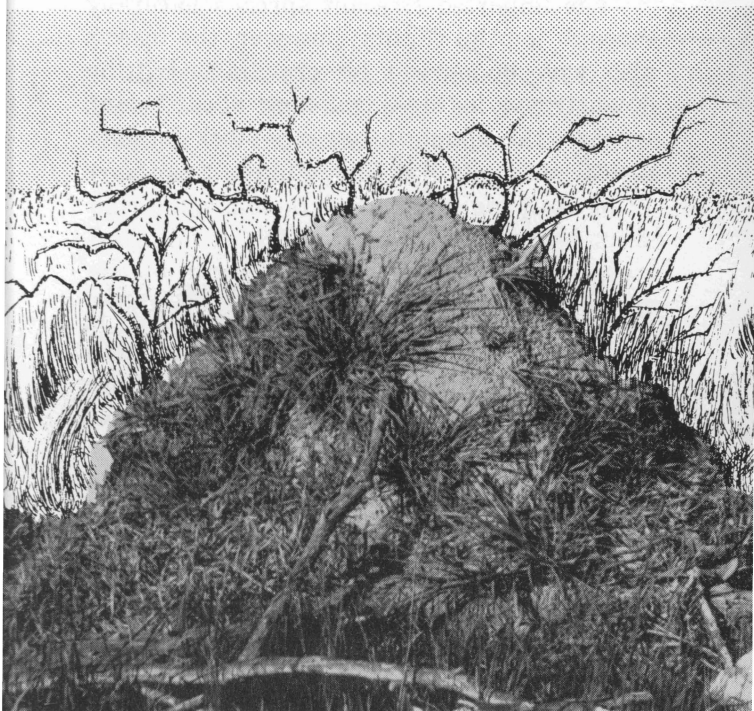


How to Control the Imported

Fire Ant



Imported fire ant mound.

TEXAS AGRICULTURAL EXTENSION SERVICE
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How to Control the Imported Fire Ant

SPREAD

The imported fire ant¹ was brought to this country over 20 years ago from South America through the port of Mobile, Alabama. It has spread over Alabama, Mississippi and Louisiana into Arkansas, Florida, Georgia, South Carolina and Texas.

Two species of fire ants occur generally in Texas while the imported fire ant has been found only in *Hardin, Jasper, Jefferson, Newton, Orange* and *Tyler* counties.

The imported fire ant spreads naturally through nuptial flights; however, the insects also may be spread by crawling, drifting downstream in logs, traveling aboard cars, trucks, trains and on nursery stock in shipment.

DAMAGE

Imported fire ants can damage many kinds of young plants by gnawing holes in roots, tubers, stalks and buds. Also, they often attack young unprotected animals, such

¹*Solenopsis saerissima richteri* Forel

as newborn calves and pigs and newly hatched quail and poultry.

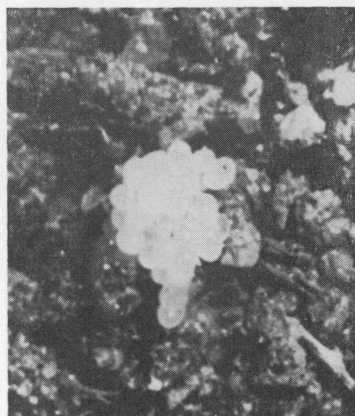
Imported fire ants interfere with harvesting of crops since their sting is very painful. Also, their mounds damage machinery and prevent mowing operations and reduce the value of the land in heavily infested areas.

DEVELOPMENT

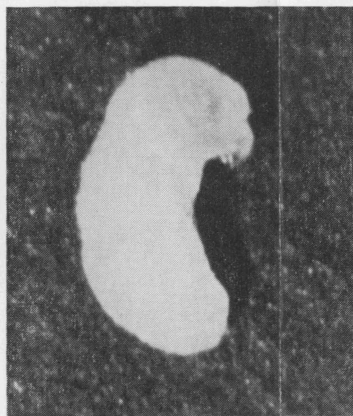
The ant colony consists of three adult forms:

1. Winged fertile females (queens) which lay the eggs.
2. Winged fertile males which mate with the queens.
3. Worker ants which are wingless and usually sterile.

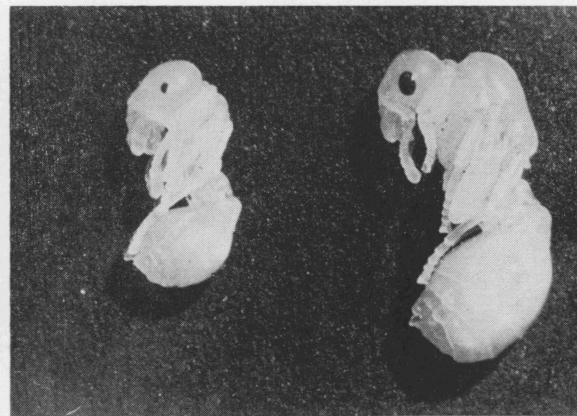
The fertile winged forms live in seclusion until it is time for them to leave the colony (mound) and begin their only mating flight. The fertile males are smaller and blacker than the queens. They fly directly from the mound surface while the queens usually climb on nearby plants and slowly lift their bodies into the air.



Cluster of fire ant eggs.



Larva.



Pupae resemble adult ants in shape and in size.

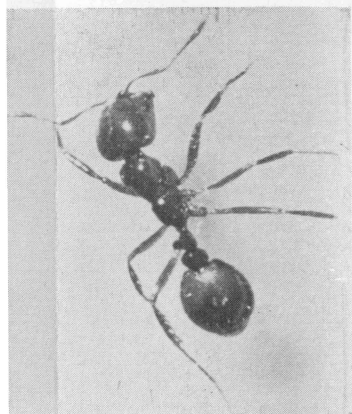
Once airborne the ants fly out of sight and mate in flight. The males die soon after mating while the fertilized queens find suitable nesting sites, shed their wings and begin digging underground chambers to lay their eggs.

The queen first lays a cluster of 10 to 15 eggs and looks after her first egg cluster almost constantly. When the eggs hatch (8 to 12 days), the helpless larvae depend on the queen for food from her body. Later the queen lays clusters of 75 to 125 eggs, and the larvae receive food gathered by the workers. The larvae pupate in 6 to 12 days and adults emerge in 9 to 16 days. A longer time is required for the development of the winged forms.

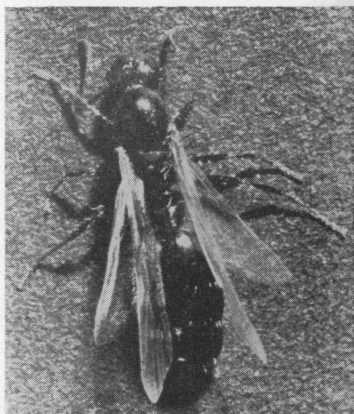
The average-sized colony may contain 25,000 workers and only a few dozen winged forms.

The workers are red or black and are $\frac{1}{8}$ to $\frac{1}{4}$ inch long. They forage for food, maintain the mound and protect the colony.

Imported fire ants build mounds in almost any kind of soil but are most common in



Worker ant.



Winged fertile queen.

open areas such as cultivated fields, pastures, parks, lawns and meadows. They are often found in rotting logs around stumps and occasionally under buildings.

The mounds constructed by the imported fire ant average 15 or more inches in diameter and 10 to 12 inches in height, but around stumps, shrubs, or posts the mounds may attain a height of 3 feet.

CONTROL

Chlordane, dieldrin or heptachlor may be used to treat the mounds or areas where imported or other species of fire ants forage. When possible, insecticides should be applied during the winter or the cool months of spring.

Mound treatment: In small lightly infested areas the ants may be controlled by treating the individual mounds. The mound treatment usually will kill the ants in the particular mound, but it does not prevent infestation in untreated areas. Treated areas should be examined within 3 weeks after treatment and surviving colonies should be poisoned.

The mound treatment is simple. First, tear down the mound and apply 1 to 2 cups of a granular form or dust containing 10 percent chlordane or 5 percent dieldrin or 5 percent heptachlor either by hand or dust gun to the mound and to the ground within a 10 to 12-foot area on all sides. The following spray mixtures also may be used to treat mounds:

	Tablespoonfuls to
Emulsifiable concentrate	3 gallons water
Chlordane (4 lb. per gal.).....	4
Dieldrin (1½ lb. per gal.).....	12
Heptachlor (2 lb. per gal.).....	8

Area treatment: Treating the entire surface is more practicable in heavily infested areas. This type of treatment using the materials listed below will usually control the pest for 3 years. If all areas are thoroughly treated, eradication of the ant is possible.

The following insecticides may be used in either granular or spray form. However, the granular form is preferred because it is less hazardous to animals.

Chlordane	— 4 lb. technical per acre
Dieldrin	— 2 lb. technical per acre
Heptachlor	— 2 lb. technical per acre

Caution

The insecticides should be applied only when vegetation is dry. Livestock should be kept off treated pastures for 2 weeks. The insecticides should be kept out of water used by humans or animals. The insecticides should not be applied to food crops. Directions on the manufacturer's label should be followed.



For additional information contact your county agricultural agent or write the extension entomologist, College Station, Texas.