

## The Cover

Airboats have proved their worth for aquatic weed control. In the Everglades they are the only practical

means of transportation.

Spraying water hyacinths with diquat in a continuing test program is this unit of ARS, USDA, Fort Lauderdale, Fla. Operation is at the Loxahatchee National Wildlife Refuge, Delray Beach, Fla.

Three scientists plus 10 research technicians, aids, and secretaries keep this section of ARS operating. Biologist is Robert D. Blackburn. Dr. Lyle W. Weldon serves as weed scientist and Dr. Karry Steward is physiologist. Research hinges around chemical  
(Continued on page 37)

## WTT Mailbox

### Dr. Chappell Speaks

I would like to take issue to a statement appearing in your WT&T Vol. 7 (4) on page 30 made in an article on spray drift. You stated that "They (esters) are likely to drift further than the amine form . . ." The basic ester or amine salt will drift equally far depending on the formulation, carrier, diluent and equipment used. The oil soluble amine formulations, in my opinion, and based on experimental applications, will drift as far or further than most ester formulations. Water soluble amine formulations usually result in larger droplets than emulsifiable esters and will drift less under a given set of conditions. I believe that you should limit the above quote to water soluble amines.

I enjoy your WT&T magazine, it contains a lot of good information.

W. E. Chappell

Professor of Plant Physiology  
Virginia Polytechnic Institute  
Blacksburg, Virginia

# WEEDS TREES and TURF

June 1968

Volume 7, No. 6

FORMERLY WEEDS AND TURF

### Features:

Efficiency Equation For Tree Crews By Theodore J. Haskell .....	7
Golf Course Designed For Senior Citizens .....	10
Inland Water Management Creates Demand For Aquatic Consultants .....	14
Seedling Response to Phosphorus By Dr. George McVey .....	18
Sales Savvy Is Business Management Key For Sod Producers Across the Country .....	30

### Departments:

Editorial: Census Is Valuable Tool .....	6
Meeting Dates .....	19
Know Your Species .....	33
Classifieds .....	37
Advertisers Index .....	37
Insect Report .....	37
Trimmings .....	38

<p><b>President and Publisher</b> James Milholland, Jr.</p> <hr/> <p><b>Editor and Editorial Director</b> Arthur V. Edwards</p> <p><b>Managing Editor</b> Donald D. Miller</p> <p><b>Editorial Assistant</b> Kathy S. Thomas</p> <hr/> <p><b>Vice President Advertising</b> Dan M. Humphrey</p> <p><b>Director of Circulation</b> Roy Bever</p> <p><b>Production Manager</b> Eugene M. Kopp</p>	<p><b>Advertising Sales Offices:</b></p> <p><b>National Headquarters</b> — 9800 Detroit Ave., Cleveland, Ohio 44102, 216+631-6468; <b>Chicago, Ill.</b> 60601-333 N. Michigan Ave., 312+236-9425; <b>Shawnee Mission (Kansas City), Kansas</b> 66202-6811 W. 63rd St., 913+722-5900; <b>New York City</b> 10017-757 Third Ave., 212+421-1350; <b>Rosemont, Pa.</b> 19010-1062 Lancaster Ave., 215+525-1874; <b>Columbus, Ohio</b> 43212-1350 W. Fifth Ave., 614+486-9638; <b>Lansing, Mich.</b> 48906-4415 N. Grand River, 517+372-5254; <b>Los Angeles, Calif.</b> 90005-The Eschen Co., 3142 Wilshire Blvd., 213+382-8391; <b>San Francisco, Calif.</b> 94104 - The Eschen Co., 57 Post St., 415+781-7440.</p> <p><b>BPA Application Applied For</b></p>
---	--

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

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

Subscription Rates: U.S. and possessions, 1 year \$7.00; 2 years \$12.00. All other foreign subscriptions 1 year \$10.00. Change of Address: Three weeks advance notice is necessary for change of address. Both old and new address must be given. Post Office will not forward copies. Controlled circulation postage paid at Fostoria, Ohio 44830

© The Harvest Publishing Company, 1968

## Classifieds

When answering ads where box number only is given, please address as follows: Box number, c/o Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

Rates: "Position Wanted" 10c per word, minimum \$3.00. All other classifications 20c per word, minimum \$4.00. All classified ads must be received by Publisher the 10th of the month preceding publication date and be accompanied by cash or money order covering full payment. Bold-face rule box: \$25.00 per column inch, two inch minimum.

### FOR SALE

**PRIME TREE SPRAYING** business located in Westchester County, New York, established 20 years ago. Gross volume approximately \$55,000 to \$65,000 a year plus considerable tree surgery work that is referred to other companies in the area. There is more than \$40,000 in equipment which ranges from office data processing machines to 600-gal. hydraulic sprayers. This also includes a modern 2-way radio network with three licensed base stations. There is approximately a \$5,000 inventory. This gross business is done in less than a seven-month period with a payroll of only \$12,500. It nets well in five figures plus other valuable considerations for its owner. The asking price is \$50,000, or we would consider selling the business and equipment separately. Terms arranged. Priced for a quick sale. List of equipment and inventory mailed on request. Mail inquiry to Mr. H. G. Widmark, Pres., Widmark Scientific Control, Inc., Drawer 151, Harrison, N. Y. 10528.

### FOR SALE

**SPRAYERS, USED**, all sizes and makes, at large savings. Send your requirements. Equipment Sales Co., 4742 Sunrise Highway, Massapequa Park, N. Y. 11762.

**REBUILT RYAN Sod Cutters** with or without cutoff. Sharon Welding Company, 11674 U.S. 42, Cincinnati, Ohio 45241.

### HELP WANTED

**BRANCH MANAGER:** To run office in Central Michigan area. Must be capable and aggressive salesman in the entire tree and lawn care line. The opportunity is unlimited for the right man who wants to work with one of the largest tree companies in Michigan. Salary open. Box 33, Weeds, Trees & Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

**FIELD SUPERVISOR** Industrial Weed Control firm in eastern Pennsylvania is looking for a field supervisor. Degree in one of the agricultural sciences is desirable but not necessary. Write Box 30, Weeds, Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

### The Cover

(from page 5)

control of aquatic weeds, biological controls, physiology of aquat-

## Advertisers

### INDEX TO ADVERTISERS

American Home Products .....	15
John Bean Div., FMC Corp. ....	4th Cover
Beck Mfg. Co. ....	35
E. I. DuPont de Nemours & Co., Inc. ....	3
Fairfield Chemical, Niagara Chemical Div., FMC Corp. ....	11
Harder Arborist Supply .....	9
Hercules, Incorporated .....	4
Hooker Chemical Corp. ....	25
Hypro, Inc. ....	13
International Harvester Co. ....	20, 21
Locke Manufacturing Companies, Inc. ....	6
John Nunes Mechanical Harvesting Co. ....	2nd Cover
Nunes Turfgrass Nurseries .....	31
Robeco Chemicals, Inc. ....	6
Royer Foundry & Machine Co. ....	17
Universal Metal Products Div., Leigh Products, Inc. ....	23
Velsicol Chemical Corp. ....	3rd Cover

ics, effects of herbicides on aquatic environment, and ecological studies. In this particular area of the Everglades they manage 78 aquatic weed research plots.

Boat pilot is C. Elroy Timmer and sprayman is Phil Sherman, both of the ARS contingent.

## Insect Report

WTT's compilation of insect problems occurring in turfgrasses, trees, and ornamentals throughout the country.

### Turf Insects

**VARIEGATED CUTWORM**  
(*Peridroma saucia*)

**Iowa:** First moths of 1968 collected April 9 in Story County.

**A SOD WEBWORM**  
(*Crambus bonifatellus*)

**California:** Adults heavy in lawns in Buellton, Santa Barbara County.

**LESSER CLOVER LEAF WEEVIL**  
(*Hypera nigrirostris*)

**Nevada:** Adults light in lawn in Fallon, Churchill County, for a new county record.

### Insects of Ornamentals

**AN APHID**  
(*Aphis coreopsidis*)

**Maryland:** Collected on privet at Chevy Chase, Montgomery County, June 8, 1966. This is a new county record.

**BOXWOOD LEAF MINER**  
(*Monarthropalpus buxi*)

**Virginia:** Larval damage heavy on American boxwood in Fairfax County; leaves poorly developed. **Tennessee:** Larvae, pupae, and adults on boxwood in Knox County; 1-2 per leaf on most leaves.

### SPRUCE SPIDER MITE

(*Oligonychus ununguis*)

**Arizona:** Heavy on Italian cypress, juniper, and arborvitae at Tucson, Pima County.

### A PIT SCALE

(*Cerococcus kalmiae*)

**Ohio:** Heavy on some azalea bushes in Lake County September 1967.

### Tree Insects

**SMALLER EUROPEAN ELM BARK BEETLE**

(*Scolytus multistriatus*)

**Wisconsin:** High mortality in dead elm logs near Mazomanie, Dane County.

### ELM LEAF BEETLE

(*Pyrrhalta luteola*)

**Iowa:** Adults active in homes in Sioux City, Woodbury County, and at Corydon, Wayne County. Wayne County is a new county record. **Colorado:** Adults active in many areas of State. **Arizona:** First instars and numerous egg masses on Chinese elm at Coolidge, Pinal County and at Tucson, Pima County.

### SOUTHERN PINE BEETLE

(*Dendroctonus frontalis*)

**Tennessee:** Overwintering brood in loblolly and short-leaf pines; brood density and ratios of increase high in Anderson and Morgan Counties.

### PINE NEEDLE SCALE

(*Phenacaspis pinifoliae*)

**Washington:** Viable eggs heavy under old scales on ponderosa pine in Kamiak Butte State Park, Whitman County.

Compiled from information furnished by the U. S. Department of Agriculture, university staffs, and WTT readers. Turf and tree specialists are urged to send reports of insect problems noted in their areas to: Insect Reports, WEEDS TREES AND TURF, 9800 Detroit Ave., Cleveland, Ohio 44102.