



Confidential to the ApiNZ Board and AFB Management Agency

American Foulbrood National Pest Management Plan

Governance Report Apiculture New Zealand (Inc)

Report 29 – August 2022

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Proposal to amend and extend the National American Foulbrood Pest Management Plan

Preparation of a draft proposal to amend and extend the National American Foulbrood Pest Management Plan has been a major focus of work for the Management Agency. The Management Agency released the proposal for consultation to beekeepers on Monday 15 August 2022.

Submissions close on Friday 23 September 2022. The Management Agency will finalise the proposal subsequent to consideration of submissions. Submission to the Minister for Biosecurity is planned for December 2022.

Selected sections of the full proposal have been copied into the report below for discussion with the ApiNZ Board including:

- Introduction
- Reasons for proposing a plan
- Objectives of the plan
- Principal measures to achieve the objectives, and
- The management agency

Introduction

This document is a proposal to amend the Biosecurity (National American Foulbrood Pest Management Plan) Order 1998 (the AFB Plan) under the Biosecurity Act 1993, to meet the requirements under Sections 61 and 100D of that Act. This proposal is made by the Board of 'The Management Agency National American Foulbrood Pest Management Plan'.

Since American foulbrood (AFB) was first identified in 1877, AFB has had a significant impact on honey bees and the beekeeping industry. Within 10 years AFB had spread to all parts of New Zealand and was blamed for a 70% reduction in national honey production¹.

New Zealand has had legislation to control AFB since 1906. The Apiaries Act was revoked and replaced by the Biosecurity (National American Foulbrood Pest Management Plan) Order 1998 on 18 September 1998.

This proposal supports the continuance of the AFB Plan beyond its current expiry on 1 April 2023 and proposes amendments to:

- strengthen beekeeper education, training, and support, to ensure that all beekeepers know how to eliminate AFB
- strengthen surveillance to verify that all beekeepers are meeting their AFB elimination obligations, and
- increase enforcement and penalties to deter beekeepers from non-compliance and to mitigate the impacts of non-compliance.

¹ Goodwin, M. (2006). American Foulbrood in the New Zealand context. In *Elimination of American Foulbrood Disease without the use of Drugs* (Revised ed.), pp. 9–13. National Beekeepers' Association of New Zealand, (Inc.).

Reasons for proposing a plan [s.61(2)(c)(ii)]

The reasons for proposing the AFB Plan, are that:

- effective control of AFB is needed to reduce the economic risks and adverse effects associated with this disease, and that
- effective control of AFB is achievable if nationally consistent control measures are implemented by all beekeepers, and that
- to ensure nationally consistent control measures are implemented, an AFB Plan established under the Biosecurity Act is needed
- in the absence of an AFB Plan, dependence on voluntary beekeeper compliance to implement control measures is not sufficient, and AFB incidence would increase.

Effective control of AFB is dependent on beekeepers collectively implementing nationally consistent and effective disease control actions. While individual beekeepers can take action to control the disease within their beekeeping operation, there is a high risk of re-infection from beehives owned by those not implementing adequate disease controls.

A national AFB Plan sets out the necessary actions required to control and eliminate AFB, based on best practice and evidence. Stipulation of rules provides a clear and commonly understood set of control measures. The Biosecurity Act provides the authority and powers to a management agency to monitor and enforce compliance with the rules.

The establishment of a management agency also provides a national locus of expertise in detecting and controlling AFB. Capability and capacity to respond to AFB outbreaks would be severely reduced in the absence of an AFB Plan which requires a capable workforce. The agency also has a key role in training beekeepers in AFB recognition and developing strategies and tools to support beekeepers to tackle AFB.

Reliance on voluntary compliance is not sufficient: Nimmo-Bell estimated the incidence of AFB would increase up to 1.2% over the next ten years if there was no AFB Plan. This estimate was based on the incidence rate recorded in the 1990s, which led the beekeeping industry to take a more active role in managing AFB. This compares with an incidence rate of 0.46% for 2022 under the existing Plan (Nimmo-Bell, 2022, p.11-12).

Even under the existing Plan there is a level of non-compliance and non-reporting. Nimmo-Bell considered the actual incidence rate is higher than the reported incidence rate. This is based on a 2016–2019 longitudinal study of apicultural practice and disease prevalence (Hall et al., 2021), where AFB was found in 0.47% of the hives (11 hives out of 2,356) inspected over the three years. This is 52% higher or 1.52 times more than the 0.31% recorded incidence average over 2016–2019 (Nimmo-Bell, 2022, p.11-12).

There is a high level of agreement within the beekeeping industry that legislation is required to set of minimum standards for AFB control. With no AFB Plan, the presence of infected beehives, and inaction to destroy infected hives, would be an ongoing source of AFB re-infection and spread.

Objectives of the plan [s.61(2)(c)(iii)]

The objectives of the proposed AFB Plan remain the same as those published in the Biosecurity (National American Foulbrood Pest Management Plan) Order 1998 as amended on 18 September 2012.

The primary objective of the Plan is to:

manage American foulbrood to reduce the reported incidence of American foulbrood by an average of 5% each year².

The secondary objectives of the Plan are:

- a. to locate all places where beehives are situated and ensure that each honey bee colony is inspected at least once each year for American foulbrood

Explanation: To eliminate AFB, the locations of honey bee colonies must be known, and all honey bee colonies must be inspected at least one time per year to ensure that colonies affected by AFB are detected.

- b. to identify American foulbrood cases in beehives

Explanation: Cases of AFB must be identified so that AFB spores associated with the case can be destroyed to prevent onwards transmission of disease.

- c. to eliminate American foulbrood in beehives by destroying any American foulbrood cases and associated bee products and destroying or sterilising associated appliances.

Explanation: Destruction of AFB spores to prevent the transmission of disease requires that the beehives and bee products associated with a case of AFB are destroyed by burning. The AFB spores contaminating appliances may be destroyed either by burning or the use of effective sterilisation methods.

Principal measures in the plan to achieve the objectives [s.61(2)(c)(iv)]

The principal measures to achieve Plan objectives are:

- a. all beehives are situated in a place notified to the management agency as an apiary
- b. all beehives are inspected at least once per year by a person competent to recognise AFB
- c. all cases of AFB are reported to the management agency
- d. all honey bees, bee products, and appliances associated with detected cases of AFB are destroyed; and other actions are undertaken to prevent the spread of AFB
- e. Disease Elimination Conformity Agreement (DECA) holders eliminate AFB from their beehives

² Reported incidence means, for each period of the 12 months beginning on 1 July in any year, the number of American foulbrood cases expressed as a percentage of the total number of honey bee colonies notified to the AFB Agency.

- f. the management agency monitors beekeepers' compliance with their AFB elimination obligations and undertakes enforcement actions when appropriate.

The relationship of these principal measures to the Plan objectives are shown in the logic map in Figure 2 below.

The management agency [s.61(2)(j)]

Apiculture New Zealand Inc (ApiNZ) is the designated management agency for implementing the AFB Plan. ApiNZ delegated this responsibility and associated powers, to an independent Board (AFB Agency Board). The AFB Board established an independent entity to implement the AFB Plan (AFB Agency), and it maintains oversight over this entity. ApiNZ intends to continue with these current governance arrangements.

The AFB Agency operates independently of ApiNZ and maintains separate business systems, policies, and governance. The AFB Agency Board is responsible for the prudent use of levy payer funds to implement the AFB Plan, and appointment to the Board is based on merit following a standard recruitment process. Membership of ApiNZ is not a criterion for appointment to the AFB Agency Board, apart from one Board position that is required to be held by a member of the ApiNZ Board.

Since the formation of ApiNZ in 2016 the AFB Agency Board has overseen several improvements to enhance the AFB Agency's capacity and systems to implement the AFB Plan. These improvements include:

- improved follow-up and investigation into reports of suspected non-compliance behaviour
- more effective monitoring of beekeeper elimination of AFB through doubling the number of apiaries inspected each year, and implementation of a new expanded honey surveillance programme
- enforcement of Plan Rules to ensure that non-compliant beekeepers are held to account and are not able to continue practices that create AFB spread risks
- improved the quantity and quality of support provided to beekeepers through the formation of a dedicated in-house team, and
- replaced ApiWeb with a modern fit for purpose system, HiveHub³, to make it easier for beekeepers to comply with Plan Rules.

The AFB Agency Board will continue to oversee improvements in the implementation of the Plan to ensure that the Plan objectives are achieved.

³ ApiWeb was an online data collection tool used to collect compliance information from beekeepers. It was not very user-friendly and the subject of complaint from many beekeepers. In response, the AFB Agency replaced ApiWeb with a purpose-built application known as 'HiveHub'. HiveHub supports beekeepers to maintain compliance records while at the apiary, including notifying AFB cases and registering or deregistering apiaries.

AFB PMP Intervention Logic 2022

Primary Objective

To reduce the reported incidence of AFB by 5% per year. Measure: Annual incidence of AFB.

Secondary Objectives

To locate all places where beehives are situated and ensure each honeybee colony is inspected at least once per year for AFB

To identify American foulbrood cases in beehives

To eliminate American foulbrood in beehives by destroying American foulbrood cases and associated products and destroying or sterilising associated appliances

Principal measures

All beehive locations are notified as an apiary

All beehives are inspected at least once per year by a competent person

All cases of AFB are notified to The Management Agency

All honey bees, bee products, and appliances associated with AFB are destroyed; and other actions are undertaken to prevent the spread of AFB

Disease Elimination Conformity Agreement (DECA) holders eliminate AFB from their beehives

The Management Agency monitors beekeeper compliance with their elimination obligations and undertakes enforcement actions when appropriate

Monitoring measures

Number of apiaries registered
Number of unregistered apiaries identified

Number of apiaries and colonies inspected:

- In accordance with COI requirements
- On COI default by The Management Agency

Number of cases of AFB notified

Beekeeper compliance with plan rules 28, 29 and 31

% of beekeepers with a DECA
% of DECA holders implementing agreed AFB elimination procedures

The Management Agency monitoring and enforcement activity:

- Number of apiaries inspected
- Number of honey surveillance samples tested
- Number and type of enforcement actions undertaken

Plan rules

Apiary registration and identification rules 15, 17, 18, 19, 20, 21, 22, 23, 24 & 25

Beehive inspection rules 11, 12, 13, 14, 32, 33, 34 & 35

AFB notification rule 26

Rules requiring the destruction of AFB beehives and other actions to prevent the spread of AFB 28, 29, 30 & 31

DECA rules for:

- Entering into a DECA
- Monitoring DECA holder AFB elimination performance
- Amendment and cancellation of DECAs 36, 37, 38, 39 & 2 new

Rules for monitoring beekeeper compliance with their obligations 10, 27, 40 & 2 new

Key activities

- Registration of apiaries by beekeepers
- Beekeepers report suspected unregistered apiaries

- Beekeeper maintenance of apiary sites
- Beekeepers ensure beehives are inspected in accordance with COI requirements

- The Management Agency inspects beehives owned by COI defaulters

- Beekeeper notification of AFB cases

- Authorised Person notification of AFB cases

- Beekeeper destruction of honey bees, bee products and materials associated with cases of AFB

- AFB Recognition and Refresher Training
- Beekeepers enter into DECA
- DECA holders eliminate AFB from their beehives as agreed

- The Management Agency monitors DECA holder AFB elimination performance
- Amendment and cancellation of DECA by Management Agency

- Management Agency monitoring of beekeeper compliance
- Enforcement of plan rules using Biosecurity Act 1993 powers

[illegible]

Statistics as of 10 August 2022

Registered beekeepers	9,852
Registered apiaries	60,396
Colonies on registered apiaries	723,013
2022 ADRs submitted	9,064
2021 ADRs submitted by 1 June	6,922 (71.7%)
2021 COI submitted	2,650 (63.6%)
2021 COI submitted by 15 December	2,604 (62.5%)
# Registered Beekeepers with DECA	5,226 (51.4%)

Note: The commercial sector is continuing to contract. From August 2021 until August 2022:

- The number of registered beekeepers remained the same 9,851 vs 9,852
- The number of registered apiaries decreased from 60,688 to 60,396, and
- The number of colonies on registered apiaries decreased from 806,024 to 723,013

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