is anticipated soon, a report from University of California Agricultural Extension Service states.

#### **Diazinon for Lawn Pests Outlined**

Information sheets on the use of Diazinon for lawn insect control, including recommendations for treating individual insect infestations, are available from Geigy Agricultural Chemicals, P.O. Box 430, Yonkers, N.Y., the firm announced recently.

# Penn-Chem, Doggett-Pfeil Join

Penn-Chem Products recently announced its merger with Doggett-Pfeil Co., manufacturer and supplier of insecticides, fungicides, weed killers, and water soluble fertilizers.

Main office, manufacturing

# Meeting



Horticultural Spraymen's Assn. of Florida Annual Convention, Hotel Deauville, Miami Beach, Nov. 8-10.

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.

California Weed Control Conference, Santa Barbara, Jan. 22-24.

Aquatic Weed Control Society Annual Meeting, LaSalle Hotel, Chicago, Ill., Feb. 12-13.

plant, and warehouses will be in Springfield, N.J., Penn-Chem announced. In addition to the Doggett-Pfeil office, Penn-Chem will maintain its present head-quarters and warehouse facilities in Lansdale, Pa. Sale of products will be handled through Doggett-Pfeil, 191 Mountain Avenue, Springfield.

According to the company announcement, the new "jointure" will bring contract applicators a complete line of turfgrass chemicals available from one source.



Hydraulically powered aerial ladder from Utility Body Co. rotates in a complete circle, and elevates to 70° angle. Top controls enable CAs to direct ladder while working from it. Utility recommends the device for tree work, as well as allied activities such as bird control. For more information, write the firm at 1530 Wood St., Oakland, Calif.

# \_W & T Mailbox \_\_\_

## Appeal to Pro/Neophyte CA

I have been receiving copies of Weeds and Turf and I would like to say your approach is fine, in that you have articles for the person now in the herbicide applicating business, as well as information for those who want to go into the field, either with experience from allied activities, or as something new.

The needs of this business have finally arrived at the point where I feel weed control is of professional stature.

It seems that through your publication we will not only be able to learn of new herbicides and methods of application, but will also be able to pass on to others general technology we have gained through the years.

Once again let me say that you are doing us all a great service by instituting this publication.

Carl Nagle, Jr.

Vice-President, General Mgr. Texas Weed and Grass Control, Inc. Odem, Texas

#### **Pioneer Weed Controller**

I have been working for towns, counties, and public utilities on weed and brush control for many years, and am one of the pioneers in this field.

I am receiving, and reading with great interest, your publication, *Weeds and Turf*. I think it is very well put together, and the articles, as a whole, are well presented.

I do not have any suggestions at this time, but I believe a magazine such as yours will advance and achieve a stimulant that appeals to all your readers.

I wish you every success with your new publication.

J. Harrington Nicholson

President J. H. Nicholson, Inc. Mahopac, N.Y.

Weeds and Turf welcomes expressions of opinions from its readers. Send ideas and comments briefly as possible to Charles D. Webb, Editor, Weeds and Turf, 1900 Euclid Ave., Cleveland 15, Ohio.



One man Turn - A - Spray manufactured by Besler Corp. has finger-tip control, moves sideways or up and down. Throwing a column of high-velocity, high-volume air with fine mist or spray, blower will cover shade trees in minutes, the company says.

## Watch for Pine Needle Scale

Identification of the pine needle scale, an insect common on home plantings and nearly all pines and spruces, is an important talent for CAs who spray ornamentals in conjunction with their lawn contracts.

Severe infestations of the destructive pest cause afflicted pine needles to turn yellow, then brown, and eventually to die.

Female scales on pine needles are pure white, about 1/10th inch long, and are wider at one end than the other. At the small end is a small oblong yellow spot.

Winter is spent in the egg stage. The female forms the white crust and turns to eggs under the crust. Then follows the "crawler" stage, which is the form that spreads over the plant. When the crawler finds a suitable spot on the needle, it settles down to suck sap, form a white scale, and turn to eggs.

This white covering is resistant to penetration of most insecticides except strong ones like lime-sulphur. Lime-sulphur can be applied only during the plant's dormant season or it will burn the tender leaves.

#### **Cure For Moss-Infected Lawns**

Moss growing in lawns indicates too little fertilizer, horticulturists at Purdue University say. It is encouraged by excessive shade and excessive moisture.

They recommend waiting until fall and cleaning the moss up by adding fertilizer. If it is quite thick, rake the moss, or spade the area, sow grass seed, and fertilize.

# -Trimmings -

Well on the road. Reader Dave Fleming of Philadelphia reports he has turf maintenance routes in 14 counties, serviced by two trucks that are self-supporting. It's taken a great deal of publicity—radio, TV, and newspaper—to get this new service on the road, but now "it looks good."

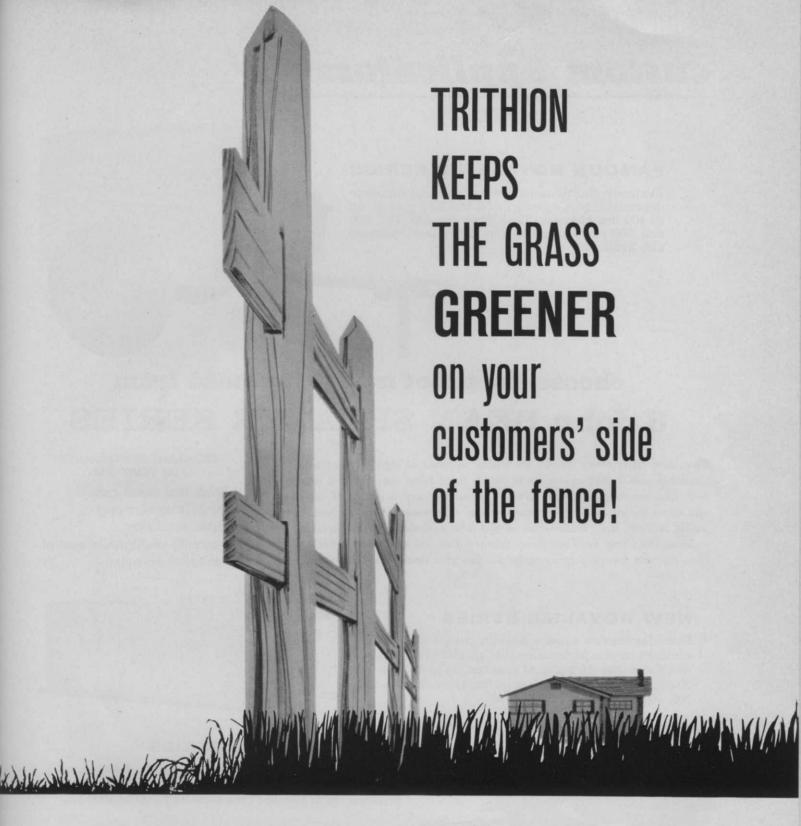
Goose on the loose. We reported in July that a nurseryman in Pennsylvania had resorted to geese to control weeds in his shrubbery stock. Now a report from Oklahoma says a cotton farmer has also gone the goose route. Problem there, though, seems to be coyotes, who like the webfooted quackers as much as the birds like weeds. So the farmer has to sit by an electrified fence all day, armed with rifle and binoculars, to keep the wild animals from eating the fowls which are eating the weeds. In fairness, we hesitate to criticize anyone searching for more efficient means of squelching weeds, but this seems, at best, somewhat impractical.

One of the busiest men in Florida these days is Ralph White, general manager of Ousley Sod Co. in Pompano Beach. Besides running his thriving business, Ralph is president of the Florida Turf-Grass Association, and works closely with CAs in the Sunshine State. Ralph is also scheduled to take part in the November convention of horticultural spraymen in Florida. Where does all the energy come from? Must be the Florida sun, and all the good, rich food we all get from attending so many convention banquets!

We just saw a letter to the editor of a local paper, in which a lady gardener protests, on behalf of her garden club, about the so-called misuse of pesticides. This worried do-it-yourselfer says she asked her club (about 40 ladies) how many read labels on their garden chemicals, and only four answered "yes." This, the lady proceeds, is the reason we need more laws about pesticides! Some hardworking CA, who's spent years trying to convince his customers that labels must be read, would no doubt like to refute this Rachel Carson-in-thebud, since it is frequently the professional who gets unjustly blamed for the amateur's mistaked!

Speaking of fearful ladies, we're sure everybody would calm down if they could see some of the elaborate laboratories our suppliers maintain to test new chemicals. We just returned from Ambler, Pa., where Amchem Products treated us to a tour of its lush weed farm. There all Amchem's new chemicals undergo extensive tests both for effectiveness and for safety. Passers-by on the super highway which runs alongside this flourishing farm must wonder who's growing such a strange looking crop!

Midwestern CAs, take a tip from your neighborhood lawn and garden center. We recently motored about the country-side, one Sunday, and saw nursery after nursery advertising products for those recent invaders, chinch bugs. If your customers don't know about this newly arrived threat, be sure you set them straight. Next summer you'll no doubt be getting lots of calls about this persistent pest.



Use Trithion® insecticide for lawn chinch bug control. Chinch bugs are small sucking insects that feed on the juice in leaves and stems of grass, causing brown patches and eventual death of infested lawns. Chinch bug destruction is a growing problem around the country . . . but a problem you can solve for your customers with Trithion.

Since 1960, thousands of lawns have been treated with TRITHION. Results have been spectacular!

TRITHION gives quick, positive control. It's a fast-acting compound that controls all chinch bugs, including those strains that have become resistant to other materials. 

@Stauffer's Reg. T.M. for an Insecticide-acaricide

TRITHION is easy to handle safely. It is less hazardous to handle than many other organic phosphorus pesticides. TRITHION is an easy-to-apply emulsifiable liquid . . . and also is available in granular form.

TRITHION offers one-shot control . . . that lasts. Repeat sprays are rarely needed with TRITHION—"one-shot control" stops chinch bugs. Its long residual action means long-term protection . . . with resulting reduced costs.

Use Trithion on your customers' lawns. Remember-

TRITHION keeps the grass greener on their side of the fence... and on yours, too! For details, write Stauffer Chemical Company, Agricultural Division, 380 Madison Avenue, New York 17, N.Y.