

# INVASION OF THE RED FIRE ANT

The red fire ant is described as one of the world's worst invasive species. In Australia, the ants are taking over new areas, and experts fear that the battle to control them has already been lost. It's bad news not just for the country's ecology, but also for bushwalkers and anyone else who engages in outdoor activities.

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Photography **JOHAN AUGUSTIN**  
(unless otherwise noted)

A truck speeds down the highway, creating a gust of wind that makes the sugarcane stalks quiver. These fields of sugarcane stretch as far as the eye can see, and a closer look reveals mounds of earth near the robust stalks that bask in the sunlight around the road.

"They use the stalks as a 'body' to get direct heat from the sun," says Greg Zipf. 'They' refers to an unwelcome guest that Greg's sugarcane fields outside Brisbane have received, one that's proving tough to get rid of: the red fire ant.

## A MENACE TO SOCIETY

An insect native to South America, the red fire ant (*Solenopsis invicta*) has spread to many new areas, including Australia, over the past few decades, hence why it's also called the red imported fire ant.

Greg, who is carrying a container of the ant poison Indoxacarb, walks with me along the cane field's edge; within about 100m, he spots six ant nests.

"Six months ago, there were no nests here," he says, adding that the significant floods earlier in the year likely helped the ants—which clustered together to form 'rafts'—move over long distances.

We're accompanied by Reece Pianta from the Invasive Species Council, an environmental organisation founded in 2002 with a mission to raise awareness about the widespread problem of imported pests and weeds that run amok, threatening Australia's native species. The group now advocates for far stricter biosecurity laws.

"We're pressuring the government to do more about fire ants," says Reece, adding that the ants are "the worst invasive species in Australia. They're a superpest!"



Greg Zipf at his cane field holding a container of Indoxacarb, used to treat the ants



Reece Pianta getting bitten by fire ants

The problem is that ants are capable of quickly spreading to new areas, and just because an area is deemed 'ant-free' doesn't mean colonies aren't living underground where they're out of reach of ant-tracking dogs.

Reece explains that the queens can fly up to 32km to form new colonies, while humans—through transportation activities—unknowingly assist the ants, for instance, transporting them via trucks. It's crucial, therefore, that compost material from, for example, sugarcane, is treated to prevent further spread of the pest.

## FARMERS BEAR THE BURDEN

These treatments are subsequently expensive—a cost that farmers like Greg must bear alone. "It's not our fault that the ants spread. It's the government's responsibility, and they should pay us for spending our own time on this," he says.

The ants have been present around Brisbane for about twenty years, so it's not a new problem, but it has proven to be a persistent and challenging one—one requiring relentless work.

"We must treat the land twice a year, and never give up if the ants are not to return," says Greg.

Despite the numerous mounds on Greg's sugarcane fields, no ant activity is visible. However, this quickly changes when Reece kicks a nest with his boot. The nest swarms with ants and eggs just beneath the dried layer of earth. To better observe the ants' activity, Reece places a white piece of paper within the nest.

## COORDINATED ATTACK

By the time Reece lifts his hand again, about thirty ants have swiftly climbed onto it. As he attempts to brush them off, they sting him en masse; the resultant 'fiery' pain Reece experiences



Credit: Meghan Cassidy (CC BY-SA 4.0)

shows why the ants have the name they do. “Aargh, it hurts a lot,” says Reece, wincing. His hand quickly swells up with numerous red marks.

The attack illustrates why it’s crucial to combat this new invasive species in Australia. “They are very aggressive,” says Reece. “[And they] continue to sting until they have exhausted all their venom,” hence the importance of removing red fire ants quickly. What’s more, the ants attack anything edible in their path, including insects, bird eggs, even other ant species, and they also pose a threat to larger native animals and livestock.

“Our iconic animals,” says Reece, “like koalas, platypuses, and echidnas will be on the fire-ant menu.”

The unwelcome guest also poses a danger to humans, who can suffer allergic reactions from the venom. In the United States, many people have died from fire ant stings in recent years (see sidebar), a trend that experts don’t want to see in Australia.

### TOO LATE TO ACT?

Anthony Young, a lecturer in crop protection at the University of Queensland, walks with me through a park on the outskirts of Brisbane, pointing out ant nests in a few sunny spots. Children play in a nearby schoolyard, and some visitors have a picnic on the grass in the park. The few fire-ant colonies previously seen in other states, such as New South Wales and Western Australia, have been eradicated, but in Queensland the problem is so widespread that it may be too late to reverse the trend. “My son has already been stung by fire ants,” he says.

According to Anthony, the government has realised too late that the ants are a serious threat. “We really need to act now,” he says. Large, coordinated campaigns are necessary, but currently it appears the ants are winning the race. “It looks hopeless—we need a game changer.”

That game changer is more funds.

“The current eradication program needs to double or triple, at least,” says Nigel Andrew, an entomologist at Southern Cross University. The funding required, he says, to eradicate the red fire ants needs to be “200 to 300 million a year. We are at half of that currently.”

### RED FIRE ANT FACTS:

First discovered around Brisbane in the early 2000s, red fire ants (*Solenopsis invicta*) are believed to have arrived by ship from South America. Despite the name, they’re not red, but more copper-brown in colour, and are relatively small, just 2-6mm. Nonetheless, they’re extremely aggressive, and can cause significant harm to humans, wildlife, and livestock.

The species has spread to other countries such as South Korea and China, and in the United States, the invasive ant is now present across one-third of the country, costing it around \$7 billion USD annually. More than 80 people have died in the US as a result of stings.

The species can spread approximately 5km annually in Australia, and there are currently ant nests on 8,000km<sup>2</sup> in Queensland, of which 7,000km<sup>2</sup> have been treated so far. If left undisturbed, the species could potentially spread over 97% of Australia’s area.

Modelling by the Queensland Government indicates that in southeast Queensland alone, fire ants would impose costs of about \$45 billion over 30 years. In Australia, they could cause an extra 140,000 medical consultations and 3,000 anaphylactic reactions a year.

Sources: Invasive Species Council, National Fire Ant Eradication Program



**IMAGES - CLOCKWISE FROM TOP**

Anthony Young finds ant nests in a park just outside Brisbane

Ants and eggs

Pustules resulting from imported-red-fire-ant stings. Credit: Murray S Blum

A raft of fire ants floating on floodwater. Credit: Invasive Species Council



**DOMINATING OTHER SPECIES**

Nigel explains that due to the nature of the aggressive ant, it will “dominate other species, kill off pollinators and remove predators.” That can also lead already-endangered species to go locally extinct.

The current eradication plan ends in 2027, and it must demonstrate its effectiveness before receiving additional funding, according to Reece Pianta. At the moment, the funds are being distributed by federal and state governments via the National Fire Ant Eradication Program.

“The goal is to eradicate fire ants by 2032,” a spokesperson for the National Fire Ant Eradication Program told me, without clarifying what will happen when the program runs out in three years. “Eradicating fire ants is no small feat,” the spokesperson said, “but our dedication remains steadfast. While many countries have given up, Australia continues its fight.”

**A THREAT TO OUTDOOR ACTIVITIES, TOO**

The effort to keep aggressive fire ants at bay is crucial if Australia’s outdoor lifestyle is to remain the same, according to David Bell, President of Bushwalking NSW.

“Fire ants have the potential to be one of the worst pests ever seen in this country, worse than cane toads. If they break containment lines, they [could] spread to nearly all of the continent. It has the potential to radically change the way we recreate in outdoor areas,” David says.

And any outdoor activity would be at risk. “Bushwalkers camping near fire-ant nests would be affected, as would people walking through areas where ants are present. We’ve already seen outdoor activities cancelled or suspended on the Gold Coast.”

What can be done to lower the risk of being stung by fire ants when out in the bush? Is there anything one can do to treat the skin, if stung?

“The best way to avoid being stung,” says David, “is to leave the area immediately and report the infestation to the relevant authorities as soon as possible. If the stings worsen, people should go to a GP or a hospital immediately, particularly if they develop an allergic reaction.”

One aspect that makes fire ants particularly problematic for bushwalkers and other outdoor enthusiasts is that fire ants prefer to build their nests in open areas, and not so much in closed forests. “Unfortunately, these open areas,” says David, “are also where people like to camp. If in an open area where fire ants could occur, [it’s] best to conduct a careful ground sweep before setting up tents.”

But those ground sweeps only help if members of the public know what they’re looking for. “Education for the community on how to recognise fire ants and what to do is also very important.”

**INACTION GUARANTEES THE SPREAD**

This isn’t going to be an easy problem to tackle, and most other countries have failed in their efforts. It’s going to take commitment, and hard work. “Governments need to keep up with eradication efforts,” says David Bell, “and not drop the ball ... with funding and regional support.” It’s also crucial that landowners report known or possible sightings of nests and cooperate with the authorities.

Time will tell whether these efforts will prove successful. One thing we do know, however, is that inaction will prove costly for farmers, for outdoor enthusiasts, for the broader public, and for the environment in general. **W**

**LEARN MORE:** Head to the Invasive Species Council website at [invasives.org.au/insect-watch/red-imported-fire-ant](https://invasives.org.au/insect-watch/red-imported-fire-ant)

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