

# Fire ants



*Last year we had fire ant mounds on our field and all around the grounds near our fields. I know they sting, but are these a turf pest? We got some complaints to our city managers about them last year so we tried our best to control them. Before last year, I do not remember seeing them much around our fields. Is there anything we can use to prevent them?*

*North Carolina*

**BY DR. GRADY MILLER**

Professor, North Carolina State University

## Questions?

Send them to  
Grady Miller at  
North Carolina State University,  
Box 7620, Raleigh, NC 27695-  
7620, or email  
grady\_miller@ncsu.edu

Or, send your  
question to  
David Minner at  
Iowa State University, 106  
Horticulture Hall, Ames, IA 50011  
or email  
dminner@iastate.edu.

The red imported fire ant continues to move into North Carolina and surrounding transition zone states. It seems that with more movement of nursery stock and sod between states, combined with mild winters that fire ants may eventually find a home in every county in North Carolina.

Growing up in Louisiana and then living in Florida for years, I do not know what it is like to not have fire ants around. North Carolina's attempt to hold them back with quarantine areas does not seem to be working. So, the complaints due to that burning sting from fire ants are likely to get more prevalent.

The fire ant is not really a turf pest in the sense that they cause damage to the turfgrass plant. They build unsightly dome-shaped dirt mounds (called colonies) in the turf that may cause shading of low-mowed turf, but the more common complaint is the dulling of mower blades after hitting the mounds. Additionally, ants like to build their mounds in electrical equipment such as satellite irrigation boxes, often shorting circuits. It is also not very fun trying to repair their damage in irrigation or electrical boxes until they are removed.

The problem is their sting. The fire ants get a grip with their mouth and then sting from their abdomen, injecting a toxic venom that gives

that burning sensation. The sting is not as painful as a wasp sting, but it can still be deadly to highly sensitive individuals. For most adults it is a short term pain followed by an intense itching. The sting often results in a bump with a pustule and the itching may last for several days. There is also the issue of quantity. Because a 2-foot diameter mound contains about 100,000 ants, it is not uncommon to get numerous stings during a short encounter. No person ever wants to hear a small child cry out due to being covered in stinging fire ants. Complaints from parents will soon follow.

Over the years people have tried about every way imaginable to kill fire ants. I grew up hearing local farmers talk about all kinds of home concoctions and methods to attack fire ants—some of which were probably not very good for the environment and many constituted bad advice. I am no entomologist, but I have learned from hanging around with a few that there is no control methods that will permanently eliminate or prevent fire ants from an area. The strategies most often used include: broadcast pesticide-bait applications, individual mound treatment, or a combination of these two treatments.

Broadcast baiting is almost like putting out a preemergence product. The idea is to reduce fire ant populations early in the year. Products used include Advion, Amdro, Ascend, Affirm, Award, Justice, Distance, Esteem, etc. These contain either a slow acting toxicant or a product that interferes with reproduction. They are formulated with a food source carrier desirable to the ants. The workers carry the food source and toxicant/growth regulator back to the

colony and feed it to other ants. It may take several weeks to several months for these to be effective. Bates should be fresh, dry, and applied when ants are actively foraging to be most effective. They are easily applied using a broadcast spreader. Follow the directions on the label.

Individual mound treatments attempt to eliminate the colonies by treating the mounds directly. To eliminate the colony the queen(s) must be eliminated. This is time consuming and may be difficult as some mounds are not easily seen above the grass, while they go several feet down under the soil surface. But this can be a much quicker way to reduce populations of ants that are in high traffic areas when you want to quickly reduce the risk of them stinging people. Mound treatment products may be formulated to use as a drench, granule, dust, or aerosol. Products include Maxforce or Topchoice, Extinguish, Talstar, Orthene and others. In addition, some of the bait products can be used for mound treatment. Follow the directions on the label.

So best strategy is often to broadcast a pesticide-bait once or twice a year to reduce overall population and then target any nuisance mounds that appear, especially those that appear near high traffic areas or areas that people are likely to congregate. The mound treatments may need to continue throughout the year.

Fire ants spend a great deal of time searching for food. You can reduce ant foraging by eliminating food sources. Outdoor trash cans and dumpsters should be routinely emptied and cleaned. And lastly, remember, fire [ants] take no holiday. ■