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Submission to People's Inquiry – No 31

Exposure: edge of spray zone

Oral testimony: Yes

Submission is a copy of letter written to Waitakere City Council in February 2003. The Officer had called for letters detailing the health concerns of the citizens with a view to determining if a case should be taken under the Health Act.

February 3, 2003

Max Wilde
Manager Field Services
Waitakere City Council
Private Bag 93109
HENDERSON
Waitakere City

Dear Mr Wilde

I write in support of my two daughters [...] and [...] who both suffer nausea and asthma symptoms every spray day. Along with their 4 yr olds and a 4month old, they are evacuated every three weeks, at great inconvenience and stress to their lives and their health. I enclose a copy of my email to Govt. MPs, and the MAF officials, in a request to Stop Aerial Spraying. *(Not appended)*

For myself and my husband, we are on the edge of the spray zone : Henderson Valley/Candia Rd/Vineyard Rd and we do suffer dry coughs and lethargy every spray day. We have not sought Doctors advice, the symptoms do pass in a few days. We do find, however, that it causes us a lot of worry and stress to know how our families lives are affected before/on and after Spray days. I have a photo of the spray plane so close to our house that we must be in a "drift" zone. I would point out that MAF have never informed us that we are in a "drift" zone.

I do think it vital that local Councils should exercise their statutory obligations to protect their citizens under the Health Act.

Yours sincerely

End

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Submission to People's Inquiry – No 32

Exposure: lived in spray area

F. McDonald

Oral testimony: Unable to attend – submission read out on her behalf

I have suffered from M.E/FC.F.S and multiple chemical sensitivities for 34 years, but after slow improvement was beginning to lead a relatively normal, if difficult life, but no longer having long periods in bed.

The worst nightmare imaginable began when MAF started aerial spraying West Auckland including directly over our house. At first I was determined not to let it affect me any more than necessary. I had a 20 year old cat to care for who had to be kept inside when spraying occurred so I made no attempt to leave the area. I closed all windows and doors and put draft stops where possible and despite the terrible heat and claustrophobia, stayed imprisoned in my house for the entire duration of each period of spraying. It was terrifying – I thought the plane was going to crash into my neighbours roof it seemed so low.

Each time I felt ill afterwards, getting gradually worse. Nose bleeds, itching skin, panic attacks, fuzzy brain, sore gritty red eyes, stomach sore and bloated, watery bowels, a red itchy lump on the thyroid area, headaches, chest pains and cough, sore gums, hot and cold sweats, sinus troubles, irregular heartbeat and high and low blood pressure, burning urine, heavy tired legs etc etc.

Some time later our dear old cat passed away. One day I had to go to the doctor on a spray day as they had delayed spraying, as often happened. I had to go about two feet from door to car wearing a mask. I felt very ill all the way and could smell a strange odour. Later I became so ill we had to contact a MAF doctor and my husband virtually carried me in there to collapse on the bed.

The nightmare became even worse after them accepting I was badly affected. I had to go to motels all over the city at very little notice and sometimes be stuck there for days as the spraying didn't go ahead as planned. I have never been so lonely and miserable in my life, as in a state of health whereby I could only really lie around reading alone all day in some always dark motel room with many difficulties, while not being able to visit or check on my 92 year old father who was ill and needing me and lived in the spray zone, go to my own doctor also in the zone and never knowing when I'd get home again. I was really too ill to pack up food (for how long?), clothing, medications etc, arrange leaving house plants etc at very short notice – at 4pm told "go tonight after 6pm" when I'm at my tiredest, drive when so tired, often in the dark to the other side of the city some strange area then try to sleep in a strange uncomfortable bed with noisy neighbours. My husband had to try to come from his workplace to wherever I was when possible to help me as I was not well enough to carry things to and from my car and then there was the depression of being alone there all day. All the motels seemed to not have enough light in them to read and I was usually looking out at a view of a brick wall or dark hedge.

My life was no longer my own – everything centred around when I would be going – when getting home. How could I tend to my father etc etc. I missed my support group meetings – important to me too. They would try and send us home 2 hours after spraying finished in our area. A real trap driving through areas done later. Even much later some of the spray seemed to be in the house anyway – probably come in through gaps around old wooden windows and doors I suppose.

The nightmare continued for so long. My health was knocked back years mentally emotionally and physically. I doubt I shall ever fully recover. I still have panic attacks, am on antidepressants. Passing any of the motels, remembering or writing this brings bouts of misery tears and dread. The sound of low flying aircraft is terrifying and makes me cry.

I had to pay expenses such as homeopaths, doctors, hypnotherapists etc myself with no help from their medical people – all they could repeat was that the spray was not harmful. They weren't suffering! Sometimes shocklike symptoms – high or low blood pressure would have me virtually drop to the floor.

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Other issues such as my father being unable to have my help when needed and he was in hospital three times and when in the zone I couldn't visit. I couldn't help my pregnant daughter, later help her with her baby or help with my other grandchildren etc.

I am at present having to go for a CT scan and biopsy for lesion in kidney and masses in leg. I am wondering if they, like panic attacks, depression, fear, stomach problems I'm left with are attributable to the BTK spray.

We still live in fear. Even though we have moved a little further out of the main spray zone.

For a long time we never saw any bees.

We still haven't seen any ants. I have heard of many animals affected including horses.

PS One grandson in zone during spraying has had asthma.

End

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Submission to People's Inquiry – No 33

Exposure: lived in spray area

Teresa Boyd

Oral testimony: No

When the aerial spraying was at its most concentrated we were living in Whenuapai Village and were being sprayed on a weekly basis.

Both my children had skin rashes from playing outside in the garden after the spraying was completed (day after).

At the time, my son was 3 years old and had never shown any leanings towards asthma, but within a short time after the spraying started he was diagnosed with it. His asthma continued for the duration of the aerial spraying, which was for *months*. For him and us it was a particularly difficult time.

When the spraying ceased it was only a matter of weeks before the asthma subsided and has not reoccurred since.

During this time we also spoke to other people who had coughs which wouldn't go and others who were diagnosed with asthma which had never had it before, including a lady of 80 years.

We are in no doubt the asthma, coughing and skin rashes were brought on by the aerial spraying.

When we saw the plane/helicopter being loaded with the poison at Whenuapai airbase, the men involved were wearing overalls and masks and yet they saw fit to freely dump this poison over our homes.

I wish the People's Inquiry all the best with this matter and hope that sanity and honesty will prevail from the true facts resulting from an unbiased referendum.

End

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Submission to People's Inquiry – No 34

Exposure: worked in spray zone

Jane Schaverien

Oral testimony: Unable to attend – represented by Sue Berman (SAS)

Submission to the People's Inquiry

From: Jane Schaverien on Behalf of Stop Aerial Spraying (SAS)

Rau rangatira ma, tena koutou, tena koutou, tena koutou katoa.

Stop Aerial Spraying: This submission is made on behalf of Stop Aerial Spraying (SAS), one of the community groups that forms part of the PAM community network. SAS coordinated the attempts to achieve relief from aerial spraying through legal channels.

Personal introduction: During the aerial spraying campaign my family lived outside the spray zone but we worked inside the zone. At the time I worked as a Disputes Tribunal Referee in the Waitakere District courthouse in Ratanui Street, Henderson.

I was sitting in the Disputes Tribunal the first time the building was sprayed. A fixed wing aircraft flew over the courthouse repeatedly. It flew alarmingly low and sounded very loud despite closed windows. I suffered a sore throat and headache while working inside the air-conditioned building.

Thereafter I had to arrange to sit elsewhere on spray days, with all the accompanying disruption. Following subsequent spray days, when I entered the spray zone within about 24 hours after the spraying finished, I suffered a mild sore throat and headache.

SAS wants to make two points in this submission, one concerning human rights and the other the lack of legal remedies for a community that is being sprayed with pesticide.

1. **HUMAN RIGHTS:** I believe it is an infringement of human rights to force people to inhale and ingest pesticide against their will, regardless of the effect of the pesticides on their health. There was no escaping Foray 48B at that time as it was on the grass, on hand rails, pedestrian traffic light push buttons, on car door handles, playground equipment, on our vegetable gardens, bodies, the washing on our washing lines and it hung in the air we breathed. Aerial spraying bears little resemblance, as a human rights issue, to any other government action. It has a little in common with permitting smoking in the workplace where a person would be unable to avoid passive smoking. We have legislation now to protect people from that infringement of their human rights.
2. **LEGAL REMEDIES:** There were no legal remedies for those of us who wished to resist the government when it was determined to spray us with pesticide against our will. The main reason for this is the unchecked discretionary power given to the Minister for Biosecurity and cabinet under the Biosecurity Act. SAS pursued all legal avenues to have aerial spraying stopped and reviewed, to no avail.
 - 2.1 **The Biosecurity Act.** I am attaching a submission that SAS made on the Draft Biosecurity Strategy in 2003. The submission was drafted by Chen and Palmer. It is mild in its suggested amendment to the Biosecurity Act. However that amendment, if it were adopted, would go some way to preventing a repeat of the abuses associated with the PAM aerial spraying campaign. (Appendix A)

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The final Biosecurity Strategy acknowledged receipt of a submission from SAS in a list of submissions at the end of the document but paid no attention to the content of the submission or to the suggested amendment.

I think the submission makes clear the failure of the Biosecurity Act to protect human rights and human health. The BS Act does acknowledge the need to protect some property rights e.g. in the event of slaughter of stock or destruction of property in the course of pest or disease eradication but human health is not given a value under this legislation.

2.2 Sir Geoffrey Palmer's Legal Opinion. We took legal advice about the possibility of using litigation to have the decision to aerial spray reversed, or at least stopped temporarily and reviewed.

I am attaching the legal opinion of Sir Geoffrey Palmer, of Chen and Palmer, commissioned by SAS with the financial assistance of Waitakere City Council. It is marked as a draft opinion but is in fact the final one as there was no point in spending further money on more legal work since the draft opinion was so thorough. (Appendix B).

You will see that Sir Geoffrey held little hope of successful High Court action because the government had not made administrative errors and because the Biosecurity Act allows it to make the decision to spray humans with pesticide if it considers it to be in the national interest.

He also warned us that the cost of such action would be well over \$100,000.00 and even if a limited success were won in court, it would be unlikely to afford more than temporary relief. The government might be directed to reconsider the decision to aerial spray, might do so and might well decide to spray again.

Sir Geoffrey states in Clause 82 of his opinion that the **NZ Bill of Rights Act** would be little help either, he states: *“ It is important to observe however that Parliament can override the provisions in the NZBORA and a court cannot decline to apply any provision of another Act by reason only that the provision is inconsistent with any provision in the Bill of Rights.”*

(As an aside it is worth noting that the then Attorney General in her opinion regarding the clear breaches of Maori rights under the proposed Foreshore and Seabed Bill pointed out that the NZBORA would offer no relief because this same provision in clause 5 could be used to justify the government's decision.)

2.3 The Health Act. The only legal redress realistically available is that provided to a local authority by the Health Act (see Sir Geoffrey's opinion). Under the Health Act the local authority in an area affected by a 'nuisance' is obliged to take action to prevent that 'nuisance'. Aerial spraying was, we believe, a nuisance within the meaning of the Act. However no local authority in Auckland was willing to take this action. It is our opinion that they were in serious dereliction of duty in this regard.

I understand that Waitakere City Council believed that MAF would continue spraying if the Council served it with the normal letter from an enforcement officer. This would mean that the Council would need to take MAF to the District Court for enforcement of the Health Act. The Council was unwilling to do this for the following reasons:

- (i) It would be costly
- (ii) MAF threatened that if the Council succeeded in stopping the spraying and PAM 'got away' and did millions of dollars of damage to forests and orchards, the Council could be held legally liable for the financial losses resulting from this. (I find this an extraordinarily unlikely scenario but I was told it was a consideration)
- (iii) It was up to the enforcement officer in the first place and not the councillors, to decide if there was sufficient evidence of harm caused by the alleged nuisance to justify a letter from the Council requiring MAF to desist. The officer read over 200 accounts of health misery

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and hardship caused by the spray, many of which you too will have read, and including accounts of experiences from people whose difficulties MAF's health monitor accepted were caused by the spray and whose evacuation from the spray zone MAF funded. The official concluded that the evidence was not sufficient to justify a letter from him.

- (iv) The Council was loath to take action in the District Court without knowing, officially, the ingredients of the spray. It knew unofficially what the ingredients were as a result of official information received and detective work carried out by the PAM Community Network. The Minister for Biosecurity had signed an agreement with the manufacturer of the spray to keep the composition of the spray a trade secret.
- (v) A belief that the Minister for Biosecurity would use Part 7 of the Biosecurity Act, invoking emergency powers, should the Council be successful in the District Court. If this happened the whole legal effort and cost would have been wasted as Part 7 gives complete power and discretion to the Minister for Biosecurity.

I believe the Health Act should have been used. SAS complained to the Ombudsman that Waitakere City Council was in dereliction of duty in not pursuing action under the Health Act to end the nuisance. The Ombudsman supported the Council's decision on the grounds that without knowing the ingredients of the spray the Council was not in a position to mount action in the District Court.

2.4 The Office of the Ombudsmen – Official Information Act: SAS made many requests for official information from MAF, the Office of the Prime Minister and the Ministry of Health, among others, in an attempt to understand the decisions that had been made and the future planning of the government organisations involved in the aerial spraying programme.

On several occasions the information was not produced within the legally required time limit and we had to request that the Office of the Ombudsmen intervene under the Official Information Act to require the information to be released. Some information, though not a great deal, was finally withheld with the agreement of the Ombudsman. It was a slow process and time-consuming. It delayed our ability to plan our resistance to the spray campaign.

SAS complained to the Office of the Ombudsmen under the Official Information Act that the ingredients of the spray should be made public in the interest of those suffering from the spray. The Office of the Ombudsmen is not pursuing that complaint but is pursuing the one made by Waitakere City Council for disclosure of the ingredients to be made to an independent expert who would be in a position to advise the Council about the health effects of the spray. The Council's complaint is still in process. There were long delays in agreement being reached to appoint an expert. An investigating officer from the Office of the Ombudsmen told me that the expert has been delayed in his attempts to do his research, but not why he has been delayed. The Ombudsmen's Office has no enforcement powers.

2.5 The Office of the Ombudsmen – Ombudsmen Act: On behalf of SAS I complained to the Office of the Ombudsmen under the Ombudsmen Act. The essential parts of the complaint are quoted as follows:

"I wish to complain under the Ombudsmen Act against the Ministry of Agriculture and Forestry and the Ministry for Biosecurity and the Ministry of Health, and the Cabinet which made the decision to aerial spray Auckland and to continue doing so, in an attempt to eradicate the painted apple moth. I also complain about actions of Waitakere City Council in connection with this matter..

I complain that it is unreasonable, unjust, oppressive and improperly discriminatory to spray a human population from the air with Foray48B and without the people's consent..

I contend that the Biosecurity Act does not envisage spraying of people and therefore spraying of populated areas is not permitted under that Act.

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I complain that the Ministry of Health is in dereliction of its duty in passing authority to care for human health to the Ministry for Biosecurity and the Ministry of Agriculture and Forestry. I have written to the Ministry of Health about health issues and my letters have been referred on to the Minister for Biosecurity for reply.

I complain about the Waitakere City Council because I believe it is in dereliction of its duty in failing to take action under the Health Act 1956 when it received over 200 requests from citizens outlining health problems suffered from aerial spraying.

I complain that it is unreasonable, unjust, oppressive and improperly discriminatory to spray a human population against its will with a chemical compound, the ingredients of which are secret, thus making it impossible for those suffering health problems to track the cause... Sacrificing of the Health of 5%, or any percentage, of the population is a discriminatory act against those who are sensitive to the spray. It effects both their health and their economic welfare.

The spray is oppressive interfering with the freedom of movement and quiet enjoyment of their homes for those evacuated and restricted by fear of being sprayed..."

This complaint, sent on 28/04/03, is still under investigation. The Ombudsman made a preliminary finding that Waitakere City Council was acting within its authority in declining to issue a letter to MAF under the Health Act. But the investigation of my complaint has not been completed.

- 2.6 Parliamentary Commissioner for the Environment:** SAS complained to the Parliamentary Commissioner for the Environment about the damage to the environment from the pesticide spray and also pointed out that humans were one of the species affected by the spray. The PCE replied that he would not investigate the aerial spraying issue separately but would bear it in mind in his general report and recommendations.
- 2.7 Human Rights Commission** Many members of the community complained to the Human Rights Commission that aerial spraying breached the Human Rights Act since MAF was discriminating against those affected by the spray because they suffered from pre-existing conditions such as asthma and multi-chemical sensitivity that MAF knew would be exacerbated by the spray. The Human Rights Commission took this reasoning seriously and invited MAF and some complainants to mediation. It appears that mediation did not resolve any of the complaints. If any of the complainants have chosen to take the matter further the Human Rights Commission has not yet decided (in 2006) whether to take these complaints to the Human Rights Proceedings Tribunal.
- 2.8 Office of Commissioner for Children:** We invited cabinet ministers and many other government officials to visit us on spray days and be with us as we were sprayed at places like bus stops and playgrounds and to share our experience. Our requests were ignored or refused except by the then Commissioner for Children, Roger McClay who came. He was sprayed, got a headache and was appalled by the experience of sitting in a school playground at recess while planes flew low spraying those beneath. He listened to a child explain that it was like 9/11. He also appreciated the trauma in a kindergarten on spray day. He was shocked. He spoke to the media including talk back radio about his experience and while on one phone to radio talk back received a call from a government official on another telling him to get out of West Auckland and stop speaking to the media. He informed us of this and did as he was told. The Office of the Commissioner for Children has only advisory power and no power of enforcement.

In conclusion since legal channels have offered us no relief I believe that to prevent such breaches of natural justice occurring in the future:

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1. The Biosecurity Act should be amended to safeguard human health
 2. It should be impossible for the Ministry of Health to delegate human health care to another Ministry whose core business and interests are in an entirely different area.
 3. The Office of the Ombudsmen and the Human Rights Commission should receive more funding and be granted more authority to allow them to act quickly and with more power to initiate in situations where the government may be causing harm.
 4. The NZ Bill of Rights Act should be reviewed and debated widely and openly with particular regard to the notion of 'justified limitations'.
 5. That no government official should in the future sign an agreement to protect a manufacturer's trade secret when the disclosure of that secret may be in the interests of the people of this country
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34 - Appendix A

SUBMISSION BY STOP AERIAL SPRAYING ON THE DRAFT BIOSECURITY STRATEGY – FEB 2003 INTRODUCTION

1. Stop Aerial Spraying is a community action group, formed as a result of concern arising from adverse health effects being experienced by people living in West Auckland as a result of the aerial spraying programme undertaken in an attempt to eliminate the Painted Apple Moth.
2. Stop Aerial Spraying supports the overall goal for biosecurity of "the exclusion, eradication or effective management or risks posed by pests and diseases to the economy environment and human health".
3. However, it maintains that this overall goal must be properly balanced against the impact on human health of the measures taken to achieve it.
4. The Draft Biosecurity Strategy does not adequately address the costs of adverse effects on human health of biosecurity measures to be taken to achieve the desired biosecurity outcomes.

Absence of Human Health considerations in the Biosecurity strategy

5. The Draft Biosecurity Strategy deals with human health in only a very limited way. It highlights the need to prevent, manage or eradicate pests or unwanted organisms to protect human health, but does not prioritise taking into account effects on human health when devising programmes for the prevention, management or eradication of pests.
6. Page 12 of the Draft Biosecurity Strategy states that stakeholders should expect that the strategy will mean that "the public will be better informed about biosecurity issues, more confident that

incursions of dangerous pests are being kept to a minimum and all actions such as aerial spraying are necessary and appropriate”. However, without specifically providing for more robust measures to address human health considerations in operations such as aerial spraying, there is nothing in the Draft Biosecurity Strategy to provide comfort that all future actions such as aerial spraying will be appropriate.

7. Page 12 of the Draft Biosecurity Strategy also states that the strategy will mean that “the public health sector is engaged by the processes to ensure that biosecurity risks to human life and quality of life are being minimized”. Presently, there has been a total failure to engage the public health sector to ensure that risks to human life and quality of life are being minimised in the biosecurity context. This failure stems from the absence of any statutory obligations in the Biosecurity Act 1993 to engage the public health sector, and the Draft Biosecurity Strategy does not recommend any changes to the Biosecurity Act that would address this issue.
8. Similarly, page 31 of the Draft Biosecurity Strategy states that a whole-of-government approach will require that key agencies in the environment, health and production sectors be involved in decision making, and that it is expected that lead agencies will collaborate closely with the Department of Conservation and the Ministry of Health.
9. But collaboration with the Ministry of Health, as suggested in page 31 of the Draft Biosecurity Strategy, is not enough. There needs to be statutory provisions in the Biosecurity Act dealing with human health issues, and these should require independent analysis of the effects on human health before eradication measures are embarked upon.
10. The Draft Biosecurity Strategy makes a number of recommendations, including the establishment of advisory boards, the reconfiguration of the Biosecurity Council, the establishment of a standing committee to include relevant chief executives and regional council representatives, and recommendations in relation to decision-making and priorities.
11. There are no substantive recommendations about human health.

Accountabilities for Health

12. The Draft Biosecurity Strategy correctly highlights that one of the main problems in the current biosecurity operations is that the government is effectively organised in silos that do not adequately communicate with one another. However, it fails to recognise that the existing biosecurity laws have fundamental policy problems associated with them, and that these cannot be rectified by administrative solutions alone.

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13. There needs to be much clearer accountabilities for health than presently exist. It is entirely inappropriate for the Ministry of Agriculture and Forestry to have any responsibility for health. That this is in fact the case, is a serious deficiency in the Biosecurity Act.
14. Although it was released in December 2002, the Draft Biosecurity Strategy fails to adequately address the experience of West Auckland in relation to the eradication of the Painted Apple Moth, and how the problems experienced there might be avoided in the future. Evidence gathered from the community makes it clear that the risk assessment carried out prior to the spray programme under-estimated the severity of the adverse effects on humans from application of the spray. Health effects have been systematically under-stated by the Ministry of Agriculture and Forestry as a result of political judgments in the risk assessment. In addition, the chemical content of the spray that is being used has not been disclosed, so it is not possible to make toxicological assessments of the effects on human health.
15. One of the key issues that has emerged from the experience of West Aucklanders in relation to aerial spraying of the Painted Apple Moth, is the need to have proper analysis of health issues associated with biosecurity measures from the public health officials in the Ministry of Health, and not contract analysis that is paid for by the Ministry of Agriculture and Forestry.
16. It is the Ministry of Health that must take responsibility for human health issues.

Human health monitoring amendment to biosecurity act

17. The existing powers of the Minister of Agriculture and Forestry, and other authorities under the Biosecurity Act are more severe and far-reaching than government powers under almost any other statute in New Zealand. One example of this is section 114A, which deals with the application of articles or substances from aircraft. This section confers very wide powers on a chief technical officer or principal officer to approve the application of **any substance to any place** for the purpose of eradicating any unwanted organism. There are no restrictions on the substance that may be applied, or the area to be affected.
18. The emergency powers under Part VII of the Biosecurity Act are even more draconian and far-reaching.
19. In order to protect human health, an amendment must be made to the Biosecurity Act, requiring an independent report from toxicologists on the impact on human health in situations where chemicals are to be applied to the environment in large quantities.
20. It is proposed that a new section should be inserted as follows:

7B Human Health Monitoring—

- (1) Where the exercise of any of the powers under this Act is likely to result in the application of any substance to an area greater than 500 square meters, the Minister shall inform the Minister of Health, and no such substance shall be applied unless the Minister is in receipt of the certification referred to in subsection (3)(a) of this section.
- (2) If the Minister of Health receives advice in accordance with subsection (1) of this section, the Minister of Health shall request a report from an independent toxicologist on the potential effects on human health of the application of that substance, in the quantities specified.
- (3) Upon receipt of the report referred to in subsection (2) of this section, the Minister of Health shall either:
 - (a) Certify that, after taking into account the findings of the report, he is satisfied that the application of the substance in the quantities specified should proceed; or
 - (b) Advise the Minister that—
 - (i) He is not satisfied, after taking into account the findings of the report, that the application of the substance in the quantities specified should proceed; or
 - (ii) He requires more information to make a final decision regarding certification that the application should proceed.

21. This amendment would ensure that the effects on human health of any biosecurity measures are taken into account by a Ministry that is properly equipped to deal with such matters, and would provide an independent component to the decision making process. This would enable public confidence in the safety of actions taken in the name of biosecurity.

Exclusion of the Resource Management Act

22. Section 7A of the Biosecurity Act excludes any action taken in accordance with any provision in Part VI of the Biosecurity Act in an attempt to eradicate any organism, from the requirements of Part III of the Resource Management Act for up to 20 days. If this section is invoked, it can have implications for human health, because it removes the ordinary protections provided by the law.
23. Part III of the Resource Management Act provides, inter alia for certain restrictions in relation to the use of land, including a restriction on the use of land in a manner that contravenes a rule in a district plan, unless the activity is expressly allowed by a resource consent, or some other exception contained in the Resource Management Act.
24. The powers contained in section 7A of the Biosecurity Act are extremely wide and far-reaching. The removal of the safeguards of the Resource Management Act should not be undertaken lightly, as this effectively allows the Ministry of Agriculture and Forestry free reign to undertake any activities it wishes, affecting land and people, in the name of biosecurity. The current threshold for excluding the Resource Management Act pursuant to section 7A is too low

and needs to be amended so that there are more reasonable checks and balances in the Biosecurity Act. Section 7A should only apply to the emergency provisions in Part VII of the Biosecurity Act, and not to Part VI, as the law presently states.

25. Section 7A should be amended to read:

7A. Relationship with Resource Management Act 1991— (1) Where any action taken in accordance with any provision in **Part VII** of this Act in an attempt to eradicate any organism would be in breach of the provisions of Part III of the Resource Management Act 1991, the responsible Minister may exempt the actions taken in relation to that organism from the provisions of Part III of the Resource Management Act 1991 for up to 20 working days **only** if that Minister is satisfied that []—

- (a) The organism is not established in New Zealand, the organism is not known to be established in New Zealand, or the organism is established in New Zealand but is restricted to certain parts of New Zealand; and
- (b) The organism **is likely** to cause all or any of significant economic loss, significant adverse effects on human health, or significant environmental loss if it becomes established in New Zealand or if it becomes established throughout New Zealand; and
- (c) It is in the public interest that action be taken immediately in an attempt to eradicate the organism.

(2) Before making a decision under subsection (1), the responsible Minister must consult the relevant consent authority **and such other persons** as the responsible Minister considers are representative of the persons likely to be affected by the eradication attempt.

(3) After making a decision under subsection (1), the responsible Minister must give public notice of the Minister's decision in such a manner as the Minister thinks fit.

(4) The public notice must specify—

- (a) The organism to be eradicated; and
- (b) The principal actions that may be taken in the attempt to eradicate the organism; and
- (c) The areas affected by the action; and
- (5) Repealed.

(6) Where any action has been exempted from Part III of the Resource Management Act 1991 under subsection (1) and the responsible Minister considers that it is necessary to continue action beyond the duration of the exemption to attempt to eradicate the organism, that Minister may recommend that regulations be made continuing the exemption and the Governor-General may from time to time, by Order in Council, make regulations for that purpose.

(7) Regulations made under this section come into force on the date of notification in the Gazette, or at the time specified in the regulations, whichever is the later, and continue in force until revoked or until a date not later than the day **6 months** after the regulations came into force when the regulations expire and are deemed to have been revoked.

(8) Where an exemption is granted under subsection (1) or by regulations made under subsection (6), the provisions of Part III of the Resource Management Act 1991 do not apply to the actions taken to eradicate the organism while the exemption is in force.

(9) Where an exemption from the provisions of the Resource Management Act 1991 has been granted under subsection (1) or by regulations made under subsection (6) and that exemption has ended (either by the expiry of the exemption under subsection (1) or by the revocation of the regulations, as the case may be), the provisions of the Resource Management Act 1991 then apply and the responsible Minister must remedy or mitigate the adverse effects of any actions taken under Part VI and to which the provisions of the Resource Management Act 1991, but for the exemption under this section, would otherwise have applied.

(10) For the purposes of this section, "consent authority" has the same meaning as in section 2(1) of the Resource Management Act 1991.

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26. This amendment makes it clear that the Minister's power to exclude the Resource Management Act should only be exercised in emergency biosecurity situations. The criteria for making the decision are clearer, and the requirements for consultation are mandatory.

Conclusion

27. The Draft Biosecurity Strategy and the current provisions of the Biosecurity Act do not deal adequately with issues of public health. Biosecurity may be fundamental to the future prosperity of New Zealand, but so is human health. The human health costs of biosecurity measures must always be taken into consideration, and there needs to be legislative amendment to achieve this.

34 – APPENDIX B

LEGAL OPINION ON PAINTED APPLE MOTH SPRAYING

TO: JANE SHAVERIEN, STOP AERIAL SPRAYING (SAS)

FROM: CHEN PALMER & PARTNERS, BARRISTERS & SOLICITORS, PUBLIC LAW SPECIALISTS

DATE: 24 DECEMBER 2002

SUBJECT: PAINTED APPLE MOTH

Dear Jane

PAINTED APPLE MOTH

1. You have asked for an urgent opinion on the possibility of securing an order in the nature of an injunction to stop the spraying of a large portion of the West of Auckland under a programme run by the Ministry of Agriculture and Forestry. The programme appears to be aimed at eliminating the painted apple moth. Thus far the programme has not succeeded and the area for spraying has widened. The background to the decision is usefully discussed in a recent case study by the Auditor-General "Response to the Incursion of the Painted Apple Moth".
2. The formal opinion is incomplete due to the short timeframe available to do the necessary work. I have studied a large range of documents that you have supplied. Some were obtained under

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the Official Information Act from the New Zealand Government and there is also a range of other technical and related work concerning the issue.

3. The purpose of this letter is to provide you with some preliminary advice on how I see the issues at this stage.
4. The powers provided to the Executive Government under Part VI of the Biosecurity Act 1993 are broad and sweeping. It is these powers under which the decisions of the Government have been taken. So far the emergency powers that are granted by that Act have not been used.
5. The spraying that has been going on would, in normal circumstances, require consents under the Resource Management Act since the spraying the programme appears to be in breach of the District Council's Plan. But operation of the Resource Management Act has been superseded by decisions taken under section 7A of the Biosecurity Act. This, in itself, is an extreme measure – to remove the ordinary protections provided by law.
6. Extensive material has been supplied to me showing that many individuals feel that they have suffered adverse health effects from exposure to the spray. These effects have caused strong feelings of opposition to develop to the spraying. MAF acknowledges that some adverse health effects do flow from the spraying for some people, but appears to take the view they are likely to be minor. The issue was canvassed in the Cabinet Papers and a report was prepared in March 2002 entitled *Health Risk Assessment of the 2002 Aerial Spray Eradication Programme for the Painted Apple Moth in Some Western Suburbs of Auckland – A Report to the Ministry of Agriculture and Forestry*, Public Health Service, Auckland District Health Board. This apparently followed on an earlier report done in September 1997 concerning steps to eliminate another moth in the eastern suburbs of Auckland.
7. The primary active biological component of the spray is *Bacillus thuringiensis kurstaki* known as "Btk". Although related to the *Bacillus anthracis*, the report says there is no risk that Btk will behave like anthrax.
8. The inert chemical components of Foray 48B, which is the name of the spray, have not been disclosed, although the authors of the Health Risk Assessment had access to them. The chemicals are registered for use in cosmetics, pharmaceuticals and foods. The report found that their level was acceptable. The report states:

However, if directly exposed to the spray or substantial spray deposits, some people may complain of minor skin, eye and upper respiratory tract irritation or aggravation of existing asthma or allergies.
9. The Report said there was no evidence that the spray caused thyroid dysfunction or abnormalities, but the Report did provide advice for minimising exposure to the hazards described, especially as applied to schools, food hygiene, gardening, drinking water, pool maintenance cleaning, and specific population groups.
10. As a result of the Report, it appears that a programme was put together by MAF that allows for the evacuation of people from the spray zones at the time of spraying. MAF pays for them to have medical examinations and pays for their accommodation out of the zone. So it is clearly recognised that there are health effects from the application of the spray.
11. Since it began, the area subjected to spraying has extended considerably and now covers up to 12,000 hectares in which between 165,000 and 200,000 people reside. Ministerial answers to questions admit that five percent of the population exposed to the spray are likely to suffer adverse consequences.

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12. The Health Report also made clear that there were some adverse health effects from exposure to the painted apple moth itself.
13. While the study that was done for the New Zealand Government sets out a framework for risk analysis, there are some serious questions that have been raised about the methodology of the Report. In particular, there is a question as to whether the respiratory consequences of the chemicals in the spray were analysed, as opposed to the consequences if they are ingested.
14. As far as the evidence available to me shows, the health issues have not been addressed at Governmental level again since the March 2002 Report. Yet the area for spraying and the numbers of people exposed have increased greatly.
15. Evidence collected from the spray area by people who live there and made available to me shows a pattern of health effects, especially respiratory, when the spray is used. These effects include:
 - burning throats and eyes;
 - conjunctivitis;
 - breathing difficulties;
 - asthma;
 - mucous in the lungs;
 - sinusitis;
 - bleeding noses;
 - severe headaches;
 - flu symptoms;
 - extreme tiredness;
 - unusual and serious skin rashes, one of which is documented by photographs;
 - itching and burning;
 - stomach problems and pains;
 - diarrhoea;
 - premature birth and miscarriages.
16. A substantial number of case histories and details of adverse effects have been supplied. They raise serious issues that need to be investigated.
17. Proof of causation is always difficult in such cases. It may be necessary in a number of cases to secure expert epidemiological evidence concerning the consequences of exposure to the spray and relating that to the condition presented by the person who was exposed to the spray.
18. The precise ingredients of the spray have not been disclosed, but kept secret for commercial reasons. The Minister's decision in that regard is subject to a complaint to the Ombudsmen that has yet to be concluded.
19. There are strong reasons in the public interest that favour disclosure of the ingredients of the spray, not only so 200,000 people can know what it is they are being exposed to, but also so that independent assessments of the health risks can be made. A strong argument can be made that the public interest in disclosure here outweighs the commercial protection. It would also be

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possible to structure an arrangement so that disclosure could be limited to medical experts and other advisers who may be involved in advising those adversely affected, thus not compromising commercial confidentiality values.

20. In my opinion, there exists a strong case on the available evidence of adverse effects that should persuade the Government to look again at the human health consequences to which its decisions are exposing increasing numbers of people.
21. It seems quite unreasonable to keep secret the ingredients of a spray to which something of the order of two hundred thousand people are being exposed regularly on the grounds of commercial confidentiality. It means there is no transparency and that claims made by the authorities as to the health effects cannot be checked by independent reference to the medical literature. It seems odd that the public health consequences are being managed by MAF and not the Ministry of Health.
22. I have looked at the Canadian case that involves circumstances very similar to this one. It was an appeal under section 15 of the Pesticide Control Act of British Columbia to the Environmental Appeal Board in 1998. That decision involved in part aerial spraying of Foray 48B over a proposed heavily populated area. The Board said this:

Taking into consideration the risks and intended benefit of the spray programme authorised by the Permit, the Panel finds that aerial spraying of Foray 48B over the proposed, heavily populated areas is unreasonable in this case. The Panel finds that aerial spraying will create an unacceptable risk of health problems amongst the residents of these densely populated areas. In particular, the Panel agrees with the appellants that there is a risk to the health of children, people of all ages who have allergies, asthma, and other respiratory ailments, people with immuno-deficiencies, chemical hypersensitivities, and the elderly. It poses an unreasonable adverse effect to the environment (non-target species).
23. It was agreed in the case that detection and eradication of the gypsy moth was an important goal, but there were other methods than aerial spraying that could reasonably be employed. Given the individual cases, detailed elements of which have been placed before me, it is appropriate that the Government should look again at the health risks involved here.
24. There are a number of legal reasons for the above conclusion. I have reached the opinion that there is capacity for this issue to be taken to a court, and there is a reasonable chance that the case may prevail.
25. The first reason resides in the Health Act 1956 that gives general powers and duties of local authorities in respect of public health. Strict duties are imposed on local authorities to protect public health in their districts. Aerial spraying in the circumstances that are being carried out in the Waitakere area must be to the satisfaction of the local District Council. If not satisfied, they can act under section 23(c) of the Health Act. District Councils are empowered to act "If satisfied that any nuisance, or any condition likely to be injurious to health or offensive, exists in the district, to cause all proper steps to be taken to secure the abatement of the nuisance or the removal of the condition."
26. It is certainly arguable that aerial spraying is an undertaking that is likely to be injurious to health. Indeed, there appears to be ample evidence of that, and it is admitted on the Government's side. It is clear that the Health Act applies to nuisance created by the Government or a Government employee, and there are other provisions in the Health Act that would assist the Council to prevent a recurrence of the event – namely section 33 of the Health Act.

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27. It is important to note that use of the powers under Part VI of the Biosecurity Act do not override the provisions in the Health Act. Actions taken under Part VI of the Biosecurity Act, including aerial spraying, must therefore comply with the Health Act.
28. The Biosecurity Act expressly states it is only if the emergency powers of the Biosecurity Act are triggered that that Act takes priority over the Health Act. The Crown will argue that section 138 of the Health Act means that Act will have no application to actions done under the Biosecurity Act, but the better view is that the provision cannot prevail over a later express legislative intention.
29. I note that proceedings in respect of nuisances under the Health Act shall be heard and determined by a District Court presided over by a District Court Judge.
30. The New Zealand Bill of Rights Act 1990 contains provisions which may be of assistance in this situation. Section 9 provides that “everyone has the right not to be subjected to ... disproportionately severe treatment ...”. Section 10 goes on to say:

Every person has the right not to be subjected to medical or scientific experimentation without that person's consent.
31. This provision has its origins in the International Covenant on Civil and Political Rights which New Zealand has ratified, and upon which the New Zealand Bill of Rights Act 1990 is based.
32. In the circumstances of this case, it may well be demonstrated after further research that what is being done here amounts to “scientific experimentation” without the consent of the people who are subject to it. In the Human Rights Committee of the United Nations there have been references to fluoridation in respect of this provision. The Human Rights Committee considers cases under the Covenant where a nation State can be shown to be in breach of its obligations and all domestic remedies have been exhausted.
33. The deployment of the chemical over a large area and population is an extraordinary one. It is doubtful that a larger programme with this chemical has been ever engaged in. The growing number of health problems that people on the ground are experiencing, and which are being documented, certainly gives rise to serious and reasonably based concerns, in my opinion. The fact that the Government will not make available the chemical content of the spray so that independent assessments can be carried out on what the risks may be, would certainly assist in relation to the arguments that can be raised in a court in relation to the Bill of Rights.
34. People who are subject to these sprayings are being subjected to ongoing low doses of a range of chemicals. Science cannot say there is no harm to human health in this.
35. The toxicological assessment of pesticides involves so few actual facts and such a degree of uncertainty and assumption that there is good cause to question the processes by which the judgments were arrived at in this case. A large number of discretionary judgments occur in any risk assessment process. Toxicological risk assessment seems to be incapable of accurately predicting the effects of pesticides on humans. And there are several scientific studies available that need to be looked at further in order to bolster that conclusion.
36. The judgment that has been reached by Ministers is that the risks to human health do not outweigh the national interest in keeping the painted apple moth out of New Zealand is a judgment that cannot currently be challenged, since the ingredients in the spray cannot be subject to independent analysis as the ingredients are not disclosed.
37. It is possible that the Chief Technical Officer's use of section 114A of the Biosecurity Act could be attacked. The provision requires public notice to be given of the article or substance to be applied.

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38. Presumably that provision is in the interests of transparency so that people can know and examine what the substance is. But the chemical composition of the substance has not been disclosed, only part of it. It can be argued this is not a sufficient compliance with the statutory provision.
39. In all the circumstances it does appear to me that legal remedies with a reasonable prospect of success are available. They will, especially if the Health Act is used, need the support of the District Council.
40. The remedies with a better chance of success would have the impact of causing the relevant authorities to reconsider the decision to allow the spraying. It may be possible to ask the Court for an order to require the authorities to review the health effects of the programme on humans. If the evidence as to adverse health effects turns out to be powerful, Stop Aerial Spraying may be able to force a reconsideration of the continuation of the spraying.
41. My conclusion on the work that I have done so far is that the health effects are sufficiently serious to warrant getting together as much evidence relating to the health consequences as can be assembled in preparation for legal proceedings. Once we have done this, we will be in a position to assess what action is the most appropriate and most likely to secure your goals.

Yours sincerely
Geoffrey Palmer
Partner

End

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Submission to People's Inquiry – No 35

Exposure: lived in spray area

Helen Wiseman Dare

Oral testimony: No

To the Commissioners - People's Inquiry

I represent the 2,000 people who signed our Petition opposing aerial spraying for the Painted Apple Moth. I would like to submit the attached documents to the People's Inquiry:

1. Speech to Kelston Anti Spray Rally and March
2. WASP Information Sheet (Some things you should know . . .)
3. Letter to the Editor re alternatives to aerial spraying
4. WASP Email Newsletter 24.11.03 (for a bit of light relief plus details of zoo animal deaths)
5. News item from NZ Herald re bio-controls

I would like it noted that it is my contention that the PAM was finally eradicated in West Auckland, not by aerial spraying, but by MAF's weekly releases of thousands of sterile Painted Apple moths at the various "hotspots" throughout the area. Until these releases started in the final year of spraying, the spray zone was still expanding with each aerial spray.

Regards

Helen Wiseman-Dare

Chairperson, WASP (West Aucklanders Against Aerial Spraying)

**(1) Full Text of Speech for Anti Spray March and Rally
30 November 2002, Kelston, West Auckland
by Helen Wiseman-Dare
West Aucklanders Against Aerial Spraying – WASP**

Great to be part of such a large crowd here today. Good to see so many people prepared to get off the couch and onto the streets to protest against this gross violation of our human rights. This aerial child abuse.

This campaign has turned thousands of ordinary west Aucklanders into activists. It's brought people out on the streets who have never protested about anything before in their lives. People like Bill and Elena, who even though of advancing years, and sick from the spray, have walked miles along west Auckland streets delivering flyers and gathering hundreds of signatures for our Petition. They haven't missed a protest all year. In fact I'd like to thank all the wonderful WASP supporters and in fact, everyone who's worked so hard over the last year.

Our government is waging war against thousands of New Zealanders – bombing us with biopesticides. We've had 11 sprays since January with three more years to go and MAF has plans to start spraying every 2 weeks. We've heard that spraying is also being considered for strategic locations around NZ – we believe this means that spraying could be coming to towns near forestry areas soon.

An eradication campaign of this magnitude has never been carried out before. We are nothing but human guinea pigs.

Question: When is a moth a pest?

Answer: When MAF discovers it in New Zealand.

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The NZ Herald reported that after the east Auckland Tussock Moth spraying experts believed that the threat of the tussock moth had been overstated. Well we're certainly seeing that here.

I'm one of the few people who've ever seen a Painted Apple Moth caterpillar. I took part in a tour of the so called "infested" sites. The only sign of the caterpillar was on this karaka tree (SEE PHOTOS) – in an area where all the wattles had been removed by MAF. It was covered in caterpillars. They'd just been sprayed and were dripping off the tree and covering the ground.

Does this look like a destroyed and devastated tree, totally stripped of all its leaves as MAF's propaganda ads would have us believe? Does this look like the scorched earth promised us by MAF if it is not wiped out?

The woman who first discovered the moth on her property and called in the local entymologist who took it to MAF, said she is aghast by what has happened. She said the affected trees on her property all regenerated. We've seen the same with the infested Wattles on Traherne Island at the beginning of the year before spraying started.

Prof. Judith Myers, Entomologist and Assoc Dean of Science, University of British Columbia said:

"If an insect finds conditions under which it can thrive and multiply, no amount of spraying will prevent it from doing so. The spraying will only damage the eco system and hurt people."

There are caterpillars that do *real* damage to forests. Whose favourite food is baby pine tree. But according to Forest Research, even these have the ability to recover after quite severe defoliation. These caterpillars are also susceptible to virus and parasitic fungus attacks. Just like the virus that decimated the Painted Apple Moth breeding colony in the laboratory. There is also a parasitic fungus and many of the female moths originally found in Glendene were infested by a parasitic wasp. All that MAF's spraying has done has killed off any form of natural controls and encouraged the moth to spread out to other parts of Auckland.

MAF has determined that the majority of our significant natives are resistant to the moth which fails to thrive on them. According to the Ministry for the Environment: "No introduced insects have yet caused serious problems to indigenous forests."

\$90 million is being spent on an eradication campaign that Jim Sutton has admitted has no certainty of success, just because this government wants to be seen by overseas forestry investors to be dealing to the moth, egged on by a spray mad Dept of Conservation plus local conservation groups, mindlessly parroting MAF propaganda. You might want to consider resigning your membership of these pro spray groups.

The moth has been here for 4 years - 4 years in which MAF has had ample time to come up with safe, non toxic alternatives to aerial spraying.

So far all we've heard is excuses. Hort Research seems more interested in siphoning off huge amounts of government funding than coming up with viable pheromone based or any other alternatives.

Overseas, pheromone impregnated plastic beads or flakes are used which stick to the canopies of tall trees. Rather than fast track this through Erma they would rather seek approval for new brands of Btk for aerial spraying. Btk applications are granted based solely on MAF and US Forestry Dept propaganda instead of real science.

There is no reason MAF could not be releasing large amounts of sterile male moths or putting out an intensive network of traps as they did earlier this year in the Pakuranga area.

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MAF still has no real idea of how far the moth has spread. They are so understaffed they have to bring in forestry workers from all round the country to do the ground survey work.

Your children's health is being put at risk because of an insect which may never even go near a forest and if it does it may not cause any more damage than existing forestry pests.

Claude Ginsburg of No Spray Zone - an anti Btk spray group in Seattle, said in a message to me:

"You may not be able to stop the spraying but your aim should be to generate as much bad publicity as you can for the government, so it never happens again."

I believe we *can* get the spraying stopped, but we need to keep up the pressure. We need to become MAF exterminators. We need to become a bigger pest to MAF than the Painted Apple Moth will ever be.

The time has now come for civil disobedience. We've tried everything else. You can start by covering your gardens with tarpaulins on spray day. This is guaranteed to get up Jim Sutton's nose. There are yellow helium balloons for sale or donation here today. Float them high above your homes on spray day. Other direct action is planned. Put your name on the list.

People's overseas visitors are getting sick. Tell all your overseas or out of town friends and relations to stay away from Auckland and to write to Helen Clark and tell her why.

I have an email from David Cunliffe dated 30 October 2001 saying he "would be happy to" be an observer on the ground in the spray zone during spraying. Instead of doing that he has moved to Herne Bay – pity it's now in the new spray zone.

I would like to call on all the local MPs and Helen Clark to come out on the streets of West Auckland on spray day. If it's good enough for the Queen mother to stand by the people of London during the blitz why isn't it good enough for our Prime Minister to show solidarity with those who she expects to sacrifice their health and the health of their children for the sake of the forestry industry.

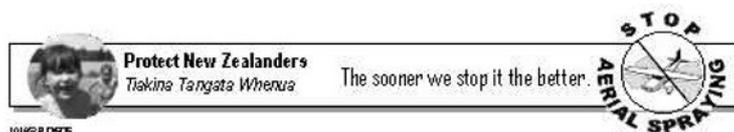
To paraphrase the words of the environmentalist Jackie Giuliano author of *Healing our World*:

I am much more afraid of the actions of this government and the overconfident MAF scientific advisors than I am of the Painted Apple Moth.

"The moth, at least, is behaving rationally.

The health of the web of life must be our first consideration, not the health of the web of business."

Protect New Zealanders - The sooner we get aerial spraying stopped the better.



(2) Some Things You Should Know About Foray 48B and the Painted Apple Moth Aerial Spraying

By Helen Wiseman-Dare - Updated 2005

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From January 2002 – 2004 MAF aerially sprayed Foray 48B (Btk spray) approximately every three weeks over west Auckland, to combat the Painted Apple Moth. Over that time the spray area increased in size from 600 hectares to over 9,000 (an area of 4,000 hectares was sprayed in east Auckland 8 years ago for the Tussock Moth). Some areas were sprayed weekly and MAF was given government approval to continue for 3 years. Jim Sutton (Biosecurity Minister) has stated that **“We have no way of knowing with any certainty whether it [the Painted Apple Moth] would be a serious pest in NZ.”** (3.07.02). Yet we continued to be sprayed.

Contrary to what the government has been saying, Foray 48B is not organic – it is not approved for use in organic or any other agriculture. Overseas, farmers lost their organic certification after being aerially sprayed with Foray 48B. It is not “naturally occurring in soil, water and air” either. Foray 48B is a commercial formulation containing 97.9% inert, chemical ingredients. The manufacturer refuses to divulge what these are. Overseas these have been found to include: toluene, parabens, sulphuric acid, phosphoric acid, sodium hydroxide (lye) and a long list of other potentially harmful or carcinogenic substances. These, along with the Bt component (live bacterial spores), are suspected of causing health problems and allergic reactions. A list of ingredients has now been identified in NZ. See www.moth.co.nz for full details.

The Foray 48B label states: “HAZARD TO HUMANS (AND DOMESTIC ANIMALS) CAUTION. CAUSES MODERATE EYE IRRITATION. AVOID CONTACT WITH SKIN, EYES, OPEN WOUNDS OR CLOTHING. USERS SHOULD WASH HANDS BEFORE EATING, DRINKING, USING TOBACCO OR USING THE TOILET. IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER. GET MEDICAL ATTENTION. IF IN EYES: FLUSH WITH PLENTY OF WATER. CALL A PHYSICIAN IF EYE IRRITATION PERSISTS.”

Btk is a live bacteria and give or take a few bits of highly mobile DNA it is the same family as anthrax and *B. cereus* - which causes symptoms of extreme food poisoning. Genes have been found to exchange between them.

Everywhere in the world where Foray 48B has been sprayed the same pattern of health effects has emerged. In east Auckland when it was sprayed 8 years ago for the tussock moth there were over 700 cases of health effects reported which included: **Severe allergic or anaphylactic reactions; Lung/respiratory problems – difficulty breathing, worsened asthma, mucus build up, severe coughing, sinusitis, sneezing; Respiratory infections; Flu-like symptoms – unusual tiredness; Unusual, persistent, migraine headaches; Severe skin rashes, burning; Nose bleeds, ear infections, burning throats; Gastrointestinal problems – nausea, diarrhoea, vomiting; Eye problems – burning, conjunctivitis, corneal ulceration; Neurological effects; Seizures; Miscarriages; Premature births; Thyroid effects** – a number of babies were born without thyroids and a group of women and babies with thyroid effects was investigated as a cluster by Public Health authorities.

The same health effects were experienced by west Aucklanders, their children and animals. People suffered from illnesses they had never had before in their lives. MAF paid to relocate a horse suffering from fist sized lumps under the skin and swollen legs. Residents reported similar health effects in their pets including severe vomiting and diarrhoea – plus deaths of animals, tropical fish and birds.

MAF's doctors were overwhelmed with people reporting adverse health effects and MAF funded over 1,000 people's relocation and specialists' bills even though they told us that the spray had been given a clean bill of health. ***However, it has never been tested for its long term safety or its safety for pregnant women.***

At one stage Auckland's water catchment area in the Waitakere ranges was threatened with spraying. In Victoria, Canada an unprecedented bacterial spike was experienced in the water supply after spraying took place over the water catchment. In Nova Scotia, Btk spores were detected in the municipal water supply months after spraying, indicating that chlorination is not sufficient to kill the spores.

In Canada and Oregon the government paid for all those who wanted, to be evacuated to hotels during spraying. Aerially sprayed Btk has been scientifically proven to drift at least a kilometer and to build up inside people's homes. It has also been found to persist in air, soil, water and people's gardens.

Overseas reports show many adverse effects on the environment including loss of birds, beneficial insects and butterflies, including many rare species. Mud crabs, fish and eels were also affected and it was found to be toxic to rainbow trout.

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During spraying over Auckland birdlife disappeared from people's gardens. Bird Rescue reported birds being born with deformities and without wings. West Aucklanders also reported finding many dead and dying insects, including wetas and praying mantises. There were also a number of unexplained deaths of animals and birds at the Auckland zoo after spraying.

No research has been done anywhere in the world on the Painted Apple Moth. It is widespread in Australia and is not considered a threat there. The female cannot fly. MAF's feeding trials here have ascertained it is not a threat to the majority of our natives. It has a preference for wattles and in Australia it is called the "wattle moth". MAF have said that here 80% of finds have been on wattles.

The woman who first discovered the caterpillars on her property in Glendene reported that although there were many caterpillars they did not destroy whole trees, only eating what they needed, and the trees grew back. They did not even destroy young trees. This is consistent with reports that defoliated trees generally recover. The infested wattles once visible next to the northwestern motorway showed signs of recovery before spraying even started.

The Government claimed that the Painted Apple Moth would cost the economy \$350 million. Before spraying started the moth had been here for over 6 years and had not cost the economy a cent. But it has now cost the taxpayer \$90 million, most of which MAF appears to have spent on a massive pro spray advertising campaign. The only potential threat appears to possibly be to the forestry industry's monocultured crops of cloned GE pine trees in Rotorua. We are asking why **WE** should have to pay to protect private forestry.

Much of the evidence MAF has quoted in support of using Btk comes from evidence presented by Agriculture Canada to an Environmental Appeal Board in British Columbia where they **lost** their bid to ground spray Btk in a residential area which also contained a primary school. In their decision the Board noted that:

- Btk had caused health reactions in previously sprayed areas
- Children are at particular risk from the effects of Btk;
- There is the possibility of lung injury on exposure to Btk;
- According to the manufacturer repeated exposure can result in sensitisation and allergic response;
- Ground spray workers suffered health reactions and remained culture positive for prolonged periods of time;
- There have been no long term studies done on the effects of Btk on human health;
- The spraying is not effective – “the evidence is weak in showing a link between reduced moth populations and Btk spraying”.

There is also evidence of insects developing resistance to Btk.

MAF has been informed of a variety of alternative treatments, some used overseas, but has shown no interest in pursuing them. They have now been offered the use of an extremely effective privately developed pheromone by a NZ scientist which they have refused.

What You Can Do

Write to Jim Sutton (Minister for Biosecurity) and Helen Clark detailing any health or other effects you, your family and animals may have suffered from the spray or just tell them how you feel about this gross violation of your human rights. Ask why **WE** are paying to protect private forestry. Demand that no further aerial spraying take place and tell them that AERIAL SPRAYING EQUALS NO LABOUR VOTE from you.

Contact WASP or the No Spray Website : http://www.geocities.com/no_spray/ and let us know of any health effects you, your family or animals have suffered.

2. For further information:

<http://www.nosprayzone.org/>

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http://www.geocities.com/no_spray/

<http://www.chebucto.ns.ca/Environment/RATE/btk1.html>

<http://www.msgbd.com/forums/ballard>

http://www.speakeasy.org/wfp/46/systematic_problems.html

<http://www.moth.co.nz/homepage.htm>

http://www3.bc.sympatico.ca/Sos/SOS_Pesticide.htm

<http://www.cow-net.com/unica/>

http://www.soeh.ubc.ca/research/Report%202001/Btk_Exposure_Report.pdf (List of Ingredients p.21)

<http://ens.lycos.com/ens/may2000/2000L-05-20g.html>

http://www.state.nj.us/agriculture/plant/foray_48b_04-3310.pdf (Foray 48B Label)

(3) Letter to the Editor - 13/12/02

The letter below has been printed in various publications.

For more detail see my Speech from Second Spray Free Rally - 30 November 02 on the No Spray website:

http://www.geocities.com/no_spray/

Helen Wiseman-Dare

WASP (West Aucklanders Against Aerial Spraying)

Dear Sir/Madam

We are told that MAF are using a 71 year old pilot to fly the Fokker aerial spray plane for the Painted Apple Moth eradication campaign currently taking place over 40,000 Auckland homes. (West Weekly 4.12.02).

It would appear that MAF are using an ageing pilot, an ageing plane and an ageing biosecurity strategy.

The practice of pest eradication by wholesale aerial spraying of urban populations is a strategy that belongs in the last century. Organisations such as HortResearch, Forest Research and Landcare Research are making increasing use of safe, non toxic biological controls to control everything from gorse to forestry defoliating beetles.¹

None of these methods of the future are however, being employed to combat the Painted Apple Moth, in spite of various biological controls having already been found to have an effect on the moth. Among these were a parasitic wasp and a virus which at one stage wiped out the breeding colony in the laboratory.² Biological control methods are made use of overseas to control other moth populations.³

With growers moving towards sustainable forests and horticulture using a minimum of spraying, MAF now seems more concerned about spraying forests with chemicals than it does about spraying them over people.⁴

Urgent work needs to be done on fast tracking pheromone based products through ERMA and working on bio-control programmes for the Painted Apple Moth instead of fast tracking yet more Btk varieties for yet further aerial spraying programmes.⁵

Questions need to be asked as to why MAF are continuing with an eradication programme which is causing such immense suffering and disruption to the lives of so many when the chances of eradication have been put at only 60-80%. Infestations are still being found in areas such as the Waikumete cemetery which have had almost a year's worth of aerial spraying plus weekly ground spraying.

A change of strategy is urgently needed.

Please treat this information with respect, and honour the privacy of everyone who has had the courage to participate

Yours sincerely
Helen Wiseman-Dare

1. Press Release: Landcare Research 25.11.02 "Greedy new moth set to guzzle gorse". Forest Research website: "Bio-control Programmes". Hortnet website: "Mating Disruption of Orchard Pests: New Developments" D.M. Suckling - HortResearch, Canterbury Research Centre, Lincoln.
2. MAF Technical Advisory Group Minutes.Feb-Dec 2001.
3. Ohio Division of Forestry Website: "Entomophaga: A New Tool in Gypsy Moth Management". Cornell University website: "Baculoviruses" p3 "Current use of Baculoviruses as Biological Insecticides".
4. No. 22 p.6 "Painted Apple Moth: Reassessment of Potential Economic Impacts" MAF, 7 May 2002
5. http://www.ermanz.govt.nz/Search/oop/qfullhit.htm?CiWebHitsFile=%2Fappfiles%2Fexecsumm%2Fword%2Fhsr02044%2D002%2Edoc&CiRestriction=Bactur+and+not+vti%2A&CiBeginHilite=%3Cstrong+class%3DHit%3E&CiEndHilite=%3C%2Fstrong%3E&CiUserParam3=/Search/srch_text.asp&CiHiliteType=Full
[One very long ERMA website address]

"Application code HSR02044 Application type To import or manufacture any hazardous substance under Section 28A(2)(b) of the Hazardous Substances and New Organisms (HSNO) Act 1996 Applicant Grosafe Chemicals Limited Purpose To import << BACTUR >> 48 LC containing Bacillus thuringiensis var. kurstaki [Btk] for control of insect pests such as tussock moth, gypsy moth and painted apple moth. Date received 31 October 2002 Consideration date 14 November 2002 Considered by Bas Walker (Chief Executive, ERMA New Zealand)"

(4) 24 November 2003 – WASP Email Newsletter

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WASP NEWS - THE BUZZ - WASP NEWS - THE BUZZ - WASP NEWS

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From Helen Wiseman-Dare, West Aucklanders Against Aerial Spraying (WASP)

Anti Spray Campaigners Call on MAF Scientists to Front Up

WASP has joined with a coalition of Auckland anti spray groups in calling on MAF scientists and officials to front up at a public meeting to explain to the community why spraying is still continuing for the Painted Apple Moth despite no finds having been made for at least 6 months.

The Meola Creek area has had no finds since December last year, yet spraying is set to continue every 21 days until February and probably longer. Some areas are due to receive aerial sprays every 8 days.

The Tussock moth spraying in east Auckland 6 years ago was halted as soon as no further moths were found.

MAF are also gearing up for a new aerial spray campaign for the Fall Webworm moth over Mt Wellington and east Auckland.

In continuing to aerial spray MAF are hiding behind the decisions of a group of faceless scientists.

A letter was sent last week to Peter Thomson, Director of Forest Biosecurity, MAF requesting an urgent public meeting so MAF scientists and technical staff can answer the community's questions on the rationale behind the continued use of this extreme eradication tool.

We are still awaiting a reply. Spraying is next scheduled for December 1 and 9. Phone the MAF Hotline on 0800 969696 to check whether aerial spraying is going ahead on these days. Be aware: MAF are denying they intend to spray on the 9th ie: every 8 days. The details of this were published in a Public Notice in the NZ Herald 14 November. The next spray on Dec 1 comes less than 2 weeks after the previous one.

Please treat this information with respect, and honour the privacy of everyone who has had the courage to participate

Permanent Evacuations

We are hearing of more and more people selling up and leaving Auckland permanently to get away from the spray. We would especially like to farewell Jane who has worked tirelessly on the legal side of the anti spray campaign. **Thank you for all your hard work and lobbying Jane and especially for your role in getting the legal opinion from Sir Geoffrey Palmer.**

Health Issues

Genetic Damage: After 2 years of aerial spraying more and more reports are coming in of extremely high numbers of babies being born in west Auckland with hare lips and cleft palates. West Auckland also has an unusually high number of cases of a very rare brittle bone disease with at least one baby currently fighting for life. We are also hearing of high numbers of stillbirths, miscarriages and other birth problems.

Many reports are being received of children suffering from serious allergies, skin and stomach problems they have never had before.

People are still being hospitalised with severe asthma.

We know of hundreds who are still being evacuated by MAF to motels each spray.

Our thoughts go out to Lynn whose husband is in hospital with meningitis and whose mother, also in the spray zone, has been admitted to hospital with a heart attack. There have been other reports of cases of meningitis in the aerial spray zone and meningococcal disease was considered in MAF's Health Surveillance report following the east Auckland Tussock Moth spraying.

ACC Claims

A number of people (mainly with no pre-existing conditions) have had their ACC claims accepted for spray related illness. We have also heard that several of the spray plane pilots have suffered health effects and have also had ACC claims accepted. You may want to revisit your doctor and ask them to press your case.

Flesh eating disease: Further to the earlier reported case of the Henderson man who developed this after cutting himself whilst gardening, we have heard of 2 more people in the spray zone, one of whom lost a finger. Both cases contracted this from gardening.

Do you use Zoo Doo compost? A number of birds died after the first spray over the zoo and two valuable white rhinos have since died from a "soil bacterium". Also a mother gibbon uncharacteristically killed one of its twin babies earlier this year and tried to kill the other. Apparently this is unheard of - only the male gibbon is known to kill its offspring. On "The Zoo" TV programme a young lion had a cancerous lump removed from its forehead and an orangutan and its baby died. The mother died of "septicaemia".

Cancer cases: We have been told of a 7% increase in cancer cases in Auckland this year - thought to be due to the spray's effects on the immune system.

Quote of the Month

Martin Elliott, Principal Fraser High School, Hamilton (Waikato Times 4.11.03): "When I employ staff I don't actually ask them whether they are allergic to moth spray! A senior Maf official told me that he thought that our eight serious cases were an aberration: "It was like contagious paranoia where people feed off the psychology of the propaganda spread by the anti-spray brigade." It took a lot of my self control not to reach across the table and yank his testicles out through his throat."

Website of the Month

www.mef.co.nz

Check out this brilliant new Hamilton anti spray website. It will provide you with more than a laugh or two. It started life as maf.co.nz but MAF threatened legal action.

Especially check out "**A Lighter Side**". Read all about Ivan Box (as in gear box) and the evil Peat Khan-(as in Genghis Khan)-Pie (as in Pecan Pie). PLUS the goings on at Aer'gate with Drs [...] and [...] who may sound vaguely familiar.

Please treat this information with respect, and honour the privacy of everyone who has had the courage to participate

Peter Thomson from MAF Head Office in Wgtn has been spending a lot of time in Hamilton observing the spray programme. Funny he has never dared show his face in the Auckland spray zone. You might like to phone his office in Wgtn on [...] or phone his boss - Murray Sherwin on [...] and invite them to morning tea in your garden on spray day.

Two Hamilton Bishops - David Moxon (Anglican) and Denis Browne (Roman Catholic) issued a press release on the first day of spraying raising their concerns for people's health, particularly that of children.

Human Rights - Have your Say Now

The NZ Human Rights Commission is gathering information from the public concerning their views on the status of human rights in NZ. (Human rights? What human rights?)

See <http://www.hrc.co.nz/index.php?p=23960> for the **On-Line Questionnaire** due in by November 30. People can also make a submission by letter. This forms an important part of their first round of public consultations. They are looking for evaluations on how people presently feel NZ is doing on human rights issues, what recommendations they have for improvements, what issues should receive priority status etc. They are going to use this for their submission to the government recommending possible changes and new directions for the future development of human rights in NZ. This document and its processes are also being followed by the United Nations Council on Economic, Social and Cultural Rights.

Faceless Mad Scientists and MAFia

Here is a list of some of those responsible for the decisionmaking behind the continuation of aerial spraying. You might like to send them a Christmas message thanking them for yet another spray filled Christmas and New Year. You might like to tell them exactly what their decisions have cost you and your family. You could even send them a bill for all your medical and relocation expenses or just tell them what you think of them. Just highlight, copy and paste all these into the To: field of a blank email.

[....]

These were originally members of MAF's Painted Apple Moth Technical Advisory Group (TAG). The name was later changed to the Science Advisory Group (SAG). Shortly after I received this in my Inbox:

"Poor little science members of the old Painted Apple Moth Technical Advisory Group ... when it was changed to the Science Advisory Group they went from TAG members to SAG members. All that active tagging became sad and sagging. Well what can you do with a sagging one after all? Well they've solved all that they changed the name . . . the testosterone levels have been restored ... they are now called STAG!!! (Science and Technical Advisory Group) yippee get out there and blast them, zap them, stamp the beasties out ... we are big strong stags, and all will bow down before us."

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Protect New Zealanders - The sooner we get aerial spraying stopped the better.

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(5) BIOCONTROL NEWS – NEW ZEALAND HERALD

90. Aerial enemy for hungry worm

Farmers on some peninsular farms lost dozens of hectares of pasture when armies of webworm caterpillars attacked in 1999

New Zealand Herald 8.8.2004

By Tony gee

Please treat this information with respect, and honour the privacy of everyone who has had the courage to participate

A Korean wasp and a fly are likely to become the bio-control allies of Far North farmers whose pastures have been devastated in recent years by infestations of the voracious tropical grass webworm.

The wasps, already widespread in New Zealand, confirmed their potential as a bio-control agent after they were found in webworm larvae collected from kikuyu pasture on the Aupouri Peninsula north of Kaitiaki, and reared by AgResearch at Ruakura.

Farmers on some peninsular farms lost dozens of hectares of pasture in days when armies of webworm caterpillars attacked in 1999.

More infestations came in 2002.

At densities of around 15 million a hectare, the caterpillars could chew out several hectares of pasture in less than 48 hours.

As well as kikuyu, the pests eat anything green in their path.

The tropical webworm, a recent arrival in New Zealand, is believed to have been blown across the Tasman in adult moth form from Australia.

Each adult moth lays up to 400 eggs that hatch into caterpillars.

Researchers in a task group on the peninsula have found that biocontrol of the webworm is possible through a combination of parasitic insects which attack the pest in its caterpillar stage.

Principal among these is a Korean wasp, *Meteorus pulchricornis*, which is also found in Asia and Europe.

An entomologist working with the task group, Dr Jenny Dymock, said the wasp was collected from sites around New Zealand where it was found attacking **15 caterpillar species** from the moth and butterfly group of insects.

The wasp lays an egg in young caterpillars.

When the wasp larva hatches, it feeds on the caterpillar and eventually kills it.

Dr Dymock said she got the *Meteorus* wasp from a colony raised by Crop and Food Research at its laboratory in Auckland and tried it against webworm larvae in test tubes and over kikuyu pasture on the Aupouri Peninsula.

Dr Dymock found the wasp attacked and killed the larvae. It also attacked armyworm collected from local maize.

Ruakura scientists are also investigating another parasitoid reared from tropical grass webworm.

This potential agent is from a fly family known as Tachinidae.

Dr Dymock said a combination of the parasitoids could offer farmers a long term and effective way of suppressing webworm.

Task group chairman Eric Wagener said periodic webworm infestations continued on peninsular farms but not on the scale of the "explosions" five years ago.

At that time, Mr Wagener's Houhora farm lost 30ha of pasture in three days.

<http://www.nzherald.co.nz/index.cfm?ObjectID=3582913>

End

Please treat this information with respect, and honour the privacy of everyone who has had the courage to participate

Submission to People's Inquiry – 36

Exposure: lived in spray zone

Sue-Ella Gray

Oral testimony: Yes

[Note: Documents referenced below were tabled for the Commissioners as part of Sue-Ella's hearing and will be appended to her oral transcription for context]

RE; SUBMISSION TO PEOPLES INQUIRY INTO THE IMPACTS AND EFFECTS OF AERIAL SPRAYING PESTICIDE OVER URBAN AREAS OF AUCKLAND.

To begin at the beginning would be the way to cover the entirety of my experience, however I have chosen to simply outline my main concerns since the spraying in West Auckland was carried out which adversely affected my health and eventually my life dramatically.

I have documents that prove many of the following incidents of which I will bring to the inquiry, if required.

In addition to these I have a file of doctors and specialists reports which cover the effects on my health over the spraying period.

Unfortunately some very important documents which would have been extremely incriminating to MAF and Aeraqua have disappeared from my files. These missing documents have been viewed by several other people who could be called as witnesses if needed.

The most important concerns I wish to raise are as follows.

INVASION OF PRIVACY:

Staff from Aeraqua took photos of; my home I had to leave due to the spray program; the house they were renting for me to stay in. (One of these photos was taken from inside the house without my permission.) (Ref. Doc A.)

When I eventually sold my home they attained copies of the title and deeds and took photos of the house they thought I had bought. The photo they took and priced was in fact the wrong one. (Ref. Doc A.)

They (MAF and Aeraqua) minutely investigated into my private life and business far beyond any relevance to the information they might require relative to my health or eligibility to receive assistance.

They interfered and interrupted my agreement with ACC which resulted in my weekly allowance being stopped and my being told by ACC that there was nothing wrong with me, and that my claim was spurious.

I was in fact very unwell and ended up having major surgery only weeks later.

Maf and Areaqua suggested that I was double dipping and went through the fraud dept at ACC. (Ref: Doc B)

I strongly suspect my phone has been tapped ever since I sent in my claim to Maf.

HAVING MEDICAL INFORMATION WITH-HELD.

Aeraqua did not always send on the reports from their specialists to me.

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Specifically, they with-held a letter from their appointed specialist, Dr Ameratunga, who had in writing stated that I required permanent relocation and should not go back to the sprayed area even after the spray program had ceased. *(Ref: Doc C)*

My poor health limited the hours of work I could carry out. The only way I could pay for the rent of a house was to work full time and suffer further, and even knowing this they insisted I leave the rented accommodation they were providing as soon as the spraying ceased. *(Ref: doc C)*

There was a letter lodged with the M.O.H. [Ministry of Health] in 1987, stating that I was not to be subjected to environmental pesticide /chemical sprays due to my severe “multiple chemical sensitivity”. A specialist sent this by the name of Dr Gibb.

(On my first visit to Dr Kelly I had discussed this matter with her whilst registering myself on their health risks program).

Helen Clark who was then the Minister of Health, sent me a letter of acknowledgement and expressed her concerns and sympathy.

The letter that was held at the Ministry has since disappeared due to what was described as a “system problem” which caused all of these records to be lost. *(Ref: Doc D)*. The copy I had on file is amongst those which have gone missing.

I do have another original letter written to me by the Environmental Health Manager in 1990 which confirms part of the above. *(Ref: Doc E)*

BEING TREATED WITH DIS-RESPECT.

I was constantly being lied to, fobbed off, told that the spray was not the cause of my poor health.

When I took responsibility for my own health and stood my ground with them, I was told that I would have my support (rental house and their specialist's visits) stopped immediately if I continued to speak with them in this manner. This manner, being me not allowing them to push me around anymore after almost three years. *(Ref: Doc F)*

They maligned my integrity on several occasions.

Dr [...] informed MAF that I had falsified a doctor's letter and that it meant nothing. *(Ref Doc G)*. I proved this to be incorrect and on informing [...] of MAF that I did not appreciate [these] accusations, I was told to refrain from speaking that way about his employee and “to be careful what I say to others”.

They went to the fraud team at ACC and suggested that I was double dipping. They informed me that they would take it further and go through IRD. None of this was valid and these were purely scare tactics. *(Ref: Doc B)*

An email from a staff person at Aeraqua came addressed to “Poo Smella Day”. My name is Sue-Ella Gray. *(Ref Doc H)*

CONSTANT HARRASMENT AND RIDICULE

There were too many occasions to comment on where I was subjected to this.

Please treat this information with respect, and honour the privacy of everyone who has had the courage to participate

The copies of the emails between MAF officials and staff at Aeraqua “said it all”. These are the very documents that have gone missing from my home. The entire contents being somewhere between thirty-fourty pages.

One of these emails had stated at the top “*Do not file. We don't want her knowing this*”.

There was also an email from Dr. Kelly to the MAF Project Manager stating that Dr Gibb had informed her that I was the “*worst case of multi chemical sensitivity*” he had experienced as a patient. (Ref: Doc B.)

Within the few emails I still have which were not in my house at the time the others went missing are statements contradicting the information they relayed to me over the years.

One example is “*In addition we are dealing with a householder whom a consulting specialist tells us is significantly affected by the spray. The project impacts on her have already been significant without our taking this unprecedented ..*” etc.etc (Ref: Doc I.)

In fact, I was continually told that there was no harm being done to me through the spray program and that I could go home.

When I refused to return to my home I was accused of being emotive, of driving my own health support program and making a fuss.

It was even noted that it was purely an “*assumption*” that I had made contact with the sprays. This comment being made after three years of documented proof. (Ref: Doc J)

IN CONCLUSION

I would like to have it documented that I have picked up the pieces of my life over the past 18 months and tried to build a life here the best I can.

My health has improved considerably but still remains at a stage where I am unable to carry out what I used to do before this onset of chemical poisoning.

It is general knowledge that a person with multi-chemical sensitivity suffers more seriously each time their body is exposed to the chemicals which affect them.

It is also known that the body's organs become weaker every time this happens and some never repair satisfactorily.

I have found revisiting these events very distressing, as I am sure many others have also.

Thank you for reading this submission and for doing whatever it is you all can to ensure this never happens again.

End

Please treat this information with respect, and honour the privacy of everyone who has had the courage to participate

Submission to People's Inquiry – 37

Exposure: lived and worked in spray zone

Oral testimony: No

Dear Sir/Madam

I am writing to state my feelings and experiences during the Painted Apple Moth spray campaign of West Auckland. It was a while ago, but my feelings are still pretty strong.

At the time I was living in Henderson Valley Road, Henderson Valley. I lived in the school house on the property of Henderson Valley Primary School. I was a teacher at Henderson Valley at the time and my son attended the Primary School and my daughter went to Sturgess Road Kindergarten.

I did not have any happy experiences of the spray campaign.

1. We received nothing in the mail - no pamphlets etc.... explaining about the spraying or what was going on. We were told we would receive something, but nothing came.
 2. We took our children out of the spray zone during every spraying as I didn't want myself or my children breathing in an unknown substance.
 3. After the first spray, the children were brought back to the house and my son went to play outside. He was digging away in the dirt and having a lovely time with his toys. A little while later he complained about feeling nauseous. I gave him a drink, but as he was feeling so bad, I put him in our bed. He was very unsettled and complained about a 'tickly tongue'. I've never heard him say this before about anything. He vomited the worst he'd ever vomited in his five years of life that night. I believe this was spray related.
 4. After ringing the 'hotline' they put me through to a medical person who assured me that this was nothing to do with the spray and must just be a coincidence that it happened the night after he was playing on spray soaked ground.
 5. We took the children out every spray day and stayed out longer than last time. We lost wages because of this and still the medical people didn't take us seriously. We made sure that our son or daughter never went outside until the house had been hosed etc..... and even then, we waited for an extra day and wouldn't let him or her dig around.
- I asked if we could be put in the group that had a place to go to on the outskirts of the city, but they wouldn't let us.
6. After a while we did get an appointment with a medical specialist but she said the same thing. It must just have been a coincidence. This was so long after the actual event that it was worthless anyway.
 7. As an educator, I felt horrible that the children at school were being exposed to this spray. It is part of my job to make sure the children in my care are safe. I did not feel that this was the case. Especially when the plane came over at playtime and sprayed them all.
 8. Yes, they started spraying only when the children wouldn't be outside but..... I was at school at 8 - 8.30 one day just after they'd finished spraying and the smell was so strong, the children arriving at school would have been breathing in the particles. This cannot be safe. They might as well have sprayed on top of them again.
 9. I am furious we wouldn't be told what was in the spray.
 10. I am furious that my child's health was affected by this spray.

Please treat this information with respect, and honour the privacy of everyone who has had the courage to participate

11. I am furious of what I see as MAF's mishandling of the whole thing. They were doing nothing but chasing this pest. The spray zone kept getting bigger and bigger and they just kept on spraying.

12. I am furious myself and my family were used as guinea pigs in a spray campaign of this size. I do not feel my concerns were taken seriously. I know of a lot of people too apathetic to write in to this hearing, but they had experienced blood noses. I know of one boy at school who had never had a blood nose in his life and got his first one on a spray day. He was so stressed out and upset.

13. I prided myself in my organic garden. After the spray, I didn't want anything to do with my garden.

14. We were told the spray just washes off in water. Huh.... no it doesn't. Not unless you've got an extremely good scrubbing brush. It needed a large amount of soap and water to get it off my car.

I'm not very good at putting my feelings into words but the spray campaign for myself was a nightmare. Lack of consistency of information from the 'hotline' - one minute you're told one thing, the next you're told they don't know, then you ring back and get told something else. My child being sick.

My concerns not listened to.

The fact the spray campaign was so mismanaged that so many people got sprayed that didn't need to if it was handled properly.

I now live in Waipapa in Northland.

I still worry, even now, about what effect the spray might have on my children in future. What chances of compensation do we have? What studies are being done on the effects of people experiencing this spray campaign? Are people important in this country?

I now know, if the spray campaign happened again, I would have no hesitation about selling my house and getting out of there. I am so glad I took my children out during this mismanaged campaign. I lost a lot of money, a lot of sleep and a lot of worry.

Thank you for reading this

Yours sincerely and angrily

End

Please treat this information with respect, and honour the privacy of everyone who has had the courage to participate

Submission to People's Inquiry – No 38

Exposure: worked in spray area

Meredith Youngson

Oral testimony: Yes

SUBMISSION TO PAINTED APPLE MOTH PEOPLE'S INQUIRY

January 29th 2006

When I first heard about the Painted Apple Moth incursion, including the possibility of aerial spraying, I was employed as the coordinator for Waitakere Health Link (WHL). WHL was a newly formed community organisation aimed at monitoring the implementation of the Waitakere Health Plan and ensuring that the community voice was heard when planning to address any other community health issues that might arise. It was clear that the management of the PAM incursion was likely to have some impact on community health, and the community was already expressing significant concerns about it. Therefore it was a very appropriate issue for WHL to get involved in.

I volunteered, and was accepted, to be part of the PAM Community Advisory Group and started attending their meetings. WHL also facilitated a public meeting where both Ruth Frampton and Dr Francesca Kelly spoke about the issue. (Notes from this meeting are attached) They were both adamant that the spray was completely safe and would have no detrimental effect on most people. The few people who might be affected would be well looked after by removing them from the spray zone when appropriate and providing free medical care. This all sounded very reasonable.

However it was clear from the people who attended that meeting, many of whom had had some previous adverse effects from chemical exposure, that first of all there was a group of people who might be significantly affected and secondly that they had little faith in MAF to be honest or fair in managing this problem.

I believed at the time that they were, possibly with very good reason, being a bit too cynical and paranoid about both the effects of the spray and the way the health issues would be managed. I have to say now that my belief was wrong. I have been horrified at the way some of these people have been treated and at the lack of transparency and honesty around the relationship with the community.

WHL decided not to take a stance on the issue of whether or not to spray as we had no expertise or experience in this field, and felt that getting involved in this issue would detract from areas where we would be of most value to the community – in providing the community with information, and in ensuring that people who were affected got the care they needed when they needed it. We provided the community with information as we received it through our regular newsletters and email networks, and through our monthly public forums. Most of the information we got was available from the various information websites, and through the media.

Ensuring the affected people got the care they needed was harder. There was a health care service set up with Aeraqua that everyone had to go through if they wanted to get their care free of charge. This service was located in Parnell and the system did not work well. There were many complaints from the community about the hoops they had to go through to get treatment, the rudeness of the personnel, and the apparent attitude that there was always some other cause for your illness, it wasn't the spray. Many people just gave up. Others persevered as they had no choice but over the period of the spraying it became an intolerable ordeal.

Clr Penny Hulse and I tried to get the local GPs involved in providing a service, as most people would prefer to go to their own GP anyway, and often the spray symptoms were linked to other health problems that their

Please treat this information with respect, and honour the privacy of everyone who has had the courage to participate

own GP was familiar with (which Aeraqua seemed to interpret as meaning that the spray wasn't responsible for the current illness).

Our local GP service providers (IPCS now known as the HealthWEST PHO) was interested in being part of this, but despite a few promising meetings between MAF and HealthWEST people, it never went anywhere. MAF had already contracted Aeraqua to provide the service, and GPs were reluctant to act as gatekeepers – i.e. to make the decision as to whether or not the spray was responsible for a patient's illness, something that was often very difficult to prove and was the only way that MAF would fund treatment.

Occasionally I was able to advocate for a particular person and I believe that this was effective - in the short term anyway. One problem that kept growing as time went on was that people who had been affected by the spray were so stressed and frustrated by the situation and the difficulties that seemed continually put before them that they got upset and angry. This created huge tensions between them and the front line staff who seemed to be extremely unsympathetic and lacking in compassion, and simply totally ill-equipped to deal with this situation. It seemed that they were making it as hard as possible for people.

An example of this is a man who lived near the Waikumete cemetery and needed to be evacuated for each spray. He was a beneficiary and couldn't afford to transport himself to the motel or wherever he was going. The problems with getting funding to him at the appropriate time went on for months – they would say they were couriering him out vouchers or taxi chits and they wouldn't arrive, they tried to get him to borrow the money from his aged mother, they would say that it had been deposited in his bank account and it hadn't. In the end he would explode with anger and frustration and be very rude and abusive which made the situation even worse. Often these people WERE difficult and demanding, but they were also frightened and sick and were treated as though they were trying to rip of the system - they deserved better.

The Painted Apple Moth Community Advisory Group (PAMCAG) was established during 2001 before aerial spraying started, from volunteers in the community who had an interest in the issue. This seemed a positive step and I looked forward to working with MAF and community leaders in a positive way. This was not to be. Sadly it became apparent that MAF wanted to feed us information, but did not want to hear the community perspective. Meetings were confrontational, and defensive on both sides.

A good example of the dysfunction of the relationship is when the various options around managing the problem, of which blanket aerial spraying was just one, were being developed and discussed. PAMCAG in consultation with various science professionals developed an option based on using a number of approaches. We had a meeting to with MAF officials to present our ideas to them. It was truly awful. They sneered and ridiculed their way through the presentation, challenging every idea in a very antagonistic manner. I was absolutely shocked by the sheer rudeness and lack of any sort of interest in our ideas. Before they had even heard us they had made up their mind they weren't going to give an inch no matter what we said. If they had said something like -"I can see what you are getting at here but we believe this wouldn't be effective unless we did as well. Let's get our scientific advisers to look at it and see what they come up with" – it wouldn't have been so bad. But it was more like "Give us the facts and figures on this approach – it's rubbish and would never work. You have no idea what you're talking about" I left that meeting totally devastated and drained. I finally realised and accepted that we were never going to have a collaborative relationship, because they actually didn't WANT any community involvement.

A bit later I had been invited, after pressure on MAF from PAMCAG, to attend the Health Advisory group meetings as a community observer, but I don't know if they stopped having them or not but I was only ever advised of one or two. The meetings were held in Parnell and I was never offered any travel expenses or assistance to get there. This was the same for PAMCAG, which was not resourced at all by MAF.

The relationship between MAF and PAMCAG deteriorated so much that MAF decided to disband PAMCAG. Of course they couldn't do that as they didn't own or resource PAMCAG in any way. I believe that our Chair was offered \$500 at some stage towards expenses but he had to "behave himself" if he accepted this – he didn't!

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By this time (early 2003) the local programme was being managed by Agriquality and they set up a community liaison group – PAMCLG. I was invited to be on this group as a community health advisor. All the participants were hand picked so as to get an across the board representation, and undoubtedly also to keep out any of the radical activists. It was a very controlled environment. We were treated with friendliness and courtesy, some even got travel expenses. We were given up to date information and asked for feedback from the community that we served. The staff did try hard to deal with any issues that arose and the communication to communities did improve significantly. As long as no one challenged the programme or how it was being run, it all went smoothly. However its use as a vehicle for community concerns was limited and the meetings were not very well attended a lot of the time. Most health service concerns went straight to Aeraqua – Agriquality would not get involved. It was better than nothing and certainly better than before.

I was also invited to be on the Health Advisory group – PAMHAG – chaired by QC David Collins. The idea of this group was to deal with any major health issues at a high level, to ensure that the appropriate health monitoring was taking place, and to look at developing a framework to better manage future incursions. This was all good stuff and I finally felt we were getting somewhere in terms of learning from the past and ensuring that health issues would be recognised and addressed. However it all seems to have fizzled out – the last meeting was in February 2004. I do not know what monitoring is being carried out, if any, or if any framework is being developed to manage future incursions. Preferably this would involve the local health services.

Hana (Blackmore) and I have attempted to follow up on anecdotal evidence of an increase of Motor Neuron Disease cases in the area through the Public Health services. As in the past we have had meetings, explained the situation, been promised follow up and then nothing happens. It is very frustrating, as well as alarming. I believe it is imperative that systems to investigate these situations as soon as they arise should be in place, and there should be transparency around what is going on. Otherwise fears and conspiracy theories abound. It doesn't have to be like that.

The whole PAM spraying experience has been a learning curve for me. I have been concerned and dismayed at the lack of trust in government departments to look after the community, but I now totally understand it. I have been appalled at the way some people have been subjected to a devastating experience which has damaged their health, their relationships and their quality of life, and have then been treated with contempt and callousness by those who are supposed to be looking after and supporting them. I believe that the way to deal with this sort of situation (i.e. a biosecurity incursion) is to work with the community to find solutions and to honour those who have to make sacrifices for the common good. I have seen exactly the opposite happen here. I welcome any opportunity to help ensure that this does not happen again.

APPENDIX - below



Waitakere Health Link

Public Meeting 3rd October 2001

Issues around the Painted Apple Moth (PAM) situation in West Auckland

Guest Presenters were Dr Ruth Frampton from MAF and Dr Meriel Watts from Soil and Health.

Dr Francesca Kelly, an independent medical adviser who oversaw the Health Study undertaken in connection with the white spotted tussock moth, and Dr Travis Glare, an expert on Btk (the spray proposed for aerial spraying) were also present to answer questions.

Dr Frampton spoke about the invasion of West Auckland by PAM and the steps taken so far to control the situation. Dr Watts spoke about the importance of community participation in the process, and outlined the stance of Soil and Health on the PAM eradication programme. Many clarifying questions from the audience were answered by both speakers throughout the presentations. Both Dr Frampton and Dr Watts distributed written information.

Open discussion following the presentations brought up the following points:

Bacillus thuringiensis (Btk)

- Btk has been used commercially since 1938 and is considered as safe as any such product can possibly be.
- This does not guarantee that it is totally safe, especially for susceptible/sensitised persons.
- It has a slight yeasty smell, detectable in the air after spraying.
- The spray contains only Btk spores, sugar to make it stick to the foliage, and remnants of the yeast-based nutrient broth in which it is grown.
- The full breakdown of the ingredients is a trade secret
- Is there a label on the Btk packaging warning that it is hazardous to humans and animals?

Effects of the sprays being used

- We don't really know what the long term residual effects are of either Btk or Decis (the synthetic pyrethrum currently used for ground spraying)
- Decis is lethal for fish – effect on birds not known.
- Either spray will kill many caterpillars, not just PAM – what about the food chain?
- What are the ecological implications?
- What will be done to protect rare species?
- People on tank water should disconnect their systems during spraying and not reconnect until after several good bouts of rain.

Health issues

- A health monitoring programme needs to be set up from the start (now) – not a retrospective study as in East Auckland.
- East Auckland study did not find any significant correlation between the spraying and low birthweight babies or miscarriages, or that it posed a particular threat to immuno-compromised individuals. Respiratory problems (e.g. asthma) may have more significance.
- HOWEVER people are not reassured by the results of these studies – feel they have valid concerns that are not being taken seriously by some doctors, medical advisers or MAF. Instances were cited when the people had been reassured about chemicals in the past, only to discover when it is too late that the “experts” were wrong.
- Risk assessments are developed around average persons, and do not take into account the minorities that have serious problems due to (for example) previous chemical poisoning.

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- Will government pay for people at risk to move out of the area during the spraying times?

Community Participation

- It is crucial that people are notified about when aerial or ground spraying will happen
- Public must be kept fully informed about all the issues
- PAM Community Advisory Group will be an important vehicle for this.

Where to from here?

- Government will make a decision about aerial spraying by end of October.
- If aerial spraying gets the go ahead, it could happen two weeks later.
- Spraying would target specific areas that are difficult to ground spray such as cemetery (tall trees in gullies) and river edges.(threat to fish from Decis)
- This would expose approximately 600 houses.
- Some schools will also be affected.
- We would like to have the full list of ingredients in Btk made public.
- We need to have good advice available to people, particularly sensitive individuals, regarding what they should do to avoid adverse effects from the spraying.
- The Community Advisory Group will liaise with public.
- Members of the group present at this meeting who are willing for the public to contact them with questions and concerns are:

Kubi Witten-Hannah
Annette Fenton
Barry Shaw
Meredith Youngson

The Painted Apple Moth problem is an important community health issue, not just because of what is happening now, but also because eradication of foreign insect pests is always a potential threat. Therefore we must ensure that protocols and processes are set in place that protect the public while dealing with the problem as efficiently and effectively as possible.

End

Submission to People's Inquiry – 39**Exposure: lived spray zone****Oral testimony: No**

This is the testimony of a couple living in the spray zone. It was written as a story by a friend about the husband who has since died. His widow has authenticated and signed off on this document and she will be giving oral testimony at the Inquiry. [See Submission 109]

This is the story of an elderly west Auckland man. Mr Duke, a builder from Kati Kati, came to Auckland 17 years ago. He was 63. Bill settled in a modest home in Henderson, and shortly later married Elena. I arrived at their home Easter Friday 2003. Outside was a friendly dog. Inside was a charming photo of Bill and Elena in happier times. Elena was leaning into Bill's arms. The obvious joy of two people in love was apparent.

It was this devotion to each other that drew me to them during an 'anti-spray' march the previous month. My son marched at the front of the procession. I slowed my pace to meet those of this elderly couple. I met Bill and Elena again a week later at the Green Party rooms in Grey Lynn. I had trouble hearing Mr Duke because my hearing was affected by the spraying. Mr Duke was having trouble speaking because of his health problems. His savings met the escalating costs of his ill health.

Mr Sutton, Minister for Biosecurity, wrote to Mr Duke: "It is a concern to read of the continued health problems you and your wife are experiencing. I recommend that you continue to seek advice from the doctors who are working with the painted apple moth programme...although unless a medical issue is identified by the Ministry of Agriculture and Forestry's nominated health experts who are involved in the health support and monitoring programme, any costs will be at your own expense."

The Prime Minister wrote: "I recommend that you continue to seek advice from the doctors who are working with the painted apple moth programme and reiterate that unless a medical issue is identified by the Ministry of Agriculture and Forestry's (MAF) nominated health experts who are involved in the health support and monitoring programme, any costs will be at your expense."

Bill's illness had not been diagnosed at this stage. Elena spoke of suffering tendonitis pain and chronic tiredness after each spray day. The Associate Minister of Health Jim Anderton's secretary wrote: "Thank you for sending us a copy of your letter to David Cunliffe [MP] setting out your concerns about aerial spraying in your area... He has received a number of similar letters...Mr Anderton has considerable sympathy for those who find themselves in your situation..."

Lynne Pillay MP for Waitakere wrote: "Dear Mr Duke, My colleague David Cunliffe (MP) has sent me a copy of your letter. Firstly can I offer my sympathy that you have experienced adverse reaction to the spray. I trust you have contacted the Painted Apple Moth Call Centre... We endeavour to assist our constituents as much as possible in terms of information about health assistance, relocation and any other issues that arise...Once again my sincere sympathy that you are having adverse reactions to the spray."

Elena commented that Pillay had offered sympathy but no money to cover the \$2500 medical bills. Elena quietly added, "The MPs will not support us because they are sitting on cushie jobs. They will get a rap over the knuckles by Helen Clark if they said too much. If they said the real truth about the spray and what is in it they will lose their jobs. That's why they are so firm. They will never get another job that is so good. They have no pity for the poor people."

In a letter to the Maf Health service Mr Duke wrote: "Since the last spraying all the symptoms I mentioned when I first came to you have returned, and I find it very difficult to get any sleep...I would get right out of the area if we had the money and energy!... Some people have been taken out of the spray area on spray days. Why is this done if the spray is harmless? What does this relocation involve?...I have never been offered relocation, and I am on the health register. Hope you can read my poor writing, I am old, tired and stressed...Those who claim to know of the action of the spray on the moth say, "It rots their guts." "It ruins their digestive systems." I really believe it has had a bad effect on my digestive and elimination systems."

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A Maf doctor responded: “As I have said to you at our two consultations I am certain that your ongoing unpleasant bowel problems are unrelated to the spray programme.”

I left their home with a heavy heart but with hope this campaign would soon be over. Maf promised an end to the spray in April. However soon after, Maf announced the winter spray programme. I felt for this couple. But they were out of the winter spray zone and safe. Or so I thought.

A Waitemata District Health Board doctor described Mr Duke as being “normally an independent and active 80-year-old gentleman.” Mr Duke’s health problems were soon diagnosed as motor neurone. I listened to a radio interview discussing this disease the following month. The doctor interviewed said: “No two patients are exactly the same. (This disease has an) extremely variable presentation... We don’t know what causes it... (motor neurone disease may be caused by a certain) “genetic profile“ or “something in the water.”

I came back to the Duke’s mid winter to give them a copy of their story. I asked Elena where their dog was. The man from the kennels had picked him up to care for him for the next two weeks. Bill and Elena were too ill to care for the animal. Maf planes turning over their home had resulted in increasing ill health.

Bill wrote (he could no longer speak): “They are supposed (to) be only spraying Sunnyvale. But come right over the house...”

Elena spoke of waking up with blurred vision and difficulty breathing on three occasions. A friend asked her if she had asthma. Both wanted to be relocated. Both felt it was a highly unlikely prospect.

Bill wrote: “One lady who visits from Waitakere Hospital said I should be evacuated... the MAF doctor said she was certain my symptoms were not related to the spray. But the hospital doctors said they could not be sure of anything, as they were not allowed to even know what was in the spray. Most doctors say they cannot make a statement on anything unless it is scientifically proven. Now that we are allowed to know what chemicals we are being sprayed with and their effects are I can see clearly that the symptoms we could get from the spray are so similar to motor neurone symptoms that one could be mistaken for the other. They both cause even muscle wasting. With the last two lots of spraying my wife and myself have gone down a lot. My coughing and choking is much worse when I eat or drink.”

In front of Bill lay a recent media release titled: “Secret spray ingredients released.” Bill had underlined the symptoms he suffered: Respiratory system, gastrointestinal system: Methyl paraben (methyl hydroxybenzoate). Liver damage. Damage to intestines. Deafness. Depression of central nervous system: Propylene glycol. Diarrhoea, muscle weakness, tremors, emaciation, degeneration of the liver: Benzoic acid / sodium benzoate. Flatulence, abdominal pain, diarrhoea: Sorbitol. Irritant to eyes, respiratory system and skin: Potassium sorbate.

Bill wrote: “I invited Helen Clark to come here on spray day and stay for morning tea.”

Elena said she had the phone number of a lady who had “the same disease... motor neurone.” Elena asked me if I would like to speak to her. I took the phone. I was speaking to a sixty five year old woman. Elaine was walking her dogs when she was caught in the pesticide spray on two occasions. She noticed she was becoming unsteady on her feet. “I was wondering if it had something to do with the spray.” Before this incident of ill health Elaine had only seen the doctor once a year for a check up. Immediately before the spray programme Elaine spent an active seven weeks in Australia on holiday. Elaine found she soon:...”couldn’t walk very far. Then I found I couldn’t push a peg to hang clothes on line.” Mercy Hospital and a private specialist diagnosed Elaine as suffering from motor neurone disease.

I put the phone down. It was time to leave. As I turned, Bill reached out to take my hand in his. I left feeling helpless.

2003 Postscript:

Bill passed away in March 2004, two months before the end of the spray programme. Elena tells me Elaine is dead.

End

Submission to People's Inquiry – 40**Exposure: Edge of zone****Dr John Clearwater****Oral testimony: Yes****Submission to the People's Inquiry March 2006**

John Clearwater

*Clearwater Research and Consulting***Introduction .. past history**

I am a career scientist with 38 years of experience. I have worked in NZ, Kenya, Canada, Japan and Australia. My technical specialty is insect sex pheromones and organic growing.

My major experience in Biosecurity was with the "Operation Evergreen" team that eradicated the White-spotted tussock moth, (WSTM *Orgyia thyellina*). (East Auckland 1996-1997). I developed and supported a monitoring system using live, unmated female WSTM to identify areas containing surviving WSTM. This information drove ground and helicopter spraying of these survivors.

I worked in collaboration with the team led by Prof. Gerhard Gries at Simon Fraser University, Burnaby, Canada to identify the sexual pheromone of this species. We achieved this in 11 months and the synthetic pheromone was ready for use in the second year of the project. A very large array of these traps showed that the moth had been successfully eradicated.

This work was published as Gries, G. Clearwater, J. Khaskin, G. King, S. and Schaefer, P., (1999) "Synergistic sex pheromone components of White-spotted Tussock moth *Orgyia thyellina*." *Journal of Chemical Ecology* **25** 1091-1104. The whole project was briefly described in Hosking, G. Clearwater, J. Handiside, J. Kay, M. Ray, J. and Simmons, N.(2003) Tussock moth eradication- a success story from New Zealand *International Journal of Pest Management* **49(1)** 17-24.

Contacts and first offers

I read of the arrival (**April 1999**) of the PAM in the NZ Herald and phoned Ruth Frampton (MAF Director Forest Research) to offer the services of myself and Prof Gerhard Gries to identify the pheromone of this species. I left a message on her answer phone but no reply was received. A later formal letter (**12 April 2000**) was also ignored. We obtained a permit from Canadian authorities to send PAM to Canada.

My first contact with Ruth Frampton came when she flew to Canada (**August 2000**) to directly request Gries assistance. He asked her at this meeting to call me on my cell phone to see if I could arrange rearing facilities. I confirmed that I had at least three options and greatly preferred to work with the rearing group at Forest Research in Rotorua. No further response from Ruth Frampton was obtained.

A public meeting was held in Auckland. Dr. Travis Glare from Lincoln spoke on the nature of the *Bacillus thuringiensis* in the spray. He announced that he was not the NZ expert on the subject but unfortunately the expert, Dr. Peter Wigley (key member of Operation Evergreen) was not available. I was sure Peter was around, phoned him and confirmed this. He had not been asked to attend.

First Years of the PAM project....delays and failures

The PAM team failed to meet regularly, failed to draw up a formal action plan, failed to immediately set up a colony of PAM, failed to use females in cages as a monitoring tool till 18 months had passed and failed to declare a restriction on movement of vegetation till 4 years had passed. The worst failure was to focus on heavy infestations of caterpillars and spray them with synthetic pesticides. This contrasted with Op.

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Evergreen's focus on the whole infestation as defined by catches of males in pheromone traps. A comparison of the initial conditions of the PAM and WSTM infestations was published in "The Spiders Web" (16) June 2003, p.8-9.

Liebhold and Simpson inquiry (May 2001)

A consequence of public and professional concern was the setting up of an inquiry led by Dr. Andrew Liebhold of the USDA and Bruce Simpson of Biosecurity (NZ). This critical review recommended among other matters that a colony be set up at Forest Research, Rotorua and that our team be allowed to receive live insects. ("Report on a Review of the Response by MAF to the Incursion of Painted Apple Moth". May 2001).

Access to Live material

I formally requested that Ruth Frampton release PAM live material to send to Canada. Ruth Frampton replied (e-mail **22July 2001**) that material was tight and offered exhausted females from the trapping system. She specifically stated that these females had lost 70% of their pheromone after three days use. Repeated assurances from Nod Kay of FR that the Rotorua colony was growing well and that there would be no difficulty in supplying live material at last allowed us to receive insects. I set up a wind tunnel at Forest research quarantine facility and began tests of materials sent me by Gerhard Gries. The first and key material was an unstable compound that required solid dry ice to maintain its structural integrity. This material alone produced some flights to source. Additional materials increased the response rate.

First Wellington meeting (20th September 2001)

I was invited to Wellington (airfare provided by MAF) to discuss funding. We had initial funding from "Global Forest" and it was agreed that we would use this first and then receive funding from MAF. A condition of the funding would be that MAF could choose another provider to make up the lures once identification was achieved. I protested that this was an onerous and unacceptable condition but MAF would not withdraw this requirement.

Application for research funding

I was notified by a scientist (Forest Research) that MAF had issued a request for research on the pheromone of PAM (**EOI-88, 7th November 2002**). I wished to take up the MAF offer for funding as our initial funding had been exhausted. I had not been sent the PAM request though I had for some time been on the mailing list. This request was a restricted distribution request and was not present on the MAF web-site.

The scientist and I bid jointly for the work. Our initial work provided us with all the information to make a first-class bid. Our proposal was greatly less expensive than the Hort Research bid that was awarded all the work. A further supplementary request for a literature survey of "trap-out" of remnant populations was also applied for. A senior member of the PAM Project (MAF) explained that there was "bad feelings" about my involvement and this project was denied also. We met with him. He described examples of incompetence and corruption from his country and said that we should not be upset as it was not so bad in NZ.

Identification of active blend and refusal of permission to test.

Intensive work over two years with the wind tunnel enabled us to identify a highly attractive blend of pheromone components. MAF was informed and permission sought to field test the lure (**11th June 2003** to Peter Thomson). I specifically undertook to use no live material of any kind (no risk of accidental release unlike the female-baited system in use by MAF) and to expeditiously report all catches with time and place to MAF to inform their monitoring of the area. Ian Gear replied requesting "peer-reviewed data sets" before allowing testing. I was not prepared to gift them our data and prepared for an overseas test

Failure to give credit

MAF published a supplement in the journal *Allergy Today* (winter 2003). This publication provided detailed descriptions names and photos of participants in the PAM project. On page 22, detailed information and

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results of our successful bioassay of our WSTM pheromone was provided without our names or photos. Any reader would assume that these were the results of the persons presented in the supplement. This is highly unprofessional and offensive.....a form of theft.

Trapping for males around the Quarantine facility at Forest research, Rotorua.

Caterpillars were found to have escaped incineration at the quarantine facility at Rotorua (November 2003). I offered the use of our pheromone for the trap array around this facility. MAF stepped in, refused my offer and used live female baited traps. I considered the use of live females in Rotorua to be unnecessarily risky.

Australian field test

In company with Dr. Paul Schaefer of the USDA I ran a series of tests of our blend near Campbelltown, Sydney Australia (**11th to 17th December 2003**). We caught male PAM in every place where traps were set. The most interesting finding was that the major component alone (6Z, 9Z, heneicosadien-11-one) was intensely attractive. Males appeared while lures were being prepared and attempted to mate with the vials of fluid, the syringes and the freshly prepared lures. Photographs of the activity were obtained. A second set of field assays were performed by Dr. Gordon Hosking (**8-12 March 2004**). We informed MAF of our success and Gordon submitted an offer (**22nd March**) of providing the pheromone to MAF for \$300,000. This offer was rejected. Dr. Andrew Liebhold stated (e-mail dated **March 11 2004**) that a trapping system using "daily baitings of cotton wicks would be **VASTLY** preferable to a continuation using females."

Second Wellington meeting...comparison of pheromone claims.

MAF invited both our team and the Hort team to present our results (**17th February 2004**) to a review team. We provided an outline of our work in particular providing the photographs of the sexually active male PAM in Australia. Dave Britten, curator of the Australia museum, Sydney had just completed his PhD in moth pheromone biology. He provided his account of the behavior observed and confirmed that in his judgment the male PAM were exhibiting an intense sexual response to our lures. We had no data on comparison of our lures with live females. MAF made suggestions that we should provide this data. We heard informally (via Greg Presland, Waitakere City Councillor) that both teams were considered to have made equal progress but received no official verdict from MAF.

Hort research paper at Wanaka (August 2004).....a fatal flaw in the identification of the principal component

Hort research scientists presented their identification of the PAM pheromone. They claimed a Z-E conformation of the major component (see above) compared with our result that showed a Z-Z conformation

Second Australian field test (27th September to 9th October 2004)

I traveled to Australia with live female pupae (under Aqis permit) to compare the pheromone with our lure. Peter Thompson (MAF) specifically refused funding for an investigation specifically designed to answer MAF queries. Ann Barrington and Davor Bejakovich (MAF) provided pupae free of charge but MAF at the airport charged inspection fees. I used a different method of preparing the females and found that they were still performing well after 7 days use. This compares with MAF data (see RF e-mails above) that the female had lost 70% of pheromone after 3 days. Our lures had about 40% of the effectiveness of the females. We also tested the Hort Research claim and found that the ZE isomer was totally ineffective.

Public phase of the patent process

We filed a provisional patent application on the pheromone of the PAM on the **30th January 2004**, and filed within the year for the completion of the patent. The Patent office completed its examination on the **24th March 2005**. Stephen Parkes, lawyer for Hort Research registered an objection on the **28th June 2005**.....this lapsed and the objection was considered to have failed by the Patent office on the **22nd September 2005**. The patent was registered the following week.

Final publication of the work

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The work was published in the Journal of Chemical Ecology. The Hort group and our team submitted their paper on exactly the same date and both papers appeared in the same issue. The Hort group had changed their claim for the structure of the major component and now claimed a Z-Z structure also.

Continued captures

PAM males continue to be captured. MAF confirmed on the **2nd December 2005** that another male PAM had been captured, this time in Takapuna. This was the fourth male this winter. The others were caught in Otahuhu and Cornwall Park. MAF is sure that these catches are fresh invasions and not survivors from the original infestation.

Related matters.

Supply of lures and traps for the Gypsy moth survey.

A contact of the MAF Christchurch had purchased lures and traps for the Gypsy Moth from my company. He had been given permission to begin trapping for the Gypsy moth just shortly before he was due to start trapping. I supplied the product in very short order. He expressed his very great appreciation for the speed of our delivery. I later visited him in his office in ChCh to discuss the results. It was clear that he had very little experience of pheromone trapping so I spent some effort to train him.

I discussed my plan to "certify our product". When an insect is not present and the array of traps is set out to catch a new arrival, there can be some uncertainty about the potency of the lure. I planned to sample the next year's lures when they arrived in NZ and post a number back to colleagues overseas for testing in areas of GM infestation. Good catches would prove that the supplied batch of lures was effective. The following year I was asked to supply safety information which was duly supplied. I then received a call from the contact saying that he had been directed not to purchase from us....the Commission may consider whether it was a coincidence that I was then expressing my concerns to the MAF re the PAM program.

Provision of a superior trap for Varroa mite

When I heard of the arrival of the Varroa mite, I offered a superior trap to Paul Bolger (MAF). This trap was a product of one of my business associates (Paul Kirsch, IPM technologies, Oregon, USA). We claimed that this trap was twice as effective as the trap in use by MAF. We supplied samples to PB for testing. An independent test commissioned by MAF (R.M. Goodwin, H. M. Mc Brydie and T. E. Philips "Relative efficiency of three types of sticky boards at collecting dead varroa mites" Hort research Client report no. 2001/283) confirmed the superiority of our product. RG summarised his test with the words "The boards supplied by Clearwater Research and Consulting collected twice as many mites as either of the other two types of boards". In the results section he states "The Clearwater sticky boards collected significantly ($P < 0.01$) more mites (mean = 126.4) than the other two types of board (mean Ceracell = 46.6, Standard = 61.1, LSD = 29.3)" Our boards also resisted bee chewing....."Varying amounts of the Ceracell and standard boards were chewed by the bees, however, very little of the Clearwater boards, that were protected by the plastic grids were chewed". We supplied a number of variations of the grid to Hort Research. My calls and e-mails to follow up on this success were ignored ... the Commission may consider whether it was a coincidence that I was then expressing my concerns to the MAF re the PAM program.

Hamilton finding of a single Gypsy moth.

A single Asian Gypsy moth was caught in Hamilton in March 2003. The initial response of MAF was excellent, a rapid deployment of more pheromone traps and communication with the public. I was asked by the people of Hamilton to speak at a public meeting. I warmly commended the initial response of MAF but strongly recommended that a spray program was not necessary.

I based this on my decades of pheromone trapping and on a paper by Liebhold and Bascombe (2003): "The Allee effect, stochastic dynamics and the eradication of alien species" Ecology Letters **6**: 133-140. This paper examined a large number of instances of catches of GM to the west of the infested eastern area. They found that an incursion represented by less than 20 males in sticky traps would fail to establish.

I provided an affidavit to the group that took legal action to prevent spraying. MAF went ahead and repeatedly sprayed the area. My recommendation was confirmed when a single Asian Gypsy moth was caught in a pheromone trap in Long Beach California. The expert panel stated that they did not believe that this represented an established population, recommended intense monitoring and pheromone trapping and ground spraying of a few host plants in the area. The first two recommendations were carried out without any spraying. No further trace of the AGM was seen. I was called by many of my friends in Forest Biosecurity. They said that they agreed with my conclusions but dared not join me in speaking out publicly for fear that their funding from MAF would be cut.

Coercion of scientists

A friend at a conference about to give a paper on a MAF response to an incursion informed me that she was unable to give a truthful account of events lest MAF funding be withdrawn.

Biosecurity review

A nation wide consultation on Biosecurity was led by Colin Holden and Malcolm Crawley. Biosecurity professionals were invited to morning sessions and the public to afternoon and evening sessions. After a vast effort of consultation a draft set of recommendations was submitted. This enormous effort was scrapped....described in Investigate July 2004 p.61

Conclusions

I consider that the actions of the PAM project leadership have unnecessarily caused a greater number than originally necessary (approximately 180,000) of Auckland citizens to be sprayed with consequences to their health to be considered by this Commission, a greater expenditure of money than originally necessary (\$52.3 million, Plant Protection Society meeting, Wellington) and a greater risk to the conservation estate than originally necessary. The Commission may consider it appropriate to assess whether the current NZ imperative to obtain research funding has influenced decisions made by the participants in the PAM program.

Our science team had identified the key component of the pheromone (6Z, 9Z, heneicosadien-11-one) that alone is a very potent attractant within six months of receiving live material. Properly supported we could have had a useful attractant out in the infested area as early as we had achieved for the WSTM project. That this did not happen is entirely due to the actions of MAF who appeared to be doing their utmost to create obstacles and difficulties. Not only did they not provide any funding, they concealed relevant pheromone research requests and charged me for inspection services at Auckland airport.

End
