

CHALKBOARD

TIPS FROM THE PROS

DUAL APPROACH RECOMMENDED FOR FIRE ANT CONTROL

All it takes is one bite from an imported red fire ant to appreciate the threat this insect represents to the sports turf industry. Any athlete, spectator or turf manager who ventures near one of many fire ant mounds in the Gulf States is likely to be injured. The problem is so serious that millions of dollars are spent each year in an effort to stop the spread of this painful pest.

Controlling this insect has become a major goal of Dr. Pat Cobb, extension entomologist at Auburn University in Auburn, AL. She says approximately \$8 million was spent in Alabama alone last year to control the red fire ant, more than was spent in the same period for the mole cricket. Equally disturbing is the discovery of a new variety of fire ant that has increased cold tolerance. It could extend the ant's range to colder climates.

"We no longer talk of eradication. Today we talk of control," says Dr. Cobb. "Reinfestation is a tremendous problem."

The mechanical, biological and chemical control programs available vary widely in their cost and effectiveness. Mound treatment is most economical for turf areas of less than one acre. "Simply treat mounds whenever they become visible," Cobb advises. "Broadcast treatment isn't justified in most of these situations."

For the athletic turf manager or groundskeeper with an acre or more of lawn, the program that looks the best in terms of cost and labor savings is to broadcast-treat an area in the spring with bait, wait a few days, and then mound-treat with a contact insecticide, according to Cobb. This seems to translate into fewer mound applications throughout the rest of the season.

She recommends this dual approach because it can take several days for new mounds to become visible. A broadcast treatment with a bait like Amdro, Pro-Drone, Affirm or Logic in the spring will control young mounds not yet visible, she said.

After allowing the ants several days to pick up the bait particles and transport them back to the queen inside the mound, Dr. Cobb recommends treating mounds with a contact insecticide. "A material such as acephate (Orthene) or Diazinon will help eliminate the large number of worker ants who might linger for several weeks while the colony is dying out," Cobb advises. "With this program you won't have to mound-treat all summer long. We recommend mound-treating only as reinfestation occurs."

Mound treatment can be administered by



Fire ants establish mounds in low maintenance areas.

drench, injection, fumigation, or a surface application with an insecticidal dust or granular formulation. Although mound injections and mound fumigants are effective, they can also be quite costly.

Dr. Cobb recommends Orthene and Diazinon as effective contact insecticides, because of their quick-acting effectiveness. "In our tests, Orthene dust and Diazinon granules worked faster than other mound treatments we tested," she said. "Orthene dust is also one of the least-expensive mound treatments."

Choosing the best mound treatment for the situation may depend on cultural practices and availability of labor. Cobb advises, "If you choose to mound-treat with a granular material such as Diazinon, it must be watered in immediately after application. By comparison, acephate (Orthene) dust should not be watered in, although it helps if there is some soil moisture present."

If the ground is very wet, or if rain or irrigation occurs immediately after application, ants may not have a chance to pick up Orthene because it is soluble and may dissolve quickly, Dr. Cobb notes. If drought exists, then she recommends irrigating the day before application of Orthene dust.

Cobb cautions that diazinon is prohibited for use on golf courses or sod farms. Orthene, granular chlorpyrifos (Dursban), and granular isofenphos (Oftanol) are three contact insecticides golf course superintendents and sod growers can use for area and/or mound treatment as specified on the label. "Dursban is the only contact that is acceptable for use on certified sod shipped

out of the fire ant zone," she adds.

Fire ant infestations are a significant problem on athletic fields in the Southeast for two reasons, Cobb warns.

First, the ants tend to move into sunny areas where traffic is minimal. Cultural practices such as mowing and chemical applications disturb them, causing them to seek other places for their mounds. Therefore, fast-acting insecticides are important. There are other reasons as well.

In the spring, before fields are mowed on a frequent basis, fire ants establish hundreds of mounds that are hidden by the turf. When the fields are used early in the spring, there is a high incidence of fire ant stings. "That is why we recommend broadcast bait treatment in the spring," Cobb remarks. Increasing mowing frequency earlier in the spring can also help.

The second reason ants are such a problem on southeastern athletic fields is that athletic field managers at schools and parks have considerably less contact with entomologists than do golf course superintendents. As a result, they think in terms of curing an insect problem instead of preventing it.

"Unfortunately," Dr. Cobb concludes, "our control programs today are based mainly on chemical control. Whenever you have chemical control without something biological going for you, it's only going to be temporary. We're hopeful that in the future we'll be able to rely more heavily on integrated management of fire ants, utilizing cultural and biological control. But right now we're limited primarily to an insecticide program."