

## The Painted Apple Moth Eradication Programme (vignette version: B)

In late August 2002, Murray Sherwin, Director-General of the New Zealand Ministry of Agriculture and Forestry (MAF) had to decide whether to reverse his department's recommendation, made to Cabinet barely a month before, for the future management of the Painted Apple Moth (PAM) incursion.

Murray Sherwin had become chief executive less than a year ago, arriving at MAF as controversy was building around management of PAM. MAF's recommendation to Cabinet, based on internal and external advice, and concern about the \$90 million estimated cost of all-out eradication, had been to continue containment while investigating other means of managing the pest. Government's response was to allocate \$11 million in immediate resources and call for more information on the options of long-term management, or a renewed attempt at full eradication. Sherwin realised there was substantial political support for eradication. He needed to know whether his department, besieged by media and community criticism, could believe in and commit to the task.

For 18 months following the discovery of what was quickly identified as the PAM, containment and control procedures seemed to be effective, and June 2001 was set as the date for eradication. The painted apple moth, *Teia anartoides*, is only found in southern Australia. A minor garden pest, it did not figure as a known or potential threat to New Zealand plants.

By mid-May the moth had been found and treated, with ground-sprayed insecticide, in six sites in Waitakere City, West Auckland a region encompassing dense housing,

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This is a vignette version of the case 2006-10.2, developed by the Australia and New Zealand School of Government (ANZSOG) and funded by the New Zealand Ministry of Agriculture and Forestry (MAF). The case was written by Janet Tyson, with supervision by Dr Richard Norman, Victoria University of Wellington, and has been prepared as a basis for class discussion rather than to illustrate either effective or ineffective handling of a managerial situation.

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bush wilderness and commercial orchards and vineyards. As all life stages had been found, it seemed the moth had been in New Zealand for up to a year. An indiscriminate feeder, it had already been found on one native species, the kowhai. Across Auckland, calls came in from people who thought they had found caterpillars, but no sightings turned out to be PAM. Female moths are flightless but PAM caterpillars were adept at “hitch-hiking” on equipment such as cars or containers.

In August, the crown research institute HortResearch started work on a captive colony of moths, with the aim of developing a synthetic pheromone for extensive trapping to find how far the PAM had spread. In September, a further infestation was found and successfully treated in Mt Wellington, 15km from the original find.

On 27 November 1999, a new Labour-led coalition government was elected. The Prime Minister, Helen Clark, and many of the Cabinet represented Auckland electorates, where protection of the bush-clad Waitakere Ranges had been an election issue. The Green Party had seven MPs and a dedicated biosecurity spokesman.

In contrast to the successful tussock moth campaign, little progress was made in developing a synthetic pheromone for trapping. By December 2000, trapping started using live females, and moths were found in many more areas, often inaccessible. Targeted spraying by helicopters, endorsed by Cabinet in October, was proposed.

On 19 November 2001, Murray Sherwin took over as Director-General of MAF. Sherwin found the PAM programme a constant topic of conversation, and, in December, defended Ruth Frampton against a series of published attacks on her management of it, mainly from the Waitakere City community, unhappy at the prospect of aerial spray. Before spraying could begin, more moths were found, so the spray zone was extended to cover 4500 households. Windy weather and mechanical problems delayed the start of spraying until 21 January. As moth numbers were reduced, new finds were made. Ruth Frampton warned that increased funds, and a much wider treatment area, were needed. PAM was regularly featuring in parliament.

On 10 May 2002, Ruth Frampton stepped down as Director, Forest Biosecurity, remaining a member of the technical advisory group. The same day, it was announced that fixed wing aircraft would spray residential areas. Ian Gear took responsibility for the PAM eradication programme. Having deputised for Frampton, he knew there was limited faith in MAF’s ability to succeed. Personally, he was convinced that eradication was both possible and essential. Gear established the PAM response as a separate, stand-alone project, contracting staff for skills not available within MAF, and transferring operational management responsibility to the agency Agriquality.

Murray Sherwin knew that MAF would have to go back to Cabinet for more money, and called on a wide range of people for advice. In the urgent paper at the end of June, MAF supported Treasury’s view that it was time to settle for long-term management of the PAM.

But in the following weeks Murray Sherwin learned there were no available scientific options. Attending the Cabinet Committee, he had highlighted the 20 to 40 percent chance that eradication would fail. He discovered a strong feeling that a “60 to 80 percent chance of success” was worth backing. Cabinet supported interim containment, appropriating \$14 million and asking for more information on the options of management or eradication.

In late August Sherwin convened a round-table discussion involving all his directors-general, assistant directors-general, the PAM Project Director and some others, including the head of the Crown Forestry Rental Trust. He realised that, if Government wanted eradication, MAF would have to commit to deliver it. But before he said this to the meeting, he asked each individual, “What is your advice?”