Final Report

National Bee Pest Surveillance Program: Transition Program

Project leader:

Jonathan Terlich

Delivery partner:

Plant Health Australia

Report author/s:

Rohan Burgess, Cheryl Grgurinovic, Ankita Unnikrishnan

Project code:

MT21008

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Public summary

The National Bee Pest Surveillance Program (NBPSP) was established as risk-based surveillance program operating at ports evaluated as posing the highest risk of entry and establishment of European or Asian honey bees and the exotic bee mites they carry. The NBPSP involves a range of surveillance activities, and diagnostic techniques to target and provide early detection of the 12 high priority exotic and 6 regionalised honey bee pests and pest bees.

The NBPSP is delivered by all State and the Northern Territory governments which conduct surveillance activities including monitoring of sentinel bee hives, swarm capture, and floral sweep netting. Participating jurisdictions also provide significant in-kind resources and expertise to the program. Funding for the Program is through Hort Innovation using research and development levies of 14 horticultural industries, with significant contributions from states and territories and co-investment from Australian honey bee industry Levies, Grain Producers Australia and the Australian Government.

Since commencing in 2021 the current program has conducted surveillance at high-risk ports, resulting in the collection of more than 45,000 surveillance records. Importantly, the program has been critical in the detection of *Varroa* mites. In June 2022, *Varroa destructor* was first detected during NBPSP surveillance near port of Newcastle, New South Wales. This detection, although unable to be eradicated, highlights the effectiveness of sentinel hive based surveillance activities for the detection of honey bee pests.

PHA also developed a series of media pieces to communicate NBPSP achievements and raise the awareness of honey bee pests with industry and the public. These include more than 42 media pieces published in industry newsletters, magazines, radio interviews, conference posters, and the annual publication of a NBPSP infographic on the PHA website that reports on key achievements of the program each calendar year.

PHA consulted with government and industry stakeholders in 2024 and 2025 to discuss the future focus, funding principles and required improvements to program's communication activities. The consultation found support for the continued use of a sentinel hive focused program targeting exotic and regionalised honey bee pests and pest bees; and identified need for increased virus testing as *V. destructor* becomes established in parts of Australia. Stakeholders also noted that the current arrangement of industry and governments providing funding towards the program supports the principle that biosecurity is a shared responsibility. From a communication perspective, the consultation noted the need to target messaging directly to pollination reliant industries through grower newsletters and by ensuring messages are relevant, practical, and people-focused to improve awareness of the program at the grower level.

Based on the outcomes and findings of this project, the four recommendations are made to improve surveillance outcomes for exotic and regionalised honey bee pests and pest bees:

1. Continue to undertake surveillance at high-risk ports targeting exotic and regionalised honey bee pests and pest bees.
2. Expand surveillance activities targeting exotic honey bee viruses.
3. Better target communication messages and deliverables to increase awareness of the program, especially pollination-reliant plant industries.
4. Continue to investigate sustainable funding arrangements to support the NBPSP beyond 2030.

Keywords

National Bee Pest Surveillance Program; honey bee; honey bee pests; pest bees; pollination services; surveillance, sentinel hives.

Introduction

The Australian honey bee industry is a small but critical part of Australian agriculture – worth over $360 million[1] in honey and bee products annually. This value is overshadowed by the vital role honey bees play in pollination, with more than $12 billion of Australian crops at least partially reliant on honey bee pollination[2].

Current data on national hive numbers has shown that the honey bee industry consists of over 866,000 managed hives. Approximately three-quarters of these hives are managed by Australia's 1,800 commercial beekeepers whose numbers have remained relatively stable over time. While the recreational sector has increased from 28,000 in 2019 to approximately 47,000 registered recreational beekeepers in 2023[1].

Australia is currently free from many damaging pests that impact honey bee health overseas. These include internal and external mites, viruses, beetles and pest bees. To protect Australia from these pests the National Bee Pest Surveillance Program (NBPSP) was established in 2013 and has been expanded and refined over the subsequent years to its present form.

Due to the nature of bee robbing between colonies and hive movement between regions early detection is necessary to protect the Australia's honey bee and pollination reliant industries from the impact of these biosecurity risks, as is allows the best chance of finding pests before they have spread widely providing the best chance to contain or eradicate pest outbreaks.

The NBPSP operates at port locations around Australia to provide an early detection system for exotic and regionalised honey bee pests, diseases and pest bees that could impact the honey bee and pollination-reliant plant industries. The NBPSP is delivered as a partnership between industry and government, and funded by Hort Innovation, Australian Honey Bee Industry Council (AHBIC) and Grain Producers Australia. The program is coordinated by Plant Health Australia (PHA), with government departments delivering surveillance activities and providing significant in-kind resources and expertise.

The current phase of the program was established in 2021 to conduct surveillance for exotic and regionalised pests and look at ways to improve and sustain the program. Key achievements were communicated to stakeholders periodically over the course of the project via a variety of media. The program included significant consultation with government, honey bee and pollination-reliant industry stakeholders to discuss the future funding and direction of the program. This consultation was used to ensure the next phase of the program will continue to meet the needs of stakeholders and support early detection of exotic high priority pest threats that could enter and establish in Australia.

The following methodology section outlines how surveillance activities were delivered across high-risk ports and airports across Australia.

Methodology

National surveillance for honey bee pests and pest bees

The NBPSP undertakes surveillance at ports that were evaluated by DAWE (2020) as posing the highest risk of entry and establishment of European or Asian honey bees and the exotic bee mites they carry. The NBPSP conducted surveillance at 19 ports consisting of 8 'core' high-ports funding by the program and 11 lower risk ports surveyed as an in-kind contribution by state governments (Table 1).

Governments in all states and the Northern Territory were responsible for collecting surveillance data in accordance with

[1] Clarke M and Le Feuvre D (2024) Size and scope of the Australian honey bee and pollination industry. AgriFutures Australia publication no. 24-107.
[2] Gillespie R, Clarke M and Frost E (2024) Value of honey bee pollination to the Australian economy. AgriFutures Australia publication no. 24-111.

the Data Standard Specifications for the NBPSP. These are aligned with the National Pest Record Specification for surveillance and comply with Australia's reporting obligations for the National Animal Health Information System. Surveillance data was uploaded into AUSPest*Check*®, as the national aggregation database for plant health surveillance, allowing its use to support national reporting obligations.

Table 1 Ports identified to be of highest risk of entry of either Asian pest bees or European honey bee

Port	Pest risk status	
	Asian pest bees	**EHB (i.e. the pests they may carry)**
Queensland – Townsville*	High	Medium
Queensland – Brisbane*	High	High
New South Wales – Port Botany*	High	High
New South Wales – Port Kembla**	Very low	Medium
New South Wales – Newcastle**	Very low	Very low
Victoria – Port of Melbourne*	High	High
Victoria – Geelong**	Very low	Medium
Victoria – Portland**	Very low	Very low
Victoria – Westernport**	Very low	Very low
Northern Territory – Darwin*	High	Medium
South Australia – Port Adelaide*	Very low	High
South Australia – Adelaide Airport**	Low	Low
Western Australia – Fremantle*	High	High
Western Australia – Geraldton**	Very low	Very low
Western Australia – Bunbury**	Very low	Very low
Tasmania – Launceston (Bell Bay)*	Very low	Medium
Tasmania – Hobart**	Very low	Very low
Tasmania – Burnie**	Very low	Very low
Tasmania – Devonport**	Very low	Very low

**Ports identified as highest of risk for entry of either Asian pest bees or European honey bees (and associated pests) as part of the Ports Risk Assessment for Bee Biosecurity (DAWE, 2020). These ports are included as highest priority and supported as part of the 'Core Program'.*

*** Ports serviced with surveillance activities by relevant jurisdictions as their in-kind commitment to the national program.*

NB: ACT was considered to be 'Negligible' risk in the analysis, as its only port is the airport, and international connections are very low. Given the ACT Govt. had no available resources to operate any in-kind activities, we were unable to include it in the current program.

The NBPSP involves a range of surveillance activities, and diagnostic techniques to target and provide early detection of the 12 high priority exotic and 6 regionalised honey bee pests and pest bees (Table 2). These activities include the use of sentinel hives and guard hives that are inspected every 6 weeks using acaracide treatments with sticky mats, alcohol wash, sugar shake, drone uncapping and bee dissection methods to detect exotic honey bee pests. Sweep netting, Rainbow bee-eater pellets and pheromone ballooning are used to detect exotic pest bees. The program also conducts swarm captures and operates approximately 100 remote or standard catch boxes, which are designed to be attractive to honey bee swarms. Once collected swarms are euthanized and assessed for exotic pests.

Table 2 Surveillance activities for the highest priority exotic and regionalised pests of honey bees

Activity	**Description**	**Pest targets**
Sentinel hives	Live hives (colonies) of bees located at or near ports that are assessed for pests using techniques including acaricide (mite) treatments, sticky mat inspections, dissection of bees, visual inspection of hive, frames and workers.	Varroa mites (*V. destructor* and *V. jacobsoni*); Tracheal mites (*Acaris* spp.); viruses; Tropilaelaps mites (*Tropilaelaps clareae* and *T. mercedesae*) using bees collected from hives); Braula fly (*Braula coeca*); Small hive beetle (A*ethina tumida*); Large African hive beetle (*Oplostomus fuligineus)*; Maximum Residue Limit testing for acaricide chemicals in honey
Acaricide treatments and sticky mats	Techniques used to dislodge and collect external mites from samples of bees.	Varroa mites; Tropilaelaps mites, Braula fly
Guard hives	Live hives (colonies) of bees located at or near ports that are assessed for pests using techniques such as sticky mats (with no acaricide), alcohol wash, sugar shake or drone uncapping techniques, visual inspection of hives and frames. Bees may be sampled from these hives.	Varroa mites; Braula fly; Small hive beetle; Large African hive beetle. Tropilaelaps mites, Tracheal mites (*Acaris* spp.) (using bees collected from hives)
Alcohol wash, sugar shake and drone uncapping	Techniques used to dislodge and collect any potential external mites from samples of workers, or brood.	Varroa mites; Tropilaelaps mites
Sweep netting	Sweep netting flowering plants or at sugar feeding stations to capture bees.	Asian pest bees (*Apis cerana, A. dorsata, A. florea*); Bumble bee (*Bombus* spp.); European honey bee (*A. mellifera*; EHB) (for potential pests they may carry)
Rainbow bee-eater pellets	Collection of regurgitated pellets from Rainbow bee-eaters to assess for wings of EHB and exotic bee species.	Asian honey bee (*A. cerana*; AHB); EHB (to identify populations in the area)

Activity	Description	Pest targets
Pheromone ballooning	Pheromones specific to Asian honey bee (AHB) drones attached to helium balloons. Inspection of any collected bees from around the balloons indicates the presence of an AHB colony in the vicinity.	AHB; (*V. jacobsoni*)
Standard catchboxes	Empty boxes placed at ports which provide locations for swarms to establish.	EHB (for potential pests they may carry)
Remote catchboxes	Empty boxes that can be monitored and closed should a new swarm enter the box.	EHB (for potential pests they may carry)
Swarm and nest capture	Swarms captured at ports are inspected to determine if they are carrying bee pests or are new pest bee species.	Potentially the full range of bee pests and pest bees (with the exception of Braula fly, Small hive beetle, Large African hive beetle)
General surveillance	Communication and engagement techniques to improve awareness and surveillance by recreational and commercial beekeepers or communities. Data from general surveillance may not be formalised, but general surveillance can occur more often across wider areas.	Potentially Varroa mites; Asian pest bees, Bumble bee; Small hive beetle; Large African hive beetle; wasps and hornets (*Vespa* spp.) (depending on the engagement activities undertaken)

Program coordination and data capture

PHA coordinated all surveillance activities outlined for the NBPSP, including all subcontracts and reports from the participating jurisdictions. PHA was responsible for the purchase of sticky mats and acaricides used in the program, including arranging Australian Pesticides and Veterinary Medicines Authority (APVMA) minor use permits and import permits where required.

PHA worked closely with jurisdictions to collate and upload data into the national data aggregation tool, AUSPest*Check*® to support national and international reporting requirements for bee pests, including Australia's reporting obligations for the National Animal Health Information Program.

To ensure sound program governance PHA established a National Bee Biosecurity Steering Group made up of representatives from Hort Innovation, AgriFutures, state, territory, and Commonwealth governments and Grain Producers Australia and Australian Honey Bee Industry Council (AHBIC). Two Project Steering Committees were held each year. At times a Technical Working Group was established to consider specific matters (e.g., improved surveillance techniques). PHA assisted in the development of Terms of Reference for both committees and provided secretariat support.

Communication

PHA worked with participants to develop a Stakeholder Engagement and Communications Plan in mid-2022 to provide guidance on the development of communications materials about the program.

PHA developed extension material to support awareness of the importance of the NBPSP and early detection surveillance in the form of radio interviews, conference posters and media articles suitable for inclusion in honey bee and plant

industry newsletters and/or websites.

Industry consultation

In 2024, PHA consulted with government and industry stakeholders on the future of the NBPSP. Building on this initial stakeholder consultation, PHA designed and delivered a survey and three virtual workshops in the first half of 2025 to further engage key stakeholders, including pollination-reliant horticulture and grains industries. The workshops sought further input on key aspects of program design, to understand stakeholder communication needs and to help generate stakeholder support for the proposed future five-year program.

Investigation of a potential sustainable funding model for bee pest surveillance

To ensure the continued delivery of surveillance activities into the future, this project undertook consultation to investigate models that could be adopted to provide a sustainably funded approach for future surveillance that achieves positive biosecurity outcomes.

Guided by the feedback gathered through government and industry consultation undertaken in 2024 and 2025, a SWOT analysis was undertaken to compare the suitability of the various models.

Results and Discussion

The NBPSP has successfully delivered surveillance at 19 ports resulting in the collection of more than 45,000 surveillance records. Significantly, the program made the initial detection of *V. destructor* at Newcastle in June 2022. Although *V. destructor* was unable to be eradicated, this highlights the value of the NBPSP for early detection of honey bee pests. Over the last 4 years the program has developed 42 communication pieces to communicate the importance of the program and the importance of pest reporting to governments, industry and members of the public.

In 2024, PHA commenced consultation with jurisdictions and industry stakeholders to determine the future direction of the NBPSP. The consultation identified a continued need for a national surveillance program after *V. destructor's* establishment. Due to the interest in continuing the program, further consultation was undertaken in 2025 to more fully understand the communication needs of stakeholders, understand their needs from a future program and discuss key principles for sustainably funding the program.

Findings from this consultation were used to develop a SWOT analysis of four potential funding models (**Attachment 1**) and to develop a 5-year plan for the next phase of the NBPSP (**Attachment 2**). Due to the time required to implement any of the proposed funding models, and in light of another project that is simultaneously investigating an ideal 2030 state of the NBPSP, the 5-year plan has focused on maintaining surveillance activity while enhancements are considered and developed.

National surveillance for honey bee pests and pest bees

Since commencing in 2021 the current program has conducted surveillance at 19 ports, resulting in the collection of more than 45,000 surveillance records (**Appendix 1**). To achieve this the program uses a variety of surveillance methods[3], with

[3] The program utilizes a number of surveillance methods including sentinel hives and guard hives that are inspected every 6 weeks using acaracide treatments with sticky mats, alcohol wash, sugar shake, drone uncapping and bee dissection methods to detect exotic honey bee pests. Sweep netting, Rainbow bee-eater pellets and pheromone ballooning are used to detect exotic pest bees. The program also conducts swarm captures and operates approximately 100 remote or standard catch boxes, which are designed to be attractive to honey bee swarms. Once collected swarms which are euthanized and assessed for exotic pests.

most conducted every 6 weeks, to provide the greatest chance of detecting a pest out quickly enough that eradication may be possible.

Importantly, the program has been critical in the detection of *Varroa* mites. In June 2022, *V. destructor* was detected during routine surveillance near port of Newcastle, New South Wales. Mites were found on sticky mats placed in sentinel hives to trap external parasites (Bourke et al. 2024). More recently in February 2024, a single *Varroa jacobsoni* was detected in one of six sentinel beehives at the Port of Brisbane (Queensland Government 2024). These detections highlight the effectiveness of sentinel hive-based surveillance activities. However, the establishment of *V. destructor* also raised questions about the future direction of the NBPSP.

Following extensive consultation in 2024 and 2025, a five-year plan for the next phase of the NBPSP has been developed (**Attachment 2**) and shared with Hort Innovation. This is intended to allow continuation of surveillance activities targeting exotic and regionalised honey bee pests and pest bees at similar locations and using similar surveillance methods as surveyed under the current program. As part of the next 5-year plan provision has been made to improve communication outcomes, increase virus testing and to support the development of annual reports providing an update on the status of activities in the five-year implementation plan for national bee biosecurity surveillance activities being developed by AgEconPlus as part of a separately funded project due for completion in 2026.

Program coordination and data capture

Since 2021 PHA worked closely with industry and government stakeholders to coordinate activities and successfully deliver the NBPSP. Surveillance activities were delivered by state governments and the Northern Territory government. PHA ensured the delivery of the program by:

- Developing and maintaining a Program Logic, a Monitoring and Evaluation Plan and a Project Risk Register.
- Sub-contracting participating jurisdictions to deliver surveillance activities.
- Reviewing 6-monthly milestone reports from participating jurisdictions.
- Purchasing sticky mats and acaricides, including maintaining national emergency use permits and import permits where applicable.
- Supporting jurisdictions to upload surveillance data to AUSPestCheck® (as required).
- Establishing and maintaining a National Bee Biosecurity Steering Committee and a Technical Working Group. Including providing Secretariat support for the National Bee Biosecurity Steering Committee and Technical Working Group.
- Developing and implementing a communications plan for the program.
- Preparing and submitting milestone reports to Hort Innovation.

This national coordination function has ensured that the program was able to operate in all states and the Northern Territory using nationally agreed surveillance methods and data capture.

Communication

In the first 6 months of the project PHA developed detailed Stakeholder Engagement and Communications Plans to provide guidance on the delivery of the NBPSP's communication outputs.

Following these plans, PHA worked with industry, Hort Innovations Communications team and others to develop 42 media pieces over the course of the project. These ranged from publications in e-newsletters, such as Tendrils, through to industry magazines, such as Mango Matters, Australian Berry Journal and poster presentations for the Australian Biosecurity Symposium. Social media has also been adopted periodically to raise awareness of the program with a wide range of stakeholders.

These communication pieces were designed to raise awareness of the program's activities and importance with government, industry and community stakeholders. However, it is recognised that there is room for improvement in the delivery of these messages. During the industry consultation undertaken in the first half of 2025 several suggestions were made to improve the programs communication approach including making articles more people focused and better directed to ensure messages reach their intended audiences. These enhancements have been noted in the proposed 5-year plan for the next phase of the program (**Attachment 2**).

In addition to the development of media articles, PHA provided input into the Animal Health in Australia (AHiA): System Report discussing the program, helping promote the program at a national and international level.

Industry consultation

In 2024 and 2025, PHA undertook extensive consultation with the honey bee and pollination-reliant industries as well as key government stakeholders to inform the future design of the NBPSP. The consultation aimed to ensure the program would continue to meet the needs of stakeholders.

2024 stakeholder consultation

In 2024, PHA engaged stakeholders on future directions for the NBPSP. Stakeholders including AHBIC, Grain Producers Australia, AgriFutures, Hort Innovation, Grain Research and Development Corporation, the representatives from the Australian and all state and territory governments were individually interviewed.

Stakeholders strongly supported maintaining and strengthening national bee pest surveillance, noting the importance of maintaining honey bee health following the detection of *V. destructor* in New South Wales. The consultation showed support for the continued use of sentinel hives at high-risk ports and noted the need to develop a strategy to explore new surveillance methods and technologies. Finally, it was found that the current industry-government partnership model was fair in that it involved the direct beneficiaries and supports the principle that biosecurity is a shared responsibility.

Informed by this consultation PHA led the development of three high-level program options for a coordinated five-year surveillance program. These options (Option A – Expand and enhance; Option B – Align strategically and integrate; and Option C – Continue current) were discussed at the Subcommittee on National Plant Health Surveillance meeting (SNPHS24) who recommended Option B be considered assuming no budget limitations.

Following this recommendation a paper was also submitted to Plant Health Committee meeting (PHC 65), which presented the three options and recommended Option B, the 'BeeWatch' program designed to strategically align all national bee biosecurity initiatives (such as the NBPSP, National Bee Biosecurity Program and Bee Pest Blitz) the preferred option for adoption. There was agreement that Option B was the preferred option, but the committee noted that adoption would require further work to explore funding and implementation options.

2025 survey and workshops

In 2025 PHA conducted further consultation to ensure support for a future program, discuss funding principles and the programs communication needs.

An online survey was distributed to a broad range of peak industry bodies, industry representatives and Research and Development Corporations including AHBIC, Grains Research and Development Corporation, AUSVEG, Melons Australia, Australian Mango Industry Association, Apple and Pear Australia Limited, Passionfruit Australia, Australian Lychee Growers Association, Australian Almond Board, Summerfruit Australia, Berries Australia and Cherry Growers Australia, and pollination service providers. The survey comprised 14 questions covering the impacts of *V. destructor*, threats to honey bee populations that should be surveyed for, what aspects of the program are most important to industry, communication needs, key elements of a sustainable funding models, and potential sources of funding.

The survey responses provided baseline insights into stakeholder expectations for a future surveillance program and principles for funding the program. Survey results were then discussed in more detail at three Stakeholder Workshops held on 6, 7 and 12 May 2025. Key findings from these workshops are provided in **Attachment 3** and included:

- Suggestions to shape the future program:
  - Participants were broadly supported the NBPSP's focus on early detection of High Priority Pests, recognising the NBPSP's importance in preventing pest establishment and broader industry impacts.
  - Increased virus testing was seen as important, as further entry of viruses may compound the impact of *V. destructor*.
  - The Program's inclusion of both regionalised (e.g. Braula fly) and exotic pests was seen as beneficial and should be continued as it was perceived as having minimal cost implications.
  - Improving Program efficiency was also considered important. Discussions noted that the program should investigate the use of new technologies to improve the programs efficiency.
- Suggestions to improve the effectiveness of the program's communication activities:
  - Better education and engagement are needed to gain and improve support from stakeholders. To build trust and engagement, the Program must use tailored, accessible communication strategies that are relevant, practical, and people-focused. Growers can be a hard-to-reach audience, and communications needs to be channelled through grower associations and trusted state representatives.
  - Communications should address the 'What's in it for me?' factor to encourage stakeholder buy-in. The emphasis should be on storytelling to highlight successes, show economic value, and be transparent about potential challenges.
  - Communications should highlight the Program's real-world successes like what pests were detected or prevented.
  - Approaches should include industry-specific messaging, case studies, international pest impacts, and flexible media formats such as podcasts and targeted outreach through grower associations.

The 2024 and 2025 consultation was then used to inform the key principles of a sustainable funding model for honey bee surveillance and provided guidance on the direction of the next phase of the program (including the continued inclusion of regionalised pests, increased virus testing and a redesigned communications plan to better target communication materials to meet the needs of stakeholders).

Investigation of a potential sustainable funding model for bee pest surveillance

Key findings identified from the 2024 and 2025 consultation were that funding should be fair, consistent, and inflation proof, with good governance structures and costs shared between program beneficiaries. In the case of the NBPSP this would include funding contributions from the honey bee, pollination-reliant industries, Australian, State and Territory governments who all benefit from the program. These findings are also consistent with the recommendations from two senate inquiries in 2014 and 2022 (Commonwealth of Australia, 2014; 2022).

Four potential funding models (R&D Funding (with additional industry and government contributions); R&D Funding (with additional Industry Funding); Industry Funding (with additional government contributions); and Government Funding) were identified that could be used to support the implementation of a sustainably funded, equitable and adequately resourced program to ensure Australia remains resilient to honey bee pests and diseases.

An analysis of the four funding models was undertaken and is provided in **Attachment 1**. Based on this analysis a research and development funding model (with additional industry/government funding or support), represents the most balanced and sustainable option for the NBPSP at this time. However, other options may be considered.

PHA also understands that AgEconPlus has been contracted by the Australian Government to investigate funding options suitable for a future program beyond 2030 and will be delivering an Implementation Plan in early 2026, which will be delivered simultaneously with the next phase of the NBPSP. Once all information is available selection of a sustainable funding option can be considered and discussed further with stakeholders.

Outputs

Table 3 Output summary

Output	Description	Detail
Targeted surveillance activities for 13 priority pests including exotic and regionalised bee pests	Seven state and Northern Territory Government agencies undertaking targeted surveillance across eight highest risk seaports and additional locations. Surveillance activities take place at 6-weekly intervals targeting 12 high priority exotic and 6 regionalised honey bee pests and pest bees.	All government agencies continue to deliver surveillance activities. A summary of available data collected over the course of the project is provided as **Appendix 1**. Full dataset is available on AUSPest*Check*® and can be provided on request.
Data collection and input into AUSPestCheck®	Surveillance data submitted to AUSPestCheck® to provide national collation of information on the status of key pest threats to the honey bee industry meeting both plant and animal health information reporting.	All data received has been collated into AUSPestCheck®. A summary and screenshots of the data from AUSPest*Check*® are included in **Appendix 1.**
Grower and community articles	Communication of exotic pest threats and NBPSP achievements to industry and the public through a minimum six articles published annually.	Since the project commenced 42 media pieces have been developed and published in a range of publications including e-newsletters, such as Tendrils, through to industry magazines, such as Mango Matters, Australian Berry Journal and poster presentations for the Australian Biosecurity Symposium. Social media has also been adopted periodically to raise awareness of the program with stakeholders. Copies of these publications are included in **Appendix 2**.An NBPSP infographic has been published annually which reports on key program achievements.
Consultation on a sustainable funding model for surveillance for honey bee pests	Led consultation with the Australian Honey Bee Industry Council, Hort Innovation, Grain Producers Australia, AgriFutures, Australian government and all state and territory governments to identify options for funding and delivery for ongoing bee pest surveillance.	Consultation was undertaken in 2024 and 2025 to discuss the future direction of the program and key funding principles. Consultation was undertaken 2024 interviewing a range of industry and government stakeholders. This identified support for the continued use of sentinel hives at high-risk ports and noted the need to develop a strategy to explore new surveillance methods and technologies. Stakeholders also noted that the current industry-government partnership model was fair in that it involved the direct beneficiaries and supports the principle that biosecurity is a shared responsibility. In 2025 PHA conducted further consultation to ensure support for a future program. This included the circulation of a survey to honey bee industry

Output	Description	Detail
		and pollination-reliant industries in April 2025. The survey included questions to identify interest and potential funding sources for a future program. Three identical workshops were held in May 2025 to further explore the findings of the survey and gain support for a future program. Findings aligned with the 2024 consultation identifying the continued importance of honey bee pest surveillance activities. Additionally, it was noted that funding needs to be fair, transparent, inflation proof and supported by sound governance structures.

Outcomes

Table 4 Outcome summary

Outcome	Alignment to fund outcome, strategy and KPI	Description	Evidence
Intermediate Outcomes			
Nationally consistent surveillance data meeting national standards	Hort Frontiers Pollination Strategic Investment Plan (SIP) 2020-2025 Outcome 1: Improved management of European honey bees for pollination.	PHA continues to work with jurisdictions to ensure data meets the *AUSPest*Check® *NBPSP Data Standard Specifications* and aligned where possible to *National Surveillance Protocols* and the *National Pest Record Specification*	Feedback provided to government agencies on data quality being submitted allowing for continuous improvement over time.
Implementation of a risk-based surveillance design for exotic honey bee pests	Hort Frontiers Pollination SIP Outcome 1: Improved management of European honey bees for pollination.	Activities are prioritised across eight highest risk ports. A further 11 in-kind (medium or lower risk rated ports) are delivered by agencies.	Liaison with state and territory government agencies to mitigate risks as required.
Greater collaboration between industry and government	Hort Frontiers Pollination SIP Outcome 1: Improved management of European honey bees for pollination.	The National Bee Biosecurity Steering Committee provides an important mechanism for greater collaboration between industry, government and Research and Development Corporations.	Seven National Bee Biosecurity Steering Committee meetings were held over the course of the project: • 2 November 2022 • 27 April 2023 • 1 November 2023 • 24 April 2024

Outcome	Alignment to fund outcome, strategy and KPI	Description	Evidence
			• 6 November 2024 • 7 April 2025 • 17 November 2025.
Awareness across all stakeholders of the risk posed by exotic bee pests, the role of the project and project partners.	Hort Frontiers Pollination SIP Outcome 1: Improved management of European honey bees for pollination.	Awareness regarding exotic pests, the impact these pests have to stakeholders (primarily industry) and the role of the NBPSP is being achieved through communication pieces. An NBPSP infographic has been published which reports on key program achievements and made available on the PHA webpage.	Since the project commenced 42 media pieces over have been developed and distributed in a range of publications including e-newsletters and industry magazines, such as Mango Matters, Australian Berry Journal and poster presentations for the Australian Biosecurity Symposium (**Appendix 2**). An NBPSP infographic has been published annually which reports on key program achievements.
End-of-project Outcomes			
Exotic pest surveillance activities designed and delivered for the greatest sensitivity, sustainability, and cost-effectiveness.	Hort Frontiers Pollination SIP Outcome 1: Improved management of European honey bees for pollination.	State and Northern Territory Government agencies have provided workplans outlining anticipated surveillance activities focused at 8 of the highest risk ports and a further 11 lower risk ports. The *Bee Pest Surveillance* BOLT course is designed to provide training and resources for the officers delivering the NBPSP. New staff and managers joining the program are encouraged to complete the course to familiarise themselves with the key surveillance techniques and tools used in the program. This course was originally developed as part of a project funded by the Department of Agriculture,	Direct feedback from program collaborators.

Outcome	Alignment to fund outcome, strategy and KPI	Description	Evidence
		Fisheries and Forestry.	
Sustainable funding model for long term delivery of surveillance for honey bee pests	Hort Frontiers Pollination SIP Outcome 1: Improved management of European honey bees for pollination.	PHA undertook a stakeholder consultation process in 2024 and 2025 to discuss the future of the NBPSP and determine the key principles of a sustainable funding model for a future program. Findings from this consultation supported an analysis of funding options.	Feedback from consultation with pollination-reliant industries and pollination suppliers.

Monitoring and evaluation

Table 5 Key Evaluation Questions

Key Evaluation Question	Project performance	Continuous improvement opportunities
1. To what extent has the project achieved its expected outcomes? a) To what extent has the project implemented activities nationally for the early detection of exotic bee pests? b) To what extent has the NBPSP improved relationships, collaborations and information sharing with other key actors, such as government biosecurity personnel and other plant industries? c) To what extent has the NBPSP improved the knowledge and awareness of honey bee exotic pests? d) To what extent has the project investigated possible funding options to deliver a future honey bee surveillance program?	The program has successfully delivered against its surveillance outcomes through the collection of over 45,000 surveillance records across 19 ports in all Australian states and the Northern Territory (**Appendix 1**). Importantly, the NBPSP successfully detected *V. destructor* in June 2022, which although unable to be eradicated highlights the importance of the program as an early detection program. As part of the program's delivery, PHA has undertaken significant consultation in 2024 and 2025 to investigate the future direction and sustainable funding of the program. This consultation informed a SWOT analysis of four funding models (**Attachment 1**) and the development of a 5-year plan for the next phase of the NBPSP (**Attachment 2**).	R&D opportunities were identified for projects to improve the surveillance program. The upload of data was streamlined due to improvements to the Data Standard Specifications for the NBPSP, which included the development of a Group Target Absence Generator (GTAG) to support simplified data recording. Consultation also identified areas to improve the communication of program achievements which will be incorporated into the next phase of the NBPSP.

Key Evaluation Question	Project performance	Continuous improvement opportunities
2. How relevant was the project to the needs of intended beneficiaries? a) Did the NBPSP provide delivery of surveillance activities at highest risk ports that support timely detection of exotic species? b) Did the NBPSP communicate the need for surveillance and timely detection of honey bee pests to industry beneficiaries?	The program was directly relevant to beneficiaries by supporting surveillance activities at high-risk ports and communicating program achievements through various media. This has resulted in the collection of more than 45,000 surveillance records from 19 ports across Australia and the delivery of 42 media pieces to promote the program's achievements (**Appendix 2**).	Each year two National Bee Biosecurity Steering Committee meetings (with members including industry, government and Research and Development stakeholders) are held to discuss the program and areas for improvement. This allows for continuous improvement to occur over time. Additionally, stakeholder consultation undertaken in 2025 was designed to explore ways to improve the programs communication outputs, which are being implemented.
3. How well have intended beneficiaries been engaged in the project? a) With what frequency has the NBPSP informed levy industries about its activities? How many communication channels were used? b) To what extent were the target engagement levels of industry levy payers achieved?	To engage with program beneficiaries the project developed a communications plan to deliver 6 media pieces annually which were distributed through various e-newsletters, industry magazines, radio and at conferences. In total 42 media pieces were delivered over the course of the project (**Appendix 2**).	Each year two National Bee Biosecurity Steering Committee meetings (with members including industry, government and Research and Development stakeholders) are held to discuss the program and areas for improvement. This allows for continuous improvement to occur over time. Additionally, stakeholder consultation undertaken in 2025 was designed to explore ways to improve the programs communication outputs, which are being implemented.
4. To what extent were engagement processes appropriate to the target audience/s of the project? a) Did the project engage with industry levy payers through their preferred learning style? b) How accessible were communications and media releases to various audiences?	Consultation undertaken in 2025 sought information on stakeholders' preferred learning styles and delivery methods. The consultation noted that communications need to be relevant, practical, and people-focused to encourage stakeholder buy-in.	Communication strategies were refined based on feedback received. Findings from the 2025 consultation will also be used to inform the communications plan for the next phase of the NBPSP.
5. What efforts did the project make to improve efficiency? a) What efforts did the project make to improve program management and delivery?	The program has taken steps to improve its management and delivery of surveillance activities. National Bee Biosecurity Steering Group also plays a critical role in raising	The NBPSP has looked at ways to continuously improve. Over the last four years the process of submission and upload of surveillance data has seen

Key Evaluation Question	Project performance	Continuous improvement opportunities
b) Has the NBPSP refined annual surveillance workplans based on a risk approach operation? c) Are there arrangements identified to continue surveillance for high priority pests of the honey bee industry in the longer term?	suggestions for enhancements and agreeing to their inclusion in the program.	improvement including the addition of Group Target Absence Generators (GTAGs) to simplify upload of data to AUSPest*Check*®. Additionally, the establishment of *V. destructor* in some states has necessitated changes to the program. This has seen increased virus screening in NSW, which following discussion by the National Bee Biosecurity Steering Group, is planned to be expanded to other jurisdictions as part of the next phase of the program.

Recommendations

Based on the outcomes and findings of this project, the following recommendations are made to improve surveillance outcomes for exotic and regionalised honey bee pests and pest bees:

1. **Continue to undertake surveillance at high-risk ports targeting exotic and regionalised honey bee pests and pest bees.**

   Key findings from the consultation undertaken in 2024 and 2025 identified stakeholders desire to continue surveillance activities post-establishment of *V. destructor*. This reflects that *V. destructor*, although arguably the most significant threat to honey bees, is but one of many damaging agents that threatens the health of honey bees in Australia. Further, consultation noted that regionalised pests should remain a focus of the program reflecting their risk to jurisdictions where they are not yet established and the limited additional costs of conducting surveillance targeting them.

2. **Expand surveillance activities targeting exotic honey bee viruses.**

   The 2024 and 2025 consultation noted that *V. destructor's* establishment significantly increases the potential impact of viruses on Australia's honey bees. It is well known that *V. destructor* is an effective vector of a range of honey bee viruses. Considering this threat there is value in undertaking increased virus testing. This was raised at recent National Bee Biosecurity Steering Committee meeting in November 2025 and has been included in the proposed 5-year plan for the next phase of the program.

3. **Better target communication messages and deliverables to increase awareness of the program, especially pollination-reliant plant industries.**

   The 2025 industry consultation identified a need to improve the targeting of communication messages to ensure continued support of industry for the program. The consultation noted that messages should address the 'what's in it for me?' factor to encourage stakeholder buy in. the emphasis should also be on story telling highlighting the activities of staff to support the program and explaining the real-world outcomes of the program such as which pests have been detected and eradicated because of the NBPSP. To ensure messages reach key audiences the program should work more closely with pollination-reliant industries and publish on their newsletters, magazines or use other media formats used by their members such as podcasts.

4. **Continue to investigate sustainable funding arrangements to support the NBPSP beyond 2030.**

   Key principles of sustainable funding were identified through consultation. It was found that funding needs to be fair, equitably funded, inflation proof and supported by sound governance arrangements. Four funding models were assessed through the current program each with unique strengths, weaknesses, opportunities and threats. Because it will take time to develop a sustainable funding framework the next 5-years are expected to act as a transitional program to allow surveillance to continue while funding frameworks are established.

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Clarke M and Le Feuvre D (2024) Size and scope of the Australian honey bee and pollination industry. AgriFutures Australia publication no. 24-107.

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Gillespie R, Clarke M and Frost E (2024) Value of honey bee pollination to the Australian economy. AgriFutures Australia publication no. 24-111.

Queensland Government (2024). Varroa mite detected but not 'destructor' species that hit NSW. Media statement.

Intellectual property

No project IP or commercialisation to report.

Acknowledgements

Plant Health Australia would like to acknowledge the program funders. Funding for the program was provided by Hort Innovation using the research and development levies of 14 horticultural industries and contributions from the Australian Honey Bee Industry Levies, Grain Producers Australia, the Australian Government through matched funding, and is delivered by State and Territory governments which also provide significant in-kind resources and expertise.

Plant Health Australia would also like to thank all current and past staff involved in the delivery of the program including apiary surveillance officers, members of the National Bee Biosecurity Steering Committee, Technical Working Group and other members of the project team.

Appendix 1 – AUSPest*Check*® data summary 15 June to 12 December 2025

Surveillance activities High-risk locations

Surveillance for high priority pests has been coordinated across seven government jurisdictions at eight 'core' high-risk ports: Brisbane, Townsville, Melbourne, Fremantle, Port Botany, Port Adelaide, Darwin and Bell Bay (Launceston).

In-kind locations

Surveillance at additional ports supports national objectives through in-kind contributions by state agencies in Victoria (Geelong, Portland and Westernport), Western Australia (Geraldton and Bunbury), New South Wales (Port Kembla and Newcastle), Tasmania (Hobart, Devonport, Burnie), South Australia (Adelaide airport) and Norfolk Island.

Table 6 Breakdown of surveillance activities completed under the program

Activity description	Number of activities completed 1 December 2021 – 12 December 2025)								
	Qld	NSW	Vic	Tas	NT	SA	WA	NI	Total
Sticky mat inspections	232	156	318	207	48	114	301	NA	1,366
Additional activities	154	174	313	144	67	112	262	NA	1,226
Frame inspections	240	168	327	217	67	114	264	NA	1,397
Sample collections (Tracheal mite)	79	40	52	47	56	20	50	NA	344
Small hive beetle traps	NA	NA	NA	154	78	NA	207	NA	439
Catchbox inspections	539	150	469	1,050	98	120	549	NA	2,506
Floral sweeping events	138	17	28	103	17	21	41	NA	365
Rainbow bee eater pellet diagnostics	72	NA	NA	NA	42	NA	NA	NA	114
Aerial ballooning diagnostics	26	NA	NA	NA	2	NA	5	NA	33
Exotic virus testing	NA	29	10	NA	NA	NA	NA	NA	39
TOTAL									**7,829**

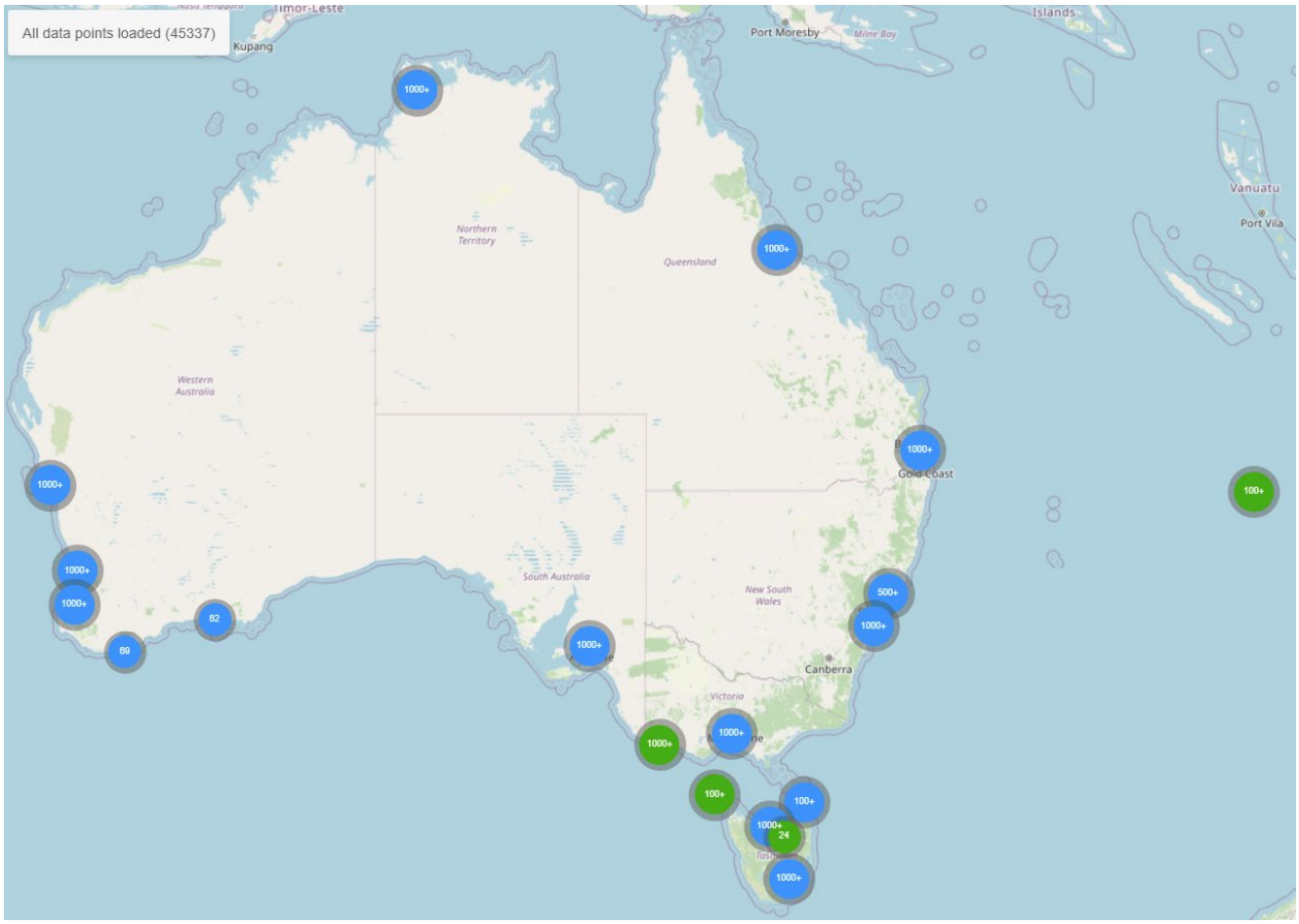


Figure 1 NBPSP Data in AUSPestCheck® from December 2021 to December 2025

Appendix 2 – Media created by the program

PUBLICATION (LINK OR SCREENSHOT)	REACH
Grains Research and Development Corporation 1 November · The National Bee Pest Surveillance Program is an early warning system to detect new incursions of exotic bee pests and pest bees 🐝. It uses a range of surveillance methods conducted at sea and airports throughout Australia considered to be the most likely entry points for bee pests and pest bees. Grain Producers Australia chair and WA grain producer Barry Large says the surveillance program is important to ensure the health and wellbeing of European honey bees and the honey bee and pollination service industry. Read more: https://bit.ly/3TTObv4 Plant Health Australia #GroundcoverOnline #pests #beehealth #biosecurity  	• 18,300 reach • 10 engagements
Plant Health Australia Published by Hootsuite · November 15 at 10:01 AM · Did you know? Pollination services support the grains industry in hybrid seed production, allowing growers to capture more of the benefits of hybrid vigour. Hybrid seed in crops such as canola is produced by controlled pollination between two parent lines. Read more about the importance of pollination >> https://bit.ly/3U3yOjC #grainsfarmbiosecurity #beebiosecurity  	• **Twitter:** 92 impressions • **Facebook:** 52 reach and 5 engagements • **LinkedIn:** 249 impressions and 8 engagements

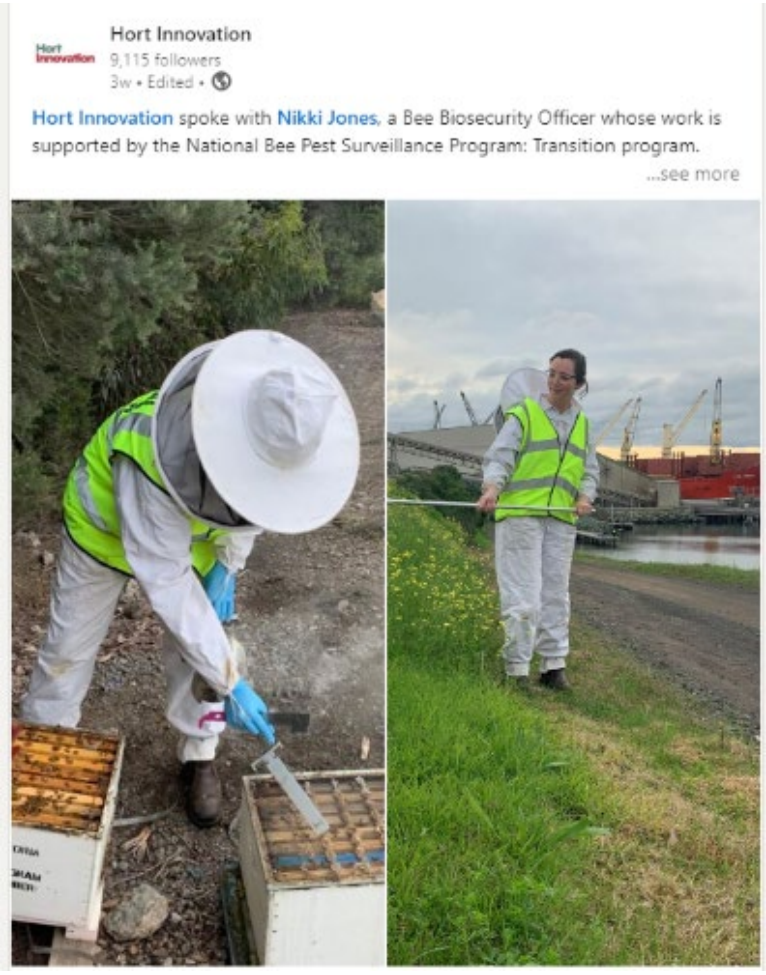
PUBLICATION (LINK OR SCREENSHOT)	REACH

Surveillance program safeguards honey bee health (apal.org.au)	• AFG magazine article
	  ○ 1,000 subscribers
	• APAL website article
	  ○ No readership/ distribution data available

Surveillance and diagnostics key to protect bee industry – Plant Health Australia	• 91 pageviews

New surveillance project to monitor honey bee pests – Plant Health Australia
 
	• **PHA website article:** 338 pageviews
	• **Tendrils e-newsletter:**
	  ○ 65 clicks (Dec)
	  ○ 50 clicks (Jan)
	• **GFB website article:** 12 pageviews
	• **Facebook:** 227 reach, 33 engagements
	• **Twitter:** 1,509 impressions
	• **LinkedIn:** 1,489 impressions, 86 engagements

Bee surveillance program helps to protect grains industry -Grains Farm Biosecurity Program (grainsbiosecurity.com.au)	• 39 pageviews

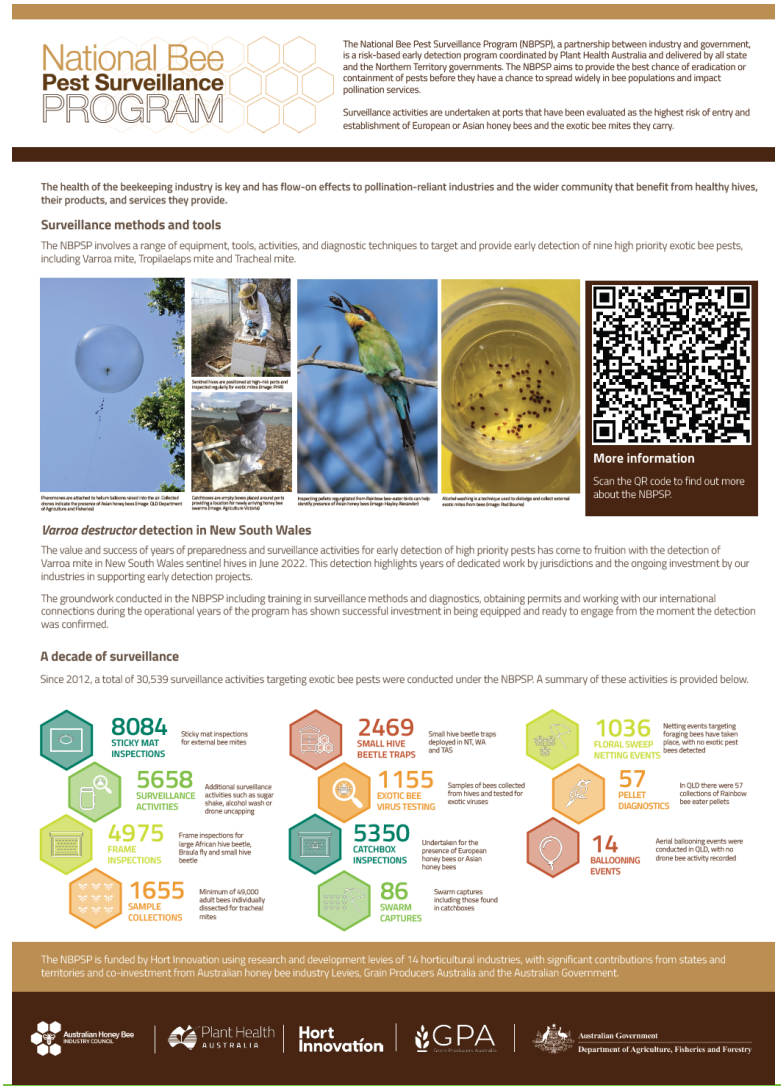
PUBLICATION (LINK OR SCREENSHOT)	REACH
	• **Facebook:** 4 reach • **LinkedIn:** 249 impressions, 4 reactions, 3 clicks, 1 share
	• 64 impressions, 2 clicks, 1 comment, 6 shares

PUBLICATION (LINK OR SCREENSHOT)	REACH
	• **Twitter:** 116 impressions, 1 engagement Facebook: 62 reach, 72 impressions • **LinkedIn:** 245 impressions, 6 engagements
	• **Twitter:** 157 impressions, 1 engagement • **Facebook:** 48 reach, 54 impressions • **LinkedIn:** 280 impressions, 12 engagements
Pest focus on Varroa – Plant Health Australia	• 55 page views
New resources for bee surveillance training– Plant Health Australia	• 90 page views
Bee biosecurity in Tasmania says farewell to Karla Williams and welcome to Julie Lupia – Plant Health Australia	• 30 page views
The Bees-knees of bee biosecurity – Mango Matters	• Reach: est. 1,500 people

PUBLICATION (LINK OR SCREENSHOT)	REACH
	• **Facebook:** 66 reach, 4 engagements • **Instagram:** 32 reach • **LinkedIn:** 333 impressions, 4 engagements • **X:** 316 impressions, 9 engagements
	• **Facebook:** 48 impressions, 4 engagements • **Instagram:** 28 reach, 2 engagements • **LinkedIn:** 117 impressions • **X:** 458 impressions, 9 engagements

PUBLICATION (LINK OR SCREENSHOT)	REACH
	• **Facebook:** 60 reach, 2 engagements • **LinkedIn:** 212 impressions, 2 engagements • **X:** 296 impressions, 8 engagements
	• **Facebook:** 52 reach, 1 engagement • **LinkedIn:** 167 impressions, 1 engagement • **X:** 164 impressions
National Bee Pest Surveillance Program Surveillance activities – Plant Health Australia	• 85 page views
Australian Berry Journal – Berries Australia	• No readership or distribution data available
Plant Health Australia gets buzz-y for World Bee Day – Plant Health Australia	• 47 page views

PUBLICATION (LINK OR SCREENSHOT)	REACH
Australian Almonds R&D Forum in Mildura – poster design and display	• No readership/distribution data available



National Bee Pest Surveillance PROGRAM

The National Bee Pest Surveillance Program (NBPSP), a partnership between industry and government, is a risk-based early detection program coordinated by Plant Health Australia and delivered by all state and the Northern Territory governments. The NBPSP aims to provide the best chance of eradication or containment of pests before they have a chance to spread widely in bee populations and impact pollination services.

Surveillance activities are undertaken at ports that have been evaluated as the highest risk of entry and establishment of European or Asian honey bees and the exotic bee mites they carry.

The health of the beekeeping industry is key and has flow-on effects to pollination-reliant industries and the wider community that benefit from healthy hives, their products, and services they provide.

Surveillance methods and tools

The NBPSP involves a range of equipment, tools, activities, and diagnostic techniques to target and provide early detection of nine high priority exotic bee pests, including Varroa mite, Tropilaelaps mite and Tracheal mite.

More information

Scan the QR code to find out more about the NBPSP.

***Varroa destructor* detection in New South Wales**

The value and success of years of preparedness and surveillance activities for early detection of high priority pests has come to fruition with the detection of Varroa mite in New South Wales sentinel hives in June 2022. This detection highlights years of dedicated work by jurisdictions and the ongoing investment by our industries in supporting early detection projects.

The groundwork conducted in the NBPSP including training in surveillance methods and diagnostics, obtaining permits and working with our international connections during the operational years of the program has shown successful investment in being equipped and ready to engage from the moment the detection was confirmed.

A decade of surveillance

Since 2012, a total of 30,539 surveillance activities targeting exotic bee pests were conducted under the NBPSP. A summary of these activities is provided below.

8084 STICKY MAT INSPECTIONS — Sticky mat inspections for external bee mites

5658 SURVEILLANCE ACTIVITIES — Additional surveillance activities such as sugar shake, alcohol wash or drone uncapping

4975 FRAME INSPECTIONS — Frame inspections for large African hive beetle, Braula fly and small hive beetle

1655 SAMPLE COLLECTIONS — Minimum of 49,000 adult bees individually dissected for tracheal mites

2469 SMALL HIVE BEETLE TRAPS — Small hive beetle traps deployed in NT, WA and TAS

1155 EXOTIC BEE VIRUS TESTING — Samples of bees collected from hives and tested for exotic viruses

5350 CATCHBOX INSPECTIONS — Undertaken for the presence of European honey bees or Asian honey bees

86 SWARM CAPTURES — Swarm captures including those found in catchboxes

1036 FLORAL SWEEP NETTING EVENTS — Netting events targeting foraging bees have taken place, with no exotic pest bees detected

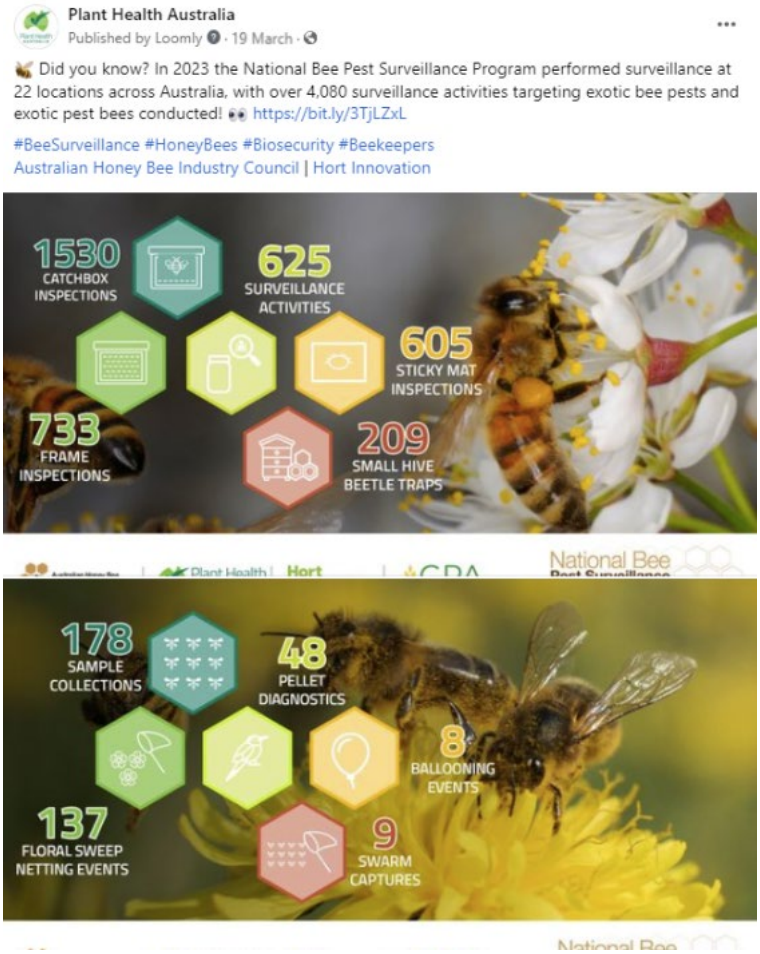
57 PELLET DIAGNOSTICS — In QLD there were 57 collections of Rainbow bee eater pellets

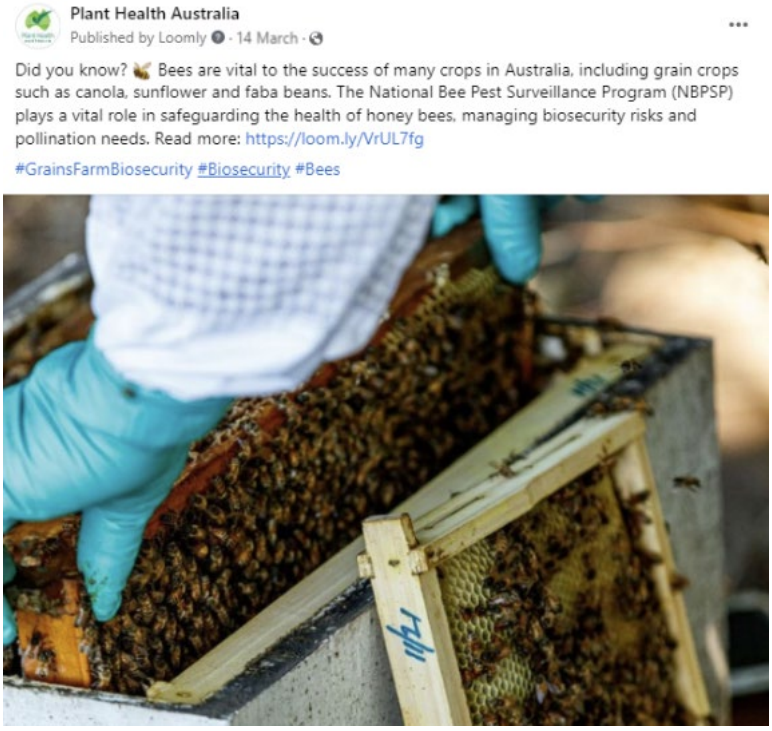
14 BALLOONING EVENTS — Aerial ballooning events were conducted in QLD, with no drone bee activity recorded

The NBPSP is funded by Hort Innovation using research and development levies of 14 horticultural industries, with significant contributions from states and territories and co-investment from Australian honey bee industry Levies, Grain Producers Australia and the Australian Government.

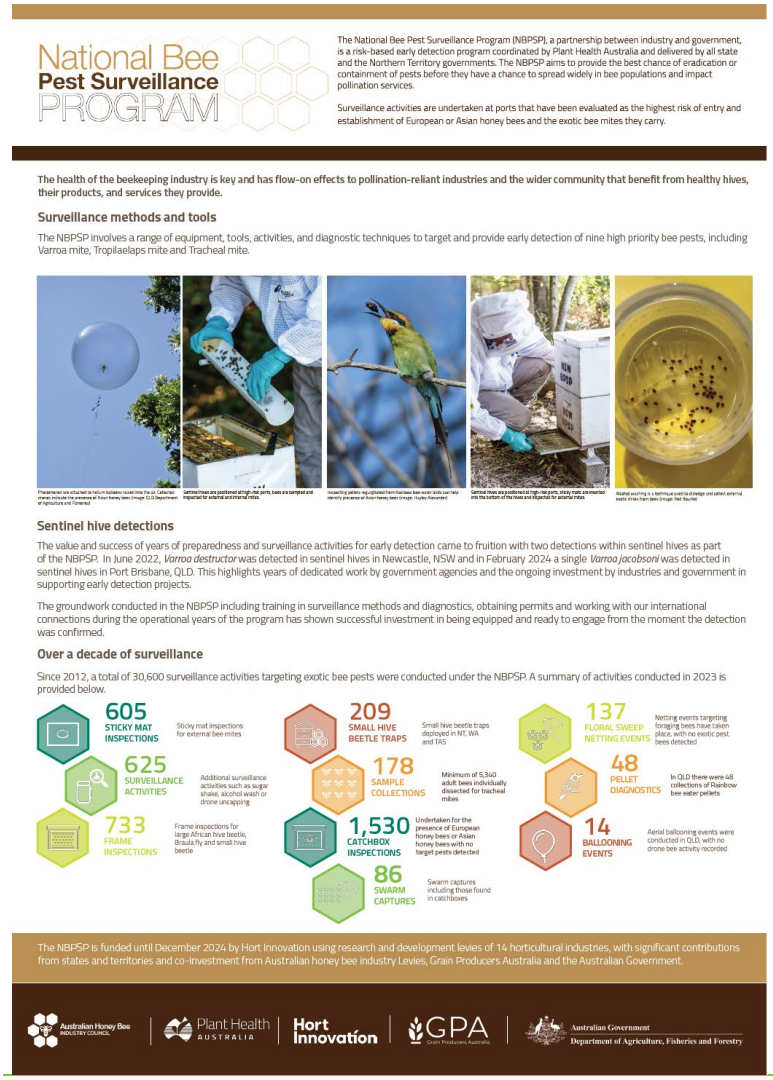
Australian Honey Bee Industry Council | Plant Health Australia | Hort Innovation | GPA | Australian Government Department of Agriculture, Fisheries and Forestry

PUBLICATION (LINK OR SCREENSHOT)	REACH
	• **Facebook:** 261 Reach, 12 engagements • **IG:** 35 Reach, 4 engagements • **LinkedIn:** 367 impressions, 22 engagements
	• **Facebook:** 133 reach, 5 engagements • **Twitter:** 268 impressions, 16 engagements • **LinkedIn:** 324 impressions, 16 engagements

PUBLICATION (LINK OR SCREENSHOT)	REACH
	• **Facebook:** 133 reach, 5 engagements • **Twitter:** 153 impressions, 5 engagements • **LinkedIn:** 428 impressions, 17 engagements
	• **Facebook:** 1096 reach, 41 engagements • **Twitter:** 135 impressions, 7 engagements • **LinkedIn:** 729 impressions, 57 engagements

PUBLICATION (LINK OR SCREENSHOT)	REACH
	• **Facebook:** 522 reach, 27 engagements • **Twitter:** 97 impressions, 2 engagements • **IG:** 24 reach, 2 engagements • **LinkedIn:** 245 impressions, 7 engagements
Honey bee surveillance plays vital role in grains industry – GRDC Groundcover (Jan/Feb 2024) -	• Distributed to 38,000 growers
Healthy honey bees support the melon industry – Plant Health Australia	• Distributed to 1,782 subscribers
National Bee Pest Surveillance Program activities; – Plant Health Australia and published by Melons Australia	• Distributed to 1,782 subscribers
Talking Avocados Magazine (April – Autumn edition) - Avocado industry benefits from ongoing honey bee surveillance	• No readership/distribution data available
Celebrating the Buzz in May: World Bee Day and Honey Month – Plant Health Australia	• Distributed to 1,782 subscribers; published on PHA website • Associated media release delivered to 308 media outlets

PUBLICATION (LINK OR SCREENSHOT)	REACH
Poster for the Mangoes Scientific Symposium, 20 May 2024	• No readership/distribution data available



National Bee Pest Surveillance PROGRAM

The National Bee Pest Surveillance Program (NBPSP), a partnership between industry and government, is a risk-based early detection program coordinated by Plant Health Australia and delivered by all state and the Northern Territory governments. The NBPSP aims to provide the best chance of eradication or containment of pests before they have a chance to spread widely in bee populations and impact pollination services.

Surveillance activities are undertaken at ports that have been evaluated as the highest risk of entry and establishment of European or Asian honey bees and the exotic bee mites they carry.

The health of the beekeeping industry is key and has flow-on effects to pollination-reliant industries and the wider community that benefit from healthy hives, their products, and services they provide.

Surveillance methods and tools

The NBPSP involves a range of equipment, tools, activities, and diagnostic techniques to target and provide early detection of nine high priority bee pests, including Varroa mite, Tropilaelaps mite and Tracheal mite.

Sentinel hive detections

The value and success of years of preparedness and surveillance activities for early detection came to fruition with two detections within sentinel hives as part of the NBPSP. In June 2022, *Varroa destructor* was detected in sentinel hives in Newcastle, NSW and in February 2024 a single *Varroa jacobsoni* was detected in sentinel hives in Port Brisbane, QLD. This highlights years of dedicated work by government agencies and the ongoing investment by industries and government in supporting early detection projects.

The groundwork conducted in the NBPSP including training in surveillance methods and diagnostics, obtaining permits and working with our international connections during the operational years of the program has shown successful investment in being equipped and ready to engage from the moment the detection was confirmed.

Over a decade of surveillance

Since 2012, a total of 30,600 surveillance activities targeting exotic bee pests were conducted under the NBPSP. A summary of activities conducted in 2023 is provided below.

605 STICKY MAT INSPECTIONS — Sticky mat inspections for external bee mites

625 SURVEILLANCE ACTIVITIES — Additional surveillance activities such as sugar shake, alcohol wash or drone uncapping

733 FRAME INSPECTIONS — Frame inspections for large African hive beetle, Braula fly and small hive beetle

209 SMALL HIVE BEETLE TRAPS — Small hive beetle traps deployed in NT, WA and TAS

178 SAMPLE COLLECTIONS — Minimum of 5,340 adult bees individually dissected for tracheal mites

1,530 CATCHBOX INSPECTIONS — Undertaken for the presence of European honey bees or Asian honey bees with no target pests detected

86 SWARM CAPTURES — Swarm captures including those found in catchboxes

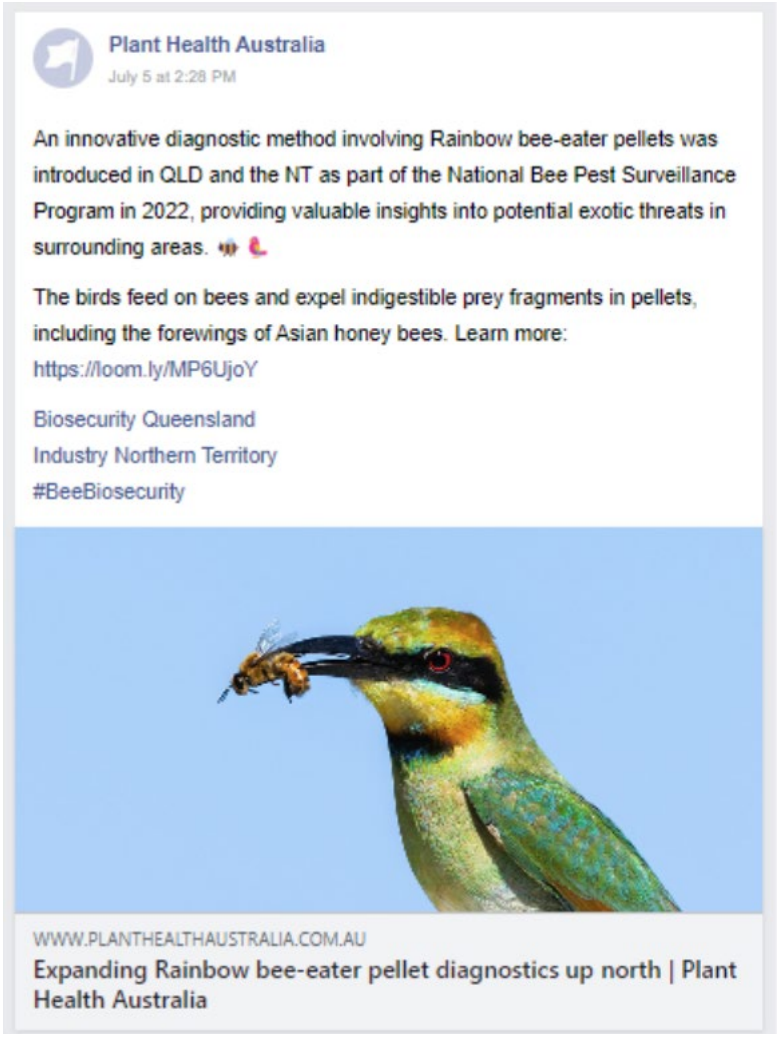
137 FLORAL SWEEP NETTING EVENTS — Netting events targeting foraging bees have taken place, with no exotic pest bees detected

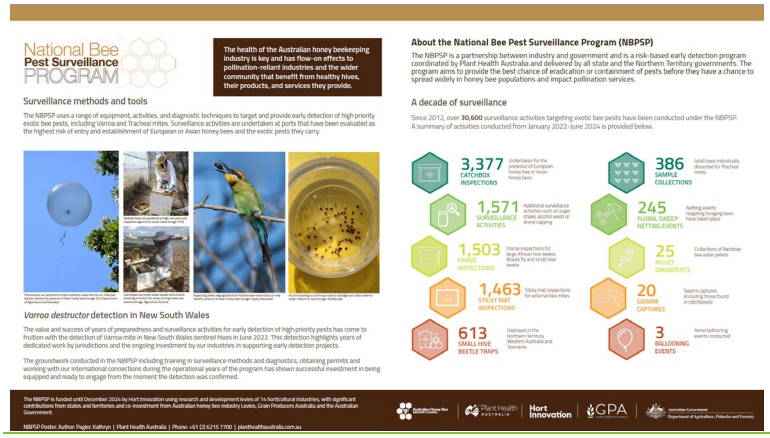
48 PELLET DIAGNOSTICS — In QLD there were 48 collections of Rainbow bee eater pellets

14 BALLOONING EVENTS — Aerial ballooning events were conducted in QLD, with no drone bee activity recorded

The NBPSP is funded until December 2024 by Hort Innovation using research and development levies of 14 horticultural industries, with significant contributions from states and territories and co-investment from Australian honey bee industry Levies, Grain Producers Australia and the Australian Government.

Australian Honey Bee Industry Council | Plant Health Australia | Hort Innovation | GPA Grain Producers Australia | Australian Government Department of Agriculture, Fisheries and Forestry

PUBLICATION (LINK OR SCREENSHOT)	REACH
	• **Facebook:** 24 reactions, 1552 impressions, 8 shares, 110 clicks • **LinkedIn:** 21 reactions, 978 impressions, 8 shares, 3.48% engagement rate • **Twitter:** 95 views • **Instagram:** 25 impressions, 24 people reached.
Expanding Rainbow bee-eater pellet diagnostics up north | Plant Health Australia – Plant Health Australia	• Distributed to 1878 subscribers
Bee Pest Blitz | Plant Health Australia – Plant Health Australia	• Distributed to 32 subscribers via PHA website, and 1878 subscribers Via Tendrils Newsletter
Golden bee celebration | The SE Voice –Good Fruit and Vegetables	• 516 monthly digital audience
Keeping honey bees healthy for almond production – In a Nutshell	• No readership/distribution data available
Lychee industry benefits from honey bee surveillance – Australian Lychee Growers Association	• No readership/distribution data available

PUBLICATION (LINK OR SCREENSHOT)	REACH
Poster for the 3rd Australian Biosecurity Symposium, 27-29 August 2024  	• No readership/distribution data available
National Bee Pest Surveillance Program activities and infographic – Plant Health Australia	• No readership/distribution data available
Shaping the Future of National Bee Pest Biosecurity Program', – Plant Health Australia	• No readership/distribution data available