Projected impacts of fire ants in Australia

fact sheet

UPDATED MARCH 2017

The economic losses and social battering suffered by some of Australia's major trading partners because of fire ants should serve as a warning to our governments about what we can expect if we fail to fully eradicate this highly invasive species, currently infesting parts of Queensland.

Based on overseas experience we have estimated the impacts fire ants could have in Australia if not eradicated. All estimated costs are in Australian dollars.

General Impacts

Access: Fire ants will occupy and dominate areas such as parklands, limiting access and curtailing our outdoor way of life.

Insurance: Fire ants are a clear risk to human health and welfare, and will represent a duty of care insurance risk for many industries, including childcare and aged care.

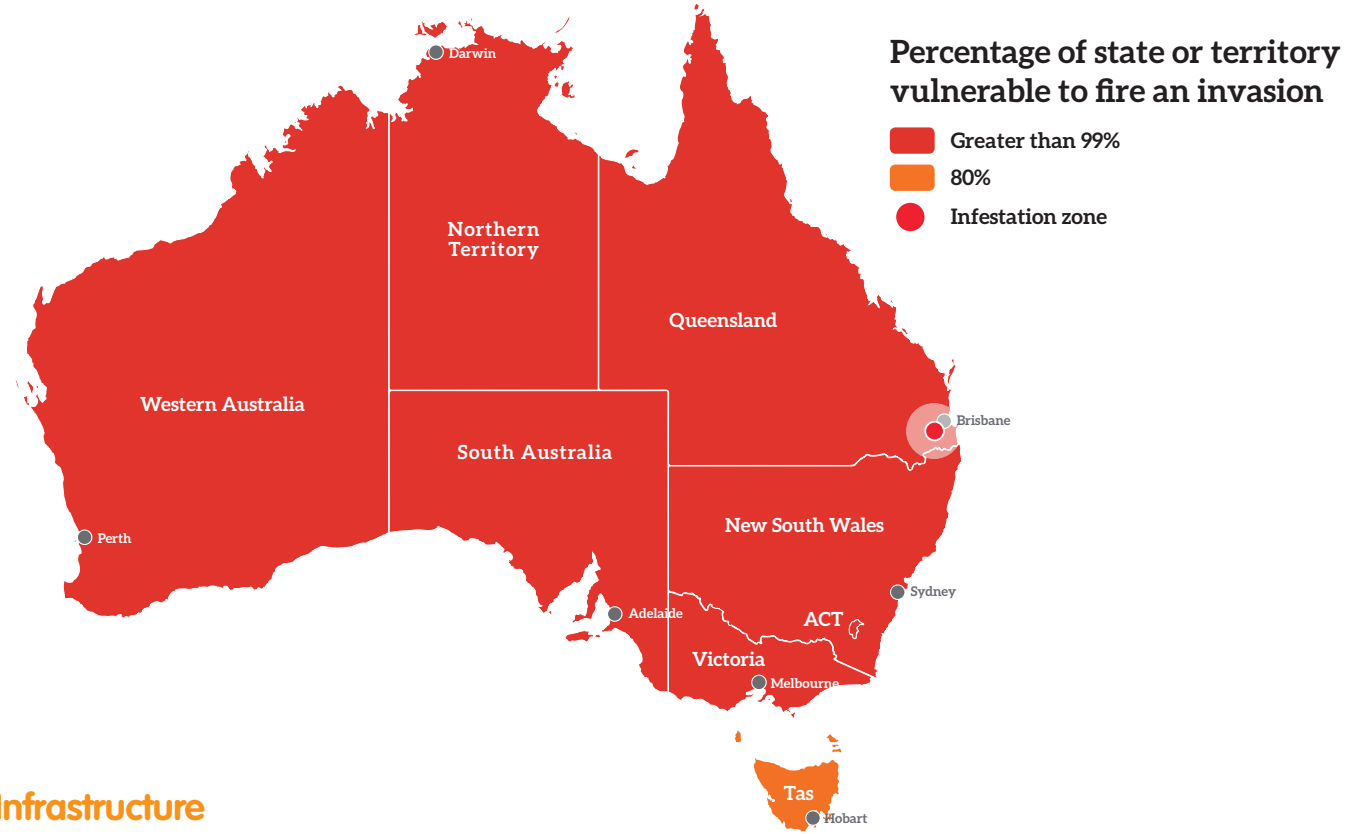
Compliance: The movement of goods, machinery and materials will be hampered and costs increased by regulations designed to control fire ant infestations.

Local Government

Parks, recreation areas, public offices and buildings may be affected. In the US treatment of areas managed by local government costs $218 a hectare annually.

Tourism

Tourism operators will be forced to shoulder similar costs to local governments if fire ants infest any land they own or are required to maintain. Fire ants swarm over parks and public spaces, and can nest along foreshores and sandy dunes, limiting beach access. In some urban areas of Texas 26.8% of householders have reduced their outdoor activities because of fire ants.



Infrastructure

Fire ants damage infrastructure by digging near and undermining roads and structures. Damage to roads alone could be $1921 a kilometre. If 1% of Australian roads were affected costs could reach almost $7 million a year.

Fire ants congregate around electrical switching and colonise utility housings, causing corrosion and malfunctions. Costs to electrical and telecommunications companies in Australia could be as much as $508 million a year. In the US fire ants cost airports alone an estimated $142 million every year.

Nursery industry, landscaping, parks and gardens

Transported in soil, turf and landscaping materials, fire ants prompted stricter regulation of nursery stock in the US. Treatment costs for the Australian nursery sector are estimated at between $4 million and $16 million annually, with overall nursery production costs in Queensland alone (including lost market costs) estimated at $18 million.

Without regular chemical treatment, infested parks, gardens and homes will become uninhabitable.

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Pet industry

Small animals and pets are the most common victims of fire ant attacks in the US. Young, old and caged animals are especially vulnerable. Bites cause skin inflammation, infection and sometimes blindness and death. Animals are commonly bitten by ants in pet feed bowls.

Health

Eighty-five people have been killed in the US after suffering anaphylactic shock induced by fire ant attacks. The ant's alkaloid venom causes painful stings, pustules, and sometimes secondary infections. In fire ant infested areas of the US 30-60% of people are stung every year. In Australia fire ants could cause 140,000 medical consultations and 3000 anaphylactic reactions a year. Total medical costs borne by Australian households could be as much as $114 million a year.

Building and construction

Fire ants like open areas commonly associated with human development - roads, construction sites and earthworks. Fire ant regulations in Queensland prohibit the movement of infested soil, requiring the mitigation of risk at the expense of the businesses concerned. Operations may be delayed during treatment. Fire ants also represent an appeal risk for new developments and will eventually become an industry-wide challenge like that posed by termites.

Sport and recreation

If not eliminated fire ants could eventually cost golf courses in Australia $224 million a year. As well as their economic cost fire ants can also lead to tragic outcomes. In Texas fire ants infesting athletics and sporting fields is a constant problem - in once instance they caused the death of a 13-year-old student during a football game in 2013. We can expect the same problems in Australia if fire ants are not eradicated.

Impact of fire ants on agricultural activity	
Cropping and mixed farming	10%
Citrus	12.5-17%
Mixed livestock, grain crops, soybeans	20%
Potatoes	30%
Beef based enterprises	40%
Sunflowers and eggplants	40-50%

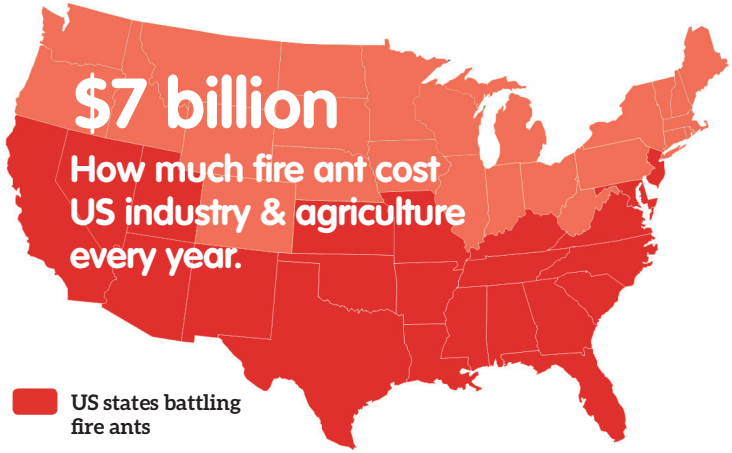
Defence

Fifteen per cent of military personnel in the US reported fire ants as the most problematic insect. Soldiers are forced to leave weapons, change or disclose position and abandon posts during manoeuvres. Fire ants have also been reported as a hazard to military camps in Taiwan.

Agriculture

One study suggests farmers can expect anywhere from 15% to as much as 95% damage to grain crops if fire ants are found on their land. In the US more than 50 commercial food crops are affected by fire ants, including citrus, tree nuts, stone fruit, grains, tree crops and vineyards – workers can be locked out of infested areas.

Animals are stung around the face causing blindness and suffocation, especially in newborns. Ants dominate dams and tanks in dry times preventing access. Cost of equipment, materials, injury and death averages $11.24 per head for cattle (potentially up to $109). Cost to the cattle industry in Australia is projected at around $308 million a year.



In Texas 94% of poultry operations reported problems. Therefore, significant impacts are likely in Australia.

Fire ants also attack and rob beehives.

Environment

As swarming omnivores, fire ants will damage or kill both native animals and native plants. Population declines of 45% for birds, 38% for mammals, 69% for reptiles and 95% for amphibians are predicted, with flow-on ecosystem-wide effects likely.

Sources and information

F. Ross Wylie, Sharon Janssen-May, 2017, Red Imported Fire Ant in Australia: What if we lose the war? Ecological Management & Restoration, V18 Issue1, pp 32-44, January.

Magee, B, Parkes J, Adamson D, Hyne N, Langford D, Holtkamp R, Lawson S. 2016. Independent Review of the National Red Imported Fire Ant Eradication Program, Report of the Independent Review Panel to the Agricultural Ministers; Forum. May 2016.