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WORMS WORDS AND WILLINGNESS

a co-op venture in gypsy moth control

"Two-inch caterpillars blanketed the walls of houses ... housewives couldn't open their doors ... one road actually became hazardous to motorists because it was covered with the slippery bodies of caterpillars!"

Rather than a scene from a science fiction thriller, this is how Emile A. Ollivier described what it was like to live in one picturesque Cape Cod community when the gypsy moth

came to town. Ollivier is insect pest superintendent and tree warden for the Town of Orleans, Massachusetts.

The greedy gypsy moth, of course, was no stranger to Ollivier's community, or to practically any other wooded area of the northeast. For several years this voracious pest has chomped it way through millions of acres of shade trees, defoliating often to the point of killing them, disrupting recreational activities and gener-

ally making a supreme nuisance of itself.

What made the problem unique in 1971, however, was that Ollivier was virtually powerless to do anything about controlling the pest. Spraying with DDT, of course, was out. So, it seemed, was spraying with any other effective chemical. At the urging of the Audubon Society and the Association for the Preservation of Cape Cod, a 90-day ban had been imposed by the state on aerial application of Sevin carbaryl insecticide. Since caterpillars do all their destruction between early May, when they hatch from egg masses on trees, and the end of June when they enter the pupal stage prior to becoming moths, the 90-day ban eliminated any chance of control for the year.

What's more, the gypsy moth situation appeared to be getting worse, not better. Despite claims that gypsy moths, given free reign, would depopulate themselves, or that natural controls would soon regulate the pest without further effort from man, the facts and figures showed that Cape Cod could expect an even more massive onslaught of gypsy moths in 1972.

Ollivier's pest population growth records, for example, showed 220 acres of woodlands infested in 1970, 1,200 acres infested in 1971, and an estimated 5,000 acres to be infested in 1972.

Gypsy moth egg counts told a similar story. "We found several acres with an egg count of 31,000 egg masses per acre," Ollivier said. "On one particular tree a count of 1,923 egg masses was recorded. Each egg mass has from 300 to 450 eggs. This means that this one tree could produce nearly 1 million caterpillars."

So with a ban on effective gypsy moth insecticides, and with Federal, state and county governments taking a "hands off" policy on the emotionally and politically-charged spraying issue, Ollivier had a lot going against him in his efforts to control the pest in 1972. What he had going for him, however, was Mrs. Jean Olmsted, a selectwoman for the nearby town of Brewster, a conservationist, and a lady who had witnessed the '71 infestation and vowed not to let it happen again. Mrs. Olmsted marshalled the resources of Barnstable county, which covers Cape Cod.

Organizing through a series of local meetings, these citizens decided

Emile A. Ollivier (above left) insect pest superintendent and tree warden for Orleans, Mass. checks out a spraying course with Dick Canning of Chemapco, Inc. Most residents participated in the co-op program.

that indeed, something had to be done about the gypsy moth. And since it was apparent that help or financing from Federal, state or county sources would not be forthcoming, it was also decided that they would have to do it themselves.

The first step was to hold a public hearing at which the 90 day ban on spraying was overturned. This left just one obstacle in the pathway to an effective spray program—money. Only \$16,000 had been budgeted for the year for pest control programs in all of Barnstable county. This would have covered only 2,000 acres. It was estimated that at 20,000 acres were infested.

Since no single community could afford to do the job, it was decided that the answer to financing lay in banding together in a cooperative spraying venture. Spearheaded by Mrs. Olmstead and two other selectmen from the towns of Harwich and Yarmouth, the cooperative program resulted in the spraying of 22,000 acres of Cape Cod residential and recreational areas encompassing six municipalities.

The communities could afford the program because a central source coordinated the program and prices were based on 20,000 acres instead of

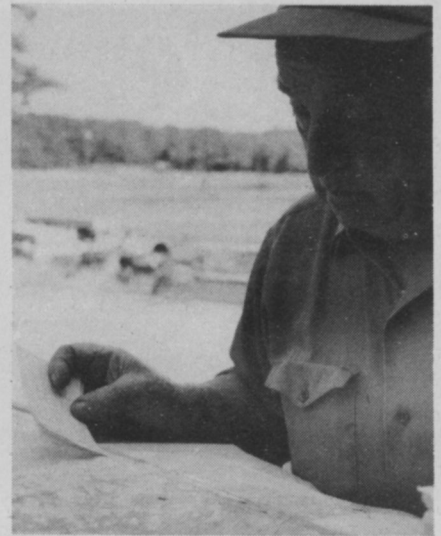
small allotments. Most important, the program was effective.

"The visible results were really dramatic," said Dick Canning of Chemapco Inc., the firm contracted to handle the program. "Our people on the ground reported that caterpillars were dropping from trees within fifteen minutes after we made a pass in the air. One man and his two boys were sweeping them up with leaf rakes. As defoliation took place, the cut-off line where we had to stop spraying was clearly visible from the air," Canning reported.

Residents were given the option to have their property skipped during the spraying by identifying the edges of their land with red balloons provided by the pest superintendents. Few took the offer. Larger boundaries were staked off for the aerial applicators with yellow balloons.

Proper application of the proper material was of key importance in the Cape Cod project. Economy and protection of the environment were obviously major criteria. So was speed. In order to get effective gypsy moth control, Canning had four weeks to cover 22,000 acres. This made aerial application a must.

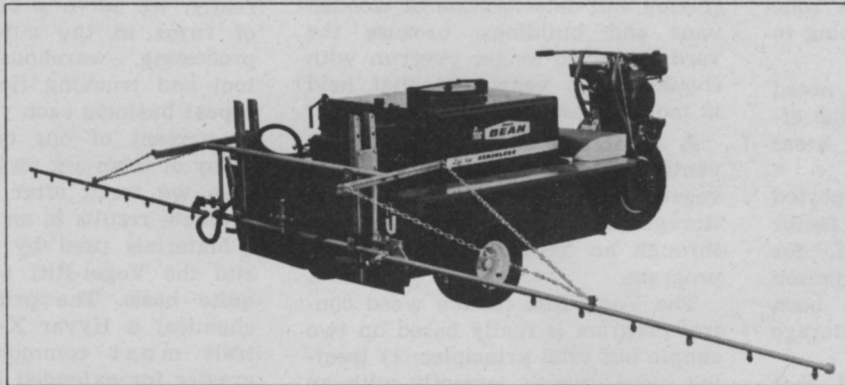
"But even with aerial spraying,"



Postcards were used by residents who wished to have their property sprayed. Ollivier checks these requests against his county map.

Canning said, "we would need a fleet of helicopters to do the job with conventional water formulation insecticides." A lower volume material was required, and the one picked was Sevin-4 Oil, a compound with a sticker base that keeps the spray on the foliage.

According to Canning, the material
(continued on page 42)



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Weed control planning is the conference topic in a session between Travis Braun (1) and Joe Watkins of Vogel-Ritt. They direct the firm's service that keeps weed growth down. Small plant sites have a great need for this service.

SMALL PLANT SITE WEED CONTROL (from page 14)

—but will provide season-long control of weeds.

A Detroit food processor reports saving hours and days of labor in cutting and trimming, when the firm went to a chemical program to maintain a buffer, weed-free zone around its plant, thereby helping to reduce rodent problems.

An automotive parts firm noted improved employee safety and efficiency in outside storage areas with chemical weed control.

A tool and die company reported that employee health was a factor in their continuing interest, for without proper weed control, poison ivy and thorny bushes had been overrunning parking and storage areas.

A lumber company found that with an economical, effective weed

control program, insurance rates came down because fire hazards from dead weeds were eliminated.

Trucking company managers agreed that chemical weed control in parking areas reduced equipment rusting and deterioration of wooden vans and buildings, because the yards were no longer overrun with shoulder-high vegetation that held in moisture and humidity.

A small tool firm found that inventory losses were cut when dense vegetation adjacent to its plant and storage buildings was eliminated through an annual chemical weed program.

The Vogel-Ritt custom weed control program is really based on two simple but vital principles: 1) treating weed growth correctly with an effective residual material such as

Hyvar X-L bromacil and then 2) checking back on the treatment in a couple of months to be sure the customer received the kind of control which had been guaranteed. Behind this program, however, there is a lot of careful planning and detail; and no one knows it better than Travis Braun, who heads up weed operations for the pest control firm in Detroit.

Braun is a trained agronomist, with degrees from Cornell and Michigan State. He worked five summers on farms in New York, added herbicide marketing experience with Du Pont, and for the past half dozen years has been building the small plant site weed program for Vogel-Ritt of Michigan. This firm did its first weed control work as much as 15 years ago; but it was not until Braun was on the scene in 1966 that Manager Joe Watkins felt justified in pushing more aggressively into the small plant site weed field.

It's clear what Braun's know-how and training have meant to Vogel-Ritt customers. Every year the number of these firms has been growing.

Braun says: "We are in the small and medium-sized plant site market, because that's where our equipment and our applicator skills fit best. But really, we serve a blue-ribbon list of firms in the automotive, food processing, warehousing, machine tool and trucking fields. We have repeat business each year with 85 to 90 percent of our customers, and many of them ask us to increase the area we treat, after they see and evaluate results in an initial year."

Materials used by Travis Braun and the Vogel-Ritt applicators are quite basic. The primary residual chemical is Hyvar X-L which controls most common weeds and grasses for extended periods. Other

(continued on page 26)

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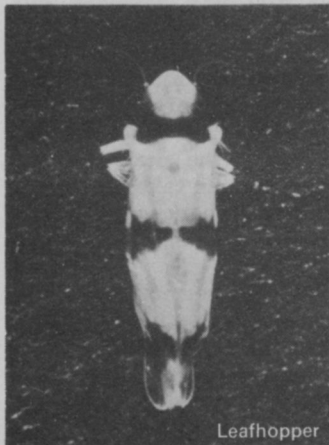
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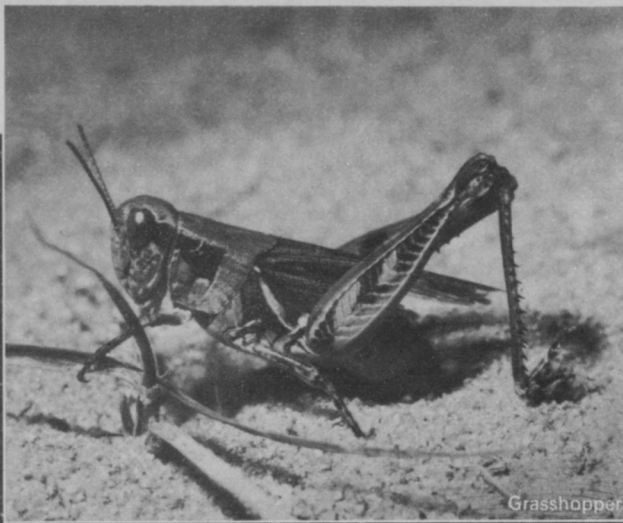
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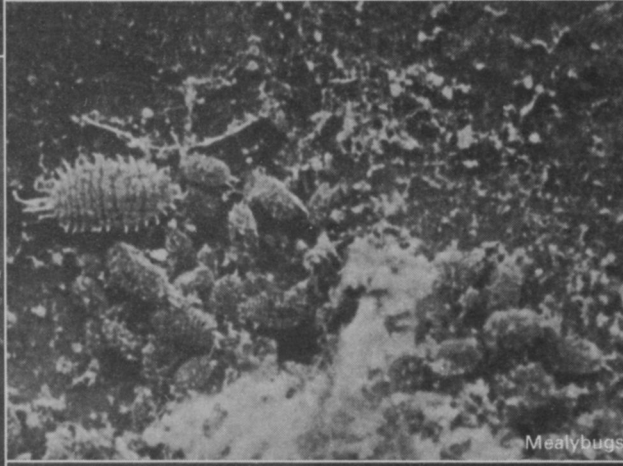
Leafhopper



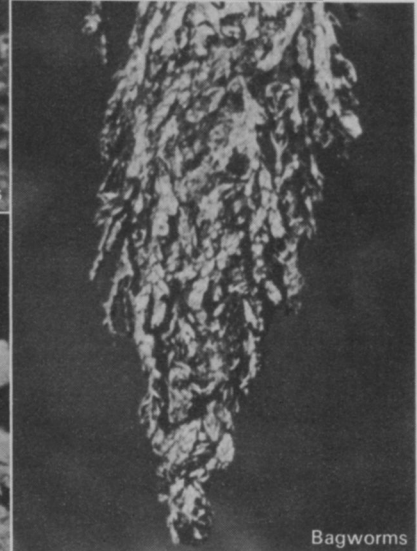
Grasshopper



Hairy chinch bug



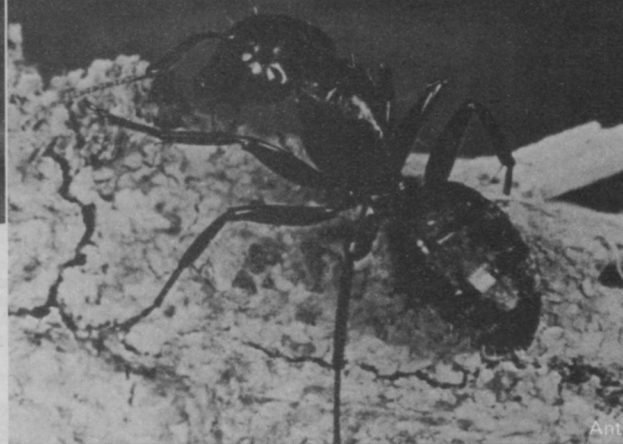
Mealybugs



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chemicals in the program include spot treatment of Trysben 200 (for woody plants like vines) along with Ammate X as a control in areas where desirable vegetation is close by and Surfactant WK to increase weed control efficiency when growth has started. Chemicals such as Amitrole T and Paraquat are also used to knock down standing weeds, while the residual materials work primarily on roots and germinating seeds and stop growth before it starts.

Vogel-Ritt applicators, of course, follow product labels carefully, using a 1.5-3 gallon rate of Hyvar X-L to control annual weeds and grasses such as foxtail, rye grass, wild oats, ragweed and turkey mullein. A 3-6 gallon rate is used on perennials such as bluegrass, quackgrass, dandelion, dog fennel, goldenrod, plantain and wild carrot; a 6-12 gallon rate is used on hard-to-control perennials such as nutsedge and horsetail.

In addition to knowing how much product should be used to handle a specific weed problem, the Vogel-Ritt applicator brings equipment knowledge and mixing and spraying knowledge to the job, so that in a few hours a plant maintenance man's

weed problem is solved for the ensuing year.

One key step, however, is the weed control planning that precedes any treatment on a plant site. Braun, or one of his nine associates who call on plant maintenance managers, draws up a simple site plan to show the Vogel-Ritt customer exactly what areas will be treated and to tell the Vogel-Ritt applicator how to treat. The plan is a useful reference for a post-treatment check and for a review of the needs of this plant site a year later. It is also the basic estimating tool to help establish the price of Vogel-Ritt service on a job.

New ideas for better service are constantly being developed by a weed specialist like Braun. Following several years of trials by numerous investigators, Braun is now suggesting that there is really little reason to concentrate applications of residuals such as Hyvar X-L in the spring months. A fall treatment, he notes, will be effective for the following growth season, when it is properly applied. By extending the treatment season, Braun has been able to get better utility out of his equipment and thereby work to keep overall prices down, in the face of rising labor costs. Vogel-Ritt of

Michigan has, in effect, opened up a fall treating season for the smaller plant man, who may recognize that winter cold weather will indeed control existing weeds but it will not prevent their regrowth in the spring. The right amount of the correct chemical, however, will do that job until the end of the next growing season. And that can take a load off the mind of maintenance men during a busy spring or summer vacation period.

Vogel-Ritt's 40 service men who are making regular pest control service calls throughout Michigan are in an ideal spot to help their customers deal with weeds as well as pests and insects. They simply ask for help from their own firm's weed control division; and Braun and his associates are ready — to make a call, draw up a plan, schedule a weed treatment, and follow-up with a post-treatment site check.

"This kind of service is something a smaller plant man really appreciates," observes Braun. "We have found it helps our customer solve a tough problem — and one that can lead to a municipal citation when a city ordinance is violated while it is overlooked or ignored." We have
(continued on page 28)

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Weed contrast outside Detroit plant is seen in treated area (foreground) and untreated overgrown area behind parked car. Hyvar X-L bromacil weed killer keeps weeds down for a full season.

concentrated on plant areas that involve anywhere from a half-acre to perhaps three acres of vegetation. We have helped eliminate mosquito-breeding areas and chemically trimmed weed and grass growth from fences, buildings, rail sidings and walls. We have helped auto dealers keep weeds out of parking lots; and the results a customer sees, as in a

paper company recently, usually encourage him to extend the first year's treatment. But sometimes our customer may want to take a program beyond where we feel he ought to go.

"When a man wants to go too far too fast, we may tell him to hold up, even though the delay costs us short-term business. We want to be **sure**—not **sorry** — about our work. Last

year, for example, we discouraged one firm from broadcasting residual materials over an area as large as a football field. We simply thought that his plan would not be desirable from an environmental view, for the area was surrounded with residences, and we did not want to establish a miniature dust bowl."

Training plays a big part in the success Vogel-Ritt has had in developing a small plant weed service program. Braun and Watkins have turned to a Du Pont industrial weed control specialist, Clinton B. Harris, for help in this area. Harris concentrated first on applicator know-how, and he has also established weed control principles in annual sessions with Vogel-Ritt's weed representatives.

"This type of training helps build individual competence and confidence," notes manager Watkins. "When we upgrade our thinking, we find chances for new service. And that's what our business has always been all about. We're getting our sales people out in the field to work with our applicators, so they will develop more knowledge to service the needs of small and medium-sized plant people. □

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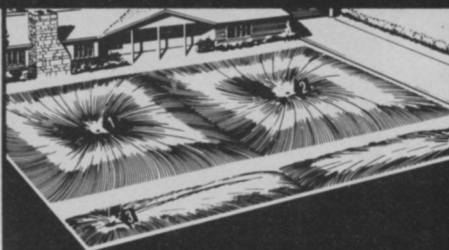
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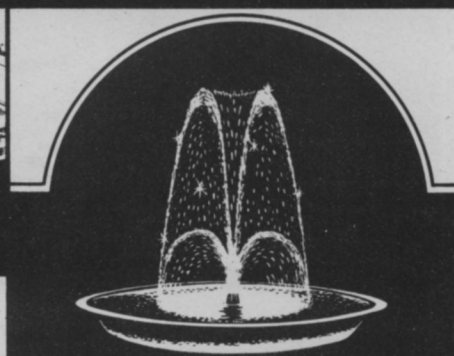
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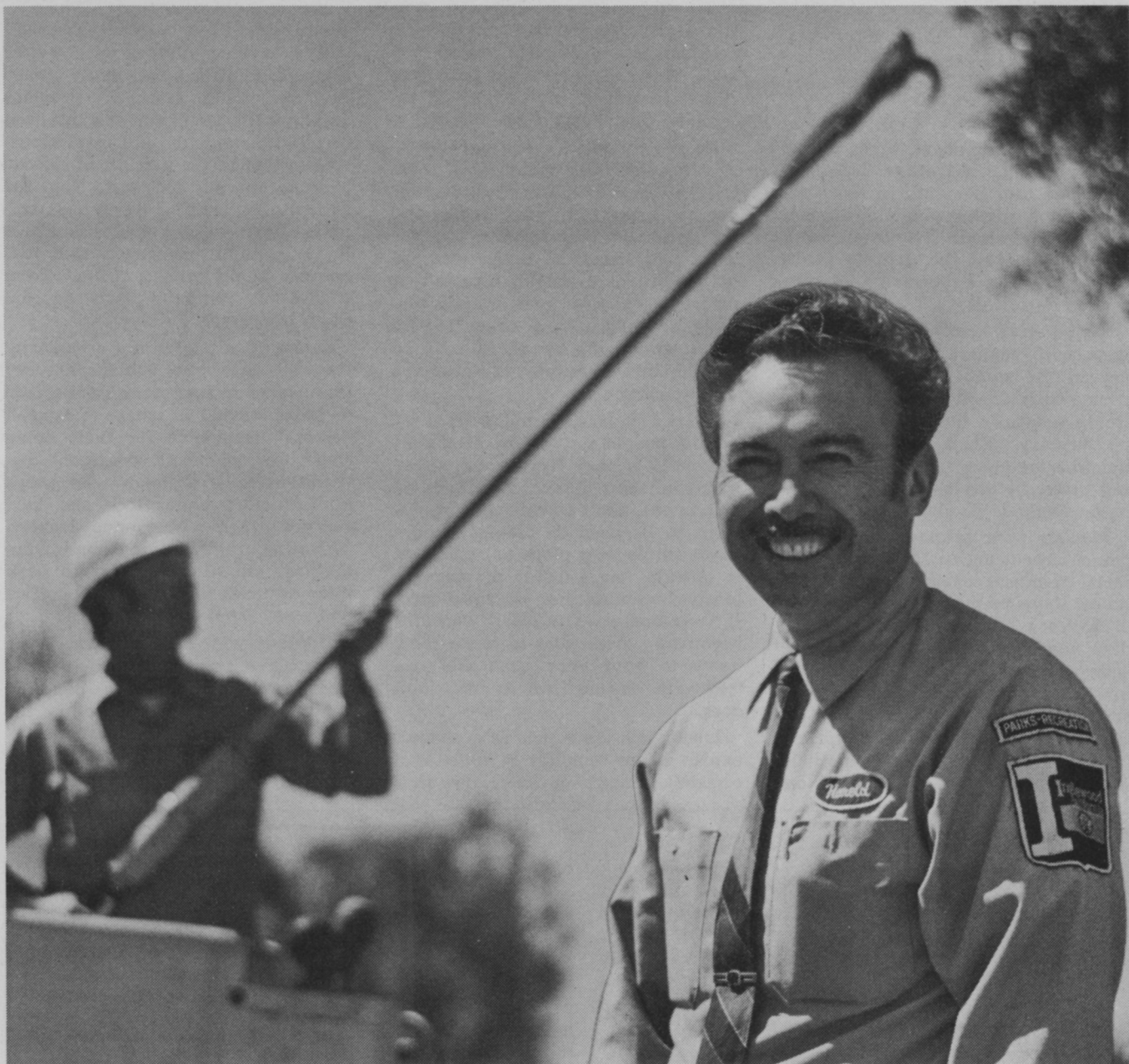


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SECURITY IN YOUR BUSINESS

(from page 18)

sitive pneumatic signal tubes placed across the road in front of the workshop can also be used. In more sophisticated operations, investment in a closed-circuit television camera may be just the item to guard a truckload of expensive turf protection chemicals.

Cooperative business plan. Engage with several local firms who are in the same area as yours to periodically check on all businesses. Being helpfully nosy may prevent a burglary. Then too, should a neighboring owner find a crime taking place, he can use his own business telephone to alert the police.

Identify your property. This is of prime importance. Make note of serial numbers of large and small items. Keep these in a security vault or lockbox. Buy a set of marking dies and stamp each item with a code, name or other identifying mark. It's worth the investment! In certain areas these codes can be filed with local police. For vehicles, it's not a bad idea to make a small inconspicuous mark somewhere on

the vehicle, preferably on the underside. It could mean the difference between ownership and loss if a vehicle is recovered which resembles the one you are missing.

Be suspicious. We are our brother's keeper, but today you must take measures to insure that your brother keeps only what is his, and not yours. Individuals found in the work area should be firmly escorted off the property. Establish rules that no friends of employees are allowed to visit. Don't loan a chain saw to the neighbor of a client. He may be a neighbor who is moving out of the state tomorrow.

There's nothing wrong with questioning people as to their intentions, especially if they have your equipment in their hands. Speaking of equipment, don't permit your equipment to be used on off-duty hours at an employee's place of residence. It quickly has a habit of inadvertently becoming lost or misplaced. If your operation is small, consider permitting employees to bring their items to your shop area and use tools, etc. as one firm in Maryland does.

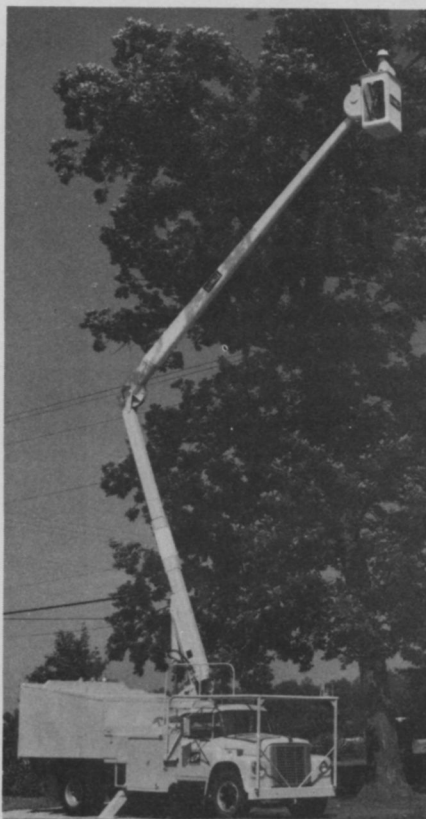
Inside job. As much as we don't expect it nor look for it, there is a certain amount of burglary that

takes place by employees, themselves. A tree climber may switch a new saddle for a personally owned but used saddle gained by previous employment. A chain saw in need of repairs suddenly and mysteriously disappears. Or a hank of manila rope wears out too fast. Yes, the substitution game is crafty and employees can become professionals at it. One employer recently said that he was being robbed "blind" from **within** his company. How do you put a stop to it?

One way, although not necessarily the best, is to label and mark every item in your inventory. Make lists of items carried in trucks and make drivers responsible for their being there. For chemicals, assign the distribution to a foreman who keeps all pesticides under lock and key. Provide work clothes and lockers. This discourages driving home from the last job. Have employees park their vehicles in front of the office and away from the work area.

Another way to reduce employee pilfering in areas where high value items are located is by bonding. While this may be satisfactory for some, others in the "Green Industry" find that it discourages potential

(continued on page 32)



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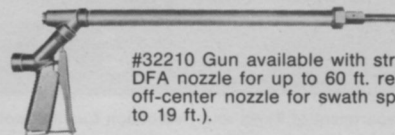


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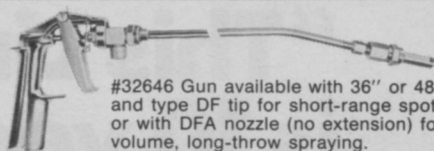


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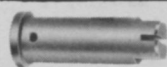
Delavan foam spray equipment reduces drift up to 60%



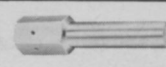
#32210 Gun available with straight stream DFA nozzle for up to 60 ft. reach, or with off-center nozzle for swath spraying (up to 19 ft.).



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Type DF nozzle tip for spray rigs or #32646 gun (above).



Type DFA nozzle for either of the above guns.



Type DFOC off-center nozzle for #32210 gun.

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