



Annex to “Let’s Talk: The Next 10 years of the PMP for AFB elimination”
Consideration of Respondent Views

Introduction

This annex describes the Management Agency’s consideration of the AFB PMP consultation survey conducted in June - July 2021. Management Agency consideration of submission is presented by key topic areas as described in the “Review of AFB Pest Management Plan Round One ‘Have Your Say’ Consultation Findings” report.

A summary of the Management Agency’s consideration of submissions and proposed amendments to the Biosecurity (National American Foulbrood Pest Management Plan) Order 1998 is presented in the “Let’s Talk: The Next 10 years of the PMP for AFB elimination” document.

Consideration of Respondent Views

The Management Agency consideration of respondent views is presented in the table below:

Submitter topics, themes and sub-themes	Management Agency considerations
<p>1. AFB Elimination goal</p>	
<p>1.1. Elimination goal supported</p> <ul style="list-style-type: none"> Some considered a wider acceptance of the goal is needed. Benefits of achieving the goal included the marketing of superior NZ honey. <p>1.2. Viability of elimination goal questioned, or refuted, and/or shift to mitigation</p> <ul style="list-style-type: none"> Some questioned whether elimination was a realistic goal. Others considered elimination isn't possible and will always remain. One view was that AFB couldn't be eliminated due to the long survival of spores in the soil. 	<p>More than half of on-line submitters (54%) considered that no changes were needed to beekeepers’ current legal obligations to eliminate AFB and a further 29% considered some changes were needed. Only 5% considered major changes were needed and 4% considered that no legal obligations should be required.</p> <p>The goal of the National American Foulbrood Pest Management Plan is “<u>To eliminate clinical AFB</u> from managed beehives in New Zealand.”</p> <p>The goal is not “<u>To eradicate AFB</u> (the organism) from New Zealand”</p> <p>The difference is important as the elimination of clinical AFB from managed beehives is technically much easier to achieve. Research has demonstrated</p>

1.3. Focus solely on AFB elimination or widen to include other threats such as varroa

- A small number of submitters considered the focus should widen to include tackling other threats to honeybees. Conversely others considered the focus should remain solely on AFB elimination.

that a minimum of 5 million AFB spores are required to infect a beehive, and that clinical disease can be prevented by adopting practices that prevent the introduction of large quantities of AFB spores into beehives.

The majority of beekeepers have already achieved elimination. 89% of beekeepers have not notified any cases of AFB in the last 3 years, and 59% of beekeepers owning 50+ colonies have not notified any cases of AFB in the last 3 years.

The basic reproduction number, also known as the R number, is the average number of beehives an AFB hive will infect before it is found and destroyed. Elimination will be achieved if the R number is sustained below 1.0. A simplified estimate of the R number for AFB can be calculated by dividing the number of cases of AFB in a year by the number of cases the previous year,

Beekeepers notifying more than 15 cases of AFB in 2019/20 have achieved an average R number of 0.67, range 0.00 to 2.67. Management Agency actions on default for High Risk Beekeepers has achieved an average R number of 0.06, range 0.01 to 0.10.

These results highlight that elimination of AFB is readily achievable using the existing tools and technologies if all beekeepers actively work to eliminate AFB from their beehives. The National American Foulbrood Pest Management Plan ensures that all beekeepers have legal obligations to eliminate AFB from their beehives.

The Management Agency does not support the developing a new pest management plan for varroa and other pests and/or the expansion of the pest management to include varroa and other pests, as there is currently insufficient industry support to justify the effort required to develop a new pest management plan for varroa.

Summary of recommended changes to plan order

No changes recommended.

2. Surveillance and prevention

2.1. Detect non-compliant beekeepers and beekeeping practices

- Unregistered apiaries and unregistered beekeepers are a problem and need to be found. Some considered that penalties should be imposed and/or hives destroyed.
- Use technology such as aerial surveys, satellite photos, and drones, and/or system for anonymous reporting of non-compliant beekeeping.

2.2 Target elimination and/or prevent spread in areas of AFB outbreaks

- Locations of infected apiaries to be provided to nearby beekeepers. Some considered that notifications of exact locations should be provided.
- Regular information updates on local and national AFB hotspots are needed.
- Inspections and/or testing of all apiaries in vicinity of outbreaks should be undertaken. Some considered that random inspections should be undertaken in all areas, especially areas (and beekeepers) with history of AFB outbreaks.

2.3. Abandoned hives are a problem and effective responses are needed

- Rapid response needed to notifications of abandoned hives. Some considered that hives should be destroyed quickly if hives were diseased. Some considered hives should be destroyed even if there are no clinical signs of AFB as there may still be non-clinical spores.

The Management Agency assesses all cases of suspected non-compliance reported to the Management Agency. Beekeepers can assist the Management Agency to detect noncompliant beekeepers and beekeeping practices by ensuring that they report suspected non-compliances to the Management Agency.

The Management Agency routinely assesses all AFB notifications and targets areas with clusters of disease for inspection. Beekeepers can assist this process by ensuring that they report all of their cases of AFB within 7 days. The Management Agency ensures the confidentiality of AFB notification information to provide beekeepers with the confidence to report disease.

The plan order already provides the Management Agency with powers to destroy abandoned hives: s119 Power to seize abandoned goods enables the Management Agency to promptly destroy abandoned hives infected with AFB, and c25 Destruction of beehives posing risk, enables the Management Agency to destroy beehives on unregistered apiaries after 30 days.

Restricting the sale of bees, hives and equipment to registered beekeepers only is not recommended as it would cause significant administration costs for beekeepers, equipment suppliers and the Management Agency. Equipment suppliers would require access to up-to-date beekeeper registration information to verify whom is currently a registered beekeeper and/or the Management Agency would need to issue photo identification for all registered beekeepers each year. (Note that approximately 1,500 beekeepers register and deregister each year.) Processes enabling employees to purchase equipment on behalf of their employer would also be required.

<ul style="list-style-type: none"> • Legal powers (and action) to destroy abandoned hives. Some considered abandoned hives should be destroyed if there was no identifiable owner, and some considered they should be destroyed irrespective of whether there was an identifiable owner or if the hive(s) were unregistered. Some considered abandoned hives should be destroyed within a short-time frame (e.g., within five days). <p>2.4. Regulate sale of bees, hives, and equipment</p> <ul style="list-style-type: none"> • Suppliers of bees and beekeeping equipment (new and second-hand) only permitted to sell to registered beekeepers. • Sale of second-hand hives, dead hives, and equipment to be managed. Some considered hives should be inspected before sale, and some considered that second-hand sales should be disallowed (or monitored) by beekeepers with a history of AFB. Some considered beekeepers should be educated about the risks of buying used hives and gear. <p>2.5. Contact Tracing is important</p> <ul style="list-style-type: none"> • Contact tracing of all positive cases and surrounding apiaries supported. Some considered that the mandatory marking of brood and hive boxes and the use of an apiary diary could be required. <p>2.6. Respond effectively and quickly to AFB notifications and infections</p> <ul style="list-style-type: none"> • Need for support, advice and monitoring for affected beekeepers. Some considered this could include advice about hive management following hive destruction, auditing beekeeper actions to eliminate AFB and follow-up to check legal obligations have been met. 	<p>Requiring the inspection of bees, second-hand hives and equipment by the Management Agency prior to sale is not recommended as this process requires substantial resourcing. 1,100 sale transactions involving 19,000 colonies were notified to the Management Agency from March 2021 to September 2021. The logistical challenges and costs associated with providing a timely pre-purchase inspection service would compromise the Management Agencies core function of conducting apiary inspections for AFB.</p> <p>Pre-purchase inspections by the beekeeper purchasing beehives and second-hand equipment is highly recommended. Inexperienced beekeepers should arrange for an experienced beekeeper to conduct the inspection on their behalf. The Management Agency has a model sale and purchase agreement available on its website to assist beekeepers to manage the AFB risks associated with purchasing beehives.</p> <p>Beekeepers are responsible for maintaining traceability systems as part of their DECA. Beekeepers are also responsible for declaring their sales and purchases each year as part of their Annual Disease Returns. The Management Agency has the power to request tracing information from beekeepers and utilises the sale and purchase information available in HiveHub for tracing purposes.</p> <p>The Management Agency proposes that the legal obligations to provide beehive traceability information are strengthened by:</p> <ol style="list-style-type: none"> 1. A new plan rule requiring beekeepers to notify the Management Agency of beehive sales and purchases within 7 days of the transaction in addition to the current requirement to supply this information as part of the Annual Disease Return. (Notification to include Beekeeper Registration Number, name, address and number of beehives) 2. Amend the Annual Disease Return transfer of beehive ownership (sales and purchases) requirements to require notification of the Beekeeper Registration Number in addition to their name and address and number of beehives.
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<p>2.7. Require honey testing</p> <ul style="list-style-type: none"> • Required for surveillance and/or for non-reporters of AFB and/or for commercial beekeepers. • Some considered that all honey sample test results should be provided to the Management Agency. <p>2.8. Access to subsidised or free testing is needed, including</p> <ul style="list-style-type: none"> • through a negotiated contract with a laboratory • quick affordable field-based tests for use by beekeepers. <p>2.9. Develop policy and approach to spore testing and AFB infected honey</p> <ul style="list-style-type: none"> • Plan of response needed for beekeepers returning positive AFB samples. Areas covered could include reinspection, training, support, and interpreting lab results. <p>Spore testing is not a basis for hive or gear destruction (rather it's a management tool).</p>	<p>A high proportion of beekeepers are already voluntarily using the new HiveHub sales and purchase functionality to comply with these requirements.</p> <p>Honey testing allows testing of pooled honey samples from a large number of hives and is a highly cost-effective mechanism for confirming that commercial beekeepers have eliminated AFB from their beehives in conformance with their DECA.</p> <p>The Management Agency will expand honey testing to verify that commercial DECA holders are eliminating AFB as specified in their DECA. This will enable the Management Agency to better prioritise its AP2 inspection resource towards inspection of apiaries owned by beekeepers that have yet to eliminate AFB.</p> <p>A new plan rule is proposed requiring diagnostic laboratories to provide all AFB test results to the Management Agency. This will: increase the information available to the Management Agency to monitor beekeepers AFB elimination performance and reduce the cost of monitoring beekeeper elimination performance as less honey samples will be required to be tested. A similar plan rule is already part of the National Bovine TB Pest Management Plan.</p> <p>No enforcement actions are undertaken as a consequence of honey surveillance. Positive honey test results may result in AP2 apiary inspections, and any subsequent enforcement actions will be determined by the inspection findings.</p>
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	<p><u>Summary of recommended changes to plan order</u></p> <ol style="list-style-type: none"> 1. New plan rule requiring beekeepers to notify the Management Agency of beehive sales and purchases within 7 days of the transaction in addition to the current requirement to supply this information as part of the Annual Disease Return. (Notification to include Beekeeper Registration Number, name, address and number of beehives) 2. Amend the Annual Disease Return transfer of beehive ownership (sales and purchases) requirements to require notification of the Beekeeper Registration Number in addition to their name and address and number of beehives. 3. A new plan rule requiring diagnostic laboratories to provide all AFB test results to the Management Agency.
<p>3. Enforcement and Penalties</p>	
<p>3.1. Strong enforcement and penalties for non-compliant beekeepers.</p> <ul style="list-style-type: none"> • Stronger enforcement and penalties were required for unregistered beekeepers, unregistered apiaries, and repeat offenders. Some considered that compliance wasn't enforced. • Some considered penalties should also be applied to beekeepers who fail to meet AFB obligations for other reasons, including by not reporting AFB, failing to destroy infected hives, dumping hives and equipment, selling infected hives or gear, defaulting on a COI, and failing to furnish an ADR. • Suggested penalties included fines and instant fines, increased levy for repeat offenders, recouping costs from non-compliant beekeepers (e.g., inspection costs), and a ban from beekeeping. <p>3.2. More regulation isn't needed, or the focus should be on education not penalties</p>	<p>The Management Agency notes that very high numbers of submissions cited "enforcement and penalties" and "education, training, support and practice." The Management Agency agrees that both education and enforcement are very important interventions to eliminate AFB. Educational interventions target beekeepers that are willing to eliminate AFB but may not have the knowledge or skills required, and enforcement target beekeepers that are unwilling to implement AFB elimination practices.</p> <p>The plan order provides a comprehensive set of enforcement powers including:</p> <ul style="list-style-type: none"> • Power to give directions: <ul style="list-style-type: none"> ○ to destroy AFB beehives and materials ○ to prevent the spread of AFB ○ to comply with plan rules (register apiary etc) • Power to act on default and recover costs • Powers to destroy abandoned/unregistered beehives

- Some considered that increasing regulation may reduce compliance, or that regulation doesn't work, or that a PMP is not needed.

The power to give directions to beekeepers successfully mitigates the AFB risks associated with non-compliance in most circumstances. Should the beekeeper fail to comply with the notice within the specified timeframe the Management Agency is able to act on default to carry out the required actions and recover the costs of doing so from the beekeeper.

A very small minority of non-compliant beekeepers not only fail to comply with lawful directions (e.g. to destroy AFB beehives). They also attempt to thwart the Management Agency's ability to act on default by hiding the AFB beehives at another location.

The Management Agency keeps records of beekeepers that have engaged in this extremely non-compliant behaviour. The Management Agency is proposing to add a new enforcement power, s114 to enable the Management Agency to take immediate actions to destroy AFB beehives to mitigate the AFB spread risks associated with a very small minority of non-compliant beekeepers.

The Management Agency agrees with submitters that the plan order should enable it to impose infringement fines to deter non-compliance. The Management Agency proposes that infringement fines should be the penalty for the following offenses:

- Failure to keep honey bees in moveable frame hives
- Failure to register apiary
- Failure to submit Annual Disease Return
- Failure to complete Certificate of Inspection

The Biosecurity Act 1993 does not enable courts to disqualify a person from owning or exercising authority in respect on animals (or honey bees), and therefore it is not possible to ban a person from beekeeping for biosecurity and pest management plan offenses.

	<p><u>Summary of recommended changes to plan order</u></p> <ol style="list-style-type: none"> 1. Add s114, to enable Operations Managers to take immediate actions to destroy AFB beehives to mitigate the AFB spread risks associated with a very small minority of non-compliant beekeepers. 2. Add the ability for the Management Agency to impose infringement fines for specified offences.
<p>4. Beekeeper commitment and practices – and ways the Agency can help</p>	
<p>4.1. Beekeepers need to play their part and comply with AFB obligations</p> <ul style="list-style-type: none"> • Beekeepers to collectively work together to tackle AFB. Lack of co-operation and vested interests in the beekeeping industry could be a barrier. <p>4.2. Some beekeepers flout the rules, are indifferent, or don't know about them</p> <ul style="list-style-type: none"> • Some noted that there were beekeepers who don't care, repeatedly break the rules, and cause local AFB outbreaks. Some expressed frustration about non-compliant beekeepers. • Some considered there were too many inexperienced and uninformed beekeepers, or new beekeepers who may be unaware of need to register or did not know about their AFB obligations. <p>4.3. Vigilance and good beekeeping practices are vital</p> <ul style="list-style-type: none"> • The need to ensure hygienic practices and quality equipment and keep hives strong was raised by some. These included the need for regular hive checks, using varroa treatments, disinfecting gear, implementing practices to prevent robbing, and implementing practices to support bee immunity. • Ideas for local action included developing local disease management plans, disease-a-thons, and AFB blitzes by bee clubs (with support from the Agency). 	<p>Culture change is bigger than the Management Agency. Beekeepers, beekeeping organisations and clubs, and the Management Agency all have an important role to play in creating a beekeeping industry culture that promotes AFB elimination best practices.</p> <p>The Management Agency actively promotes good AFB elimination practices, and provides information via its training courses, website, various communication materials and presentations at beekeeper meetings. It also supports local initiatives by beekeeping clubs. The Management Agency is committed to reviewing and improving its communication of good AFB elimination practices to beekeepers.</p> <p>Beekeeper organisations and clubs can assist by ensuring that they regularly promote good AFB elimination practices to their members and by making senior beekeepers available to provide new beekeepers with support and guidance.</p> <p>All beekeepers have a role to play in encouraging other beekeepers to do the right thing and comply with good AFB elimination practice. All beekeepers also have a responsibility to ensure that non-compliance with plan rules is reported to the Management Agency when other beekeepers fail to heed advice to comply with plan rules.</p> <p><u>Summary of recommended changes to plan order</u></p> <p>No changes recommended.</p>

<ul style="list-style-type: none"> • Stop practices that increase risks of AFB spread to neighbouring apiaries. Such practices included open feeding of wet frames, leaving untreated hives to die, and practices that increase the risk of robbing. Some considered open feeding should be illegal. • Some expressed frustration at getting AFB infections from poor practices of other beekeepers. <p>4.4. Management Agency to help through more support and engagement</p> <ul style="list-style-type: none"> • More engagement and support to help beekeepers comply is needed. Some considered more support was needed for hobbyists. • There are many ways for providing support to beekeepers. These included more phone support and AP2 visits. Some saw the need for local information, local meetings, and the increasing the visibility of inspectors in their communities. The need for audit tools and checklists were also mentioned. • Agency to incentivise good practices and AFB notifications. Suggestions included acknowledging and supporting beekeepers who've notified AFB and who have taken tough action to eliminate AFB. Beekeepers who have successfully eliminated AFB should also be recognised. 	
<p>5. Education, Training, Support, and Practice</p>	
<p>5.1. Awareness of AFB recognition and obligations needs to increase through more education</p> <ul style="list-style-type: none"> • Training courses and refresher courses to be mandatory (or this could be considered). There was also suggested that course attendance could be monitored. <p>5.2. Content and/or quality of training courses could improve</p>	<p>The Biosecurity Act 1993 does not contain provisions that enable pest management plans to compel persons to complete training. However, it is possible to amend the plan order to require <i>(also refer to DECA requirements and obligations)</i>:</p> <ul style="list-style-type: none"> • Completion of refresher training every five years as a condition of retaining a Disease Elimination Conformity Agreement, and • That beekeepers employed by the DECA holder must attend AFB recognition and refresher training as a condition of the DECA.

- Content needs to be up to date, provide practical AFB recognition skills, and promote best practices. This should include managing the risk of AFB being missed in inspections and handling diseased hives.
- Provide more training (and up to date) resources. Some suggestions were to provide an easy-to-read book, downloadable information, video or slide shows, educational packages, and a mobile app on AFB detection.
- Courses to be interactive (with more discussions), interesting, and well organised.
- Course exam to be reviewed and changed. Suggestions included requiring an exam, setting an open book test, setting an online competency test, and making the course exam harder.

5.3. Affordability and availability of training courses could improve

- Provide more courses and ensure widespread availability, including refresher courses, courses for new beekeepers, and courses orientated to commercial beekeepers.
- Free (or low cost) courses and/or refresher courses, with some suggesting courses should be free to levy payers. Other suggestions included increasing the size of workshops to make them more cost effective and providing online courses.

5.4. Public education about AFB and obligations to increase awareness and compliance

- There were suggestions that educating the public about AFB would also raise awareness of the disease amongst beekeepers.

The Management Agency proposes that the plan order be amended to include both of these DECA training requirements. The Management Agency proposes to develop online AFB refresher training to make it easier for beekeepers to comply with these requirements.

The Management Agency is planning to review and update the AFB Recognition course.

The Management Agency regularly promotes AFB Recognition courses to registered beekeepers that have not attended the course and ensures that there are sufficient courses available at locations throughout the country to meet demand.

The Management Agency intends to continue to charge course participants to cover the costs of providing AFB recognition courses as this is more equitable than funding courses through levies.

Summary of recommended changes to plan order

1. Amend the Disease Elimination Conformity Agreement requirements to:
 - a. Require beekeepers to complete AFB refresher training every five years to retain a DECA
 - b. Require beekeepers employed by the DECA holder to complete AFB Recognition course training and five yearly refresher training.

6. Inspections and inspectors

6.1. Conduct regular hive inspections

Ensure regular (and more frequent) inspections, by an AP2 or DECA holder.

Some considered more inspections were specifically needed for new beekeepers, or for hobbyist beekeepers, or for commercial operators, or for apiaries located in AFB high-risk areas.

6.2. More inspectors are needed

Increase the number of inspectors (including full time inspectors, DECA holder inspectors, and voluntary AP2 inspectors) in all areas, so that requests could be easily and quickly met. Sometimes finding an inspector can be difficult.

6.3. Inspectors need to be skilled and experienced

- Inspectors to be fit for the role and trained, use hygienic inspection practices, avoid conflicts of interest, and have appropriate understanding of different size operations.

The Management Agency currently inspects 4% of apiaries each year.

The Management Agency agrees that increasing the number of AP2 apiary inspections completed each year would accelerate the elimination of AFB as the increased number of inspections would enable more effective monitoring of beekeepers' compliance with their AFB elimination obligations.

However, increasing the number of apiary inspections requires increased levy funding. The Management Agency recognises the financial cost of the levy to beekeepers and considers the AFB elimination benefits of additional expenditure relative to the cost prior to setting the rate of levy.

The Management Agency is currently ramping up honey surveillance which is a more cost-effective mechanism for monitoring the AFB elimination performance of large commercial beekeepers. The Management Agency plans to consider the benefits of increasing the number of apiaries inspected in the future.

The Management Agency ensures that it contracts sufficient AP2 inspectors to complete its inspection programme and provide coverage across the country. AP2 inspection capacity is reviewed each year and recruitment is initiated in April to ensure inspection capacity and coverage for the following year (July to June).

Applicants are subject to a rigorous shortlisting, interview, reference check, and police check processes prior to appointment. New AP2 appointments receive both classroom and field-based training prior to deployment.

All AP2s receive annual training each year covering inspection practice, differential diagnosis of AFB, legal requirements and obligations, and health and safety.

	<p>AP2s work under the direction of Management Agency Operations Managers. The Management Agency has implemented processes to manage both perceived and actual conflicts of interest.</p> <p>The Management Agency encourages DECA holders to be available to complete COI's and publishes the contact details of DECA holders available to complete COIs on its website. The Management Agency also assists non-DECA holders to find a DECA holder to complete COI inspection if none are available on the published list for that location.</p> <p><u>Summary of recommended changes to plan order</u></p> <p>No changes recommended.</p>
<p>7. Destruction and treatment of infected and/or abandoned hives and equipment, and compensation</p>	
<p>7.1. Destruction of infected hives and equipment supported</p> <ul style="list-style-type: none"> • Some considered that evidence of destruction should also be required (e.g., photo evidence). <p>7.2. Practices, options, and advice for destroying hives and equipment is needed.</p> <ul style="list-style-type: none"> • Need to provide advice, options and services for beekeepers needing to destroy AFB infected hives and equipment. This included providing including information about how to destroy hives and equipment safely and setting up designated destruction sites and destruction services. • Information is needed about how to dispose of unwanted hives and bees. • Burning plastic hives is environmentally unfriendly (so some people don't) and they should be banned or need options to sterilise. <p>7.3. Compensate beekeepers for destroyed hives and equipment</p>	<p>The destruction of beehives, honey bees, bee products and appliances associated with a cases of AFB is a critical part of New Zealand's plan for eliminating AFB and this approach is strongly supported by the published scientific literature.</p> <p>The Management Agency requires beekeepers that have been directed to destroy beehives and equipment to sign a declaration that the hives and equipment subject to the notice have been destroyed and may also require photographic evidence of destruction. When the Management Agency has reason to suspect that the beekeeper may not or has not complied with the notice to destroy an AP2 is deployed to verify the destruction of beehives and equipment. If the beekeeper has not complied with the notice the Management Agency destroys beehives and equipment on default and recovers its costs.</p> <p>The Management Agency provides information and advice on how to destroy AFB beehives at its training courses, on its website and in response to email and phone enquiries. The Management Agency will consider enabling 3rd party providers of beehive destruction services to advertise their services on its website.</p>

- Beekeepers should be fully or partially compensated when they need to destroy hives and equipment. Loss of hives is a disincentive to reporting AFB. Compensation would encourage best practice and minimise future AFB risks.
- Compensate for destroyed hives and equipment if AFB was detected through spore testing.
- Support beekeepers who must destroy infected hives. Follow-up with affected beekeepers to ensure they improve practices to minimise future risk of AFB.

7.4. Treatment of AFB

- Consider options other than burning infected hives and gear, such as using Cobalt 60.

The requirement to destroy all beehives, honey bees, bee products and appliances associated with a case of AFB includes plastic beehives and plastic components of beehives. The Management Agency is aware that regional councils are banning the burning of plastic, and that they also allow exemptions. The Management Agency proposes to engage with regional councils to seek exemptions to burn plastic beehive/hive components on beekeepers' behalf.

The Management Agency does not support compensating beekeepers for the destruction of hives and equipment as payment of compensation would result in:

- the transfer of levy payer funds from beekeepers that have eliminated AFB to beekeepers that have yet to eliminate AFB, and
- the transfer of levy payer funds from compliant beekeepers to non-compliant beekeepers.

Furthermore, section the Biosecurity Act 1993 explicitly prevents pest management plans from paying compensation in the following circumstances:

- for losses incurred before the AP2 confirmed the presence of AFB (i.e. no compensation of the loss in value associated with a hive becoming infected with AFB), and
- for losses suffered by non-compliant beekeepers.

The cost of administering compensation claims is likely to exceed the value of any compensation paid.

The current plan order allows the Management Agency to agree sterilization methods with DECA holders as an alternative to destruction by burning when these methods are generally accepted by the scientific community as being effective. Paraffin dipping and gamma radiation are currently recognised by the scientific community as being effective. (Note that gamma radiation service is not currently available to beekeepers in New Zealand.)

	<p><u>Summary of recommended changes to plan order</u></p> <p>No changes recommended.</p>
<p>8. Apiary density and movement</p>	
<p>8.1. Hive movement to be managed</p> <ul style="list-style-type: none"> • Hives to be inspected and cleared of AFB before moving. Restrictions moving hives to be placed on beekeepers with repeat AFB outbreaks. <p>Movement of hives between districts to be monitored and controlled.</p> <p>8.2. Number of apiaries in a local area to be controlled and/or limited</p> <ul style="list-style-type: none"> • Require a minimum distance between apiaries and limit the number of hives that can be placed in an area (e.g., per hectare). 	<p>The Management Agency already has the powers required to control the movements of beehives: s130 Declaration of restricted place, and s131 Declaration of controlled area.</p> <p>The Management Agency uses its power to declare restricted places to prevent High Risk Beekeepers from moving beehives and other risk goods from heavily infected sites.</p> <p>The Management Agency does not use its power to impose Controlled Area Notices as the use of this legal instrument will not prevent the spread of AFB when AFB is already widely spread throughout New Zealand.</p> <p>The density of apiaries and colonies does increase the risk of AFB if clinical AFB is present in the location. However, there is no increase in AFB risk associated with increasing density if AFB is not present in the location. The Management Agency considers that greater AFB elimination gains will be achieved if beekeepers and the Management Agency retain their focus on finding and destroying cases of AFB than by diverting attention and resources towards managing apiary/colony density.</p> <p>Controlling or limiting the density of apiaries and colonies is fundamentally a property rights issue including who has the legal right to place beehives on land, who has the right to harvest the nectar, and who has the right to take actions to ensure the pollination of crops. New Zealand’s laws protect the rights of property owners to enjoy their land, including whether beehives placed on their land or otherwise.</p> <p>Attempts to regulate the density of apiaries and colonies could adversely impact the rights of property owners, commercial beekeeper livelihoods, and the New Zealand economy. Unintended consequences of such</p>

	<p>regulations could include: preventing a hobbyist from putting a beehive in their backyard because a neighbour already has one in theirs, beekeepers being prevented from using apiary sites that they have previously registered, and failure to effectively pollinate horticultural and arable crops.</p> <p><u>Summary of recommended changes to plan order</u></p> <p>No changes recommended.</p>
<p>9. New methods and emerging technologies</p>	
<p>9.1. Investigate new methods for detecting and eliminating AFB</p> <ul style="list-style-type: none"> • Investigate using new and cost-effective detection methods, including sub-clinical detection methods and the use of dogs. • Investigate AFB prevention and elimination methods and treatments. Suggestions included methods for increasing bee immunity or resilience to infection, sterilisation treatments for equipment, and bacteria phage research. <p>9.2. Undertake research to understand causes of AFB and how to contain outbreaks</p> <ul style="list-style-type: none"> • Undertake research to understand where outbreaks are occurring, why they aren't reducing, and the contributing factors. Provide data that shows rate of AFB over time and consider setting up demonstration sites that showcase successful elimination. <p>9.3. AFB PMP needs the flexibility to use new technologies that will come (including use of detector dogs).</p>	<p>The plan order already provides the Management Agency with the authority to approve the use of technologies that “are generally recognised by the scientific community as being effective.” Achieving recognition by the scientific community requires publication in peer reviewed scientific journals.</p> <p>The Management Agency proposes that it will develop and implement a research strategy to accelerate the availability and application of new scientifically peer reviewed technologies by aligning researcher interests and funding agencies with AFB elimination research needs.</p> <p>The Management Agency recommends that Authorised Persons (AP2s) should be authorised to use s115 Use of dogs and devices, to future proof the plan order should the use of detector dogs be recognised as effective by the scientific community.</p> <p><u>Summary of recommended changes to plan order</u></p> <ol style="list-style-type: none"> 1. Add the power to use s115 Use of dogs and devices, to enable AP2s to use detector dogs should they be recognised as effective by the scientific community.

10. DECA requirements and obligations

10.1. Requirements and obligations to increase or be more strict

- Regular review periods are needed to ensure compliance. If necessary, DECAs to be cancelled for non-compliant beekeepers.
- DECA to be required after specified period (or for owners with more than five hives).
- Consider replacing with a license, WOF, or qualification (especially for larger operators).

10.2. Mandatory refresher courses to retain DECA

- Employers also need to ensure workers attend training and refresher courses.

10.3. DECA is an education tool

- DECA to be used as a tool to help beekeepers improve practices to minimise AFB risk and not removed as a punitive measure. A DECA should only be cancelled for beekeepers with repeat AFB.

Disease Elimination Conformity Agreements represent a legal commitment by beekeepers to eliminate AFB from their beehives using the AFB elimination procedures specified in the agreement. In recognition of the beekeeper's commitment to elimination AFB the Management Agency grants an exemption from the annual Certificate of Inspection requirements.

The Management Agency has an obligation to monitor DECA holders AFB elimination performance to provide assurance that the elimination procedures specified in the agreement are sufficient to eliminate AFB, and that the DECA holder is eliminating AFB from their beehives.

The plan order currently specifies that beekeepers that meet the following criteria to be able to enter into a Disease Elimination Conformity Agreement with the Management Agency:

- Passed the AFB recognition course
- The Management Agency is satisfied that the beekeeper is likely to implement the AFB elimination procedures specified in the agreement, and
- That the persons specified as responsible for disease management in the agreement are familiar with the agreement and likely to carry out or supervise the AFB elimination procedures specified in the agreement.

The plan order also specifies that the Management Agency must monitor the level of AFB in beehives owned by DECA holders every year, and provides the Management Agency with the authority to:

- Amend a DECA if the procedures specified in the DECA are not sufficient to achieve elimination,
- Cancel a DECA if the beekeeper fails to comply with DECA conditions or the level of AFB in beehives owned by the beekeeper is increasing.

The Management Agency implements the plan rules for entry into a DECA by requiring that the beekeeper:

- Has passed the AFB recognition course, and
- Has been a registered beekeeper for at least 12 months, and
- Has no detected non-compliances with plan rules in the last 12 months, and
- Has had at least one Certificate of Inspection completed on their beehives.

Persons are recognised as being responsible for disease management under a beekeepers DECA if they have passed the AFB recognition course, their employer advises the Management Agency that they are responsible for disease management, and the Management Agency has no reason to believe they are unlikely to carry out the procedures in the agreement.

Historically the Management Agency has not had sufficient levy funding to monitor the levels of AFB in the beehives owned by every DECA holder. The Management Agency is ramping up its capacity to monitor DECA holders AFB elimination performance and is seeking to do this via the most cost-effective mechanisms available including honey surveillance and prioritising the inspection of apiaries close to clusters of AFB notifications.

The Management Agency proposes to change its process for recognising persons responsible to disease management to also include verification that the persons responsible for disease management have read the Disease Elimination Conformity Agreement and commit to implementing the AFB elimination procedures specified in the agreement.

The Management Agency proposes the following amendments to the DECA plan rules (*Also refer to Education, Training, Support and Practice*):

- DECA holders and persons responsible for disease management are required to complete AFB refresher training every five years to retain their DECA / person responsible for disease management status.

	<ul style="list-style-type: none"> ○ The Management Agency proposes developing online AFB refresher training to make easier for beekeepers to comply with this requirement. ● All Disease Elimination Conformity Agreements require that beekeepers employed by the DECA holder must complete AFB recognition course training and five yearly refresher training. <p><u>Summary of recommended changes to plan order</u></p> <ol style="list-style-type: none"> 1. Amend the Disease Elimination Conformity Agreement requirements to: <ol style="list-style-type: none"> a. Require beekeepers to complete AFB refresher training every five years to retain a DECA b. Require beekeeper employed by the DECA holder to complete AFB Recognition course training and five yearly refresher training.
<p>11. Organisation structure and governance</p>	
<p>11.1. The Management Agency Board to be representative and independent.</p> <ul style="list-style-type: none"> ● The Board should have independence, be representative of beekeepers across the industry, and levy payers should have a say on board appointees. <p>11.2. The Management Agency to change, be replaced, or be disestablished</p> <ul style="list-style-type: none"> ● The Agency to be more transparent, accountable, and be audited to ensure obligations are being met and improvement areas are identified. ● The Agency to be replaced with a new entity, disestablished, or be separate entity to APINZ. <p>11.3. The current system isn't working or isn't understood</p> <ul style="list-style-type: none"> ● There are persistent high disease areas that aren't being tackled. Compliance requirements are difficult, and this leads to reduced or non-compliance. ● There is a lack of knowledge about the Plan and a need for more information. 	<p>The Management Agency Board already operates as an independent entity with a sole focus on the elimination of AFB. The current Board is comprised of 5 independent beekeepers and 2 ApiNZ members.</p> <p>All beekeepers are eligible to apply for positions on the Management Agency Board, and successful applicants are appointed on the basis of merit and consideration of the mix of skills required on the Board.</p> <p>The review process requires the Minister to decide which body will be the Management Agency. The recommendation as to which body should be the Management Agency will be made after completion of further consultation with beekeepers.</p> <p><u>Summary of recommended changes to plan order</u></p> <p>No changes recommended.</p>

12. Reporting and Administrative requirements

12.1. Changes required to reporting requirement and or time frames, including

- Provide clearer and simpler communication of obligations and requirements
- Colony returns to be declared at different time of year (May or June).
- Reduce the time allowed to register apiaries and/or time to allowed to notify AFB.

12.2. The Terms of Use for the database should change to allow beekeepers to access their own data.

The Management Agency constantly reviews and improves its communication of reporting requirements to minimise the potential for misunderstandings.

The timing of the Colony Return requirement is designed to coincide with the Annual Disease Return requirement to make it easy for beekeepers to complete two statutory declarations at the same time.

The Management Agency does not recommend reducing the timeframe required to register apiaries to less than 30 days as this would require that all pollination sites are registered. This would place a large administrative burden on beekeepers who supply pollination services.

The Management Agency is satisfied that beekeepers current obligations to notify cases of AFB within 7 days is appropriate.

The HiveHub terms of use are consistent with the terms of use for other applications and does not prevent beekeepers from accessing their own data. 90% of registered beekeepers are currently accessing their data through HiveHub.

Summary of recommended changes to plan order

No changes recommended.

13. Funding arrangements for the AFB PMP

13.1. The Levy is too high

- AFB Levy is too high or should be abolished, and/or recent AFB Levy Order Review unsatisfactory.

13.2. The Plan is underfunded

- AFB PMP is underfunded, and needs funding for more enforcement, and/or for more research and/or for more surveillance.

The Management Agency considers both the value of undertaking more surveillance, enforcement and research and the cost of the levy to levy payers when setting the rate of levy.

The Management Agency conducted two rounds of consultation with beekeepers in 2018 and 2019 prior to making a recommendation to the Minister to amend the levy order. The Management Agency proposed changing from an apiary levy to colony (hive) levy after consideration of

<p>13.3. The Plan could be funded in other ways</p> <ul style="list-style-type: none"> • Suggestions for other funding sources included government funding assistance, honey sales levy, apiary levy (not hives) or a commodity levy to pay for research. 	<p>submissions from beekeepers that a hive levy was more equitable than an apiary levy.</p> <p>Biosecurity Act 1993 requires that pest management plans are funded by the beneficiaries of the plan and its exacerbators. The Management Agency will re-examine this issue when the cost benefit analysis for the proposal is completed in 2022.</p> <p><u>Summary of recommended changes to plan order</u></p> <p>No changes recommended.</p>
<p>14. AFB PMP and Review Process</p>	
<p>14.1. Consultation documents to provide sufficient information</p> <ul style="list-style-type: none"> • Management Agency Board should have provided more information, including an outline of current legal obligations and/or a proposal for potential areas of change. <p>14.2. Consultation process could have been better</p> <ul style="list-style-type: none"> • Consultation process could have been more interactive and included face-to-face meetings. Some considered the webinars were not helpful and that surveys are not consultation). • Need to make sure there is sufficient participation by commercial operators in the consultation. • An industry group (or MPI) should undertake the review, not the Management Agency. • More time to prepare submissions was needed. 	<p>The consultation documents did not provide guidance or a propose potential areas of change as the Management Agency wanted to consider beekeepers views prior to proposing potential areas for change. The Management Agency considers that the consultation approach for the first round of consultation successfully achieved this goal.</p> <p>The purpose of the second round of consultation is to clarify and refine potential areas of change identified as a result of consideration of beekeeper submissions. This will require a more interactive approach to consultation to ensure that a more detailed understanding of beekeeper views is achieved prior to development of the proposal.</p> <p>It is normal practice in New Zealand for Management Agency’s to lead the development of and consultation on proposals to extend/amend national pest management plans.</p> <p>The Management Agency considers that providing 3 rounds of consultation over a 12-month period provides beekeepers with sufficient opportunity to engage in the review process and make submissions.</p> <p><u>Summary of recommended changes to plan order</u></p> <p>No changes recommended.</p>