

Elimination of AFB in NZ Revisited

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Introduction

I started writing this before I received the four “alternative PMP” proposals from the Minister. Several aspects of the two aligned, and I have now re-written much of this to reflect the congruous component - the ‘intermediate outcomes expected from a PMP (exclusion, elimination, containment, control, etc)

And I conclude with a new-found realisation - the most active opponents of the PMP seem to have shifted from saying that AFB could never be eliminated from NZ, to suggesting overall plans directed toward elimination of AFB, though the interim steps and strategies differ...

Intermediate Outcomes of a PMP

The National Policy Direction for Pest Management provides guidance for the setting up of a Pest Management Plan using the Biosecurity Act, and describes the expected outcomes that a PMP is expected to achieve, describing as "intermediate outcomes":

- **Exclusion** - to prevent the establishment of the pest that is present in New Zealand but not yet established in an area.
- **Eradication** - to reduce the infestation level of the pest to zero levels in an area in the short to medium term.
- **Progressive Containment** - to contain or reduce the geographic distribution of the pest to an area over time.
- **Sustained Control** - to provide for ongoing control of the pest to reduce its impacts and its spread to other properties;
- **Protecting Values in Places** - means that the pest that is capable of causing damage to a place is excluded or eradicated from that place, or is contained, reduced, or controlled within the place to an extent that protects the values of that place;

Elimination/Eradication

First off, during the development of the AFB PMP, the National Beekeepers' Assn was told that we should use the word “elimination” rather than “eradication”, and for me at least that has stuck. Strictly, we as beekeepers are not trying to eradicate the causative organism of AFB - we are wanting to eliminate the visual signs of AFB in bee colonies. It has always been acknowledged that there might well still be AFB spores present after elimination, but the plan is to keep them at such a low level that they never actually cause any colony to break down with AFB. I will refer to this outcome as elimination/eradication in this paper.

Is a PMP Necessary?

I believe that even those beekeepers who oppose the AFB PMP still would expect at least some degree of regulated pest management for AFB.

That is, if our current PMP did not exist, I think all but the most die-hard libertarian beekeepers would still want AFB to be "regulated" in various ways. Most would desire some degree of potential intervention should a beekeeper walk away, leaving diseased hives to infect others. Most would expect there to be some form of enforcement, using such things as power to enter property, power to inspect, power to require that a diseased hive be destroyed so as not to spread the disease.

All of those powers will require a PMP, whether it is the one we have now, or a newly created one. But without a PMP all bets are off. The industry could try to educate, try to encourage the behaviours that would reduce AFB, but there would be no means of enforcement whatsoever. And a PMP needs to have an overall "goal"...

Exclusion - Not Really Applicable

So the first possible goal, exclusion, would not be a starter for AFB. That would be the type of PMP that might address the situation when the disease might be present on only one island of NZ. But as an intermediate outcome, it doesn't really apply to the NZ AFB situation as a possible planned outcome.

Protecting Values in Places - Again, Not Applicable

The last option, protecting values in places, doesn't appear to have any relevance to a possible AFB PMP without a fair bit of re-interpretation of the words. Other documents ("Biosecurity 2025 - Direction statement for NZ's biosecurity" -

<https://www.thisisus.nz/assets/Resources/b88e5cb1fa/Biosecurity-2025-Direction-Statement-2016-web.pdf>

- appendix 1) describe this sort of PMP as more in the nature of a local scale management programme, as opposed to regional or national approach. These small scale programmes (declared by a regional council) have a pretty narrow focus, limited powers and a set timeframe (with eradication/control to be complete within 3 years). It would not provide a suitable intermediate outcome for a PMP.

Containment and Control as Tools Toward Elimination/Eradication

That leaves two options (other than elimination/eradication) for the "direction" of an AFB PMP - progressive containment or sustained control.

I contend that while either of those can be carried out without leading to elimination of a pest, an attempt to eliminate/eradicate a pest would by necessity include a time when these intermediate outcomes might be a component, even if they had not been "intended" or effort directed specifically toward achieving them. Though it does not tell the full story, it could be said that *any activity that would result in progressive containment or sustained control might very well lead to elimination/eradication of the pest, if the activities continue, or even more effective strategies put into place.*

On an individual level, an effective plan for AFB control within a beekeeping operation would need to "progressively contain" any cases of AFB as a precursor to eliminating AFB from the operation. AFB control measures such as apiary or area "quarantines", especially combined with more frequent and/or more effective inspections can be described as tools to progressively contain AFB. Continued application will certainly lead to AFB freedom, compromised only from the outside at that stage. It is, without doubt, the wish of every beekeeper to have a beekeeping operation - of whatever size - to be AFB free.

Which Outcomes Have Support?

Surprising to me, *three of the four submissions* to the Minister accepted/agreed/preferred the outcome of the AFB PMP to be the elimination of AFB!

- **Beesrus** - Terminate the PMP entirely... AFB cannot be eliminated/eradicated from NZ. There's always one, I guess.
- **Roger Bray** - Change the overall goal from a reduction in the percentage of *infected colonies* to the reduction in the percentage of *beekeepers who have infected hives*. Agrees that individual and NZ wide elimination is in fact possible and preferable as a strategy. More detailed analysis needed, as this was a verbose submission!

- **SNI Beekeeping** - Specific claim that rather than eliminate/eradicate, the Mgmt Board is proposing to only contain and reduce. Agrees that individual and NZ wide elimination is in fact possible and preferable as a strategy. Suggests their Biosecurity Code of Compliance will inform the PMP.
- **NZBI** - Seems to agree that elimination is possible, but only through using a different set of strategies that are not well-developed or described in the report. Refers to the use of “whole-population management” (generally a medical/clinical term), seeming to say that the approach and plan can’t be a “one size fits all”. But ultimately repeats the same primary and secondary objectives as in the current PMP.

Concluding

I started this writing with the intermediate outcomes in mind, expecting that the opponents would be proposing some form of tolerance of AFB and AFB infected beekeepers. The NZBI report had, for instance, put forward the suggestion that the Management Agency should *never*, under any circumstances, remove a beekeepers’ DECA.

I was anticipating addressing what a PMP based on one of those other outcomes might “look” like. I expected to be able to identify deficiencies in any that I could design. After all, when the beekeeping industry described its PMS 25 years ago this coming Sunday, we did consider all those options, with more rigour than these “alternative PMP” proposals seem to have.