NSWAA Biosecurity Policy Paper
Beekeeper Expectations of the NSW Department of Primary Industries

NSW Apiarists' Association Inc.
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1. Policy Paper Purpose

The purpose of this paper is to detail beekeeper expectations of the NSW Department of Primary Industries (NSW DPI) in terms of priorities for enforcement, consistency of application and communication with beekeepers, post rollout of compulsory minimum standards described in the *NSW Biosecurity Regulation 2017* (made under the *NSW Biosecurity Act 2015*) and the *Australian Honeybee Industry Biosecurity Code of Practice 2016* (Code).

From 1 July 2020 it is compulsory for beekeepers registered in NSW to ensure their management practices meet minimum standards outlined in the Code. The NSW Apiarists' Association Incorporated (NSWAA) wishes to ensure NSW Department of Primary Industries (NSW DPI) resources are focussed on those aspects of the Code that will maximise biosecurity benefits and commercial beekeeper support for the initiative.

The NSW beekeeping industry requires biosecurity assistance from NSW DPI to work with those beekeepers who either do not have the knowledge to manage pests and diseases or choose to operate outside the Code.

2. Background Situation

The NSW honeybee industry generates both direct value in sales of apiary products and indirect value through the provision of pollination services. Nationally, the annual economic value of honeybee pollination is $14.2 billion (Minister for Agriculture, November 2019) and NSW is the largest beekeeping state (ABARES, 2016). The honeybee industry in NSW is resilient. However, its profitability and productivity are severely constrained by the endemic disease such as American Foulbrood (AFB). The ability of commercial beekeepers to make a living in NSW is severely disrupted by a small number of beekeepers who fail to control AFB outbreaks within their apiaries.

NSWAA has supported the imposition of a compulsory Biosecurity Levy to fund the control of AFB and other biosecurity issues. NSWAA now expects NSW DPI to direct levy funding toward Bee Biosecurity Officers (BBO) to educate beekeepers that fail to manage AFB.

DPI field officers/staff deliver compliance and industry regulation. These staff members are paid for by a combination of registration fees and DPI funds. Their role in managing beekeepers who fail to comply with the Code or respond to BBOs is equally important to NSWAA.

The balance of this document outlines beekeeper expectations for AFB and biosecurity management. The document was prepared in December 2019 and January 2020 by AgEconPlus with the assistance of industry and retired NSW DPI apiary staff.

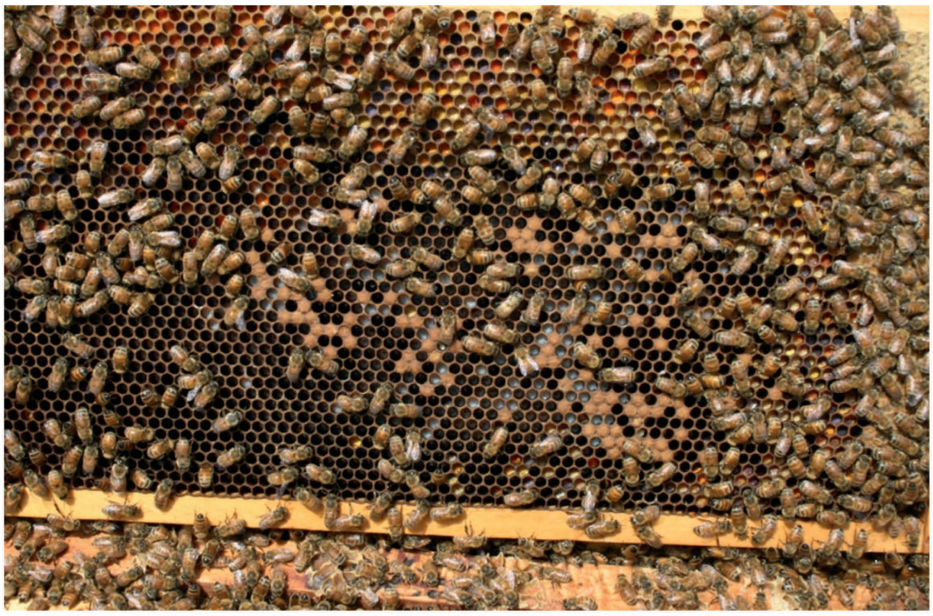
3. Equality of Treatment Regardless of Hive Numbers

Biosecurity orders and infringement notices must be issued by NSW DPI regardless of enterprise size – pests and diseases are as easily spread from a single hive apiary as from a major commercial enterprise's apiary.

4. Trained NSW DPI Staff

NSW DPI field staff undertaking apiary inspection must be trained and deemed proficient by an appropriate Vocational Education and Training (VET) provider. NSW DPI's Tocal College training is appropriate including AHC31818 Certificate III in Beekeeping especially units AHCBEK203 (Open and reassemble a beehive), AHCBEK313 (Manage pests and disease within a honeybee colony) and AHCWHS301 (Contribute to work health and safety processes). Tocal's 'standalone' Honeybee Biosecurity course may also be relevant. NSW has at least one private Registered Training Organisation (RTO) offering appropriate beekeeping training.

NSWAA notes that while former NSW Food Authority and NSW DPI Field Staff covering multiple functions and primary industries is not ideal – conflicted priorities, lower levels of proficiency, they are acceptable as apiary inspectors provided, they have appropriate VET training, have practical beekeeping experience and are deemed by NSW DPI technical staff to be proficient. Proficiency would include tested ability in opening and diagnosing the disease status of a hive. NSWAA would be prepared to nominate well-managed beekeeping companies in a position to offer NSW DPI trainee exposure and an insight into commercial beekeeping in NSW. Time spent with commercial beekeepers would supplement, rather than replace, VET training.



5. Prior Notice of Inspection is Required

Beekeepers request prior notice of NSW DPI inspection so that any specifics associated with the apiary can be accommodated for the NSW DPI Field Officer e.g., site access, recent husbandry practices. For example, the beekeeper will not want hives opened for 10 days after they have been re-queened.

Beekeepers illegally moving hives in response to NSW DPI prior notice of inspection should be prosecuted to the full extent of the law. Individual beekeepers point to instances where AFB infected hives have been moved to avoid prosecution.

It is also noted that prior notice may not be appropriate for NSW DPI inspections completed as part of a Taskforce Activity in conjunction with a major pollination event. Given that all hives supplied for pollination contracts need to be inspected and properly setup for the pollination work they are required for prior to placement, there should be no objections from any beekeepers regarding immediate inspection at this time.

6. NSW DPI Staff Conduct at the Apiary

If any training is to take place at the beekeeper's apiary the apiary owner is to be informed and permission requested for the training to take place. Hives are to be handled in a calm methodical way (no rough handled) and are not to be opened if robbing is occurring or during extreme weather events i.e. ambient temperatures below 15^{o}C and above 40^{o}C or during precipitation. Obviously, training is not to occur during total fire bans.

Equipment such as hive tools and smokers must be comprehensively cleaned before they are brought to the apiary. Clothing must be clean and if gloves are worn, they need to be cleaned between inspections or latex gloves worn over leather gloves so they can be changed before the next hive is inspected.

After the hive has been inspected for disease, the hive is to be reassembled the way it was prior to inspection. Frames and queen excluders are to be placed back in their original positions. Straps and emlocks are to be placed back the way they were before opening the hive.

Inspected hives are to be identified as inspected by the NSW DPI Field Officer. Identification is to include date of inspection and the name/initials of inspector completing the inspection. The hive should not be physically marked – weatherproof tags should be used and attached with fasteners to the emlock. Where emlocks and straps are not present then notation written on the hive lid in wax crayon or permanent marker is acceptable.

No rubbish is to be left at the apiary site.

7. NSW DPI Response and Communication Protocols for a Suspected Biosecurity Incident

When a suspected biosecurity incident such as an abandoned or neglected apiary is reported by a member of the public on the Biosecurity Helpline, NSW DPI is to initiate inspection activity within seven days.

At the end of the seven days, NSW DPI is to provide a brief written statement to the member of the public that reported the suspected biosecurity incident (where contact details have been supplied). The statement need only inform the individual that inspection has been completed unless AFB has been detected. The presence of AFB must be immediately communicated to the notifier (if a beekeeper) and neighbours who are beekeepers. NSWAA respects the privacy provisions under which NSW DPI must operate and all other information is to remain confidential.

Within six weeks of the NSW DPI inspecting the suspected biosecurity incident, the Department is to provide a brief written statement to the member of the public reporting the suspected biosecurity incident. This statement is to confirm that the Department has completed a risk assessment and inspected all hives controlled by the beekeeper responsible for the possible biosecurity threat.

8. NSW DPI Response and Communication Protocols for an AFB Detection

Most NSW DPI biosecurity resources are to be allocated to AFB detection and eradication. AFB is a major risk to the industry and is estimated to be present in at least 5% of all NSW apiaries.

NSW DPI Field Officer response to AFB detection in an apiary is to be consistent with the severity of infection identified. The Field Officer should make an initial determination on AFB detection as to whether a Regulatory or Advisory response is required.

A Regulatory (prosecution) response is required when any of the following are noted by the Field Officer during inspection:

- The antibiotic Oxytetracycline (OTC) or any other antibiotic is found in hives in association with the treatment of AFB noting that OTC is legal for the treatment of European Foulbrood.
- More than 10% of hives in the apiary are dead or weak and have AFB scale[1] present in brood cells (indicating a long-term infection). Some discretion may be required on this criterion for small beekeepers (e.g. beekeeper with two hives and one infected is 50% non-compliant).
- The hives have previously been inspected by a Field Officer and found to still contain AFB scale in the hive's brood cells.

This scenario requires prosecution by NSW DPI to the full extent of the law to deal with this industry threatening scenario.

[1] Care is needed to ensure scale is viable. Scale may still be present after irradiation and clean out by the bees.

An Advisory response preferably in partnership with a Bee Biosecurity Officer (BBO) is required when:

- AFB is found in less than 10% of hives in the apiary.
- The disease is not advanced i.e. there is an adequate bee population and scale is not present.
- This is the first time that the hives have been inspected by a Field Officer and found to contain AFB.
- The AFB has been self-reported.

The sequence of events for an Advisory response to AFB detection needs to be: AFB case detected by a Field Officer, counselling and training to eliminate the infection provided by a BBO, regulation / prosecution to be pursued if the beekeeper fails to respond to BBO assistance. The NSW DPI Field Officer is to insist on two clear Honey Culture Tests from the infected apiary at least four months apart before the outbreak is considered to be under control. Non-follow-up by NSW DPI staff is not acceptable. Effective communication between the Field Officer and the BBO is essential for this process to work.

It is imperative that every effort is made by NSW DPI Field Staff to inform neighbouring beekeepers when any level of AFB is detected. Informing beekeepers can be completed with a phone or mobile phone text message. Text messages may not be appropriate for older beekeepers. Beekeeper notification should include information on the likely level of risk – high or low:

- HIGH – AFB 'deadout' hives found and/or live colonies are being 'robbed out'.
- LOW – Only a few hives with a low level of infection symptoms are found and all hives are well stocked with bees. Less than 10% of hives in the apiary are AFB affected.

If DPI staff find dead hives with AFB in an apiary, then DPI staff are to make sure these hives are bee proof prior to leaving the apiary to prevent any further robbing.

9. NSW DPI Record Keeping and Prioritising AFB Infection 'Hot Spots' and 'Hot Individuals'

AFB detection is to be recorded in an NSW DPI database preferably using a geographical tag. Analysis of the database is required on a routine basis to identify areas where AFB is most prevalent ('Hot Spots') and individuals who have a long history of AFB contaminated hives ('Hot Individuals').

'Hot spots' and 'Hot Individuals' are to be used to direct NSW DPI resources. Most Field Officers' time is to be used to eliminate AFB 'hot spots' and 'Hot Individuals'.

10. Widespread Notification of AFB 'Hot Spots'

The existence of AFB 'hotspots' and NSW DPI action to eliminate them is important information for the industry. Consequently, it is proposed that this information be published bi-monthly in the NSWAA magazine 'Honeybee News', the Amateur Beekeepers Association bi-monthly magazine 'The Amateur Beekeeper' and on the NSW DPI website.

11. Interpretation of AFB Honey Culture Tests

Honey Culture Tests to detect the presence of AFB are an essential tool for control of the disease in NSW and from 1 July 2020 are mandatory for beekeepers with more than 50 hives. NSW DPI is to monitor test receival records and follow up with those beekeepers who are not submitting enough Honey Cultures for testing. There should be one honey culture test for every load of bees. DPI is to monitor that the appropriate number of honey culture samples have been submitted by each beekeeper.

NSW DPI must prioritise the inspection of hives where Honey Culture Tests show high levels of failure, such as a +3 result.

Beekeepers found 'gaming the system' and submitting known clean cultures for testing and subsequently failing field inspection, are to be prosecuted with the NSW DPI to the full extent of the law for this industry threatening behaviour.

Both NSWAA and the NSW Amateur Beekeepers Association (ABA) support the eventual rollout of mandatory honey culture tests for all beekeepers including those with less than 50 hives as well as comprehensive honey testing via honey packers.

12. NSW DPI Taskforce Activities

NSW DPI Field Officers have, since 2007, completed Taskforce Activities during major pollination events where large numbers of hives belonging to multiple beekeepers aggregate e.g., almond, blueberry and

most recently macadamia pollination. These events provide an opportunity to identify hives with AFB infections and prevent the transfer of AFB between apiaries.

Information on proposed Taskforce activities is to be communicated through the NSWAA magazine 'Honeybee News' and on the NSW DPI website. Notification will act as a further strong incentive for beekeepers to complete AFB inspections prior to taking hives to pollination.

NSWAA applauds Taskforce Activity and urges NSW DPI to maintain this effort into the future. Where HIGH levels of AFB are detected, NSW DPI must prosecute the offending beekeeper. Beekeepers do not need individual prior notice of any inspections when hives are on a pollination job as hives will not have been recently requeened.

13. Targeting Beekeepers Who Have Not Completed Mandatory BOLT

As of 1 July 2020, it is mandatory for beekeepers with more than 50 hives to complete Plant Health Australia (PHA) Biosecurity Online Training (BOLT) or Certificate III Manage Pests and Diseases within a Honeybee Colony (AHCBEK313).

Beekeepers registered as having 50 or more hives that have not completed BOLT or AHCBEK313 training must be prioritised by NSW DPI Field Officers for inspection as these individuals are more likely to be disengaged and potentially carriers of AFB.

If not already resolved it is imperative that PHA and NSW DPI add disclaimers to their training packages allowing the sharing of information on who has successfully completed BOLT or AHCBEK313. The absence of this disclaimer has in the past prevented NSW DPI compliance from identifying beekeepers who have successfully completed training.

Both NSWAA and the ABA support the eventual rollout of mandatory BOLT and AHCBEK313 training for all beekeepers including those with less than 50 hives.

14. Role of the Bee Industry Biosecurity Consultative Committee

Information on AFB 'hot spots', Taskforce Activity and BOLT training records are to be communicated to the Bee Industry Biosecurity Consultative Committee (BIBCC). BIBCC knowledge of progress with these metrics is an important measure of the Code's success.

The BIBCC provides a vital communication channel to all sectors of the NSW honeybee industry and its retention is required.

15. Retention of Notifiable Pests and Diseases in the Biosecurity Regulation

Retention of the reporting mechanism in the Regulation for notifiable pests and diseases including Small Hive Beetle, Chalkbrood, European Foulbrood and Nosema is required for export market access.

16. Dealing with a Nuisance Bee Complaint

Reports of nuisance bees from an individual or a small number of neighbours do not constitute a 'public nuisance' (NSW DPI Primefact, June 2018).

NSWAA endorses the NSW DPI Nuisance Bee Complaint Guidelines and understands that NSW DPI will only investigate and act where a demonstrated risk to public health or public safety is determined. The criteria that determine risks to public health and public safety are described in the Primefact including a NSW DPI commitment to provide feedback on any investigation.

The Primefact states that beehives are considered likely to constitute a risk to public health if a person with a serious allergy to bee venom (which has been verified by an allergy specialist and is supported by medical documentation) is likely to be exposed to the bees.

Beehives that are located in close proximity to premises identified as high risk, especially schools, childcare centres, public swimming pools and hospitals may be considered a risk to public safety.

For public safety issues, a direction can be given to a beekeeper by a non-honeybee trained NSW DPI staff member, as long as they have consulted a specialist NSW DPI honeybee staff member and the specialist honeybee staff member's name is recorded on the direction.

NSWAA acknowledges the importance of beekeepers providing water for bees. When bees are sited near houses, they are to be within 200 metres of water. If water is not available within 200 metres, then the beekeeper is to provide water for the bees.

NSWAA does not support arbitrary 'no go' areas in rural, peri-urban and urban areas. 'No go' areas have been a feature of recent NSW DPI Code enforcement activities.

NSW DPI Nuisance Bee Guidelines were sourced 2 December 2019 at (https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0020/413417/Nuisance-bee-complaint-guidelines.pdf).

17. Prosecution of Non-Registered Beekeepers and Additional Use of Registration Data to Communicate with Industry

NSW DPI must actively prosecute all beekeepers who fail to register their hives – accurate data on hives and their location is essential for effective biosecurity including management of an exotic pest incursion. Currently NSW DPI is somewhat reliant on industry associations to communicate with beekeepers. Industry and association membership is only a fraction of the total number of beekeepers. Better communication of biosecurity issues could be achieved through the use of comprehensive hive registration data.

18. Identification of Hives with NSW DPI Registration Number

While it is a requirement of the Code that each hive must be marked with the beekeeper's allocated hive identification code, some leniency with the application of this provision is required. No offence should be recorded if the current owner of the hives can easily be identified e.g. A sign with relevant details is posted next to the apiary. Action should be taken against repeat offenders who fail to mark their hives.

19. Removal of Unidentified Apiaries by NSW DPI

NSW DPI must, within seven days, remove unidentifiable apiaries from both private and public land where these hives pose a biosecurity risk. This is currently not occurring and undermines industry and DPI efforts to control AFB.

20. Maintaining Appropriate NSW DPI Staff Numbers, Access to Staff and Internal Communication

Effective honeybee industry biosecurity in NSW is dependent on appropriate NSW DPI staffing. The following table summarises NSWAA expectations for delivery of biosecurity and other industry functions by the NSW DPI expressed in full time equivalents (FTE).

NSW DPI Staff Servicing the Honeybee Industry	FTE Expectations
Technical Specialist Honey Bees	1
Honeybee Industry Development Officer	1
Program Coordinator Apiary Sites	1
Bee Biosecurity Officers (commercial and amateur)	2
Apiary Inspectors (regulatory specialist and regulatory officer)	2
Beekeeper education and training	3
Total	**10**
Multi-industry field staff (ex-NSW Food Authority, Livestock Inspectors)	Unknown
Local Land Services – Biosecurity Officers	Unknown

Contact details – name, role, mobile phone and email – for all NSW DPI non-compliance staff must be available to industry to ensure that education and technical matters are available for all beekeepers. Contact details should be available on both NSW DPI and industry association websites.

Industry requires one contact name/person and contact number for explanations, complaints of events/personnel etc.

The current 'four silo' structure used by NSW DPI to deliver services to the honeybee industry – Advisory, Education, Compliance and Biosecurity – has been reported by industry as ineffective. There is poor information flow between each group. NSWAA and the ABA request NSW DPI action to improve communication, the consistency and quality of services. Progress with improved communication/integration should be reported through the BIBCC.

One database should be used by all four silos for bee events/incidences.

21. Conclusions – Code and NSW DPI Implementation

Compliance with the Code has the potential to improve biosecurity outcomes in NSW.

NSW DPI working with industry to implement the policy recommendations addressed in this Policy Paper will improve biosecurity outcomes and will also increase the Department's credibility with industry. Implementation of policy paper recommendations will deliver a better working relationship between beekeepers and NSW DPI Field Officers.

22. References

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https://minister.agriculture.gov.au/mckenzie/media-releases/buzz-about-bees

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