

Red Imported Fire Ant (RIFA)

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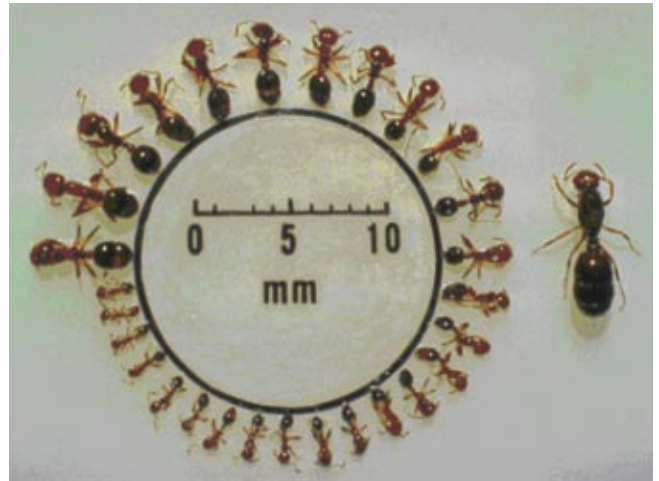
Red Imported Fire Ants (RIFA), *Solenopsis invicta*, are one of the most serious ant pests in the world and were found to be established in Brisbane, Queensland, in 2001. There is a chance that RIFA could be accidentally imported into Western Australia in pot plants, hay, beehives, turf or shipping containers.

RIFA are considered such pests that \$200 million has been spent to date on a program to eradicate them from Queensland.

The Department of Agriculture and Food conducts surveys to detect any that may have established in Western Australia. The public is asked to assist by submitting specimens of any suspect RIFA, as detailed below.

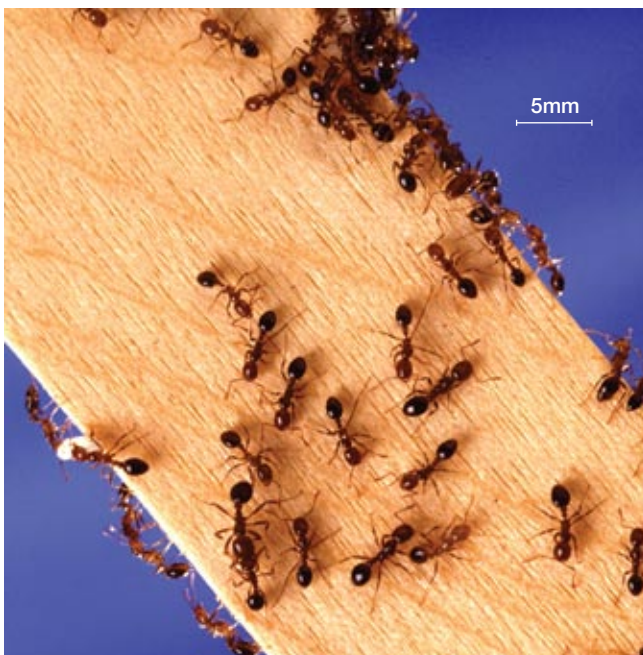
What do RIFA look like?

Red Imported Fire Ants are small ants, varying in size from two to six millimetres. They are reddish brown in colour and look like many common native ants found around homes and in gardens. As their name suggests, RIFA have a fiery sting, unusual in that blisters, followed by pustules, develop at the sites of the stings. RIFA build characteristic mounds that are low and squat, up to 40



Red Imported Fire Ant size range – queen far right (photo: University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS)).

cm high and 50–75 cm in diameter but new nests start out as small piles of excavated soil indistinguishable from many other ant species. The mounds are built in open areas, such as lawns, sporting grounds, golf courses and pasture paddocks and may number more than 100 per hectare. Mounds are unique in that there are no obvious ‘entry’ holes.



Red Imported Fire Ants (photo by Scott Bauer, USDA Agricultural Research Service, Bugwood.org).



Red Imported Fire Ant mound—note vegetation growing through it. (Photo by Bill Crowe, AQIS).

Why are they pests?

RIFA are primarily an urban and human health pest, but also have a significant impact on agriculture and the environment. RIFA are declared a ‘Key Threatening Process’ under the Federal Environment Protection and Biosecurity Conservation Act. In the USA, where this

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exotic species is widely established, RIFA is estimated to cause losses of more than three billion dollars annually, in terms of damage done and cost of control. As an urban pest, RIFA thrive in backyards, school grounds, golf courses and street verges and, because of their aggressive stinging behaviour, deter outdoor activities. They commonly invade indoors and can injure pets if these are tied, penned or caged and unable to escape. RIFA chew electrical insulation resulting in extensive damage to electrical motors, air conditioners, pumps, transformers, telephone exchanges, signal boxes and other electrical devices.

Health effects

In the USA, it is estimated that 33,000 people a year seek medical attention for RIFA stings. Some severe cases require hospitalisation, and allergic reactions can result in death, although this is rare. Permanent scarring can occur from RIFA stings.



Pustule formation as a result of Red Imported Fire Ant stings (photo by Murray S. Blum, University of Georgia, Bugwood.org).

Agricultural significance

In agriculture, RIFA have been recorded directly damaging many species of cultivated plants from potato tubers to young citrus trees which can be killed by ants girdling the stems. They collect seeds, feed on germinating seeds and seedlings, and on developing fruits and buds. Scale insects and aphids are tended and protected by RIFA, resulting in severe infestations requiring the application of insecticides. The ants frequently cause problems in reticulation systems and their activity in horticultural paddocks can deter workers from harvesting fruits and vegetables. Numerous ant mounds, commonly at 100 per hectare but sometimes exceeding 400 per hectare, can interfere with hay cutting and can make the simple act of driving across farm paddocks difficult. Livestock

can be deterred from feeding and the area occupied by mounds can significantly reduce available pasture. Livestock can be blinded by RIFA stings or suffer gastrointestinal damage after accidentally consuming RIFA workers with their feed.

Ecological impact

RIFA are omnivores, feeding on a wide range of plant and animal material. They are aggressive predators and have a major negative effect on ground active and nesting animals, including insects, frogs, reptiles, birds and mammals.

Survey for RIFA—how you can help

The Department of Agriculture and Food has an ongoing surveillance program for RIFA. As there are over 2000 species of native ants we can only positively identify suspect RIFA from specimens. You can assist by submitting suspect RIFA specimens.

Look for:

- small, reddish brown ants, variable in size from two to six mm long;
- pustule formation at sting sites;
- ant mounds with no obvious entrance hole;
- ant mounds with green vegetation emerging.



Infested pot plant on left—note small mounds on surface. (Photo by Queensland Department of Primary Industries).

Specimen identification requirements

Ants can be easily submitted by collecting about a dozen suspect ants onto clear sticky tape and sticking that to a piece of paper and posted with:

- Collector's name, location (where the specimen was found), full address, telephone number and e-mail address, description of the damage and date collected.

Caution: Collect specimens away from the nest to reduce the risk of being stung.

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