# RESEARCH LABORATORY TECHNICAL REPORT



# **Red Imported Fire Ant**

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The red imported fire ant (*Solenopsis invicta*) was accidentally introduced into the United States from Brazil in the 1930s, and now infests 18 southern, midwestern, and western states. These ants reproduce rapidly and build mounds (Figure 1) in almost any type of soil but prefer open, sunny areas such as pastures, parks, golf courses, and home lawns. They will also build mounds in mulch and compost piles, rotting logs, and even under buildings. Red imported fire ants can sting repeatedly, and some people have a lethal allergy to the venom.

## Description

Adult workers are small (about the size of a grain of rice) and have a reddish brown head and thorax and a darker-colored abdomen (Figure 2). Red imported fire ants are difficult to distinguish from other ants. A key identification feature is 2 distinctive bumps between the abdomen and thorax.

The adult workers build mounds that can be 2 feet in diameter and up to 18 inches high. When mounds are disturbed, they will emerge and aggressively sting. New mounds form rapidly, especially after a heavy rain event.

## Life Cycle

Red imported fire ants mate in flight when temperatures are between 70° and 90°F and the humidity is high. This can be anytime of the year but usually peaks in spring and fall. After mating, females descend to the ground, burrow into the soil, and begin laying eggs. Once workers reach maturity, they forage for food and take care of the queen and the young and live for approximately 5 weeks. Queens live for up to 7 years and can produce 100,000 to 300,000 workers a year. The queen also produces winged males and females, which live within the mound until mating. Winged males serve to protect the queen and will also forage for food.

#### Figure 1: Mound of a red imported fire ant



Figure 2: Main body parts of a red imported fire ant labelled. Head (black), thorax (red), petiole (green) and abdomen (yellow)



A typical, established fire ant mound contains approximately 80,000 workers and winged adults. Heavily infested areas can contain 200 mounds per acre.

Fire ants are voracious feeders of insects and other arthropods. In urban areas, they have suppressed populations of fleas, ticks, chiggers, and other nuisance pests. Foraging for food when temperatures are between 70° and 95°F, fire ants are also attracted to almost any oily protein, carbohydrate, or sugary food.

#### Management

In landscapes that were previously noninfested by fire ants, immediate treatment of new mounds will prevent additional mounds from forming. In landscapes where multiple mounds are present, broadcast and individual mound treatments may be warranted. Broadcast treatments can be very effective because foraging worker ants carry the product back to the mound where it impacts the colony. Eradication, however, is rarely achieved as new mounds commonly occur after flooding events. Therefore, monitoring and early treatment are keys to managing fire ant populations. Please contact your Bartlett Arborist Representative to learn about management strategies.



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