



Proposal to increase the American Foulbrood Apiary and Beekeeper Levy

Consultation Findings

FINAL REPORT

November 2018

Undertaken for The Management Agency National American Foulbrood Pest Management Plan

Jan Mackay
Anna Mason-Mackay

Disclaimer

We will accept no responsibility for any reliance that may be placed on our Report and it should not be used for any purpose other than that for which it was prepared.

The Report has been prepared with care and diligence and the statements and opinions expressed in the report have been made in good faith. On this basis, and to the knowledge of the authors of this report, all relevant information for the purposes of preparing this Report is true and accurate in material aspects, and not misleading by reasons of omission or otherwise.

Accordingly, Logic Partners accept no responsibility or liability for such information being inaccurate, incomplete, unreliable or not soundly based; or for any errors in the analysis, statements and opinions provided in this Report resulting directly or indirectly from any circumstances; or for any assumptions upon which this Report is based proving unjustified.

The information contained in this Report was produced solely for the Management Agency, American Foulbrood Pest Management Plan (AFB PMP), and Logic Partners accepts no duty to or accepts any responsibility to any third party who may rely upon this Report.

Acknowledgements

We acknowledge the assistance of the AFB PMP Management Agency and Board in the preparation of this report, and the beekeepers for submitting survey responses, letters and emails.

Report Highlights

- There were 828 unique respondents who completed the consultation document on Survey Monkey, either on-line or sent through New Zealand postal services (referred to as survey respondents). There were also 64 emails and 16 letters sent to the Management Agency for the National American Foulbrood Pest Management Plan (referred to as letter submitters).
- Over 75% of all the survey respondents had four or less apiaries (546) and comprised 7% of all New Zealand beekeepers in this category. Nationally, 83% of all beekeepers have four or less apiaries, similar to the proportion of submitters.
- Approximately 6% of the survey respondents were beekeepers with 20 or more apiaries (162). Nationally, there are 497 beekeepers with 20 or more apiaries, so nearly a third of all these beekeepers made a submission.
- The majority of survey respondents **strongly disagreed** (63%) that the levy should be increased as proposed.
- The majority of survey respondents agreed or strongly **agreed** that more investment was needed to register apiaries (59%), undertake surveillance (53%), eliminate AFB (59%), and prevent AFB spread (58%).
- Key themes from an in-depth thematic analysis of survey respondent comments were:
 - Beekeepers are the key to eliminating disease, not the Management Agency
 - Non-compliant beekeepers create the biggest risk for American Foulbrood (AFB) spread
 - Proposed increased cost creates financial stress and may be a barrier to beekeeping
 - Proposed levy structure is unfair and benefits some groups more than other groups
 - Proposed levy cost and structure incentivises bad beekeeping practice
 - Proposed plan won't work or isn't needed
 - Lack of confidence in the Management Agency
 - Support for the Management Agency and/or the AFB Pest Management Plan (PMP) and/or increased funding.
- Some survey respondents also specified areas that could be improved, and/or carried out differently or better. These were largely in relation to the levy structure and cost, but also in relation to the Management Agency, and the AFB PMP. Such comments have been specifically identified in the analysis so they can be considered by the Board.
- Nearly a quarter of all survey respondents (299) made suggestions about how to manage and/or reduce AFB. Most commonly these were in regard to: a different levy structure; stricter rules and penalties; inspection and surveillance practices; education for beekeepers; and helping beekeepers self-manage.
- Formal letters or submissions were sent to the Management Agency by 16 submitters, as well as a large number of emails (69). Fourteen of the 16 submitters opposed the levy structure and/or increase and most supported increased efforts to combat AFB, but not necessarily by doing more of the same activities.
- Some of the topics raised in the formal letters or submissions included: beekeepers have a key role in tackling AFB; beekeepers have not had opportunity to propose changes; proposed levy structure and cost is unfair and may cause economic hardship, and honest beekeepers are penalised and compliance may reduce.

Proposal to increase the American Foulbrood Apiary and Beekeeper Levy Consultation Process and Findings

November 2018

Introduction

The Management Agency for the National American Foulbrood Pest Management Plan (the Management Agency) developed a proposal to increase the American Foulbrood Apiary and Beekeeper Levy. In July 2018, the Agency undertook a national consultation process to seek the views of beekeepers on the proposed increase.

This report summarises the process and reports the findings as outlined below:

- Consultation Process
- Respondents
- Survey Findings
- Thematic Analysis
- Suggestions from Thematic Analysis
- Suggestions for identifying and registering apiaries (taken from Question 2a comments)
- Letter Submissions.

An appendix listing problems encountered by respondents in relation to the consultation document and completing the survey is also attached (Appendix One).

A. CONSULTATION PROCESS

The Management Agency (the Agency) conducted a consultation amongst beekeepers to seek their views about a proposal to increase the American Foulbrood (AFB) Apiary and Beekeeper Levy.

The levy increase was proposed as the Agency has not been able to fully implement the AFB National Pest Management Plan (NPMP) due to a lack of funding.

The consultation period was for three weeks and commenced on 23 July 2018 and closed on 10 August 2018.

Communications

The levy proposal was presented on 23 July 2018 at the Apiculture New Zealand (ApiNZ) Conference to approximately 900 beekeepers who attended the conference.

The levy proposal, along with information about how make a submission, was emailed to all registered beekeepers with a valid email address (approx. 8,100 beekeepers) on 23 July. For those beekeepers without a valid email address (approximately 900 beekeepers), the levy proposal and information was posted via regular mail on 20 July.

The levy proposal was also emailed to the following organisations:

- AsureQuality
- Plant and Food Research
- Horticulture New Zealand
- Federated Farmers
- DairyNZ
- Beef and Lamb New Zealand
- Deer Industry New Zealand
- Kiwifruit Vine Health
- Federation of Maori Authorities
- Department of Conservation
- Ministry for the Environment.

The consultation questions were placed in an online survey using the SurveyMonkey¹ platform. The online survey opened for submissions on 23 July and closed on 10 August.

Frequently Asked Questions (and answers) were emailed out to all registered beekeepers with valid email addresses on 30 July and 7 August.

A new levy proposal web page went live on 23 July. The contents of the web page included:

- The full version of the levy proposal
- A two-page summary of the levy proposal
- A copy of the levy presentation to the ApiNZ.

The two sets of Frequently Asked Questions were added to the webpage at the time they were sent out.

The Consultation Questions

The consultation document asked respondents two key questions:

1. Do you agree that more investment is needed in the following activities?
 - a. Identifying and registering apiaries (e.g. investigation and follow-up of unregistered apiaries).
 - b. Surveillance to detect AFB (e.g. increased AP2 inspections and honey surveillance).
 - c. Eliminating AFB (e.g. increased advice, monitoring and audit).
 - d. Preventing the spread of AFB (e.g. increased advise, monitoring audit and RP Notices).
 - e. Cross programme support (e.g. ApiWeb replacement, NPMS review, research).
2. Do you support increasing the apiary and beekeeper levy to a maximum of \$40 per beekeeper and \$50 per apiary?

¹ SurveyMonkey is an online survey platform using cloud-based software.

Respondents were asked to select one of five responses to each of the questions from the following options: strongly disagree; disagree; neither agree or disagree; agree; or strongly agree. Respondents were also invited to provide comments on each of the question areas.

Method of response

Beekeepers were invited to make submissions online through Survey Monkey or to complete a paper version of the survey and post it to the Agency. The paper submissions were uploaded to Survey Monkey by the Agency. This method was used by the majority of submitters and these responses are referred to as 'survey responses or survey findings' in this report.

Some survey respondents reported problems with the consultation document and survey questions. Some found that the consultation information provided was unclear. Others described the questions as unclear and structured in a way which limited respondents' ability to give meaningful or accurate answers. Some respondents also noted that the survey appeared to be able to be answered by anyone, not just those affected. A list of the reported problems with the survey is attached as Appendix Two.

A number of beekeepers sent emails either providing brief comment (69 emailers), or providing or formal letter (17 submitters). Letters from the 17 submitters are briefly summarised and analysed separately from the survey responses. These are referred to as 'letter submissions' in this report.

B. THE RESPONDENTS

Survey responses

Altogether, 1007 responses were entered on Survey Monkey by the end of the consultation period. This included sixty nine survey submissions that were mail posted to the Agency and then entered into Survey Monkey by the Agency.

Not all submitters answered all the questions and/or provided comments.

Some submitters made more than one submission. In these instances, the second (and any additional) submissions from the same person was excluded from the analysis. There were 179 submissions in this category. A submission was determined to be from the same person if it was:

- sent from an IP address that had been used for an earlier response **and** the name of the respondent was not given
- sent from a named respondent who had already provided a response.

In total there were 828 unique submissions recorded on Survey Monkey. This is the highest number of responses the AFB Agency has recorded for one of its surveys.

The distribution of respondents by number of apiaries owned is shown in table one.

Table 1: Number of consultation respondents, and number and percentage of beekeepers nationally, by number of apiaries owned

Number of apiaries	Beekeepers who submitted responses		All beekeepers nationally		Beekeeper response rate
	Number of respondents	Percentage of respondents	Total number of beekeepers nationally ^{^^}	Percentage of beekeepers nationally	
1-4	546	76%	7119	83%	7.7%
4-6	35	4.2%	455	5.3%	7.7%
7-19	59	7%	500	5.8%	11.8%
20-33	41	6%	192	2.2%	21.4%
34-57	48	4%	142	1.6%	33.8%
58 plus	73	5%	163	1.9%	44.8%
Non applicable	22	3%	-	-	-
TOTAL	828**	100%*	8571	-	-

* total slightly higher than 100% due to rounding up

** a small number of respondents skipped at least some of the questions so totals can be less than 828

^{^^} data provided byASURE Quality

Over 75% of all submitters had four or less apiaries and comprised 7% of all New Zealand beekeepers in this category. Nationally, 83% of all beekeepers have four or less apiaries, similar to the proportion of submitters.

Relatively the number of submitters owning 20 or more apiaries was small. However the response rate from these owners was much higher compared with those owning less than four. As an example, 44.8% of beekeepers who owned 58 plus apiaries responded to the survey, compared with 7.7% of beekeepers with 1-4 apiaries responded.

C. SURVEY FINDINGS

Views about whether more investment is needed

The majority of respondents agreed or strongly agreed that more investment was needed to register apiaries (59%), undertake surveillance (53%), eliminate AFB (59%), and prevent AFB spread (58%). There was less support for more investment in cross programme activities and less than half of respondents agreed or strongly agreed that more investment was needed (40%). This is shown on table 2 below.

Table 2: Respondent views about whether more investment is needed to prevent AFB spread, by number of apiaries owned

	Strongly agree		Agree		Neither agree or disagree		Disagree		Strongly disagree	
	%	no	%	No	%	no	%	no	%	No
Identify & register apiaries	27%	222	35%	266	18%	151	8%	72	10%	81
Surveillance	20%	169	32%	268	21%	172	10%	86	9%	75
Eliminate AFB	24%	203	34%	281	19%	155	7%	64	9%	72
Prevent AFB spread	26%	218	32%	264	26%	154	7%	61	8%	68
Cross programme	14%	117	26%	214	29%	242	11%	91	10%	90

Views about whether the levy should be increased as proposed

The majority of respondents, for every size apiary group, strongly disagreed that the levy should be increased as proposed. The opposition to the increase was stronger from respondents owning a larger number of apiaries, which is notable given these owners were well represented in the survey. This is shown on table 3 below.

Table 3: Respondent views about whether the apiary and beekeeper levy should be increased to a maximum of \$40 per beekeeper and \$50 per apiary

Respondents by apiary number	Strongly agree		Agree		Neither agree or disagree		Disagree		Strongly disagree		Total
	no	%	no	%	no	%	No	%	no	%	
1-4	25	4%	38	7%	29	5%	109	20%	340	62%	546
4-6	1	2%	2	5%	1	2%	12	34%	19	54%	35
7-19	3	5%	2	3%	3	5%	10	17%	40	67%	59
20-33	0		2	4%	0		6	15%	33	80%	41
34-57	2	4%	2	4%	1	2%	2	4%	39	81%	48
58 plus	3	4%	5	7%	4	5%	9	12%	51	70%	73
Non-owner	2	9%	0		1	5%	6	27%	13	59%	22
Total	54	6%	51	6%	39	4%	154	19%	517	63%	815/828

D. THEMATIC ANALYSIS

A closer in-depth analysis of comments made by survey respondents was undertaken. The search for comments was limited to 509 survey respondents (just over 60%). The rationale for limiting the analysis was two-fold:

- qualitative analysis² is very time intensive and costly
- analysis of over half of the responses was expected to be sufficient to identify the key themes.

The assumption that it would be sufficient to analyse the comments from a limited number of respondents was supported by our experience. That is, as the thematic analysis progressed, a certain point was reached where no new themes emerged. Instead, comments coalesced around themes already identified. This is referred to as the point of 'data saturation'.³

Another indicator that data saturation had been reached was provided through the analysis of survey respondent comments to Question 2a of the Survey. If any of the 828 respondents made a comment when answering this question, their comment was analysed.⁴ The Question 2a analysis did not show up any new themes that hadn't already been identified in the thematic analysis of all the questions. As such, this analysis also indicated that data saturation had been reached.

The 509 survey respondents were selected by taking the first 400 responses entered in Survey Monkey and the last 109 responses. From the 509 responses, 386 were found to include at least one comment. The comments from all 386 respondents were analysed to identify patterns and common themes emerging from their views (referred to as a thematic analysis). Eight main theme areas, and sixteen sub-themes were identified and these are summarised in table four below.

All submissions were read and considered by the Management Agency independent of this analysis.

² This type of analysis is referred to as 'qualitative analysis' and involves building an understanding of the data (in this case, respondent comments) and coding it to create categories or themes that represent the data

³ Data saturation is reached when there are no additional themes found from reviewing successive data regarding a category being investigated (Glaser & Strauss 1967 in Ando, H et al 'Achieving Saturation in Thematic Analysis: Development and Refinement of a Codebook' Comprehensive Psychology January 1, 2014)

⁴ See Section F, Table 7 of this Report

Table 4: Key themes and sub themes, and the number of survey respondents who made a comment in relation to each of these themes and sub themes

Themes and sub themes	Number of survey respondents
1. Beekeepers are the key to eliminating disease, not the agency	140
1a. Beekeepers are very motivated to eliminate disease, and do a good job	60
1b. Beekeeper groups provide educational and monitoring services (and could be supported to more)	80
2. Non-compliant beekeepers create the biggest risk for AFB spread	90
2a. Stronger regulation enforcement and penalties for non-compliant beekeepers is needed	54
2b. Cost of AFB elimination is not fairly borne by the non-compliant beekeepers who cause the problem	36
3. Proposed cost creates financial stress and may be a barrier to beekeeping	118
3a. Increased cost is excessive and is a barrier to being a hobby beekeeper	96
3b. Increased cost creates financial pressure to small and struggling commercial operations	22
4. Proposed levy structure is unfair and benefits some groups more than other groups	114
4a. Apiary levy is unfair to beekeepers with a low hive concentration (largely hobby beekeepers) and should be per hive	74
4b. Increased costs should be borne by commercial operators who are more able to pay and have higher hive concentrations	40
5. Proposed levy cost and structure incentivises bad beekeeping practice	119
5a. Dis-incentives compliance and registration	100
5b. Apiary levy component incentivises high hive concentration, with a higher disease risk	19
6. Proposed plan won't work or isn't needed	121
6a. There is no clear rationale for the plan, or evidence that it will work	71
6b. The plan isn't needed and a levy increase is therefore unjustified	33
6c. The plan won't work	17
7. Lack of confidence in the agency	119
7a. Agency is unresponsive, ineffective and/or incompetent	76
7b. The Agency doesn't use current levy monies effectively	43
8. Support for the Agency and/or the AFB PMP and/or increased funding	151
a. Support for increased funding (for specified aspects)	83
b. Recognition of need for the PMP, the levy and for investment (generally)	34
d. Support for increased funding to support beekeepers	18
f. Endorsement for work of Agency and inspectors	16

Brief description of each theme

This section provides a brief description of the main themes and sub themes. Each theme is highlighted by a sample of quotes taken from survey respondent comments.

1. Beekeepers are the key to eliminating disease, not the agency

Bee keepers were frequently cited as lead players in eliminating disease, quite independently of the Agency. Many noted the contribution of responsible beekeepers in managing the disease and actively supporting and advising the beekeeping community.

1a. Beekeepers are very motivated to eliminate disease and do a good job

These respondents viewed bee keepers as having primary responsibility for controlling and eliminating AFB, and involved in a range of activities to help address disease. Activities included attending disease management courses, self-monitoring, managing their own apiaries and destroying infected hives at their own cost. Some considered that a centralised approach to elimination wouldn't work, and that the agency should engage with the bee keeping industry to understand what was needed.

Quotes

"Hobby beekeepers maintaining small apiaries are driven by their desire to improve bee survivability and the impact bees have on our environment."

"It's up to the individual or owner to make sure spread of AFB is contained and controlled to the best they can manage ... It's in their best interest ... so increasing the levy isn't going to help."

"I believe that the Beekeepers themselves should be responsible for their own hives and help others when needed, Government intervention has not worked up to now".

"Individual responsibility is the key to reducing AFB. The risk of AFB spread relates to: the hygiene habits of the beekeeper, the number of hives, the proximity to other hives and feral colonies".

1b. Beekeeper groups provide educational and monitoring services (and could be supported to do more)

These submitters noted that hobby beekeepers are trained to monitor and destroy their own hives at their own cost and belong to clubs where they get advice for free from experienced beekeepers. It was suggested that the expertise within the local beekeeper communities could be used more to: assist with inspections on a volunteer basis, to provide advice and monitoring services, and to report unregistered apiaries. Some wanted the Agency to take a more active role to support and encourage bee keepers in such activities.

Quotes

"Beekeepers are intelligent enough to monitor and identify AFB and other diseases. There is a great deal of member and club support that can be called upon if any hobby beekeeper needs help or advice".

"The agency's approach is too centralised. The agency does not have the expertise or reach to police beekeepers, instead beekeepers should be supported to manage themselves/each other".

“Communities of experienced beekeepers can cover far more ground than centralised bureaucracies”.

“It is difficult to provide the resources from a centralised point. It is even more difficult to recruit and pay commercial beekeepers to inspect hives on behalf of the Agency. Far better I would think to utilise the many experienced beekeepers that are organised through local clubs or APINZ hubs”.

“I understand many experienced beekeepers were trained to inspect hives for AFB and this resource was never used. I believe this resource could still be used as there is goodwill amongst many beekeepers to address the issues of increasing AFB”.

2. Non-compliant beekeepers create the biggest risk for AFB spread

There was a view that non-compliant beekeepers presented a big risk for spreading AFB, and it was unfair that compliant beekeepers were expected to shoulder the cost and the consequences.

2a. Stronger regulation enforcement to penalise non-compliant beekeepers is needed

These respondents considered there are a lot of unregistered apiaries making it harder to control disease, and that the agency needs to enforce rules and penalise those who do not comply. There was an argument that fines for having unregistered apiaries should be higher to act as a deterrent, and that beekeepers should be incentivised to report on each other.

Quotes

“Unregistered apiaries are, I believe, your greatest threat to this industry”.

“It is too easy to get hives and not be registered. It seems we have abandoned hives near us, the owner has simply left the hives to die”.

“If more apiaries were registered the ones that are honest wouldn’t need to fund the ones that don’t register”.

“An instant fine should be put in place for unregistered apiaries. Not a warning. Beekeepers should know by now that all apiaries should be registered”.

“The cowboys should be dealt harshly, or kicked out of the industry, they are the ones who let us all down, giving the industry a bad name... Bees should be seen as livestock and not just insects. After all, us beekeepers are in a sense, farmers that really care for their bees/livestock”.

“Business has lost enough money and hives over the past five to six years due to careless beekeeping practices in my area. [They get a] smack on the hand and it keeps repeating itself...”.

2b. Cost of AFB elimination is not fairly borne by the non-compliant beekeepers who cause the problem

These respondents considered it was unfair that registered beekeepers who are low risk for spreading AFB will have to pay the increased cost. Meanwhile the unregistered beekeepers who are seen as the cause of the problem do not pay (as they are not registered). They wanted the increased cost to be paid by those causing the problem.

Quotes

“The people who don't care still don't register and therefore don't pay, and the guy who is trying to survive commercially just gets more costs. Just look at the cost of compliance in recent years, and all for no real result, just more costs to try and pass on to the consumer”.

“The people causing the AFB problems should be the ones paying not the diligent bee keepers”.

“This seems to be the biggest issue that us as honest beekeepers. If it wasn't for the 48% of the sites not being registered ... there would be no need for an increase...we are therefore being punished essentially”.

“Definitely needs to be more advice to the hobbyist sector, who either think they don't need to comply or don't know they have to”.

“We really need to increase awareness - I have lost track of the number of 'expert' hobbyists who have gone blank when I ask them about AFB testing/awareness”.

“It's not monitoring, its lazy bee keepers. You can't physically stand by every beekeeper and tell them to sterilise their tools between hives/apiaries!”

“Any form of extended monitoring or audit should be aimed at inexperienced commercial beekeepers as they are the most at risk due to being profit driven.”

3. Proposed cost creates financial stress and may be a barrier to beekeeping

These respondents considered the proposed levy cost was too high and would make it more difficult to enter, or continue, beekeeping.

3a. Proposed cost is excessive and is a barrier to being a hobby beekeeper

These respondents considered the proposed levy increase created a disincentive to taking up beekeeping as a hobby, and to registering beehives. Many noted that hobbyists did not make money from beekeeping and it would be fairer if commercial operators paid more.

Quotes

“A bit too much for a 15 year old that is doing everything by the books and has one hive “

“There are small scale beekeepers (urban, backyard) who do a lot of work for the communities they live in ... This proposal will punish these people very badly and we will lose an enormous resource for the community. Big operators don't have much time for this kind of community work”.

“I'm a small beekeeper on a pension and I can't afford that much--and I know lots of other beekeepers in the same situation. We're doing good for the environment. Best for you to target the beekeepers who are making money from their hives and beekeeping. Our present levy would be better spent on giving small beekeepers free classes on AFB”.

“This will disproportionately impact small and hobby beekeepers, particularly those that do the right thing and register their apiary. Increasing the levy will simply dissuade more beekeepers to not register and we have too many of those already”.

"It takes away the hobby of bee keeping. I got into this because I was interested and loved the idea. It was great spending time watching the bees. My kids are now excited to see the hives. But to know that I'm paying the same as a commercial bee keeper that has hundreds of hives on one apiary and makes a living selling honey is not right".

3b. Proposed cost creates financial pressure to small and struggling commercial operators

The proposed levy cost was considered too expensive for some commercial beekeepers by these respondents. These included small operators with small margins, hive rental businesses, urban beekeepers limited by legal limitations on hive numbers, and non-manuka honey producers. Beekeepers who had a succession of poor honey seasons were also cited as negatively impacted.

Quotes

"We have single hive urban sites dotted around all over our region, alas this would put urban beekeepers out of business. To include registration in our bill would deter and upset many customers. Maybe do a separate levy for urban bee keepers, there are quite a number doing this now".

"As a small urban beekeeping hive rental business, we are hit hard with this proposal. We teach courses, go to schools, manage hives that otherwise would be unregistered or poorly managed. We have 1 or 2 hives per site, and this proposal would completely write us off our work".

"I understand the money has to come from somewhere however increasing this levy on the back of bad seasons is not a great answer. We are a small commercial operation and run another business to survive and run our hives. It will lead to more people not registering their sites which is not good any way you look at it".

"For commercial operations additional costs will increase prices and make [the business uncompetitive], especially for international exports. Honey used to be an affordable food but is now becoming an expensive luxury item, largely due to excessive bureaucracy and compliance costs".

"I think the commercial beekeeping sector is in a confusing time at the moment, with constant changes by MPI to manuka standards which is having a negative effect on other honeys as well as manuka... I agree that things need to be done but just increasing levies is not the way forward, actually using the money currently collected more efficiently, and at targeted areas, would be a wiser path to take at the moment".

"The last few years have been really tough on most I have spoken to, with lots struggling to the point of walking away. Adding more costs on already rising costs and dropping incomes will add a lot of stress, especially for smaller commercial setups like ours. We are not all backed by overseas investors".

"There are too many levies at present, AFB, ACC, GST, RMP, Provisional Tax, almost too much to carry on in business".

4. Proposed levy structure is unfair and benefits some groups more than other groups

These respondents considered proposed levy structure was unfair to some groups of beekeepers and that a higher levy should apply to commercial operators.

4a. Apiary levy is unfair to beekeepers with a low hive concentration

These respondents considered that the proposed levy structure was unfair to beekeepers with low hive concentration, hive rental companies, and urban beekeepers working within local council laws regarding apiary size. Some considered the proposed levy structure advantaged commercial operators with a high hive concentration.

Quotes

“Single hive apiaries are healthiest and safest and least likely to spread disease. It is outrageous to provide such a large disincentive to healthy, safe, sustainable beekeeping”.

“This is horrendously unfair to hobbyists with small numbers of hives and even to commercials who keep smaller apiaries. And does not account for the added risk of moving hives around”.

“... the number of apiaries tells you nothing in terms of disease management. Given the density of hives now in most part of the country, the foraging areas of multiple apiaries are overlapping. In this situation the apiaries are not independent units, and for risk-modelling, the only sensible option is to work at the hive level. This is your unit of infection and hence this should be your unit of levy. Secondly, as a consequence of the first option you are allowing the many hobbyist beekeepers to support the costs of the commercial providers that are contributing to the bulk of the risk”.

“If you levied \$3.00 per hive @ 900,000 hives it would create 2.7 million dollars. This is fairer - user pays, rather than levying at an apiary rate which significantly penalises hobby and non-commercial bee-keepers. Hobby bee-keepers may represent 74% of the total number of bee-keepers but would only represent a small percentage of overall hives. Commercial operators have substantially more hives yet will be subsidised under the new proposal”.

“The increase to beekeeper levy is high, but acceptable. However, the apiary levy is not. The bulk of the impact will fall on hobbyists and semi-commercial beekeepers, particularly those with hives in urban areas where the number of hives per apiary is limited by council by-laws”.

“I agree with the increase of the beekeeper levy, but strongly disagree with the continued use of a per apiary based levy in order to raise funds. A levy based on the number of hives a beekeeper has, or at the very least, the number of hives in conjunction with the number of apiaries would generate a greater amount of funds while distributing the cost in a fairer way. As both a hobbyist with one apiary site and a commercial beekeeper working for someone with hundreds of sites, the imbalance in the levy cost is obvious”.

“I’m not against a fee hike, it is presently too low. But, it needn’t be \$50 per apiary, \$30 - \$35 would suffice if you change the ADR return date. Thirdly, this increased levy will hurt the hive rental businesses to a point where it is unsustainable. It is a cost that cannot be passed on to the customer, and as the beekeeper only breaks even now with the little amount of honey that they get from these hives, it will in effect put them out of business. I suggest an amendment to the levy, that the rental hives be excluded from the levy increases.”.

4b. Increased costs should be borne by commercial operators who are more able to pay and have higher hive concentrations

These respondents considered commercial operations should bear the majority of the cost of AFB management as they draw income from beekeeping.

Quotes

"I am really concerned that hobby beekeepers have to pay the same fees as professionals. I have only 2 hives and I don't make any money from my honey. If hobby beekeepers are made to pay \$90 per year, plus the fee to have my hives DECA checked by a registered DECA person then it gets really expensive".

"Full compliance is needed from all small operations. These amounts are too much. Operators, who cluster many hives in apiaries and then move them around are reducing the effectiveness of the burn AFB out programme. If they didn't move them, then the wipe-out would be quicker without disease spreading. So bigger operators should bear most of the levy".

"I do agree that the Management Agency does need increased resourcing. However I do argue that this ought to come from industry as the Management Agency highlights it was primarily created to protect the profitable beekeeping industry and because the increased need for funding is attributable to the beekeeping industry, not the hobby beekeeping sector".

"I feel this is too steep an increase for the hobbyist beekeeper. For example, if a hobbyist beekeeper runs 2 hives at home, they will pay \$90 per year, and may be also paying for a DECA approved Beekeeper to be checking this as required. Additional checks and testing of export items, although nice to know may be happening is also largely irrelevant to the hobbyist beekeeper who doesn't even sell honey, let alone export it".

5. Proposed levy cost and structure incentivises bad beekeeping practice

These respondents considered that both the increased cost and/or the levy structure will would lead to non-registration, poor practice, and promote disease.

5a. Apiary level component incentivises high hive concentration, with a higher disease risk

Quotes

"The increase in the apiary fee will either encourage massive apiaries especially over winter and/or discourage apiarists to register smaller apiaries or longer than one month pollination sites".

"Of course I don't agree with it. I am a small beekeeper and I would be paying a thousand dollars or more and I don't have that kind of money. This will drive beekeepers to be dishonest and hide their hives and take more risk of not being caught. Also, this could drive people to report AFB less frequently because they don't want to report their site, that they haven't paid for and therefore the AFB disease will become unnotified".

"In my own case I have 10 apiaries, all with either one or two hives. All that will happen is that, as with the commercial operators, I will shut all apiaries, bar one, at the date of the return, and then restock and re-open them the following month".

The proposal to levy based on apiary numbers will encourage larger apiaries but will not change beekeeper habits or hive numbers. It will however increase the number of hives in close proximity to other hives. In my view the levy proposal will not assist preventing the spread of AFB”.

5b. Dis-incentives compliance and registration

These respondents considered the proposed levy cost and structure would lead to some beekeepers not registering their hives and apiaries.

Quotes

“The levy system as such punishes the honest beekeepers who declare all their hives and apiaries. Beekeepers who get caught only get slapped on the wrist with a wet bus ticket”.

“The people who don't care, still don't register and therefore don't pay. And the guy who is trying to survive commercially just gets more costs, just look at the cost of compliance in recent years, and all for no real result, just more costs to try and pass on to the consumer”.

“What's the point in increasing levies if the management agency don't take action when unregistered Apiaries are found. If this levy is introduced it will mean more beekeepers will stop registering sites. I would be willing to use unregistered sites because if I got caught I get a slap on the wrist and I'm not worried about that”.

“This will drive beekeepers to be dishonest and hide their hives and take more risk of not being caught. Also, this could drive people to report AFB less frequently because they don't want to report their site, that they haven't paid for and therefore the AFB disease will become unnotified”.

“By putting the levy up, we will get more small-scale bee keepers not registering, stretching resources even further “.

“That level of increase is absurd. I accept there is a need to increase levies but this would take the beekeeper fee from \$20.00 to \$40.00 (double) and the apiary fee from \$15.00 to \$50.00 (more than triple). This is unjustifiable and will drive more beekeepers into not declaring apiaries”.

6. Proposed plan won't work or isn't needed

Some respondents considered the proposed plan won't work, and/or the current monitoring, surveillance, research and educational programmes are sufficient. Some also thought that AFB has a minimal impact on the beekeeping industry so there is no need to increase the amount of work done by the agency.

6a. The plan isn't needed and a levy increase is therefore unjustified

Quotes

“Research and development in pest management has advanced significantly since the PMP was developed, there is little need to duplicate these functions”.

“There is plenty of help and assistance already available “.

“AFB is of very little economic significance to the bee industry. It is endemic and will never be eradicated”.

“Apiweb does not need updating. The proposed update is ridiculous. Sounds like a dodgy deal. Contacts in the software industry confirm this”.

“I personally haven’t heard of anybody commenting about a need for more regulation and inspection”.

“AFB is not prevalent in NZ. Problem areas are already highlighted and area inspection is probably active. There are a lot of keepers registered to check for AFB, why do we need more? Seems an excuse to get more folks employed and what better way to pay them”.

6b. The plan won’t address the cause of the problem

These respondents considered that increased inspections, monitoring, surveillance and enforcement will not address the problem. Some thought the proposed approach was invasive and likely to antagonise beekeepers. The planned Apiweb update was considered unnecessarily expensive and would not help to control AFB.

Quotes

“Sounds way too expensive to have teams flying around trying to screw people. That will just make people see you more negatively ... It doesn’t mean they have bad disease prevention, the best way forward is informing and teaching better AFB prevention practices. More traveling speakers and teachers to inform, with the internet being the best form of media available maybe update the old clunky hard to use website?”.

“Honey surveillance is not credible to me: How effective is detecting a trace level of AFB in bulk honey to detecting the location of the hive, or robbed feral colony, which had the AFB? What percentage of AFB infected colonies produce honey in significant quantity for harvest? No methodology or robust evidence has been provided in the proposal”.

“Way too much. Apiweb already costs quite a lot for very little return and I don’t see why it should cost 500K to upgrade a system that currently could be outdone with a Wordpress site and some custom work. I work in IT”.

6c. There is no clear rationale for the plan, or evidence that it will work

These respondents consider the Agency plan is unclear and internally inconsistent, and not enough evidence has been provided to show that the plan will work. Some also considered that the Agency had not sufficiently consulted with the industry, as to where the problems are and how best to address them.

Quotes

“Enforcement as tool to achieve compliance is not the key to eliminate AFB. Creating extra AP2 inspections is unlikely to achieve the elimination of AFB, or any other disease. AFB has not been eradicated in any other country”.

“The format of the proposal seems to be biased. Some important data was not provided in a clear format. What is the demographic of AFB infection across all beekeepers. We receive information of distance only”.

“Again it is not easy to see how an increase of the levy relates to actual increases in activity. There is not enough information provided to make a call on this”.

“You have provided no real evidence to support your case. A lot of what has been said does not ring true (and I spent nearly 3 years on the Board). There needs to be a will to act and a small increase in spending”.

“More industry consultation required before making changes”.

“The Agency and it's compliance strategy have failed. Continuing to fund the current strategy achieves nothing. Throwing additional funding at this compliance model will not reverse the upward trend of AFB”.

“The AFB-PMP needs to adopt robust programme monitoring and auditing procedures. This is the very reason for why AFB has not been eliminated overtime, lack of compliance is purely a symptom of poor management, and no increase in funds is going to fix this fundamental issue...I refer you to the Bee Pathogen Programme for a better approach to monitoring prevalence of endemic diseases. Setting tangible milestones for the programme, that are created in consultation with industry is the first step ... Better transparency is required if you wish to eliminate AFB”.

7. Lack of confidence in the Management Agency

Many respondents expressed lack of confidence in the Management Agency, with comments focussing around their use of money, their effectiveness, and their tools and training.

7a. The Management Agency doesn't use current levy monies effectively

These respondents considered that the Agency doesn't do its job and viewed directing additional funds towards an ineffective system is a waste of money.

Quotes

“The programme is a failure, and there is no evidence in the proposal for any changes in the management direction. Instead, it proposes to increase its compliance function - a function that so far, has not been successful. For this reason, more money will not solve the issue, rather, exacerbate industry's ever-growing frustration and divide”.

“The Agency and it's compliance strategy have failed, continuing to fund the current strategy achieves nothing. Throwing additional funding at this compliance model will not reverse the upward trend of AFB.”

“The Management Agency uses the levy in a way that's not very productive or cost efficient. I think reform and rethinking of current approach would be better solution than asking for more money. AFB doesn't care how much money the management agency collects”.

“Fact is there is currently no process for reporting and resolving unregistered apiaries and there are no enforceable penalties for not registering, so really will increasing surveillance costs result in a net benefit”.

“I complained when I didn't get notified of AFB within 1km of my apiary. I was blown off and nobody cared that I had visited 2 different REGIONS than my apiary, split from my hives and moved them. How can we have faith that added levies are going to achieve anything when your staff don't care about the cause?”.

7b. The Management Agency is unresponsive, ineffective and/or incompetent

These respondents expressed concerns about the lack of advice, inspections and follow-up action. Some also thought there were not enough skilled inspectors to do a good job.

Quotes

"The only time I have seen an inspector he had no idea what he was doing. I called him in as I suspected AFB. He said not but finally I was correct unfortunately".

"I have received a number of notifications that AFB has been found within 3km of my apiaries, but nothing to advise what I can do to protect my bees. Increased surveillance will help me detect AFB, but won't stop my hives becoming infected".

"It distressed me knowing how little is done when we recently reported a serious case. No follow-up. We just kept getting told over and over to register the hives. They were not our hives. We were not the only ones to put in a complaint. If we had no increase in growth this triples our levy. We are yet to see a pay day. Not all beekeepers are doing well or financially ok".

"With a lack of AP2's and the massive increase of hive numbers, this comes bluntly down to the PMP not operating correctly and with too few AP's to cover the country".

"Take the example of the email I received the other day specifying that AFB had been discovered in my local area. Why was I not provided with geo-location information, and also, why was there no reply to address so that I could query the incident and obtain advice about it specifically? That notification was completely useless to me as it changes nothing about how I manage my few hives and the inspections I do".

7c. Management Agency tools and/or training does not work

These respondents considered the tools and training provided by the Agency did not work, and they did not trust that the agency could effectively use additional funds to improve this. Some commented that AFB phone app and Apiweb are impractical and hard to use and that the DECA training is too easy.

Quotes

"I trained as an AP2 in 2008 or 2009. I never once received a call to inspect hives, lend a hand or give any other assistance. I have never received any information to say that my authorisation has expired. Training is worthless if nobody uses the resources you train".

"Anecdotally there have been some questions on the ability/skill level of some of your current AP2s and their ability to be discrete. Skilled AP2's who are held in high regard and respect the beekeepers that they deal with will be key".

"The AFB phone app is a nice gimmick, but it really isn't practical on the ground when you are working alone, are wearing gloves or your hands are covered in propolis, honey, wax and bees".

"The Api web system always seems to be down or not working. I always have to ring up to change or create my sites. It's a joke".

"Apiweb has become a self-serving bureaucracy and become staffed by non-beekeepers unfit for purpose".

"Becoming a " qualified" beekeeper is just too easy, the DECA is really of little use. Proper training by experienced beekeepers over a reasonable period of time produces beekeepers, not a simple test like the DECA"

"It should not cost \$500k to get a new system up and running. It is a basic database, and any company that charges that much is ripping us off".

"Online AFB Recognition course will never match a classroom course with actual brood frames showing AFB. Photographs just don't cut it".

8. Support for the Management Agency and/or the AFB PMP and/or increased funding

These respondents did not necessarily support the new levy proposal per se, or consider the current suite of activities under the AFB PMP were sufficient or well executed - although some of them will have. However all of these respondents supported at least some aspects of the proposal and/or the PMP and/or the Agency. Typically these respondents also wanted some things to be done differently or better.

8a. Support for increased funding for specified activities

These respondents supported more funding for specified activities, including monitoring, enforcement, and penalties. Support for funding updated technology and undertaking research was also mentioned.

"I welcome an increase in honey surveillance and more should be done. This is easy and cheap to organise and can be done at time of an extraction operators RMP audit ... Utilise and tie the existing systems together to increase detection".

"As long as the money is used where it is needed and not squandered on middle management and administration. Beekeepers have recently seen much 'bang for their buck' and the spread of AFB continues and the number of cases found are increasing rapidly in numbers with no end in sight".

"The current high density of hives in many areas, especially in the North Island, risks an AFB tsunami that will destroy many beekeeping businesses not just the one which has AFB. This AFB tsunami needs to be nipped before it happens. There should be a policy of increased work advice and education, and even working alongside, parties who have regular and bad outbreaks of AFB. There should be regular independent monitoring of the health status of hives, especially those in infected apiaries and hives nearby".

"The development of proposed tools such as qPCR testing (calibrated to determine risk levels) would be very useful. For us this would be particularly useful in identifying hives that are at high risk of developing clinical symptoms at our quarantine sites so we can destroy or monitor them before they become an issue".

[referring to increased funding for registration] *"Very important. If we identify, locate and deal with unregistered apiaries and beekeeper firmly this will go a long way to controlling the overall industry".*

[referring to increased funding for registration] *"Yes this is important. Every hive needs to be registered AND followed to ensure inspections and destruction of AFB infected hives. There are too*

many outbreaks of AFB and I have not heard of effective follow up and prosecution of beekeepers who do not destroy their AFB hives”.

8b. Recognition of need for the AFB PMP, the levy and for investment (generally)

These respondents generally supported the need for a levy and for more investment.

“I do agree that the Management Agency does need increased resourcing. However I do argue that this ought to come from industry as the Management Agency highlights it was primarily created to protect the profitable beekeeping industry and because the increased need for funding is attributable to the beekeeping industry, not the hobby beekeeping sector”.

“So yes, you do need more funds. But equally important is to acknowledge and honour the very nature of the bee - something that is not even in the equation e.g. too many hives in the area, moving bees around, feeding them sugar, interfering in so many other ways. AFB & other diseases will take hold and more easily - if a human being is stressed, sickness is the result. Bees are even more fragile and yet they faithfully (and are driven) to carry on and survive”.

8c. Support for increased funding to support beekeepers

These respondents supported increased funding to support beekeeper education, beekeeper clubs, and other measures to help beekeepers self-manage.

“Education and Supportive advice on how to develop effective monitoring and management practices for business will win support. Take a look at the Bee Informed tech transfer teams model. Having a technical support person get alongside struggling beekeepers is working. It’s even a paid for service”.

“If you can educate beekeepers with regular club DECA Courses and support I would agree. If it is no different to our present situation with DECA Courses hard to get to, and separated from the actual bee clubs, I would say the fees should stay as they are”.

8d. Endorsement for work of the Management Agency and inspectors

These respondents endorsed the work of the Agency staff and/or inspectors and/or education.

Quotes

“My experience is that it has dedicated people who do a good job, but the odds make their job nearly impossible”.

“Keep up the good work, but don't hammer the hobbyist with something the commercial guys should be picking up the tab for”.

“There is plenty of information out there now, new beekeepers need to be directed to it”.

“I thought the AFB course I went on recently was fantastic”.

E. SURVEY RESPONDENT SUGGESTIONS

The comments of the 386 respondents included in the thematic analysis, were also analysed to identify any suggestions about improving the management of AFB. Of these, 299 made suggestions, amounting to approximately 467 suggestions. The main suggestion areas are summarised below under topic areas.

Table 6: Survey respondent suggestions to manage or reduce AFB, by number of respondents

Topic Areas	Number of survey respondents	Specific suggestions
Levy structure	63	<ul style="list-style-type: none"> Levy should be tiered or scaled based on income, and first 3-10 hives should be free Increase beekeeper levy instead of apiary levy Levy on people who move hives around the country as this practice spreads disease Additional funds should come from the government not beekeepers Introduce a commercial operation licence Different levy structure for commercial and hobbyist beekeepers and for hive rental companies MPI should pay for AFB management as this is a biosecurity issue.
Stricter rules and penalties	53	<ul style="list-style-type: none"> Agency should focus on fining offenders and obtain the additional funds needed from the people who are the problem Higher fines, prosecute and name-and-shame offenders Greater controls on hive movement around the country Close down repeat offenders permanently and burn their hives Owners of unregistered hives should pay the cost of surveillance undertaken to identify them Proof of registration required to purchase beekeeping equipment
Inspection and surveillance practices	51	<ul style="list-style-type: none"> More inspectors, inspections and random inspections Target those with a history of bad practice/AFB Calibrated qPCR tests to determine risk levels of quarantine sites. <i>This would be particularly useful in identifying hives that are at high risk of developing clinical symptoms at our quarantine sites so we can destroy or monitor them before they become an issue</i> There was a suggestion to use AFB detection dogs, however another submitter found this was not a reliable method.
Education for beekeepers	49	<ul style="list-style-type: none"> Make education cheaper and easier to access, provide online resources, and travelling speakers/teachers. Target new beekeepers to get them up to speed quickly and reinstate disease-athons.

		Note: Beekeepers are non-compliant when they don't understand why they should comply or how to manage disease, therefore the focus should be on education and advise rather than monitoring and penalties.
Help beekeepers self-manage	30	<ul style="list-style-type: none"> • Beekeepers are motivated to look after their own hives to avoid hive loss. The agency should help beekeepers do this by: <ul style="list-style-type: none"> ○ providing education ○ easy reporting methods, ○ a user-friendly mapping system, ○ empowering trained beekeepers to inspect and report ○ empowering clubs to manage compliance, education and registration in their local areas ○ compensating beekeepers who have to destroy hives.
Technology and Apiweb	15	<ul style="list-style-type: none"> • Apiweb is difficult to use and needs to be updated and made user-friendly and more reliable. • Develop an app version of Apiweb which: <ul style="list-style-type: none"> ○ captures GPS coordinates to register and map out apiaries, ○ has facility to update details of hive numbers and report disease while on site.
Cost saving options	14	<ul style="list-style-type: none"> • Honey samples tested for other disease should be automatically tested for AFB at same time • Bulk lab testing • Electronic communication rather than paper mailouts
Research	6	<ul style="list-style-type: none"> • Research is needed to find an approach to AFB which does not involve burning hives.
Notification practices	5	<ul style="list-style-type: none"> • Notify nearby beekeepers when AFB is detected including location/GPS co-ordinates, date of occurrence, and date of next inspection
Report date	5	<ul style="list-style-type: none"> • Report date should be at the peak of the season to stop people misrepresenting their true number of hives and/or apiaries.

F. MORE SUGGESTIONS - INVESTMENT IN IDENTIFYING AND REGISTERING APIARIES

An analysis was also undertaken of all the survey respondent comments in response to Question 2a, which asked whether they agreed to investment in identifying and registering apiaries. The purpose was to:

- identify any suggestions about what should or could be done in relation to this issue, as these could be valuable to the Board and the Agency
- show up suggestions that hadn't emerged in the thematic analysis, especially as any comment from all 828 respondents could potentially be captured in this analysis
- corroborate findings from thematic analysis i.e. indicate whether the findings of thematic analysis were consistent with the findings from the analysis of comments on a specific question.

For Question 2a, there were 271 comments⁵ recorded – the highest number for any of the question 2 sub questions, hence this one was chosen for analysis. Of the 271 comments, 115 of them were identified as containing a suggestion. The suggestions have been grouped by type and are shown on table seven below. Although the analysis is limited to question 2a, it could be extended to the other question 2 sub questions if considered useful.

Table 7: Type and number of suggestions about investment in identifying and registering apiaries, by size of apiary

No of apiaries	1 to 4	4 to 6	7 to 19	20 to 33	34 to 57	58 or more	n/a	Total
Total suggestions	64	5	6	9	6	16	8	115
Provide better and more education to show beekeepers why registration is important and of benefit to them	3	0	0	1	0	2	1	7
Follow up on reports of unregistered hives (or there is no point reporting them)	11	0	2	1	0	0	1	15
Various new ideas for registration enforcement as current methods not seen as adequate	11	2	2	2	1	6	3	27
Penalise offenders to increase registration compliance	26	3	1	4	3	4	1	42
Report date for registering sites to be the middle of the honey flow	3	0	0	0	0	0	0	3
Short-term sites not required to be registered as this mis-represents the true number of apiaries	1	0	0	0	0	1	0	2
Local clubs and beekeepers should manage local registration enforcement	11	0	1	1	0	2	1	16
Apiweb needs to be updated to help beekeepers check whether sites are registered	0	0	0	0	2	1	1	4

⁵ Note that a respondent may have made one or more suggestions, so the number of suggestions should not be interpreted as equal to the number of respondents

G. LETTER ANALYSIS

A number of beekeepers sent emails either providing brief comment (69 emailers), or providing a formal letter or submission (16 submitters). In addition two submitters provided excel spreadsheets to model the effect of the proposed levy structure and costs. The letters and submissions are briefly summarised and shown in table eight below.

Table 8: Brief summary of substantive letters received by Agency in response to levy consultation

	Support for levy increase	Brief summary/key points of submission
1	Opposed	<p>It is the role of the beekeepers to eradicate AFB using their own resources.</p> <p>It is the role of the management agency to ensure beekeepers are diligent in their efforts to eradicate AFB, including enforcement which is cost recoverable.</p> <p>There is no fiscal plan of operations.</p> <p>Ownership and maintenance responsibility for Apiweb needs clarification before funding an upgrade is considered.</p> <p>A review into the management of the AFB Pest Management Plan (AFB PMP) strategy is needed before it can be known whether extra funds will make a difference.</p> <p>It is not appropriate for levy payers to fund the 2023 review of the 1998 AFB PMP levy order.</p> <p>It is not the role of AFB PMP to conduct research.</p> <p>The review has not given submitters the opportunity to propose changes to any sections of the levy order other than to agree or disagree with the proposal to set a new maximum rate of the levy.</p> <p>Increasing the burden of payment will create a situation where hives are likely to be unregistered and hidden.</p>
2	Opposed	<p>The AFB problem is best solved by beekeepers. There is too much emphasis on office-based AFB systems and not enough on grassroots involvement, risking beekeeper alienation.</p> <p>The proposal does not address the cause of the AFB problem, places excessive financial burden on beekeepers, and may increase non-compliance.</p> <p>The AFB PMP is sound and existing funds are sufficient to achieve most eradication goals.</p> <p>Auditing for export market works against eradication</p> <p>Increasing number of AP2 auditors is waste of money unless they provide information and practical help</p> <p>Apiweb should not be funded by the levy.</p> <p>More reliable methods of AFB eradication and honey testing should be considered.</p>
3	Opposed	<p>Economic circumstances of beekeepers should be considered, including other levies and fees, the drop in non-manuka prices and increasing compliance costs.</p> <p>Proposal will create wrong incentives for behaviour and self-compliance, and will contribute to overcrowding of hives. This exacerbates AFB disease spread.</p> <p>Proposed activities are more of the same and there are no new innovations or methods.</p> <p>There is no mechanism for a levy reduction by demonstrating good behaviour.</p> <p>ApiNZ AFB PMP should lobby for government support to meet any funding gap' instead of the NZ beekeeping industry.</p> <p>Proposal presents a poor image to overseas trading partners.</p>

		<p>AFB rates have dropped to the lowest recorded levels when AFB risk was managed entirely by beekeepers, and gone up when a government agency has been appointed to manage this task.</p> <p>The industry needs nurturing, careful leadership and coordination.</p>
4	Opposed	<p>Increased efforts to combat AFB are supported.</p> <p>An increase will be accompanied by an expectation that the incidence of AFB be significantly reduced. However, the proposal appears to be more of the same?</p> <p>AFB Management Agency should seek prosecution and financial retribution when beekeepers fail to comply with regulations.</p> <p>Proposal to levy per apiary rather than hive numbers leads to an inequitable penalty on the urban apiarist who manages a small number of colonies over multiple sites.</p> <p>A computer support update should not be funded.</p>
5	Opposed	<p>Hobby beekeepers are motivated to keep bees for environmental reasons and are personally motivated to support and mentor other beekeepers.</p> <p>There has not been sufficient consultation with hobby beekeepers prior to developing the current proposal.</p>
6		<p>Responded to survey online and also emailed excel spreadsheet to support the argument that a per apiary levy unfairly penalises hobbyists.</p>
7	Opposed	<p>Outlines efforts to destroy infected wild hives.</p> <p>AFB is widespread and poorly controlled with some beekeepers infecting neighbours' apiaries on purpose.</p> <p>Additional funds is not enough to solve the problem. Need elbow grease, including eradicating wild hives</p> <p>Need to increase numbers of Part-time Apiary Inspectors (AP2s) and Authorised Apicultural Officer (AP1s). Inspectors need to be paid a higher wage to attract well-qualified beekeepers into the job.</p> <p>Proposed levy is too high and it would be fairer to apply the levy per hive rather than per apiary.</p> <p>There should be a focus on reducing overstocking.</p>
8	<p>Agree to increase.</p> <p>Opposed to levy per apiary</p>	<p>Thorough explanation regarding the unfair burden that the proposal places on hive rental companies and others who operate single and double hive sites. Submitter emphasises they are very willing to pay their share but believe the levy structure penalises hive rental businesses unfairly and excessively.</p> <p>Proposes alternative funding structures which take the special case of hive rental companies into account.</p> <p>People use hive rental companies for the purpose of increasing the urban bee population, for home garden pollination, and to receive local honey without needing to purchase expensive equipment. Most hive rental customers live in urban areas.</p> <p>There has been insufficient consultation with beekeeper regarding this proposal.</p>
9	Opposed	<p>Economic circumstances of beekeepers should be considered including other levies and fees, the drop in non-manuka prices and increasing compliance costs.</p> <p>Proposal will create wrong incentives for behaviour and self-compliance, and will contribute to overcrowding of hives. This exacerbates AFB disease spread.</p> <p>Proposed activities are more of the same and there are no new innovation or methods.</p> <p>There is no mechanism for a levy reduction by demonstrating good behaviour.</p> <p>ApiNZ AFB PMP should lobby for government support to meet any funding gap' instead of the NZ beekeeping industry.</p> <p>Proposal presents a poor image to overseas trading partners.</p>

		<p>AFB rates have dropped to the lowest recorded levels when AFB risk was managed entirely by beekeepers, and gone up when a government agency has been appointed to manage this task.</p> <p>The industry needs nurturing, careful leadership and coordination.</p>
10	Opposed	<p>Hobbyists keep bees for the love of it and do not derive income from it.</p> <p>There is a lack of understanding of what motivates hobbyists and a narrow focus on the needs of commercial operations.</p> <p>The levy increase will cause hobbyists not to register.</p> <p>The agency's approach has not worked and the current proposal is more of the same.</p> <p>Beekeepers who honestly detect and report AFB in their hives are punished by having to burn the hive. Suggests an insurance scheme for those who have to destroy AFB infected hives. This will assist compliance.</p> <p>Those who do not comply with eradication programmes should face consequences.</p>
11	Opposed	<p>Acknowledges important work that the Management agency does to mitigate the risk of AFB. Agree that increased funding is appropriate and required, but disagrees with proposed levy structure.</p> <p>Increased funding should come from operations which draw income from beekeeping and those which pose the greatest risk of disease.</p> <p>The proposal places the greatest financial burden on hobbyists who do not draw income from beekeeping. Hobbyists pose a lower disease risk than commercial operations as they do not move hives around the country, have lower hive concentrations and inspect their hives more often.</p> <p>Charging per hive is a fairer levy structure than charging per apiary.</p>
12	Opposed	<p>Levy increase is too expensive for hobbyists and will cause them to either leave the industry or fail to register their hives.</p> <p>Unregistered beekeepers are less likely to comply with disease management regulations and will not report AFB to the agency. The levy will therefore increase the AFB problem.</p>
13	Opposed	<p>It is unfair for a hobbyist with one hive to pay the same as a commercial operator with several hives in a single apiary.</p> <p>The justification for a per hive levy given by the agency does not make sense.</p> <p>Levy should be per hive and per beekeeper. Cost of levy per hive can reduce progressively with increasing hive numbers to account for those who operate on a very large scale.</p> <p>Charging per hive will cause hobbyists not to register their hives.</p>
14	Opposed to levy structure. Agrees to more funding	<p>Acknowledges important work that the Management agency does to mitigate the risk of AFB. Agree that increased funding is appropriate and required, but disagrees with proposed levy structure.</p> <p>Increased funding should come from operations which draw income from beekeeping and those which pose the greatest risk of disease.</p> <p>The proposal places the greatest financial burden on hobbyists who do not draw income from beekeeping. Hobbyists pose a lower disease risk than commercial operations as they do not move hives around the country, have lower hive concentrations and inspect their hives more often.</p> <p>Charging per hive is a fairer levy structure than charging per apiary.</p> <p>Non-manuka producers are struggling as exporters are reluctant to sell non-manuka honey.</p> <p>Proposal penalises honest beekeepers and does not penalise non-compliant operators.</p> <p>Proposed increase is unaffordable for hive rental companies.</p> <p>Agency does not effectively police overstocking.</p> <p>Levy increase will cause beekeepers not to register and to overstock their sites.</p>

15	Opposed	<p>The agency's claim that a per hive levy cannot work because costs do not occur on a per hive basis is unfounded. Costs are hive-related and the levy should be applied per hive.</p> <p>A per apiary levy is unfair on hobby beekeepers and encourages large apiaries with high stocking rates.</p> <p>Proposes a tiered levy system.</p>
16	Opposed	<p>Current AFB testing is inaccurate, better testing methods and facilities are needed.</p> <p>Provides an example of incorrect test results and demonstrates beekeepers' commitment to disease control without agency oversight.</p> <p>Hive movement by commercial operations is an important cause of AFB spread and should be regulated.</p>

Appendix One

There were 22 respondents who reported problems with the consultation document and survey questions. Some found that the consultation information provided was unclear. Others described the questions as unclear and structured in a way which limits respondents' ability to give meaningful, accurate answers. Some respondents also noted that the survey appeared to be able to be answered by anyone, not just those affected. The specific issues with the survey are listed in table nine below.

Table 9: Problems encountered by respondents completing the survey

	Problem encountered	Quote or comment summary
1	Previous bad experience	<i>"Dismissive email replies from the Agency."</i>
2	Does not address beekeepers' concerns, just looking for favourable responses	<i>"This survey does not address the real concerns of the hobbyist beekeeper. It is collecting easily predictable and favourable responses from bee guardians to justify and ultimately force hobbyist beekeepers to subsidise commercial beekeeper operations. It's wrong".</i>
3	Does not address beekeepers' concerns, just looking for favourable responses	<i>"Your survey could have been better worded - it is so worded to suit your agenda of increasing levies by an unrealistic amount".</i>
4	Question structure is too limited	<i>"I feel that AFB PMP board have not included the wider body or beekeepers other than this afterthought questionnaire which does not gain any real useful progressive thoughts from members - other than an unequivocal 'no' to the increases in levies".</i>
5	Question structure is too limited	<i>"Who would not agree with any of the above statements? Loading the question will all ways give the desired results".</i>
6	Question structure is too limited	<i>"Mostly said above, but this question doesn't address how much the levy will be, so the assumption is the new high fees".</i>
7	Question structure is too limited	<i>"I think this question is too limited. It is quite probably an entire subject needing a set of questions and comment boxes".</i>
8	Question structure is too limited	<i>"Again, this is loaded. The first part of the question is aimed only at commercial keepers. Yes, it might be a good method of finding AFB, but why should hobbyist and semi-commercials pay for it?"</i>
9	Difficulty with website	<i>In question 2 the tick boxes are wider than the page and are difficult to access and only "strongly agree" and "agree" are available. This is not good</i>
10	Difficulty with website	<i>"Please do not believe that a "Survey Monkey" is a substitute for real face to face consultation!"</i>
11	Information unclear	<i>"Not sure what this means. If it will reduce the number of organisations involved and give better visibility of information without having to cross agency barriers; it could be a good thing. Especially if savings can be achieved".</i>
12	Information unclear	<i>What does it mean? Monitoring on all beekeepers? I don't feel that I have enough information to support this slogan".</i>
13	Information unclear	<i>"Don't quite understand what the question is here".</i>

14	Information unclear	<i>"No idea what you are talking about, do you?"</i>
15	Information unclear	<i>"The category "eliminating AFB" is far too vague. What does this even mean, please elaborate? "Increased advice, monitoring and auditing" are separate categories in themselves. The only part that I agree with is "increased advice" - but what does that even mean?"</i>
16	Information unclear	<i>"NPMS Review is the only component that I agree with, with this very vague category".</i>
17	Information unclear	<i>"I don't know what you mean by honey surveillance..."</i>
18	Information unclear	<i>"Still trying to identify what NPMS is, sounds like in house talk to me".</i>
19	Information unclear	<i>"This question is non-sensical when you have the same activities listed as the previous question. Sorry but this question is very poorly worded".</i>
20	Survey should only be completed by beekeepers who are directly affected	<i>"I also have issues with who can fill this questionnaire out. This should only be filled out by beekeepers who are directly affected by this".</i>
21	Survey should only be completed by beekeepers who are directly affected	<i>"Also this form seems like it could be filled in by anyone which runs the risk of results not being accurate. This is not on".</i>
22	Survey should only be completed by beekeepers who are directly affected	<i>"This question "own" should be reworded as "have" or "register". Can my dog fill this form too? Even though he's got nothing to do with beekeeping?"</i>