

SOUTHERN SALTMARSH MOSQUITO ERADICATED FROM NEW ZEALAND



New Zealand has become the first country in the world to successfully eradicate a saltmarsh mosquito, with the declaration on 1 July that the southern saltmarsh mosquito has been eradicated following an 11-year programme.

A helicopter drops granules for southern saltmarsh mosquito treatment.

MAF Biosecurity New Zealand (MAFBNZ) Response Manager David Yard says eradicating the southern saltmarsh mosquito from New Zealand is a very significant achievement in biosecurity terms.

“The mosquito is a vicious day-time biter and capable of carrying the Ross River Virus, a debilitating disease in people. Had it not been successfully eradicated it was likely to have considerable impacts on human health, social and cultural wellbeing. The economic cost of this mosquito establishing permanently was estimated at over \$120 million for direct health costs alone, not counting the impact on lifestyles, lost productivity, reduced tourism and the costs of mosquito control, screens and repellents,” Mr Yard says.

The first southern saltmarsh mosquito in New Zealand was discovered in Napier in December 1998 and then subsequently identified and progressively eradicated from 10 other coastal locations around the North Island, and in Wairau at the top of the

South Island. The last adult mosquito was detected in Wairau in October 2006 and the last mosquito larvae were found in June 2008 – more than two years ago.

The eradication programme was started by the Ministry of Health when it was the government agency responsible for responding to biosecurity pests of public health significance. In July 2006, responsibility for the programme was passed on to MAFBNZ.

The eradication programme was comprehensive and cost about \$70 million. It involved several activities at each infested site, including intensive surveillance to find out where the mosquito was and where it might spread to; regular aerial and ground-based application of mosquito control chemicals (S-methoprene and *Bacillus thuringiensis israelensis*) to infested habitat and ongoing surveillance for mosquito larvae and adults to check whether treatment was working and to ensure all potential habitat had been identified and that the mosquito was not spreading.

Mr Yard says MAFBNZ was confident treatment had been successful in an area when no adults or larvae were found following a time period of two years and at least three water events (rain and/or very high tides that raise the level of water in the salt marshes and facilitate hatching).

MAFBNZ has now taken responsibility from the Ministry of Health for the surveillance of mosquitoes that may be found in salt marshes around New Zealand. The programme will ensure that any new invasions of saltmarsh mosquito species are detected quickly. Early detection means eradication is more feasible because it can be carried out before any populations can become established, meaning the cost of eradication is kept as low as possible. The Ministry of Health remains responsible for mosquito surveillance at New Zealand’s ports and airports.

Full information about the southern saltmarsh mosquito eradication is at: www.biosecurity.govt.nz/pests/southern-saltmarsh-mosquito

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