What if you had been warned of an impending invasion yet knew there was nothing you could do to defeat your enemy? You couldn’t build a fortress, dig a trench, stockpile artillery nor muster an army to fight off the impending danger.

Joe Starr knows exactly how that feels. He remembers sitting in a turf meeting in 1996 listening to a researcher say that fire ants were heading toward Tennessee.

“They said they were coming. At that time we didn’t have them,” says Starr, general manager and golf course superintendent at Chatata Valley Golf Club in Cleveland, Tenn. “We’ve gone from the mid-90s, where you didn’t see them, to now they’re everywhere.”

The invasion began in Alabama in the 1930s, when red imported fire ants reached the U.S. on a South American cargo ship that landed at the Port of Mobile. Since then, the pests have cut a swath of pain through a dozen southeastern states, from Maryland to Texas, according to the most recent USDA map. The map shows infestations severe enough to classify the areas as quarantined. Fire ants also have hitched rides on products shipped to Puerto Rico, California and Hawaii. And

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some USDA maps predict fire ants will continue to spread.

**Aggressive ants**

Dr. Lawrence “Fudd” Graham is coordinator of the Alabama Fire Ant Management Program at Auburn University. Graham says he’s seen some fairly intense infestations of fire ants on golf courses in his state, the worst of which was on an Alabama course that had as many as 70 mounds per acre.

Fire ants aren’t just pests out to disturb soil; the highly aggressive ants also produce a toxic venom. Some people who are stung feel a burning pain; one in 100 people are at risk of allergic reactions to the venom; and about 1 percent of them are so allergic, without treatment they could go into anaphylactic shock and die.

And it’s rare that only one fire ant stings. Fire ant expert Dr. David Williams, retired research leader for the USDA’s fire ant program, says between 200,000 and 300,000 worker ants in a colony are capable of stinging. In the context of a golf course, “a professional can spot mounds, see the soil disturbance,” Williams says, but “a lot of people would never know it and stand right in it. The ants will boil out of the colony, latch on and sting you. Not one but maybe a thousand.”

Graham says fire ants generally live in weak turf, in unmown areas, in flower beds, around trees and in bunker faces. They are less likely to be found in denser, tighter turf. With the consistent mowing done on greens and fairways, Graham says, “they get tired of getting mowed after a while” and the fire ants will move the colony.

Starr sees most fire ants on his course on the less frequently mowed driving range and around tee boxes. He says he’s tried knocking down the fire ant mounds by mowing and using insecticide baits. He’s even poured gasoline on a mound, which kills the ants but also kills the grass.

Many baits work well on existing mounds

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1 Fire ants aren’t just a problem in grassy areas. The pests also love the warmth of bricks and cart paths. 2 Fire ants generally live in weak turf and unmown areas.
but are dissolved by water, achieving little residual control. But controlling fire ants on golf courses is getting easier. Featuring the active ingredient fipronil, Top Choice from Bayer has been successful in controlling fire ants. Applied annually, it can be broadcast spread, has a long residual and works in all weather.

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It can take up to four to six weeks for initial control. “It stays in the soil for a long time before it breaks down. It might not be as fast-acting as a bait, but once it breaks down, it’s in place and stays there for up to a year,” says Cynthia Gigandet, marketing manager for Bayer’s insecticide products. “With a pyrethroid, you get an instant whack, but it’s not going to last as long.”

Speedy control
In March, a representative from FMC Corporation stopped by to see Starr at Chatata Valley. He demonstrated a product called Talstar XTRA GC, a new version of the Talstar fire ant control product introduced at this year’s Golf Industry Show.

Starr says the rep tested some of the Talstar XTRA GC on a mound that fire ants had built on a brick paver walkway. “He sprinkled the granules in there, watered it in, and in a couple of seconds they started freaking out, jerking around,” he explains. “Within a couple of minutes most of them were dead. A few every now and then were coming out of holes, shaking and twitching. I went back an hour and a half later, raked the pile off the brick, and there was nothing left. It wiped out the mound in a couple of minutes. It was pretty impressive.”

Adam Manwarren, turf and ornamental product manager for FMC Professional Solutions, says Talstar XTRA GC is known for its speed.

Dr. Fudd Graham tested the Talstar XTRA GC granular insecticide, a greens-grade, sand-core granule. He says the difference between the original Talstar, whose active ingredient is bifentrin, and the new Talstar XTRA GC is an extra active ingredient, zeta-cypermethrin. The combination, Graham says, “gives it a faster kill.”

Dr. Williams also tested it and noted its speedy control. “If you spread it like they recommend it in a sand-type granular over a
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large area, it’s amazing the speed with which it kills. It’s faster than anything I’ve seen: two-minute counts. We were getting high percentage control at two minutes, some were 93 percent control. After four hours, we had 100 percent control... It was almost as if you treated a mound with boiling water.”

Arysta LifeScience is registering its Aloft product for fire ants as well. Aloft already is on the market for ants, cutworms and white grubs and other pests. The active ingredients in the current Aloft GC G are bifenthrin and clothianidin. Based on the results of tests conducted at North Carolina State University, Clemson University and the University of Florida, Aloft is expected to control fire ants quickly and have a longer residual.

All of this is good news for golf course superintendents in the fire ant war zone. After all, it’s the people on the maintenance team who are on the front line.

“It’s a painful experience if you step on a mound,” says Starr. “That happens more to our crew than it does golfers. Those are the guys who get stung, and I want to protect my crew.”

Contributing editor Stacie Zinn Roberts lives in Washington state.

Golfers who hit a ball in this area have more than their score to worry about. They’ll also find fire ants waiting.

Superintendent Joe Starr near a mound.