

DURSBAN INSECTICIDE

Ornamentals and turf should be seen and not eaten.

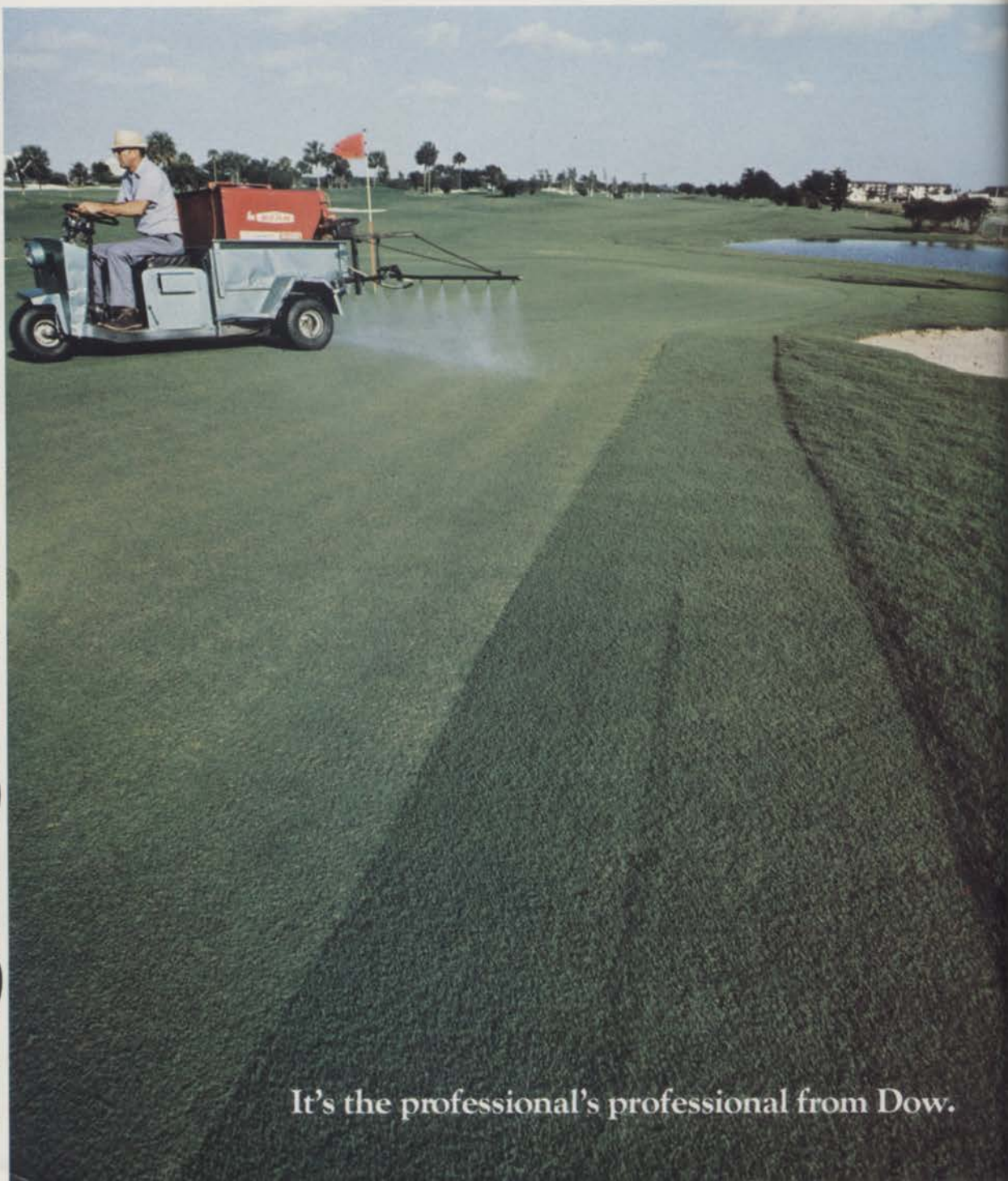
That's why DURSBAN* insecticide is the choice of professional turf men for golf greens and fairways. Turf farms. Home and industrial lawns—wherever grass and ornamentals are grown. DURSBAN insecticide is economical, non-phyto-toxic and biodegradable. Use it to control ants, chinch bugs, sod web-worms, brown dog ticks, cutworms, earwigs, crickets and certain white grubs in turf. For ornamental plants, DURSBAN

provides excellent control of aphids, bagworms, grasshoppers, leafhoppers, spittlebugs, mealybugs, mites and cutworms, to name a few. DURSBAN insecticide. For all those who believe ornamentals and turf should be seen and not eaten. Just remember to read and follow all the directions and precautions on the product label. Ag-Organics Department, Midland, Michigan 48640.



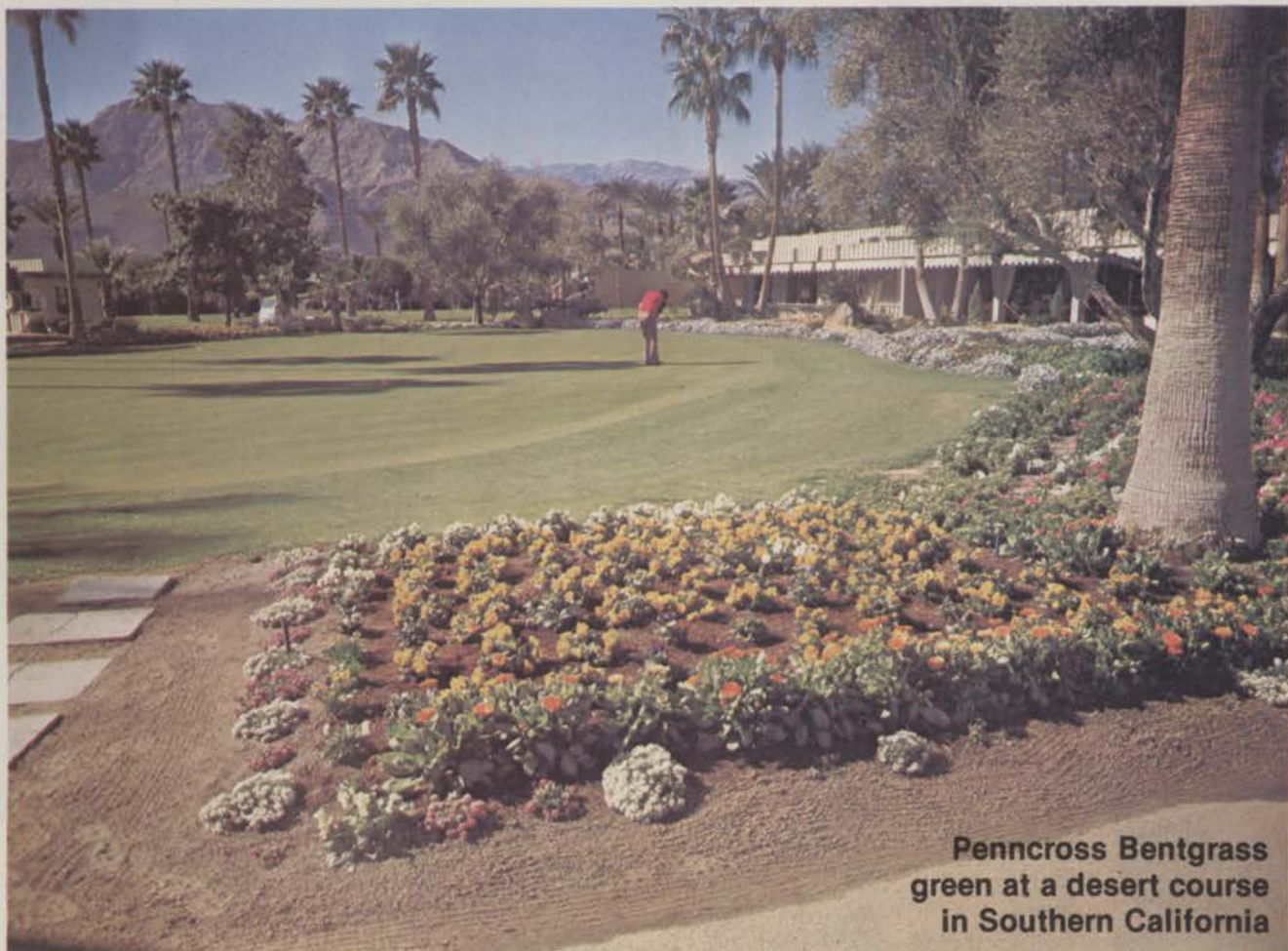
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Pat Fitzsimons in winning the Glen Campbell Los Angeles Open at Riviera CC, Calif., Feb. 20-23, set a new course record of 64 for a single round and tied Ben Hogan's course record for this event. Fitz previously tied the world record score of 58 on the 6,000 yard course at Salem Golf Club, Salem, Ore.



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For control of broadleaf weeds in turf, including golf courses, lawns, and other recreational areas.

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CAUTION: Keep Out of Reach of Children

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FOR TURF AND ORNAMENTAL GRASSES

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Just try any one of them, and you'll want the entire arsenal. Because once you use a Chipco anything, you'll soon be using Chipco everything else.

Chipco Buctril[®] gives early control of broadleaf weeds in newly planted grasses for sod or seed production.

Chipco Turf Herbicide MCPP controls clover, chickweed, knotweed and other surface creeping weeds and is safe and effective for use on most bent grasses.

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Chipco Spot Kleen is a systemic fungicide for control of dollar spot, Fusarium blight, stripe smut, large brown patch and copper spot.

Chipco Thiram 75 prevents and controls snow mold, large brown patch and dollar spot. Used with Spot Kleen, it offers a complete disease control program.

Chipco Microgreen Liquid provides micronutrients to your turf which results in long lasting deep green color, more root growth and less desiccation.

Chipco Turf Herbicide D is a general purpose broadleaf herbicide ideally suited where economical control is desired.

Chipco Spreader Activator is a superior adjuvant to increase the efficiency and effectiveness of turf chemicals.

Chipco Crab Kleen gives economical and selective post-emergence control of crab grass, chickweed and other grassy weeds in established turf.



WEEDS TREES & TURF®

March 1975, Vol. 14, No. 3

10 One mistaken notion — Originally introduced to this country under the delusion that it could be crossbred with the silkworm, the gypsy moth has become the Northeast's No. 1 pest and is constantly threatening to invade other regions.

16 Aerial War On Two Fronts: Tussock And Gypsy Moths — In response to two massive insect attacks last summer, a helicopter corps was summoned into active duty. Reinstating their single most effective weapon, DDT, the troops unleashed it against the tussock moth on the Western front. In the East, advancing gypsy moths were temporarily turned back with organic phosphate and biological ammunition.

20 Motivating The Turned-Off Employee: Part III — Motivation — In this last of a three-part series, John L. McKeever discusses the implementation of motivational techniques.

24 GCSAA Show Report — GCSAA held its 46th International Turfgrass Conference in New Orleans in February. Here's a report on what happened.

32 Adelgids: The Aphid Controversy — When is an aphid not an aphid? When it's a pine bark aphid, an eastern spruce gall aphid or a balsam wooly aphid, all of which R. Lee Campbell terms "adelgids," as he explains how this confusing nomenclature can result in costly and futile control attempts.

34 Turfgrass Nematode Problems: Diagnosis and Control — Nematodes can mean double trouble for turfgrass. Not only do they damage root systems, but they might also increase the turf's disease susceptibility. G. W. Bird explains nematode diagnostic procedures and treatment for sod farms, commercial turfs and home lawns.

46 Dollar Spot Control: Integrating Systemics and Contacts — Research has uncovered fungal strains that have become resistant to systemics. Not overlooking the advantages of systemics, P. O. Larsen suggests avoiding systemic fungicide-resistant fungi with a program incorporating systemics and contacts.

Editorial	8	People on the Move	63
Government News/Business	12	New Products	72
Commercial Sod Industry	34	Classifieds	73
Industry News and Newsmakers	36	Advertisers Index	73
Meeting Dates	40	Trimming	74

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THE COVER — Tussock moths have threatened the northwestern portions of the United States for the past few years. Several control methods have been initiated, one of which was an emergency exemption for the use of DDT in the spring of 1974. (Photo by Dr. Roger Akre, Washington State University.)

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WTT-3

Editorial

Attending a meeting, conference, show or whatever now costs money. For the business operator who includes his associates, the average out-of-state meeting represents a significant business expenditure.

For the exhibitor, the supplier or manufacturer who sets up his product line, mans his booth, and pays the fee for space and accessories, the cost is up even more.

Which produces a situation show sponsors — those associations, societies, universities and other industry groups — cannot ignore. Shows and conferences have to be good. The delegate to the show must get his time and money's worth in terms of information which will help him in his operation. The exhibitor has to see a big percentage of his potential customers.

The '74-'75 winter show and conference season is almost concluded and a critique seems in order.

Our concern is that the two groups requiring satisfaction — the delegates and the exhibitors — have not been as well served in all instances as would seem pos-

sible. Thus, both attendance and exhibitor participation suffer.

Basically, the problems revolve around the fact that the average association enjoys a membership amounting to only 10%-12% of the universe or the specific industry involved. This limits potential attendance. Costs being what they are, the exhibitor is forced to carefully appraise the economic feasibility of show participation.

Location of the annual meeting or show is another major factor. What is best: a location with a major tourist attraction to pull delegates and compete for show time, or a site where the product lines and the educational program are paramount?

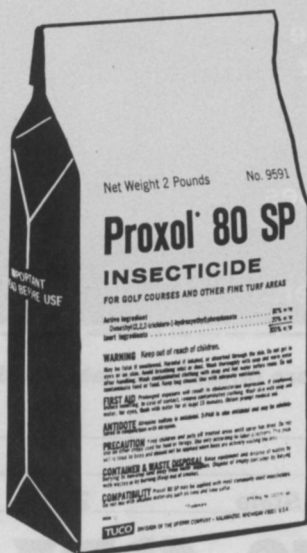
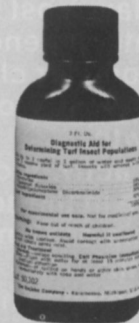
More questions can be raised regarding subject matter and quality, as well as variety of educational programs. Further, who is invited outside the association or society membership — and encouraged to attend.

We'd like to see shows and conferences with broader appeal — and with a clear invitation to non-members including all professionals interested in the business.

Take the guesswork out of turf insect control

Diagnostic Aid from **TUCO**

Many turf insect larvae are night feeders, so the first evidence of their activity frequently is damaged turf. Diagnostic Aid, applied to turf as directed, causes insects to emerge to the surface within 10 minutes. They can be identified and counted to determine the level of infestation and whether an insecticide should be applied. It also can be used after insecticide application to measure the control obtained.



Proxol* 80 SP Insecticide from **TUCO**

Proxol is the one insecticide developed especially for use on fine turf and ornamentals. Sod webworms and cutworms are two major groups of turf insects controlled by Proxol. It is estimated that each sod webworm larva can chew up 20 square inches of turf in its average life span of 20 to 40 days; the cutworm larva can devour up to 36 square inches. With 300 to 500 larvae generated from each adult in a period of 10 to 21 days, it becomes apparent why early detection and control are desirable. Using Diagnostic Aid and Proxol together lets you program insect control.

*Trademark

One bottle of Diagnostic Aid FREE in each case of Proxol 80 SP.



TUCO

Division of The Upjohn Company, Kalamazoo, Michigan 49001

For More Details Circle (152) on Reply Card



Strength that cuts it: Ford Flail Mowers

Ford flail mowers, inside and out, are built to handle tough, punishing work! Drive-line features heavy-duty components like banded V-section belt drives . . . high-capacity bearings . . . rugged gearbox. Welded frame braced by full-width torque tube maintains gear and drive alignment wrapped in a high-strength



sheet steel housing. Available with optional rear bumper, right-end bumper guard, gauge wheels, and steel or rubber gauge rollers. Ford flails are built to take it! And servicing is easy.

Blade hanger lets you remove one blade at a time. Bolt-on design makes blade removal and reattachment fast and easy.

Improved flail-safe design. Protective configuration of the heavy steel rear shield is designed to prevent straight-line ejection of material from under the mower housing, regardless of cutting height.

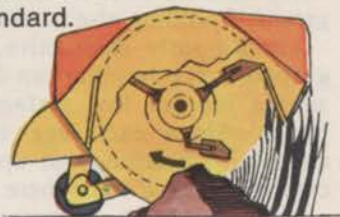
Three cutting widths. 62-inch, 74-inch, and 88-inch models are available to match your tractor power and mowing needs. All offset for ease of mowing close to trees and other obstacles.

Widen the range of flail mower applications. Rugged Ford flails improve mowing results even in some



areas where you are now using rotary cutters and cutterbars.

Medium-cut or fine-cut blades are standard.



See your Ford tractor and equipment dealer. He is listed in the Yellow Pages under "Tractor Dealers" or "Contractors' Equipment & Supplies". See him for information on how to buy, lease, rent, finance.

Ford-for the long run
FORD TRACTORS



Rollover bar, tractor 3-point hitch, high-flotation tractor tires illustrated are optional at extra cost.

For More Details Circle (136) on Reply Card

One mistaken notion

that introduction of the Gypsy Moth into the U.S. could be of economic importance has resulted in unleashing one of the most serious insect pests this continent has ever experienced.

THE GYPSY moth was introduced into this country a hundred years ago under the assumption that it could be crossbred with the silkworm. Since that time, it has become a major pest in the Northeast and is threatening new areas every year.

A member of the order Lepidoptera, the gypsy moth lays millions upon millions of eggs every summer. The egg masses hatch out as caterpillars the following spring and begin feeding in April or May. They devour the leaves of shade trees — oak, hemlock, birch, willow but will defoliate fruit trees and even evergreens if nothing else is available.

Enormously destructive, a single two-inch caterpillar can devour a square foot of leaf surface in 24 hours. Since each egg mass is capable of hatching out up to 500 caterpillars, and since there may be as many as 10,000 egg masses in one heavily infested acre, the gypsy moth is capable of defoliating millions of acres of forest, parkland and wooded residential areas annually.

It is estimated that nearly two million acres of forest land suffered significant damage from gypsy moth infestation in 1974. The areas treated each year in State/Federal gypsy moth control programs are a tiny fraction of the total defoliated acreage and are limited to high-value areas. For example, in 1974

only 277,000 acres were sprayed under co-op programs. For 1975, the State/Federal co-op programs did not exceed 119,000 acres in the following states:

New Jersey	29,000 acres
New York	20,000 acres

Pennsylvania	55,000 acres
Rhode Island	15,000 acres

The gypsy moth is a moving target. It doesn't fly very far, but it's well-named nevertheless, since it has hitch-hiked for thousands of miles. Campers, trailers and trucks hauling forest products are among its favorite means of transportation, serving as ideal hiding places for the moth's egg masses, which may hatch, long distances away from where they were laid. Thus, in addition to heavy infestations in the

(continued on page 55)



The gypsy moth, with its voracious appetite, can devour a square foot of leaf surface in 24 hours. The U.S. Forest Service estimates that nearly two million acres of forest land suffered significant moth damage in 1974.