



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 have recently been found in Brisbane, Queensland. The Department of Agriculture is conducting a survey 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.



Red Imported Fire Ants (two to six millimetres in length).

Cost of control

The amount of money spent on controlling RIFA is estimated to be \$900 million in the USA annually. If at all possible, the plan is to eradicate RIFA in Australia, and prevent the need for a similar annual cost to Australians.

What do RIFA look like?

The 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 and then pustules develop at the sites of the stings. Native ant stings don't develop these symptoms.

← 5mm →



Close up of Red Imported Fire Ant worker.

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RIFA build characteristic mounds that are low and squat, up to 40 centimetres high and half to three quarters of a metre in diameter. The mounds are built in open areas, such as lawns, sporting grounds, golf courses and pasture paddocks and may number in excess of 100 per hectare. They are different from the native stick-nest ant, which builds mounds in bush areas in the south-west of Western Australia. Another feature of RIFA mounds is that

they often have grass and other vegetation growing through them. RIFA require ready access to water and prefer lowland areas and situations next to streams, ponds and lakes.

Why are they pests?

RIFA are primarily an urban and human health pest, but also have a significant impact on agriculture and the environment. In the USA, where this exotic species is widely



Red Imported Fire Ant Mound with grass growing through it.



Close up, Red Imported Fire Ant Mound.



Pustule formation as a result of Red Imported Fire Ant stings.



Red Imported Fire Ant mound – note vegetation growing through it.



Red Imported Fire Ant mounds in paddock.

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 and cause extensive damage to electrical motors, air conditioners, pumps, transformers, telephone exchanges, signal boxes and other devices. In the process of nest and mound building, they can excavate so much soil that structural problems can result under paving, driveways, and retaining walls.

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. The cost to the community is significant especially when worker's compensation is included. Permanent scarring can occur from RIFA stings.

Agricultural significance

In agriculture, RIFA have been recorded directly damaging many species of cultivated plants from potato tubers to young citrus trees 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 reduce available pasture significantly. Animals in pens, feedlots or high-intensity production systems can be attacked.

While their net effect on agriculture is negative, RIFA are very predatory on other insects and do provide control of some insect pests.

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. Populations of mice, snakes, turtles and other vertebrates have shown a two-fold reduction as a result of RIFA infestation of an area. The ants feeding on plant seeds can also damage the native flora of an area.

Survey for RIFA – how you can help

A nation-wide survey is underway to detect any RIFA in Australia. This survey will help determine if eradication of the currently known RIFA infestations in Queensland is viable. 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.

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

Ants can be easily submitted by sticking about a dozen suspect ants to clear sticky tape and sticking that to a piece of paper with the collector's contact details. The specimens can then be posted to:

Fire Ant Surveillance
Locked Bag No.4
Bentley Delivery Centre WA 6983.

Look for:

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

Acknowledgments

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