

Stopping these bugs can be a 'chinch'

They're called "surface insects," but they're much more elusive than that. They're the pests that live within the leaf and stem zone or sometimes hide out in thatch. They burrow by day and feed by night. Among the most troublesome are chinch bugs, white grubs and sod web worms.

But every problem has a solution, and Dr. Louis Vasvary of Rutgers believes the solution to this annual surface insect problem begins with inspection. "One of the major considerations to keep in mind," he begins, "is the fact that with many of our insect problems, the injury is similar. The grass could be turning brown due to an environmental condition such as drought, or it could be caused by a host of other things."

Vasvary says inspection must be thorough, and include all grass areas, not just those that are injured. Get a good cross section of what type of insects are present, identify them, and include the relative numbers involved.

In most instances where grass shows signs of stress, a decision to select the appropriate insecticide is required.

"Make sure that application takes into account the habits of the insect: where it lives, how it lives and where it feeds. That is the key to successful control of surface insects."

Bluegrass, fescue diet

Chinch bugs feed on Kentucky bluegrass and fescues. Golf course superintendents occasionally find them in bentgrass and perennial rye.

"Chinch bug injury looks a good deal like other types of injury that will occur on grass. However, in most instances, you'll find chinch bugs in the open where it's sunny and warm. Those are the conditions they most enjoy. Cool, wet situations are not satisfactory for chinch bugs."

Chinch bugs can be difficult to see; they grow to a mere 1/5-inch as adults. "As far as development," explains Vasvary, "the cell stages look pretty much the same. The immature stages pretty much resemble the adult except the adult has full wings."

For New Jersey-based companies, Vasvary says a good portion of that states chinch bug populace are short-winged even in the adult stage. In its initial stage of growth, the bug is reddish in color, and sports a white band.

Chinch bugs will usually take up residence in more protected areas: un-

der large clumps of grass, near sidewalk edges, under railroad ties in landscaping. During winter, they will often crawl up under aluminum siding.

Know the life cycle

Vasvary says an important part of the chinch bug control strategy is to know its life cycle.

The overwintering stage is during March and April. Very often, these populations can be low. "If we have an open winter, a cold winter

In most instances, you'll find chinch bugs out in the open areas, where it's sunny and warm.



Much of New Jersey's adult chinch bug population sport short wings. Photo courtesy Dr. Vasvary

without snow, that will reduce the population. Snow cover acts as a blanket and will help maintain the population."

The first hatching occurs in spring. This is followed by a nymphal stage, and finally, in July, the adult stage. Another set of eggs will begin to develop in late August and early September.

Vasvary says one chemical control scheme that works well was suggested by Dr. Harry Niemczyk of Ohio State. It involves applications in April, when adult populations are quite low.

"This works exceptionally well in areas that have chinch bug populations year after year," Vasvary concurs. "In areas where grass type is correct and thatch exists, there is a good amount of survival. By applying

control measures in the spring during April, it further suppresses that overwintering population, to a degree that it never has a chance to build up during the rest of the year."

Don't forget to water

Vasvary says to accompany chemical applications with enough water "If the area has not been irrigated beforehand, and the area has not received rainfall seven to 10 days before treatment," he says. "It's best to charge that area with water."

"If the thatch is practically nonexistent, a quarter-inch of water is satisfactory. If thatch is thick, a half-inch of irrigation would be better as far as control is concerned."

Water charges the thatch layer so that the insecticide has a chance to penetrate.

"So in this particular case, without rainfall and with dry thatch areas, rather than making the treatment and then watering afterwards, charge the thatch with water first, make the treatment with insecticide and water again. That has made the difference between success and failure."

Products you can use

Vasvary says Dursban has a good track record for chinch bug control. Another is diazinon, which also works well against other surface feeders.

Tempo is a third-generation pyrethroid, which Vasvary says is somewhat expensive, but very often the pyrethroids do get a little more movement out of insects.

Mavrik is another pyrethroid. "Those who work with shade trees or woody ornamentals are familiar with Mavrik, which became available a few years back. It too, is labeled for chinch bug control," Vasvary says.

Control for second generation infestations of mid-August corresponds to the appropriate timing for control of white grubs, when they're small and close to the surface. You have an opportunity here to use a material that's labelled for chinch bugs and white grubs. Vasvary says to use the same watering technique.

Chemicals labelled for chinch bugs and white grubs include Triumph, Dicarb, Turcam and Mocap. Keep the last three for treatment in the fall or late summer, rather than use them continuously throughout the year.

Alternating chemicals might be required from time to time due to the insects' chemical tolerance.

—Terry McIver □