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# **Adequacy of Australia's biosecurity measures and response preparedness**

**Submission to the Senate Standing Committees on  
Rural and Regional Affairs and Transport**

August 2022

## Summary of Recommendations

1. That the Commonwealth provides assistance to fund a surveillance system to cover all identified medium and high-risk entry points.
2. The establishment of an import biosecurity levy on all shipping containers and large machinery imports be implemented.
3. Better preparation and documentation for incident management teams to allow swift and unimpeded responses to occur.
4. Industry to make a concerted effort with the assistance of government to increase the number of industry trained incursion response personnel.
5. That agreements with key suppliers be prepared as part of the response preparedness, to ensure the response is not impeded by the lack of resources to conduct delimiting surveillance.
6. That government jurisdictions develop plans for the rapid authorisation of authorised officers.
7. The commonwealth work with the States and Territories to review the current honey bee quarantine facility, with the aim of establishing a facility that is better geographically located and more integrated with a national honey bee and pollination research center.
8. Commonwealth to take a greater oversight role in responses to better coordinate state jurisdictions to provide greater consistency in restriction, surveillance requirements and communication.

## 1. The Australian Honey Bee Industry Council (AHBIC)

AHBIC is the national representative body for the honey bee industry. Established in 1998, we represent all sectors of the value chain in respect to honey bees and have a broad membership of representative bodies from across Australia, which includes:

- State base Apiarist Associations;
- Australian Queen Bee Breeders Association;
- Crop Pollination Association of Australia;
- Honey Packers and Marketers Associations of Australia;
- Amateur Beekeepers Association.

AHBIC works to protect the long-term economic viability, security and prosperity of the sector and to promote the important links between the honey bee, beekeeping and healthy Australians.

For more information please visit: [About - Australian Honey Bee Industry Council](#)

## 2. Introduction

The honey bee industry is critically important to the broader agricultural industry. Karasinski (2017) estimated the contribution honey bees make to the agricultural GVP is in excess of \$14 billion through the pollination services provided<sup>i</sup>. This is in addition to the \$264 million GVP generated through farm gate production (Clarke, Le Feuvre, 2021)<sup>ii</sup>.

Despite its crucial role in Australian agriculture, the honey bee industry is vulnerable to exotic pests and disease found in many other parts of the world. Strong biosecurity both at our borders and within our recreational and commercial sector is paramount to a sustainable and profitable industry. Australia's island existence and geographical isolation means our honey bees survive without the complications of many of the bee pests and diseases that require repeated pesticide and antibiotic treatments. Keeping honey bee exotic pests and diseases out of Australia is crucial for our industry's unique selling proposition and to ensure we limit repetitive chemical control measures.

Quality Australian bee products have a competitive advantage that allows us to operate in many premium international retail markets. Australian honey bees are the healthiest in the world and our honey is 'clean and green', renowned as the best quality honey in the world from the healthiest bees in the world<sup>iii</sup>.

## 3. Adequacy of Australia's biosecurity measures

The cornerstone to the Australian honey bee industry biosecurity program is the statutory honey levy system. Beekeepers that sell more than 1,500 kg of honey per annum must pay a levy of 4.6c per kg. This levy is split to fund industry activities in R&D, biosecurity and the national residue survey testing program. 2.7cents per kg of honey sold contributes to the industry biosecurity programs. The average national crop has consistently been around 20,000 t of leviable honey for a number of years, which is widely impacted by seasonal conditions such as drought and bushfires.

Plant Health Australia (PHA) is contracted to oversee industry's biosecurity activities. This includes the National Bee Pest Surveillance Program (NBSP) and the National Bee Biosecurity Program (NBBP). These programs provide surveillance activities at identified high risk points of entry including shipping ports and airports around Australia.

In respect to the recent Varroa mite incursion, it was fortunate that NSW Department of Primary Industries (DPI) financially supported the provision of surveillance hives at the Newcastle shipping port (a medium biosecurity risk port). Such surveillance hives are checked regularly for exotic bee pests in-line with the NBSP. Varroa mite was confirmed in the Newcastle port surveillance hives on 22 June 2022 by NSW DPI officers. The sentinel hives at the Newcastle port were not part of the National Bee Pest Surveillance Program (NBSP), as the sites monitored were rationalised and reduced due to funding constraints.

It is apparent from the hive mite loadings found around the Newcastle airport epicentre, and subsequent research and consultation, that the mites had been in the area for quite some time. Epidemiological predictions suggest up to a couple of years. Fortunately, the Varroa mite detection was early enough that eradication of the mite is still

technically feasible. However, the eradication zone is over 5,000 km<sup>2</sup>, which will make eradication an expensive, long-term challenge, particularly as we need to eradicate all feral colonies.

## 4. Funding the Honey Bee Pest Surveillance Program

The National Honey Bee Pest Surveillance Program (NBPSP) is funded through a combination of honey levy's and contributions from pollination dependent industries through Hort Innovations. The combined Commonwealth matching funding and levies from the 14 horticultural industries totals \$1.4 million over 3 years in addition to the honey bee industry contributions. State governments also contribute significantly to the program through in-kind contributions. The in-kind contributions are absorbed by the State department at varying levels across the country and provide additional surveillance at 'lower risk' entry points.

The steady decline in the national honey crop and industry's inability to impose a levy on pollination services has seen the overall funding from industry decrease over time. In the prevailing environment, increasing operational costs of delivering a program that can cover all the high-risk entry points has become impossible to fund under the current arrangements.

A review of the NBPSP in 2020 identified that the delivery of the wide range of surveillance techniques across the large number of sites in the 2016 -2021 program placed severe pressure across project partners, jeopardising delivery at the highest risk ports. It was found that this pressure was a result of the 2016-2021 program being significantly under-resourced and true costs of the program across all partners was not captured.

To support an ongoing program, a review of the status of ports of entry regarding the risk of incursion and establishment of bee pests was undertaken in 2020 by the Department of Agriculture, Water and the Environment (DAWE). The DAWE report identified that many of the ports operating in the 2016-2021 program were actually considered to be low or very low risk of pest entry for the two main targets: European honey bees and Asian pest bees (Dwarf honey bee, Giant honey bee, Asian honey bee); and the associated pests they carry. A revised NBPSP was developed, which focused on a risk-based approach for early detection of the key pest targets.

The honey bee industry has investigated the collection of more levies from varying sectors, however the bureaucratic administrative cost of collecting levies is prohibitive. For levies on honey collected by small beekeepers producing less than 1,500 kg (\$69.00 at the current levy of 4.6c per kg), the cost of collecting the levy is higher than the amount of actual levy collected. In addition, importantly, there are also no honey levies collected on imported honey.

Historically, the majority of exotic bees or exotic honey bee pest incursions are the result of swarms and feral hives arriving in Australia on shipping containers, or found on large machinery onboard cargo ships. The honey bee colonies commonly hitch a ride aboard containers bringing imported goods to Australia. Incursions can, but rarely happen at airports. It should be noted that for Varroa mite to survive it requires the European honey bee colony (*Apis mellifera*) as a live host.

**Recommendation 1:** That the Commonwealth provides assistance to fund a surveillance system to cover all identified medium and high-risk entry points.

## 5. Equitable and Sustainable Funding

Typically, detections of significant bee pests have been at ports with pests 'hitch hiking' on shipping containers or large machinery onboard ships. These importers create the greatest risk for the introduction of pests and diseases to the honey bee industry, yet the importers do not contribute financially to any preventative measures or response efforts. This creates an inequitable and unreasonable system that relies on the industries that did not create, nor profit, from the importation to be expected to foot the bill for any response.

Despite the 2019 Biosecurity Levy Steering Committee's report "*Biosecurity Imports Levy: a way forward*" recommending the establishment of an import levy, this system has yet to be progressed or established<sup>iv</sup>.

The user pays system would require importers to provide funding through a levy system to support at least part of the bee hive surveillance program through a container and machinery biosecurity levy. At present, the international transport industry that facilitates the incursion bares no financial responsibility for surveillance operations or incursion eradications. Strangely, it is the recipient industry, and those other horticultural industries impacted most that are footing the bills and paying.

AHBIC strongly supports an import biosecurity levy imposed on all shipping containers and machinery entering Australian ports. The levies generated would support surveillance efforts across many industries and contribute to eradication efforts to support impacted industries.

**Recommendation 2:** *The establishment of the import biosecurity levy on all shipping containers and large machinery imports.*

## 6. Industry Preparedness

The Newcastle Varroa incursion has identified some significant gaps in the preparedness of the honey bee industry for such a large scale incursion. Industry has run numerous incursion simulations with various jurisdictions and participated in a number of scenario planning events. Despite all the training, simulations and scenario planning the Newcastle incursion 'blindsided' industry with the likely point of entry not being through the port.

Industry has invested in developing an agreed Varroa Contingency Plan in 2012 in conjunction with Plant Health Australia (PHA). This document is designed to guide the Incident Response Team in the early period of the response. This plan, like others before it, was designed for early detection at an identified entry point like a port and did not take into account the type of incursion that we have discovered at Newcastle.

The lack of drafted incident management documentation including draft legal orders, response plans, and budgets has resulted in all documentation being developed from scratch at the time of the emergency. This has slowed the response during the critical initial stages, as documentation needed to be developed to allow stand-still orders, movement controls, hive destruction orders and the like to be developed. The slow response due to the legal administration of the emergency response results in frustration from industry and beekeepers, as the perception of inaction grows.

**Recommendation 3:** *Better preparation and documentation for incident management teams to allow swift and unimpeded responses to occur.*

Industry resources and training has also been identified as deficient in the Newcastle response. Industry Liaison Officer (ILO), media and communication training of industry personnel generally has been identified as skills that have been lacking in the Newcastle response.

Industry has run and participated in ILO training in the past and provided media training, but this response has highlighted the limited pool of trained industry personnel and the constraints of their availability. Industry needs to work in partnership to with governments to provide the professional development training to industry personnel to increase the human resources available in a response.

**Recommendation 4:** *Industry to make a concerted effort to increase the number of industry trained incursion response personnel.*

During the current incursion it has become clear that many beekeepers are not compliant with current legislation, in particular with regards to biosecurity record keeping. This has slowed down and complicated tracing efforts within the response. Industry will work with jurisdictions to investigate the feasibility of an electronic tracing systems for the movement of beehives, queen bees and package bees within Australia. This would allow the rapid tracing and tracking of hive locations and movements improving our ability to respond rapidly to incursions.

## 7. Government Preparedness

Emergency use permits, equipment, personal protection equipment (PPE) and trained bee authorised officers has all been in short supply for the Varroa response. The level of stock held by government including PPE and miticide strips/sticky mats has impacted the efficiency of the response. Working with honey bees is a skill that is not widely held outside industry participants, and government is reliant on a select few public service individuals with the right competencies to work and understand honey bee hives.

**Recommendation 5:** *That agreements with key suppliers be prepared as part of the response preparedness, to ensure the response is not impeded by the lack of resources to conduct delimiting surveillance.*

There can be a lack of awareness by some port authorities of the potential biosecurity risks - in particular Defense ports such as air and naval bases. Industry has experienced a pest incursion of Small Hive Beetle, which came into Australia during the Sydney Olympics allegedly via Richmond air force base. We need to ensure there is adequate education and surveillance of hives at Defense ports.

Sufficient supply of trained government personal, particularly for the on-ground component of the Varroa response has created issues. The size of the response and legislative requirement for the majority of on-ground activities to require authorised officers to be present, which has presented challenges in the number of available personnel.

**Recommendation 6:** *That government jurisdictions develop plans for the rapid authorisation of authorised officers.*

Facilities and protocols for importing queen bee genetics is facilitated through the Mickleham PEQ facility. This is under-utilised, as it was built a long way from the majority of Australia's queen breeders that are based in NSW and Qld. This significantly increases the cost of importing queens and may lead to tendencies for individuals to illegally import genetics.

**Recommendation 7:** *The commonwealth work with the States and Territories to review the current honey bee quarantine facility, with the aim of establishing a facility that is better geographically located and more integrated with a national honey bee and pollination research centre.*

## 8. Cross Jurisdictional cooperation and consistency

Biosecurity is a shared responsibility, a responsibility shared between all levels of government and industries. The Varroa response similarly to COVID has demonstrated the tendency of jurisdictions to act in sovereign manner. Increased and streamlined jurisdictional response consistency, data and intelligence sharing would streamline any response. Differing protocols, surveillance requirements and border restrictions has unnecessarily impacted the livelihoods of many beekeepers.

Improved cross jurisdictional information sharing and cooperation would allow for a more coordinated national approach to any incursion. The honey bee industry has been involved in many responses over the years and provided feedback to each response in the form of a debrief. Industry highlights each time the need for greater cross jurisdictional cooperation yet during each response we see the same issues occur.

Operational consistency across jurisdictions would allow for clear and easier to follow restriction on industry. Currently there is no consistency in restrictions across the tri-states which creates confusion within industry, hampering compliance and risk management.

**Recommendation 8:** *Commonwealth to take a greater oversight role in responses to better coordinate state jurisdictions to provide greater consistency in restriction, surveillance requirements and communication.*

## Summary

AHBIC thanks the Standing Committees on Rural and Regional Affairs and Transport for the opportunity to provide a submission. Australia has a strong biosecurity system but like all systems there is always room for improvements.

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<sup>i</sup> Karasinski, J. J. P. a. (2017). "The Economic Valuation of Australian Managed and Wild Honey bee Pollinators."

<sup>ii</sup> Clarke, M., et al. (2021). "Size and scope of the Australian honey bee and pollination industry—a snapshot." AgriFutures Australia(20-136).

<sup>iii</sup> <https://ecos.csiro.au/its-official-our-honey-bees-are-some-of-the-healthiest-in-the-world/>

<sup>iv</sup> [Biosecurity Imports levy: a way forward \(agriculture.gov.au\)](https://www.agriculture.gov.au/biosecurity/imports/levy)