Using Baits to Manage Fire Ants

1. Fire ant baits are made with a corn base. Vegetable oil and either a metabolic inhibitor or an insect growth regulator are impregnated on the corn base. The bait particles are collected by worker ants and carried back to the colony.

2. Baits are slower to work than contact insecticides. This is due to how solid food is utilized by fire ants. Foragers bring solid food back to the colony where it is fed to the fourth instar larvae. Less pesticide is used with baits because the delivery is so efficient.

3. The fourth instar is the only stage of fire ant able to feed on and digest solid food. The food is placed in a food basket just beneath the mouth (black arrow). They process large amounts of protein and regurgitate amino acids and soluble proteins required by the queen for egg production, and must process the bait before the insecticide can get to the queen and other ants.

4. A broadcast application of the bait is best. Spreaders should be calibrated to apply the correct amount of material. Most tend to apply too much bait, wasting both bait and money. Individual mound treatments can be used in smaller areas (1/2 acre or less), but you may miss small young mounds with mound treatments.

5. Treat individual mounds in problem areas two weeks later with a bait or a contact insecticide. Limit these treatments to mounds located next to house foundations, high-traffic areas and other problem spots. This is referred to as the Texas Two-step Method.

6. Apply a second broadcast treatment late summer or early fall. This treatment will help to reduce fire ants the following spring. Remember, this is a management program. Be prepared to continue your program the following year.

7. Getting the most from your baits:
   a) Apply baits when ants are foraging.
   b) In summer, apply baits in the evening. Heat during the day keeps ants from foraging, and baits lose their effectiveness.
   c) Apply baits when conditions are dry and no rain is expected for at least 8 hours.
   d) Store baits in a cool, dry place away from volatile chemicals, e.g. gas or pesticides, that might contaminate the bait.
   e) In order to get rid of a fire ant colony, you have to kill the queen(s). Once you rid an area of fire ants, winged female reproductives will reinfect the area. Since fire ant workers are territorial, they are excellent predators of new fire ant queens. Use the slower working fire ant baits to take advantage of this form of natural control.

A long term demonstration using baits to control fire ants was conducted in Montgomery County. The area inside the oval was treated twice a year during June and early October with Amdro® fire ant bait applied according to label directions. The demonstration was started in 1998, and fire ants were still under control August 30, 2000. The untreated portion of the farm still has many fire ant mounds.

References to commercial products or trade names is not an endorsement of the product.