

Fire Ant Management in the Home Lawn

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Conway, SC —January 8, 2007 —Spring always brings out the good and bad of our landscapes. Along with the flowering dogwoods and azaleas and the emergent from dormancy of our grasses, the ever present red imported fire ant begins its summer invasion. Many gardeners would be very happy to avoid this persistent pest.

Fire ants become a problem in the landscape due to the medical problems that can arise from their stings. They can also interfere with wildlife, particularly young birds, and can cause a problem with outdoor activities. In large land areas, the mounds can become unsightly and cause problems with land management. Fire ants are probably one of the most studied pests but are surrounded by a large number of misconceptions, old wives' tales and myths.

How can you tell if you have fire ants in your landscape? Fire ants will create a mound of fluffy soil. These mounds will usually appear a few days after a heavy rain but can be seen in the landscape any time of the year regardless of rainfall. The mounds will not have an opening in the center like most other ant mounds have. Fire ants enter and leave their colony through underground tunnels. Undisturbed mounds can reach heights of 2 to 3 feet tall but usually will not exceed 1 foot in maintained turf.

Fire ants are small in size. They are approximately 1/8 to 1/4 inch long. This variation in size is a distinguishing characteristic of the fire ant. When disturbing the mound, you will see hundreds of reddish-brown ants come to the surface even crawling up vertical surface such as leaf blades. Few native ants are this aggressive. When stung, it feels as if you have been burned. A day or so later, the fire ant's unique venom will cause a white fluid filled pustule to form. This symptom is also unique to fire ants.

So, you now believe you have fire ants in your garden. How do you control them? To understand control strategies, you need to know a little about their feeding habits.

When feeding, fire ants do not eat solid food. They will place anything solid on the 'lip' of the late stage larvae. The larvae will secrete a digestive enzyme into this 'lip' and convert the solids into a liquid. All the other ants will feed on this liquid by a process called tropholaxis, the passing of liquids from one ant to another. This gives the colony a built-in food taster. If any of the larvae die due to bad food, the queen will not eat from that source. Hence, the old wives' tale of grits killing a fire ant mound doesn't work. Fire ants will forage for food when the surface soil temperatures are between 70 and 95 degrees F. During the summer months, this is usually late in the evening. Foragers may also travel up to 100 yards from a mound to acquire food.

So what does this mean to the homeowner who is trying to control fire ants in their landscape? We can use this information to help us gain the upper hand in our battle to control fire ants. Be aware however, that with current technology we must recognize that fire ant control will be a long-term commitment. Fire ants can reinfest from long distances and the reproductive potential is great.

Several management strategies have been devised that will aid gardeners and

landscapers in managing fire ants in their sites. The most common method being conveyed is the two step method. This involves broadcasting a fire ant bait over the entire site while the ants are foraging, step 1. Then, 7 to 10 days later, treat problem mounds with an individual mound treatment control product, step 2. Applying the baits while the ants are foraging is crucial to the success of this control method and broadcasting the bait is preferred to mound treatments.

Many fire ant baits are applied at a certain rate over a certain measured area. Use the rate supplied with the accompanying label and be sure to measure out the area you want to treat. Fire ant baits need to be fresh when applied so only buy the amount needed. After opening, some baits lose their effectiveness within hours. Timing of your application is also critical. The easiest strategy is to simply use the calendar method. Baits are applied in the spring and fall and is used most frequently in the landscape and other areas people frequent. Insect growth regulator baits are the best bet for this type of control.

To successfully use a fire ant bait control program follow these steps when applying:

- Only buy the amount of bait you need to treat your landscape once. Storing baits may cause a reduction in their effectiveness. When it is time to retreat, but more product
- Apply the bait according to the label directions and be cautious of any environmental hazards the bait may produce. The best time to apply a bait is when soil temperatures are between 70 and 90 degrees F or during the late afternoon in the summer.
- Do not disturb the mound before treating.
- Do not apply your bait with any other material such as fertilizer or pesticide.
- Do not apply when the foliage is wet or just before a rain unless the label recommends to.
- Be sure to give the bait time to work. Most baits are generally slower to control ants than contact pesticides.

Using a fire ant bait is an inexpensive, easy and environmentally sound way to control the red imported fire ant. Keep in mind, fire ant baits will not control other type of ants such as Argentine or Pharaoh ants. Baits are safer than most other insecticides that are applied as a broadcast treatment, mound treatment or drenches. In baits, the active ingredient, or control agent, is found in very small quantities so environmental contamination is lessened.

In addition to safety, baits can give long lasting control of fire ants as they will control young colonies too small to see. Due to their target specificity, fire ant baits are also safer to nontarget insects as they are designed to be picked up only by fire ants. In fact, fire ants are so proficient at scavenging they will pick up all the bait applied to a given area allowing the use around sensitive areas.

Another management strategy involves the broadcasting of a granular insecticide. There are several new products available to homeowners, as well as commercial applicators, showing promise in managing fire ants. These products are not baits but are insecticides that can be broadcast over an entire area for fire ant control. These products are very effective and can give season long control. However, there are some limitations with the use of these products so be sure to read and follow all label directions closely.