

MAF BUNGLE THE BIOSECURITY IN WEST AUCKLAND

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The Painted Apple Moth eradication programme is a fiasco and a public inquiry should be held. Here are some of the things it might reveal.

The Painted Apple Moth (*Teia anartoides*) is an Australian that appears to have hitchhiked across the Tasman Sea on a container. It was identified by local entomologist Peter Maddison in April 1999 in Glendene, West Auckland. Then it turned up on the other side of Auckland, in Mt Wellington.

The Ministry of Agriculture & Forestry (MAF) machine swung into action and began a low-key, but chemical intensive, eradication programme. Despite, or because of this, the Painted Apple Moth (PAM) is still with us in West Auckland two years later. Even worse, recent data from MAF's moth trapping programme indicate that PAM has spread well beyond its original site of infestation and is now to be found in the ecologically significant Waitakere Ranges, as well as other areas such as Greenlane and Onehunga.

Information released in December 2001 revealed that some native trees, as well as apples, are favoured food for PAM. PAM is not a severe problem in Australia, probably because it exists in some sort of ecological balance with predators/parasites/diseases and it gets sprayed with insecticides in orchards. It could however pose problems for our organic orchards, as well as for our native ecology.

Why has it all gone so badly wrong? Two fundamental reasons: MAF refused to learn the lessons from the successful eradication of the White-Spotted Tussock Moth (WSTM) in East Auckland in 1996/7; and MAF resorted to chemical pesticides instead of the soil bacterium *Bacillus thuringiensis* kurstaki (Btk).

There were politics involved in these decisions. MAF gave the job of PAM extermination to Dr Ruth Frampton. She failed, until recently, to involve members of the WSTM team – including Dr John Clearwater whose international colleagues successfully identified and synthesised the female sex attractant (pheromone) that was so crucial to the WSTM success (the pheromone is used in traps to catch male moths and so delineate the area of infestation).

Instead Frampton gave the pheromone contract to HortResearch who, two years later, have still not come up with the crucial pheromone product. Finally, after political pressure, Clearwater's team was recently provided with the material to identify the pheromone and is quickly achieving success.

Meanwhile MAF people, having rejected the highly effective and relatively 'safe' Btk, were spraying infestations of PAM with chlorpyrifos. Chlorpyrifos is

a toxic organophosphate insecticide that was severely restricted in the US in 2000, because of significant health effects, including foetal brain damage.

Yet in May 2001 MAF's official external reviewers of the PAM programme, Drs Leibhold and Simpson, described chlorpyrifos as having "little or no known effects on mammals". Our Environmental Risk Management Authority has recently placed chlorpyrifos fifth on the list of high priority chemicals to be reassessed in New Zealand because of the US information.

MAF are now using Decis, or deltamethrin, a synthetic pyrethroid with less drastic human health effects. BUT, here's the problem: unlike Btk, Decis is highly toxic to aquatic life, so MAF couldn't spray it along the Whau Creek and other riparian margins - which of course is where the PAM caterpillars are rapidly multiplying.

Now this pest is spreading out of control and MAF is having to resort to aerial spraying with Btk, amid mounting community concern. They would not be in this position now if they had used Btk from the start in their ground spraying operations, especially as recently conducted efficacy trials showed the Btk was actually *more* effective against PAM than it was against the White-Spotted Tussock Moth.

There is considerable community opposition in West Auckland to MAF's plans to helicopter spray selected areas with the Foray 48 formulation of Btk, because of reported health effects when this product was used in East Auckland.

Whilst the official public health investigation into these effects did not establish a link with the spray, neither could it explain what caused the effects. The sheer volume of anecdotal evidence lends credence to the view that some people are likely to get ill from exposure to Foray 48B.

How many? There is no answer. But there is an investigation underway into a reported cluster of thyroid dysfunction in the spray zone in East Auckland. Foray 48B is the safest insecticide that could be used, but that safety is only relative, not absolute. Even MAF is careful in its wording when describing Btk: "Btk is safe for *healthy* people".

The fiasco continued: late last year MAF discovered that Waitakere City planning rules forbade low flying helicopters without a consent. The media reported that Minister Jim Sutton wanted to declare PAM to be an emergency under the Biosecurity Act – that means planning laws can be overruled.

But the next day, Sutton said he *hadn't* declared an emergency. Back to the Council table. But not for long: on December 11th 2001 Minister Sutton announced that the spraying programme would be exempted from the provisions of the Resource Management Act under section 7a of the Biosecurity Act – this means that Waitakere's planning rules can be overridden *without* an emergency being declared. Spraying is now set to commence on January 19th 2002.

Meanwhile frustration is mounting in the community. MAF set up a Community Advisory Group (CAG), ably chaired by West Auckland resident Kubi Witten-Hannah, and has met with this group a number of times. However MAF appears to regard this group simply as a means to fulfil its obligation to consult, rather than as an opportunity to actually work *with* the community.

The community wants the moth gone, but it does not want the health of its members or its environment compromised. CAG has been diligent and inventive in proposing alternative methods to MAF, including trialing a non-toxic biodynamic peppering method.

A proposal for a trial has been produced by Hana Blackmore of Society Targeting Overuse of Pesticides (STOP) and MAF has agreed to consider it. However MAF have 'failed' to provide the detailed data on where moths are being trapped, and that data is essential for determining where the trial should be carried out. It is also essential for keeping the community informed of developments.

MAF told the Community Group, in November last year, that they are carrying out trials to see how far Foray 48B will drift when sprayed from a helicopter, but they have so far failed to provide any information on this trial to CAG as requested.

Even worse, MAF have steadfastly refused to respond to the continual requests to stop using Decis and replace it with Btk. They say that residents can ask MAF not to use Decis if they are concerned about health effects (at the same time telling them there aren't any – sound familiar?), but fail to extend this right to neighbours who get drifted upon.

The saga continues: MAF continues to spray Decis at will where caterpillars are found; it continues to ignore the request for information from CAG; the community is getting increasingly angry at the bungle; and the pest continues its inexorable spread.

Aerial spraying is due to begin in January, but there is serious concern that it is too late for the proposed targeted spraying and that the only thing that will get rid of it now is the return of the DC6 zooming across the skies of Auckland, dropping its load of Foray 48B. At some point we may have to come to the realisation that it might be too late – that the PAM may have spread out of control.

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& member of the PAM Community Advisory Group.

Note: An edited version of this paper was published on the Dialogue page of the New Zealand Herald on 6th January 2003 entitled: "*Too little, too late in war to eradicate apple moth*".

NOTES

Why Foray 48B is not an organic spray

MAF call Foray 48B an organic spray. It is not. *Bacillus thuringiensis* kurstaki, the active ingredient, is a soil bacterium that is specific in its toxic effect to caterpillars. It is allowed to be used in organic agriculture. But Foray 48B contains synthetic chemicals such as a sunscreen to make the Btk last longer in the environment, and these are not allowed in organics.

Effects of Foray 48B reported in East Auckland

Allergy, asthma, eye problems, 'hay' fever, headache, irritability, itchiness, miscarriages, runny nose, skin rashes, sleep disturbance, sneezing, throat symptoms, thyroid problems.

Source: Health Surveillance Report, Operation Evergreen. Report to MAF. May 2001. Aeraqua Medicine Ltd.

Known human health effects of deltamethrin (Decis)

Acute exposure effects in humans include the following: anxiety, burning sensation and tightness and numbness on the face, convulsions leading to muscle fibrillation and paralysis, dermatitis, dizziness, eye-watering, oedema, diarrhoea, headache, heartburn, hepatic microsomal enzyme induction, irritability, nasal discharge, peripheral vascular collapse, serum alkaline phosphatase elevation, shortness of breath, tinnitus, tiredness, tremors, uncoordinated movement, vomiting, and death due to respiratory failure.

Allergic reactions have included the following effects: anaphylaxis, bronchospasm, eosinophilia, fever, hay fever, hypersensitivity pneumonia, pallor, sweating, sudden swelling of the face, eyelids, lips and mucous membranes, and rapid heartbeat.

Source: Exttoxnet – <http://ace.ace.orst.edu/info/exttoxnet/ghindex.html>

Peppering

A biodynamic process, based on the philosophy of Rudolf Steiner, that involves taking the ashes of burnt moths, mixing them with water and spraying in very dilute form over the infested area. It is non-toxic and does not kill the moth. It works on a vibrational level, discouraging the moth from breeding so that the population dies out.