Transcript

Environmental Biosecurity Webinar of the National Fire Ant Eradication Program

National Fire Ant Eradication Program

Protecting Australia from fire ants

Presented on 2023

 **Presented by:**

**Ashley Bacon**

Executive for the National Fire Ant Eradication Program

[*Opening visual of slide with text saying, ‘National Fire Ant Program with Crest (logo),’ ‘National Fire Ant Program, ‘Protecting Australia from fire ants, ‘Webinar 4 – Overview’, ‘2023*]

**Ashley:**

My name is Ashley Bacon, and I'm the program executive for the National Fire Ant Eradication Program. It is a national program with national cost-share partners, and we're governed through a national steering committee with representation from every state, territory, and the Commonwealth Government. And I'm here today to talk about fire ants. So, what are fire ants?

Fire ants are an introduced pest that are originally from South America, they were first found in Australia in 2001. They may be small, so they're only about 2 to 6 millimetres in size. So, I have to confess, when you say them, they're actually quite unimpressive in size. But the fire ant can do a lot of damage. They are considered to be one of the most invasive pests and can cause irreversible damage and consequences on our environment, economy, human health and our way of living here in Australia.

They're a tricky little character. They can spread over the grounds through flight, water by rafting and through human assisted movement. And the program has been put in place because we believe and agree to a national level that eradication is the best option to protect Australia from this destructive pest. So just a bit of background. We’ll talk about impacts that fire ants can have.

So, as I said, it's a tricky little character and unfortunately it can have an impact on almost all aspects of our life. So, if we were to do nothing, the fire ant has the potential to surpass the combined damage done each year by feral cats, wild dogs, foxes, camels, rabbits, and cane toads. They are extremely destructive and can destroy crops, damage machinery, equipment and roads and render land unusable.

Overseas where fire ant populations are much higher than we have here in Australia, communities have been forced to change their lifestyle to avoid exposure to fire ants. I was actually just told by one of my team recently that in one of our areas here in south east Queensland, where unfortunately fire ants are quite populated, a resident has had to put a trampoline basically in their backyard to get from their backyard back door to their to their clothesline to hang out their washing.

Unfortunately, people are unable to enjoy picnics or games of football. Local parks are closed and walking barefoot or standing still for too long in one spot is almost made impossible. A recent cost benefit analysis that had been performed by the Central Queensland University, estimated conservatively, I would say, that the cost of impacts of fire ants on the Australian economy would be in the order of $1.2 billion each and every year.

That study was limited to a 15 year time horizon, which I want to note is in that 15 years, if fire ants were to spread naturally, it could potentially be at the head of the Murray-Darling and therefore the cost and impact of fire ants would exponentially grow very quickly thereafter.

So, fire ants, as you can see, have an impact on many aspects of our life. And unfortunately, the cost would be great for human health and the household. Fire ants when they stink and burn, and itch and multiple stings can feel like your body is on fire. In rare cases, fire ant stings can have a severe and sometimes fatal reaction.

Thankfully, we have no recorded links to anaphylactic death resulting from anaphylaxis in Australia. However, we do have some close calls. We had a situation recently where a man in Ipswich here in Queensland was simply whipper snipping in his backyard, disturbing a nest resulting in the fire ants swarming. And he unfortunately had a reaction, was thankfully found by his son and emergency services was called.

These are fierce little characters that cause a great deal of damage. The estimates that you see on the screen here is part of that cost benefit analysis that I spoke of. That figure of $536 million is based on an assumption that only 50% of Australians would take action to manage or mitigate the risk of this pest. That means treating their backyards or receiving medical treatment if bitten by fire ants.

And so, the cost there could be far higher. As we have seen in other countries, fire ants, when established in someone's backyard, has almost rendered them unusable. Our backyards, playgrounds, beaches, and sporting grounds as unusable. So, we really are determined to ensure that doesn't happen here in Australia. As I mentioned, it can have a significant impact on the environment.

Why? Because they affect our environment as they feed on our fauna that nest or feed on the ground. This means includes things like our insects, spiders, lizards, frogs, birds, and mammals can displace or eliminate some of our native species, eat and damage seeds, possibly causing major ecosystem changes over time. Disrupt the insects and animals that pollinate native plants, which may also cause long term changes to vegetation or their bushland areas.

They have been known to attack bird species that have ground-based feeding habits and species that can occupy areas even as high as one metre above ground. They are at risk. This, unfortunately, does put our native ground dwelling animals such as turtles, snakes, platypus, crocodiles, and kangaroos at risk. Fire ants have been known to attack the young, stinging them around their eyes, mouth, nose and leading to blindness and unfortunately in this instance, suffocation.

And we have seen examples of that here in southeast Queensland. Now, again, I put on the screen there a projected cost impact of $84 million per year. Again, that is a conservative figure because it was looking at the cost to manage a highly sensitive areas. It doesn't take into account the cost to loss of biodiversity and changes of environment that are caused by these pest disrupting our ecosystems.

We have seen in other jurisdictions over in the United States, for example, that have caused significant population declines in birds, mammals, reptiles and amphibians. So, we do not want to see that happen here in Australia. So recent modelling has shown what would have happened had the fire ant program not been put in place. I'm really proud to be leading this program because it is world leading in what it does. It is one of the biggest biosecurity responses in Australia's history and it is the most successful fire ant eradication program in the world. Some would argue, but we haven't eradicated them.

True, but what we have seen in the likes of the United States, fire ants move at 48 kilometres per year. In China, they move as far as 80 kilometres per year. As you can see from this diagram in Australia, we have restricted their movement to four kilometres per year. And without the program, we know that fire ant modelling has shown us that fire ants with a natural spread would occupy almost 100 million hectares as an arc from Bowen, north of Bowen, west of Longreach and south of Canberra had the program not been in place, that is through natural spread.

One of our biggest challenges that we face is movement through human assistance, human assistant movement. Recently we received a report of a single queen, a fire ant queen being found in Victoria. We immediately set up an incident response team and began to work alongside our colleagues in Victoria, and it was an absolute excellent example of cross jurisdictional collaboration and plenty of learning opportunities that came out of that.

What this diagram shows is and the stars represent match, where we had found linkages between where that queen had been found and where the supplier had distributed products throughout Australia. So, when we find a breach or intercept a fire ant across Australia, what we see is, we do tracing, we look back to where it originated from and to make sure that those providers are compliant with their biosecurity orders, but also to ensure that they haven't spread any further.

We've had up to eight incursions in Australia and many people may not know that and we have eradicated all of them, but one, which is the original infestation that was found in 2001, which is established in Richlands in southeast Queensland. The new strategy that has been introduced and announced is a strategy to contain, treat and eradicate fire ants from southeast Queensland.

This map demonstrates our approach. The red represents a ten-kilometre treatment band and a five-kilometre surveillance band. The way that this works is that we conduct eradication treatment for two years in that red band. That's three treatments once a year for two years, totalling six treatments. Every two years we move that map inward as we deliver the treatment cycle and work towards the east.

So, it's an outside in approach. Those bands represent almost one million hectares, so it's a huge exercise that we have to undertake. To be able to fight fire ants, we have a huge number of capabilities that we call on, we have a huge amount of area that we need to cover. We use helicopters, we use science, we use UTVs, and we use our ground treatment staff to be able to distribute that eradication treatment that I mentioned earlier.

We continue to invest in new ways of delivering our treatment and surveillance capability. So, we're looking at drones, fixed wing aircraft, bait that work in wet weather, and we're using sciences such as RNAI and eDNA to improve our capability to treat and detect fire ants so that we can eradicate them.

[End of Transcript]