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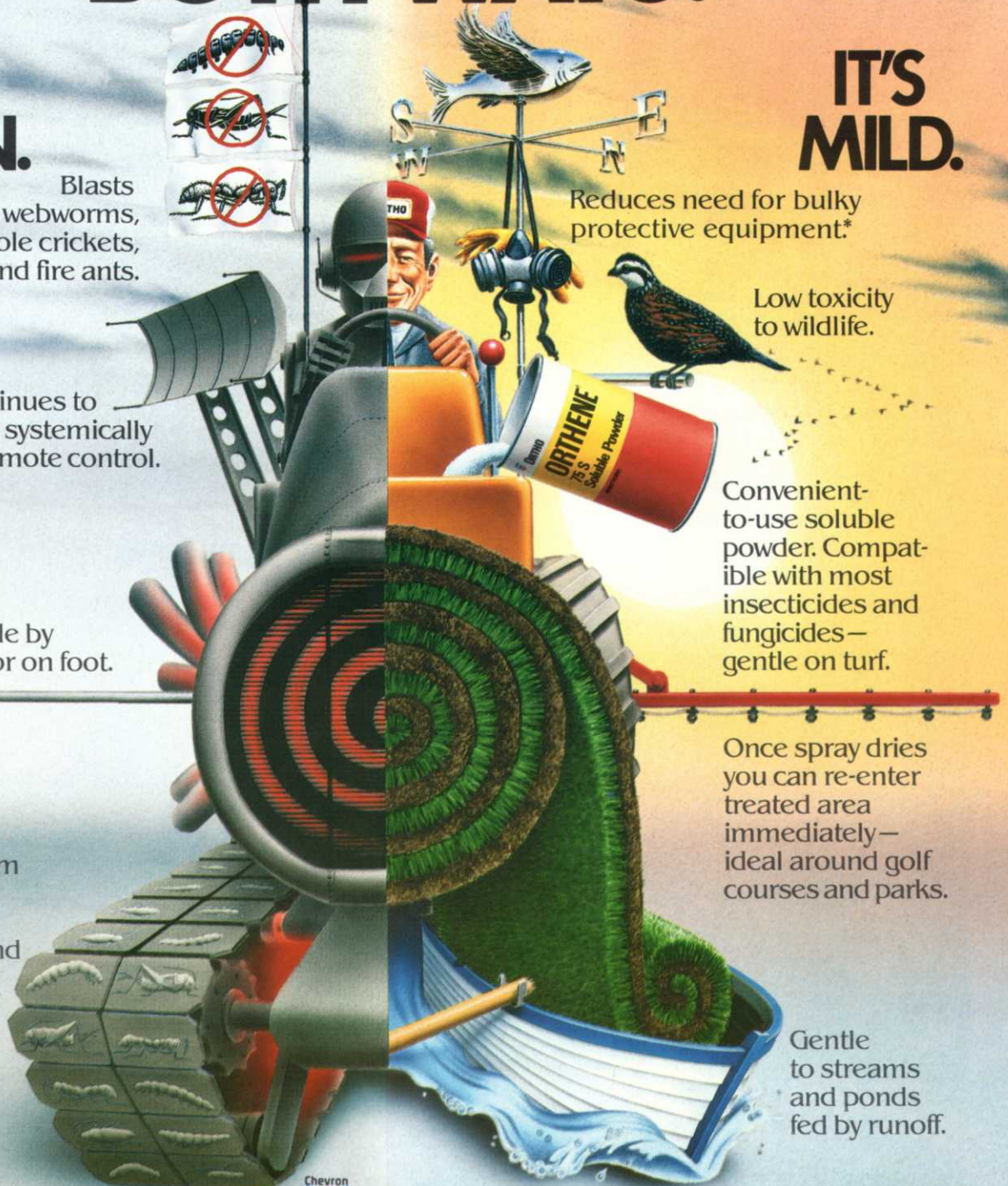
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SAFETY FIRST

By Cheryl Jones, A.G.C.S.W. (Asst. Golf Course Supt.'s Wife) Frenchman's Creek North Palm Beach, FL

This lay person would never attempt to instruct a superintendent how to train an employee. You folks are the experts. If you don't personally show an inexperienced new crew member exactly how the job is done, you probably assign an experienced crew member to shadow him and show him the ropes for a few days/weeks. No one would simply TELL a person how to cut a cup, for example, if that person had never seen one before. Give me the necessary tools and verbal instructions, and you're liable to end up with a crater smack in the middle of the fairway, possibly in the middle of an irrigation pipe. No, don't turn us greenhorns loose without a living guide to save us from ourselves, and yourself a lot of headache!

While you're hypothetically training me, please don't forget the essential safety precautions. They may save more than a headache - they might save a life.

OSHA has rules and regulations for employers, and a poster for employees. Be sure it's displayed where I can see it. I am a woman. Please don't tack it to the wall in the mens room.

Advise me of where first aid supplies are kept, and explain in detail which chemicals I may become exposed to that must be flushed off immediately. Don't forget to show me where this is done, and who to

report work-related injuries to.

I've never worn a respirator, never even seen one up close. Please show me exactly how to use one, and explain in what situations, and who is responsible for cleaning it after the job is finished. If a protective rubber suit must be worn, does it need more than a quick hosing off when I'm done with it?

While we're talking about equipment, let me know which jobs will require wearing safety goggles, and where I can find them. My eyesight is precious to me! Many courses require employees to wear steel-toe boots. A good friend of mine lost his toe several years ago, flymowing a slippery bank. You can bet I'll wear them! But do you supply them, or must I purchase a pair myself? Even the most safety-conscious, careful employee can have an accident. A pair of long pants provided that thin edge of protection when a chain saw tried to eat my husband's leg. He wasn't hurt, but you won't hear me complaining about the "No Shorts" rule at your course.

Even if instructions seem silly, obvious, and self-explanatory, please come straight out and tell me not to poke around under a mower before disengaging the blades or shutting down the motor.

Am I responsible for washing down my machine after every use? Will you show me just how you want this done?

Does a mechanic perform daily routine maintenance tasks, or do I check the oil in my machine before using it? Must I refuel my machine at the end of the day so it's ready to go in the morning, or do you prefer it to be nearly empty to reduce fire hazards? Must I log my fuel usage for record-keeping purposes? When my machine is oiled, fueled, and ready to go, where do I dispose of the oily or gas-soaked rags?

Please show me exactly where I may or may not drive machinery on the course. If a load is too heavy to pull across a recently planted fairway, please say so in advance. I'd rather face a charging bull than an outraged superintendent.

Instruct me in every detail of operating procedure of all equipment I'll be using, from cleaning ball-washers to flymowers and tractors. I'm a quick learner, but there's a lot to learn. Please be patient - the only "dumb" question is the one that isn't asked, especially regarding safe operation of expensive machinery. I want to do a good job for you! To use another worn cliché, Rome wasn't built in a day. The time you invest in instructing me now will be returned to you ten-fold in decreased delays, mistakes, downtime and injuries.

Oh, and thanks for that pat on the back. It's great to be part of this team! ■



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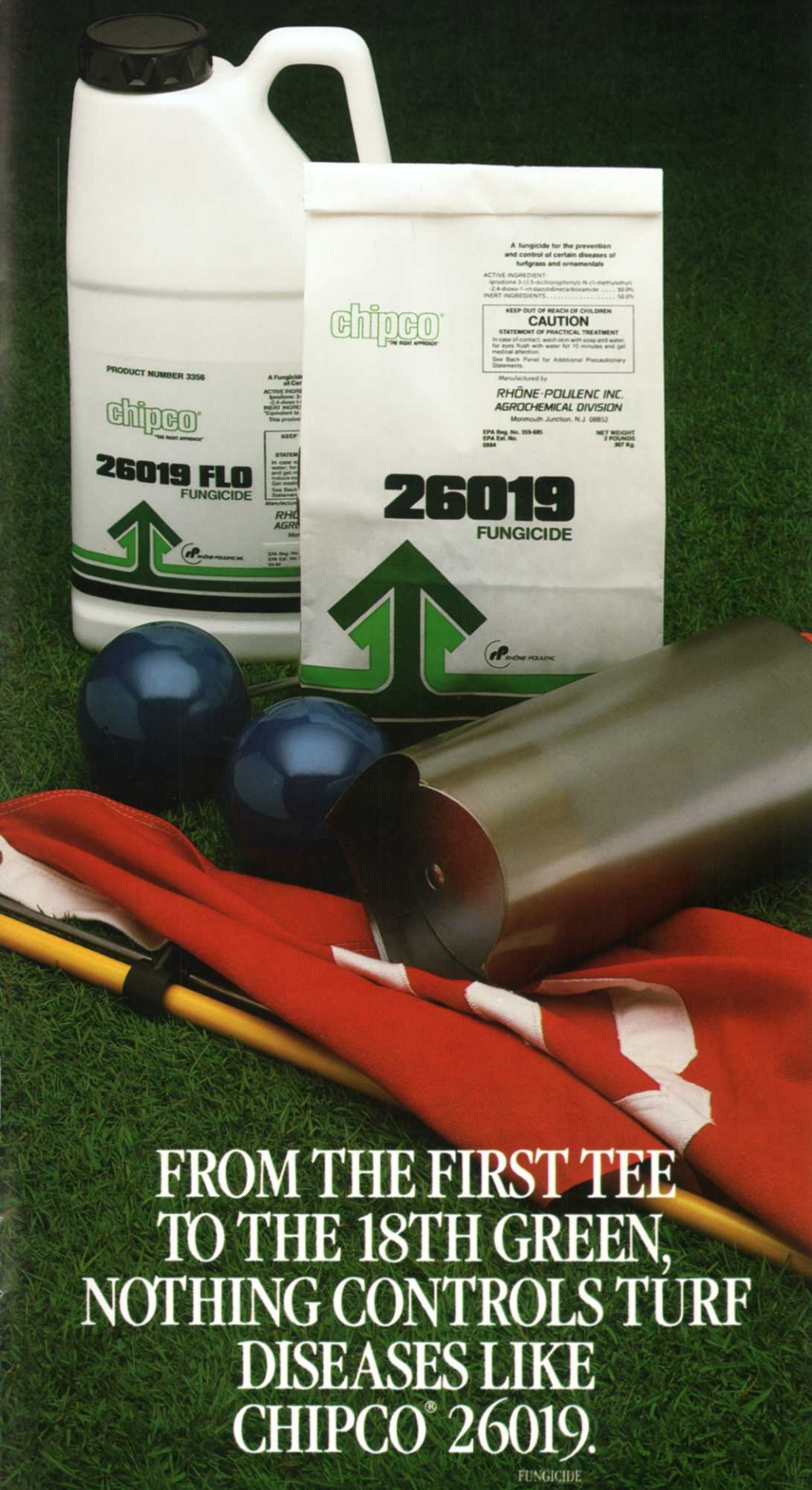
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PARASITIC WASPS RELEASED AS BIOLOGICAL CONTROL AGAINST CITRUS SCALE DISEASES

By Julie Graddy

HOMESTEAD — A thousand parasitic Japanese wasps were released 6/9/87 in the Homestead area to test the wasp's ability to control chaff scale and snow scale, insects that attach themselves to citrus twigs, leaves and fruit. Similar releases of biological controls against scales have had a "very good" success rate, says Dr. Fred Bennett, an entomologist at the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida.

Dr. Richard Baranowski, director of the IFAS Tropical Research and Education Center in Homestead, who released the minute wasps in a lime grove, says that releases will continue several times a week for a couple of months. Regular tests will monitor the wasps' progress against the scales, he adds. Material for the releases come from Japan via the biological control center at Texas A&M University in College Station.

Because a scale insect has a hard covering that protects its body, the insect is difficult to control with insecticides normally used on citrus. Although systemic insecticides can work, they are not used because the insecticide is taken up by the fruit as well as the leaves, says Bennett, who specializes in biological control.

The ingenious wasp drills a hole in the scale covering and lays an egg inside. When the egg hatches, the larva eats

the scale. The wax covering protects the wasp as it grows and pupates into an adult, says Bennett. The wasp larva feeds on several growth stages of the scale. The insect feeds on scale insects only and is not a nuisance to man or other vertebrates, says Bennett.

Bennett hopes the wasp can also be used to control black parlatoria scale. This unsightly citrus pest was discovered in a small pocket of trees in the Little Haiti area of Miami in 1985. The wasp appears to provide some control against the insect in its Japanese homeland, says Bennett.

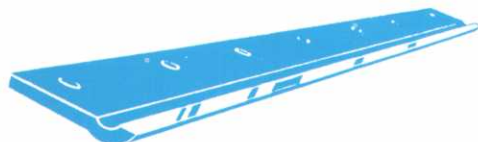
Florida citrus growers are concerned that black parlatoria will make its way into the state's main citrus growing area, he says. Although the scale does not usually destroy citrus trees, it is difficult to clean off fruit, which damages marketability.

The state recently started a tree eradication program to remove the infested trees in the area, but has asked IFAS scientists to continue research in case the pest cannot be eradicated or someday reinvades the state.

Puerto Rico is a likely spot for continued testing, Bennett states, since reports indicate that black parlatoria scale is a problem there. ■



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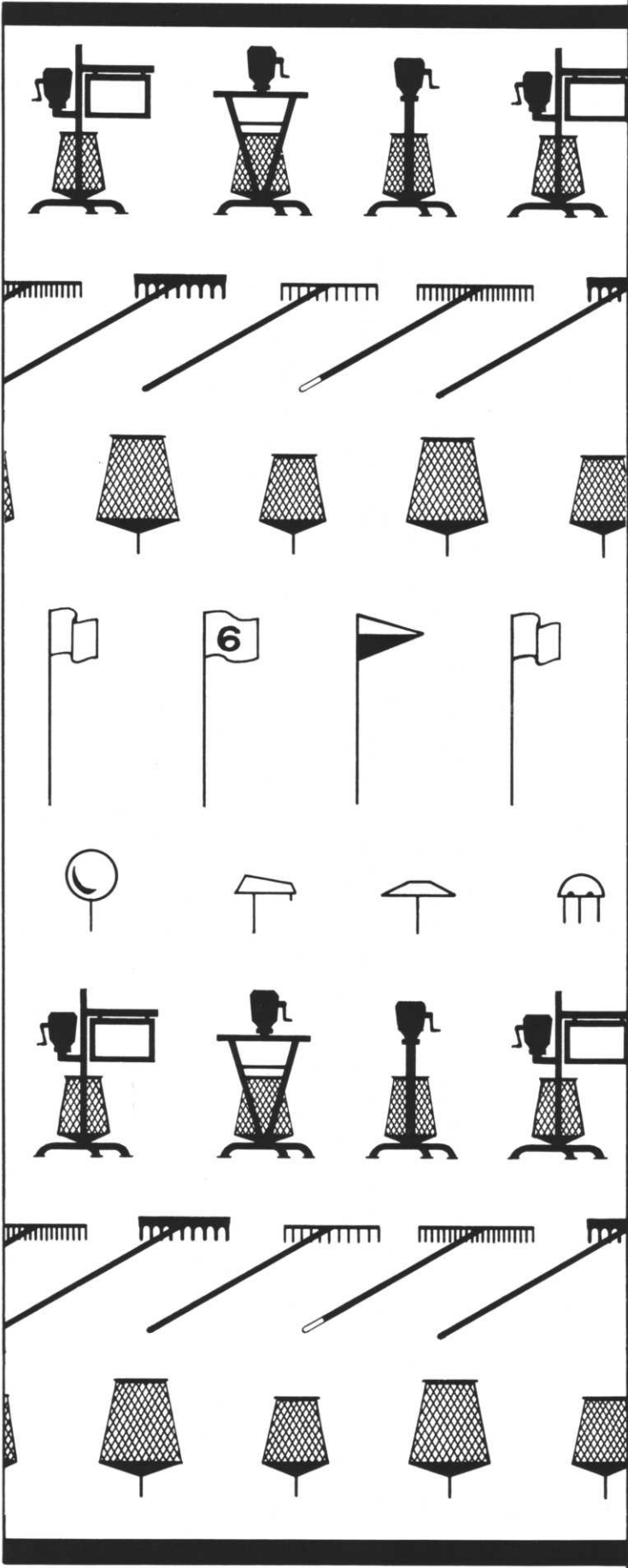
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HAVE YOU READ A PESTICIDE LABEL LATELY?

By Susan P. Whitney

All chemicals that are designed to control pests, from the insects in your fields to the germs in your bathroom, are "pesticides" according to the Federal Insecticide and Rodenticide Act (FIFRA). This law says that no container of pesticide may be sold unless it has an attached label that gives specific information about safety and use of the chemical. Before you read any further get a container of pesticide — any commonly used household pesticide will do — and check the label as you read this article.

FIFRA says *The Label is the Law*. That's right! You're holding a legal document in your hands. If you don't do what the label says, you may be subject to a fine. You should always read the label before you buy a product and then again before you use it and again before you dispose of the container.

Now let's see what the label tells us. If the chemical is a *Restricted Use Pesticide*, the label must say so. Only certified pesticide applicators may buy and apply restricted use pesticides, however, anyone may buy and use general use pesticides.

The label must list the *ingredients* and the *type* of pesticide — insecticide, herbicide, nematicide, etc. The *name and address* of the manufacturer must be on the front of the label with the *Environmental Protection Agency Registration Establishment Numbers*. The establishment number will tell you which facility made this particular batch of the chemical — important information to know in case you suspect that something is wrong with the product.

SIGNAL WORDS

The *signal words* are probably the most important words on any label. There are 3 kinds: *danger*, *warning*, *caution*. Which one is on your label? "Danger" means that this pesticide is highly toxic to you, but not necessarily highly toxic to the pest. "Warning" means it is less toxic, and "Caution" means it is mildly toxic to you. The signal word will determine what kind of *protective clothing* is required by the label. Does your label list any protective clothing? It may not, so check under the signal word. Does it say "Do not breathe vapors?" Then you may need a respirator. If the label says, "Do not get on skin," you should wear protective rubber gloves, a long sleeved shirt and long pants. What kind of protective clothing are you going to wear the next time that you use a pesticide?

Now let's read the *state of practical treatment*. Here you will find *first aid* advice. You can see why it is important to read the label before you buy and again before you use. It's too late to read the label after the chemical has splashed in your eyes! Remember to take the label with you if you have to go to the hospital. Your doctor needs to know what type of chemical you used and the treatment.

How will you store and dispose of the pesticide container? Check the *storage and disposal* statement on the label. It should say to rinse the container three times before disposing. This will reduce environmental contamination. Plan ahead when mixing any chemical so that you can use the solution from this rinsing.

Your label may also have *environmental hazard and chemical or physical hazard* statements. Does it say "do not apply to any body of water?" or "flammable?" Agricultural products will have a *reentry* statement that tells when you or your workers may return to a treated field. Be sure to read and follow the *directions for use* carefully. Here you will find the plants that may be treated, the pests that can be controlled and mixing directions.

Now you know how to read a pesticide label. Make a practice of it, because labels are constantly changing! If you have any questions, call your County Agricultural Extension Service. And remember — THE LABEL IS THE LAW. ■

from *FloridaAgriculture*, April 1, 1987

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TURF INDUSTRY UPDATED AT LOFT'S ANNUAL FIELD DAY

Bound Brook, NJ — Golf course superintendents, lawn care operators, turf seed distributors and other members of the turf industry recently met to discuss new developments and common interests. Once again Lofts' Research Center was the site of their Annual Turf Field Day.

Dr. Joseph DiPaola of North Carolina State University opened the program with "Turfgrasses for Shade Use." Then Dr. Mark Welterlen, of the University of Maryland, spoke of "New Turfgrass Trends." Lofts' Jeanne Ritchey discussed "Small Business Collections." Finally, Dr. Richard Hurley, Lofts' Research Director, presented "Ornamental Grasses and Their Use in the Landscape."

Following a picnic lunch, Dr. Hurley led a tour of Lofts' research plots. There visitors could observe the performances of several varieties under various conditions. The final item on the agenda was a demonstration of the NJ State Seed Certification program.

To be notified of next year's Turf Field Day, contact Lofts Seed Inc., Chimney Rock Road, Bound Brook, NJ 08805, (201) 356-8700.



Visitors to Lofts' Field Day tour research plots. Dr. Rich Hurley explains the purpose of the plots is to observe the performance of different varieties over long periods of time under normal growing conditions.

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The part circle 47DH and full circle 51DH rotors are designed for spacings of 51 to 80 feet. These hydraulic rotors are the ideal choice for multiple-row golf course applications. For complete information on the new hydraulic rotors, contact Rain Bird Sales, Inc., Golf Division, P.O. Box 37, Glendora, California, 91740.

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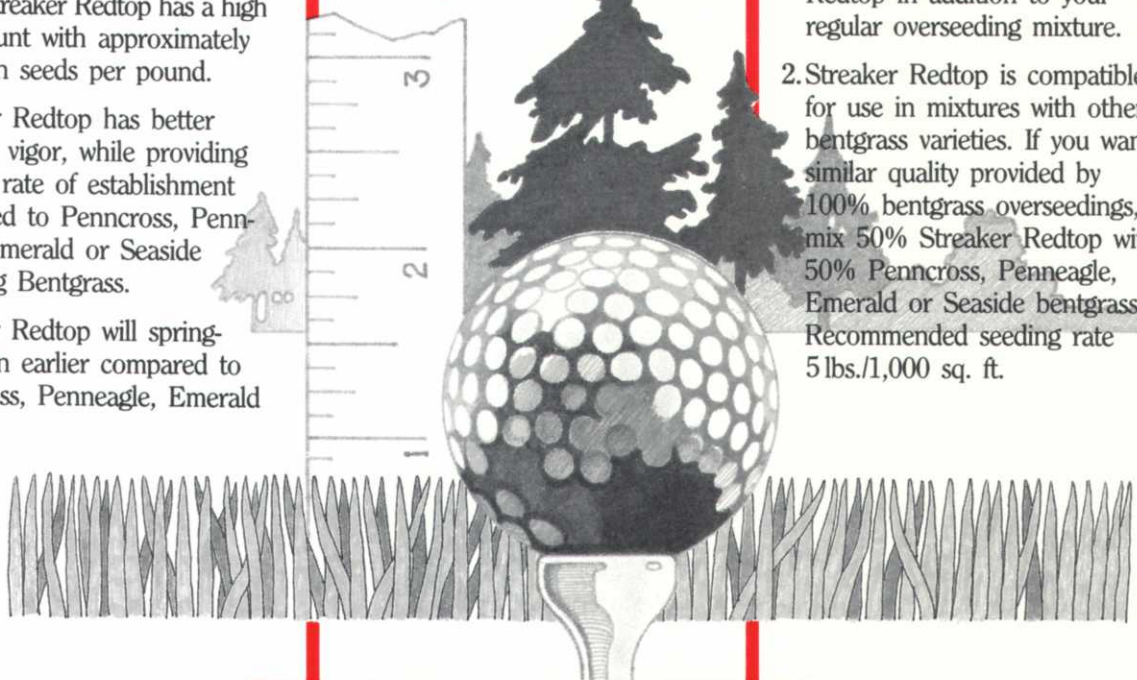
For over fifty years redtop has been successfully used as a component in overseeding mixtures designed to provide winter cover for dormant bermuda-grass on golf course putting greens.

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- Streaker Redtop will spring-transition earlier compared to Pennecross, Penneagle, Emerald

“Streaker is the Redtop that will enhance your winter overseeding mixture.”

or Seaside bentgrass. Streaker will produce a winter turf with bentgrass qualities without the typical problem of bentgrass persisting through mid-summer.

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NEW PESTICIDE RESTRICTIONS TO PROTECT ENDANGERED SPECIES

By Chuck Woods

GAINESVILLE — In one of the most far reaching and controversial attempts to protect endangered plant and animal species, the Federal Environmental Protection Agency is proposing major changes in how and where pesticides can be used.

The changes, to become effective in February, 1988, could virtually eliminate the use of many chemicals in areas where they could harm animals and plants protected by the Endangered Species Act of 1984.

At least 60 of Florida's 67 counties will be affected, including many of the state's important farming areas. They are home to one or more endangered species which would trigger restrictions on the use of many pesticides in all or parts of those counties, explains Dr. Norman Nesheim, pesticide information coordinator with the University of Florida's Institute of Food and Agricultural Sciences (IFAS).

Across the nation, about half of all the counties will be affected in some way by the proposed new rules, he adds.

"Everything from mosquito control to growing citrus and vegetables in Florida will be affected by the new pesti-

cide rules. About the only thing not covered is pesticide use in the home and garden," Nesheim says.

EPA says the new restrictions should not have an adverse effect on agriculture because most endangered plants or animals and their habitats are not located in cultivated fields. But agricultural interests, who say they've always been concerned about the proper use of pesticides, are now voicing strong opposition to the new pesticide rules.

"The U.S. Department of Agriculture, the California Department of Food and Agriculture and the American Farm Bureau Federation have asked EPA to re-evaluate and delay the new rules to allow for more public comment. It's not certain at this time what impact these protests will have on the eventual outcome of the rules," Nesheim explains.

To comply with the provisions of the act, EPA is requiring manufacturers to revise pesticide container labels, listing states and counties where endangered plants and animals must be protected from the use of certain pesticides.

"Before applying any pesticide, farmers and others would have to consult the pesticide label to determine if their county is listed as having pesticide use restrictions to protect endangered species. If their county is identified on the label, they would have to obtain a map prepared by EPA and the U.S. Fish and Wildlife Service to determine precisely where restrictions may apply to use on their property," Nesheim explains.

The IFAS specialist says the new pesticide restrictions will place another burden on anyone who needs an effective chemical to control pests. "It's possible, for example, that a farmer on one side of the road could use a pesticide while someone across the street who grows the same crop would be restricted from using the same pesticide," he adds.

Nesheim says the new EPA rules to protect endangered species could eliminate the use of almost all pesticides in some parts of the country, leaving farmers and others with no alternative pest control methods.

"In forest uses, for example, many pesticides would be restricted in Florida, particularly in Clay, Gadsden, Orange, and Polk counties. Pesticides used to control mosquitoes in an aquatic environment would be heavily restricted in Okaloosa, Palm Beach and Walton counties. Using pesticides on range and pasturelands would be highly restricted in Jefferson, Lee and Liberty counties. And pesticide use on field crops would be restricted most in Broward, Dade, Glades and Palm Beach counties," Nesheim explains.

A complete list of endangered species for every county

(continued on page 72)



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