



## Entomology Insect Information Series

*Providing Leadership in Environmental Entomology*

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### RED IMPORTED FIRE ANTS: IMPACT ON SOUTH CAROLINA

The red imported fire ant (RIFA) is found throughout the southeast and in all 46 counties of South Carolina. All of 43 counties and portions of three counties are under APHIS PPQ quarantine.



Fire ant stings on baby's hand.



Severe fire ant stings.

#### Human Health

- In 1987, there were an estimated 500,000 sting cases requiring medical attention at a cost of \$1.8M. This occurred when only 40 counties were infested.
- Children and youth have the highest sting rate.
- Approximately 0.5% of the population (>18,000 South Carolinians) is hypersensitive to stings and could die if untreated.
- Stings often lead to secondary infections and severe scarring.
- Fire ants invade hospital surgeries, patient rooms, nursing homes, schools and other sites where people are at high risk to stings.

#### Economic Impact

- Homeowners spend \$3–5M/year for RIFA control.
- Control in pastures, hay fields, and recreational turfgrass is at least \$28/acre annually.
- RIFA infestations impede adoption of no-till and other soil and water conservation practices.
- Farm equipment is frequently damaged by RIFA mounds in fields and pastures.
- Livestock and poultry may be injured and even killed by RIFA stings.
- IPM practices may be disrupted by RIFA.
- **Nursery Production** — \$690M Industry
  - Approximately 50% of the production is shipped outside South Carolina.
  - All nursery stock shipped outside the quarantine area must be treated and certified fire ant free.
  - 9,272 acres under compliance
  - Certification treatment plus broadcast treatments can exceed \$650/acre annually.
- **Turfgrass Production** — 11,000 acres in SC; \$36M Industry
  - All sod shipped outside the quarantine area must be treated and certified fire ant free at an estimated cost of \$200K annually.
- **Fruit Production** — Peaches: ~20,000 acres; Apples: ~3,000 acres; Grapes: ~250 acres
  - All fruit crops require hand labor.

- Pick-your-own operations (strawberry, blackberry, and blueberry) have high numbers of people present.
- Fire ants infestations can prevent harvest.
- Efficient, legal controls are limited. Current treatments may be applied only to borders and other non-crop areas of a field.

### **Industrial Impacts**

- Fire ants are attracted to electrical equipment.
  - Hazard to service people.
  - Can cause electrical shorts and fires.
  - Can cause malfunction of equipment, including communication, transportation, electrical distribution, and safety lighting.
- Compromise cleanliness in food packaging, processing, and storage areas.
- Compromise waste containment

### **Homeowners**

- 86% consider RIFA a serious problem;
- 68% feel the problem is getting worse;
- 48% stated RIFA has cause changes in outdoor activity;
- 45% willing to pay more taxes to support RIFA management programs;
- 57% spent \$30+/year on RIFA control.

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