

RED IMPORTED FIRE ANTS ERADICATED FROM NAPIER

Following an intensive three-year surveillance programme, MAF Biosecurity New Zealand (MAFBNZ) declared the successful eradication of the Red Imported Fire Ant (RIFA) from Whirinaki, north of Napier, on 22 April 2009.

Red Imported Fire Ants (*Solenopsis invicta*) are considered one of the worst invasive insects and are the subject of control and eradication activities in many parts of the world. They have been declared an Unwanted and Notifiable Organism under New Zealand's Biosecurity Act 1993.

RIFA have been successfully eradicated from New Zealand on two previous occasions – from Auckland International Airport in 2001 and Ports of Napier in 2004.



Survey team with data logger in action.

Native to South America, Red Imported Fire Ants are capable of spreading across wide areas and can pose a direct threat to human health and lifestyles, as well as our native flora and fauna. The ants are tiny (2–6 millimetres long), reddish-brown in colour, are effective foragers and they are aggressive. If disturbed, they will sting to defend their nest and surrounding area, and the stings can be painful for both humans and animals.

A single RIFA nest of about 30,000 worker ants was discovered in the grounds of the Pan Pac Forest Products plant at Whirinaki, in June 2006 and was quickly destroyed. It remains unclear how the ants arrived, as Pan Pac is primarily an exporter and most of its imports come from Europe, which is free of fire ants.

Nest analysis has shown that dispersal by mated flying ants could have occurred in either, or both, the summers of 2004–05 and 2005–06. The flight distance of the RIFA queens from their nest is thought to be up to 2 kilometres.

A Controlled Area was put in place extending out in a 2 kilometre radius shortly after the Whirinaki nest was detected, restricting the movement of potential fire ant conveyors that could cause further spread. The Controlled Area was essential from a biosecurity point of view, but, while effective, caused extra work for businesses and locals living within the area.

The three-year eradication programme also included the following activities:

- Four complete rounds of surveillance involving visual inspections and the use of bait pottles containing a mixture of peanut butter, sausage meat and cotton wool soaked in a sugary water solution. The aim was to attract any ants living in the area into the pottles, which were collected and analysed to check for RIFA. A minimum of four baits per equivalent 10 metre x 10 metre grid (100 m²) were laid out in a 2 kilometre radius of the nest find. Over 900,000 bait pottle samples were collected and checked for RIFA



AsureQuality field staff involved in the 2008–09 Red Imported Fire Ant surveillance programme.



Red imported fire ant.



A Controlled Area out to a 2 kilometre radius of the nest find was put in place shortly after the Red Imported Fire Ant nest was detected in June 2006.



Red Imported Fire Ant mound detected in the grounds of Pan Pac Forest Products plant in Whirinaki, Napier, June 2006.

over the three-year programme. Areas that could not be surveyed on foot were aerially treated with insecticidal ant baits.

- Six rounds of aerial treatments using insecticidal ant baits were applied to areas that could not be accessed on foot for surveillance activities.
- Regular monitoring of the area out to 200 metres from the original nest site.
- Regular passive monitoring using pitfall traps out to 200 metres from

the original nest find. A pitfall trap consists of a teflon-coated tube containing 10 millilitres of ethyl alcohol buried in the ground. The top of the tube is flush with the surface to trap ants that fall into it. An elevated cover protects the pitfall to minimise rainfall entering the trap.

- Tracing of all known risk goods in and out of the Pan Pac site from the time the nest was believed to have established.

The success of the eradication programme was due in no small part to the co-operation and support of Pan Pac Forest Products staff, local businesses and the Whirinaki community. Special thanks also go to AsureQuality staff who carried out the operational activities, and Flybusters Antians that provided the screening services for the eradication programme.

- Sheree Christian, Adviser, Environmental and Marine Response, MAFBNZ, sheree.christian@maf.govt.nz

Pest mosquito eliminated from Coromandel



MAF Biosecurity New Zealand (MAFBNZ) has recently declared the successful elimination of the Southern salt marsh mosquito (SSM) from the Coromandel area, ending some three years of treatment and surveillance activity.

The Australian mosquito can be a carrier of Ross River virus, which causes a severe flu-like illness in humans, and is also a vicious day-time biter.

The insect was first detected in New Zealand in Napier in 1998 and has been under treatment at several locations around the country since then. It has now been eliminated from all but one of these sites – Wairau, in Marlborough, where excellent progress is being made on its elimination.

SSM was first detected in the Coromandel in May 2006. Activities



S-methoprene insecticide granules are applied aerially as part of the Coromandel elimination programme.

undertaken since then to locally eliminate the insect have included helicopter and ground treatment operations, trapping of adults and sampling for juvenile life stages.

MAFBNZ Incurion Response Manager David Yard says the successful elimination of the mosquito in the Coromandel is something to celebrate.

“MAFBNZ, and in the initial stages the Ministry of Health, have undertaken a comprehensive work programme against this aggressive mosquito. To be able to declare this success is significant considering the vast areas of ideal habitat the Coromandel provides for the pest,” Mr Yard says.

He says the co-operation of local landowners contributed significantly to the success of the programme, and MAFBNZ is grateful for their help.

Now elimination has been declared in the Coromandel, the area comes under the control of the Ministry of Health, which administers an active national surveillance programme. This programme covers all of New Zealand to provide early detection of any exotic salt marsh mosquito, and will ensure that a sound level of ongoing surveillance is carried out in the Coromandel.