

PEST PREVENTION TRAINING

An advanced education program for those on the front lines protecting Hawai'i

Red Imported Fire Ant

Solenopsis invicta

Not known to be present in Hawaii

An aggressive, reddish-brown, ground-dwelling ant. Known for its painful sting and large, mounding nests.



RIFA adult worker.



Impacts

- Economic: \$1 billion in damages in USA alone. In Australia over the past 30 years, economic loss estimated at \$6.7 billion. Projected estimates for introduction and establishment in Hawaii is at \$211 million per year.
- Equipment Damage: electrical equipment such as: appliances, vehicles and heavy equipment, sprinkler systems, and traffic box switching mechanisms.
- Human health is negatively impacted by painful stings. Persons with sensitivities can have a severe allergic reaction causing anaphylaxis.
- Agricultural Damage:
 - · Crop damage caused by ants feeding on seeds, seedlings and developing fruit.
 - Health of livestock impacted by the ants' stings, especially confined, very young or very old animals. Ants can infest food, waters and nesting areas. They are attracted to moist areas of animals' body. Stings result in injury such as blindness, swelling or death.
 - Aggravate insect plant pests such as aphids, scale and mealybugs by protecting them from their natural enemies.



Identification

- Ants are 3-6 cm (.125-.25 inches) long and reddish-brown in color.
- Behavior: Ants that respond rapidly and aggressively when disturbed.
- Symptoms: the stings cause a burning sensation and itching pustule or blisters that can become infected.
- · Hard, mound-shaped nests that can get quite large. Mounds do not have an opening in the center, instead ants enter through underground tunnels.
- Painful stings, often from multiple ants leave blistering, burning welts.



RIFA ant mound.



Repor plantpono.org/pest-prevention-training/ 643pest.org



Red Imported Fire Ant

Solenopsis invicta

Not known to be present in Hawaii



Vectors/Commodities

- Agricultural commodities, plant shipments, cargo.
- · Vehicles and equipment.
- Electrical equipment that has been used outdoors or has been in contact with the ground.
- · Building supplies.



RIFA ants foraging.



Distribution

- · Native Range: South America
- · Invaded regions:
- USA: AL, AK, CA, FL, GA, LA, MS, NM, NC, OK, SC, TN, TX, VA, and Puerto Rico.
- Caribbean: Puerto Rico, Bahamas, British and USA Virgin Islands, Antigua and Trinidad.
- Cayman Isl., Malaysia, Singapore, Trinidad and Tobago, and the Turks and Caicos Isl.
- · It has also been detected in New Zealand and Australia, Hong Kong, Taiwan, and China
 - New Zealand incursions have been eradicated and mainland China populations are either eradicated or currently undergoing eradication.



Best Managment Practices

- Consider pest distribution when sourcing plant material.
- Inspect all materials shipped from infested areas.
- Regular nursery surveys are recommended to find RIFA and other invasive ant populations.
 - How to collect & where to submit ants for ID: <u>https://stoptheant.org/report-little-fire-ants/</u>
- Report suspect ants to 643pest.org, or by phone to 643-PEST (7378).



RIFA stings on arm.



Selected References:

- Red Imported Fire Ant_CABI: https://www.cabi.org/isc/datasheet/50569
- Red Imported Fire Ant: CTAHR: https://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-3.pdf
- Red Imported Fire Ant_Hawaii Ant Lab: https://littlefireants.com/wp-content/uploads/2020-Management-of-Pest-Ants-in-Nurseries-min.pdf

This material was made possible, in part, by a Cooperative Agreement from the United States Department of Agriculture's Animal and Plant Health Inspection Service (APHIS). Itmay not necessarily express APHIS's views.



