

# “WHAT’S HAPPENING?”

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## “WHAT’S HAPPENING?” ALERT

### PERFECT TEMPERATURES FOR CONTROLLING FIRE ANTS!

by Karen M. Vail and J. Patrick Parkman

Thanks to all county Extension agents that helped me (KMV) locate fire ant mounds last week. We were successful in finding the fire ant decapitating phorid flies in northeastern Shelby, Tipton, Crockett, Gibson, Carroll, Benton, Humphreys, Maury, Marshall, Bedford, Rutherford, Davidson and Williamson counties. Next week, we hope to search Hickman and possibly Cumberland counties. If successful, we’ll have found the phorid in all counties of the fire ants’ northern Tennessee range. We’ve already found them in Sevier, Blount, Knox, Anderson, Morgan, Van Buren, Warren and Haywood counties, as well as in most counties south of those already mentioned.

The phorid *Pseudacteon curvatus* is a tiny fly, which parasitizes and kills fire ants. Actually, the fly lays an egg in the ant’s thorax, the egg hatches and the larva migrates to the ant head where it eventually secretes enzyme that causes the ant’s head to fall off. Pupation follows in the ant’s head and the adult fly emerges. The primary impact of this fly is its ability to keep fire ants in the nest when it is flying nearby, and hopefully give the native ants more of a competitive edge while foraging when the fly is near the fire ants.

The search for phorids requires digging a small depression into the mound, zapping the ants with a modified cattle prod and periodically aspirating over the mound for the next 10 minutes. If this sounds like fun to you, let me know, and we’ll send you some collecting equipment. We are especially interested in finding fire ants mounds, and subsequently the phorid flies, in areas outside the quarantine.

During the phorid search, I noticed that the fire ant brood (the immature stages such as eggs, larvae and pupae) was close to the surface in many of the mounds. Individual mound treatments of granular and liquid applications are more effective if applied when the brood and queen are closer to the surface. Baits are optimally retrieved by fire ants when temperatures are between 70 and 90 degrees F. After a brief search of the weather channel, I noticed the high temperatures for the next 10 days will meet this criteria. Now is the time to control fire ants!

When temperatures start to drop, fire ants will start moving towards heat sinks such as buildings, sidewalks, roads, fence posts, tree stumps, etc. When colonies are under objects, the best course of control is to use a bait because the workers will bring the bait back to the members of the colony. But, at cooler temperatures, baits are slower-acting and ant foraging activity is reduced and so is the bait’s effectiveness. If an individual mound treatment of a drench or watered-in granular application is made

during cooler temperatures when the colony is under an object, it is quite possible that the insecticide will miss the queen and/or brood that may be protected under these heat sinks.

So don't wait for the temperatures to drop, vegetation to die and the previously camouflaged mounds to be seen. Control fire ants now before they move under your building or sidewalk and decide to forage into your building. Around structures, we suggest the two-step method where an IGR (insect growth regulator bait) bait is broadcasted using a seeder devoted to fire ant baits. One week later or so, those mounds that are in high traffic areas are treated with individual mound treatments, including fast-acting baits. See SP419 The Two Step Method: Managing Fire Ants Around Homes and in Neighborhoods (<http://www.utextension.utk.edu/publications/spfiles/SP419.pdf>) or the UT fire ant web site <http://fireants.utk.edu> for more information.

## OTHER UT NEWSLETTERS WITH PEST MANAGEMENT INFORMATION

### Fruit Pest News

<http://web.utk.edu/~extepp/fpn/fpn.htm>

### Tennessee Crop and Pest Management Newsletter

[http://www.utextension.utk.edu/fieldCrops/cotton/cotton\\_insects/ipmnewsletters.htm](http://www.utextension.utk.edu/fieldCrops/cotton/cotton_insects/ipmnewsletters.htm)

### Ornamental Pest and Disease Update

<http://soilplantandpest.utk.edu/publications/ornamentalnwsltr.html>

### Tennessee Soybean Rust Hotline - 877-875-2326

USDA Soybean Rust Web Site <http://www.sbrusa.net>

This and other "What's Happening" issues can be found at

<http://eppserver.ag.utk.edu/Whats/whatshap.htm>

### **Precautionary Statement**

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label.

### **Disclaimer:**

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

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