

EXERCISE REPORT



EXERCISE
BEE
PREPARED



ABOUT THE REPORT

The *Exercise Bee Prepared Report* was authored by Plant Health Australia (PHA) to provide a summary of the activities and a critical analysis of the outcomes. The information presented was informed by the observations of exercise activities and the analysis of exercise outputs.

Any feedback or questions in relation to the report, or the Exercise Bee Prepared activities and outcomes can be directed to PHA through the details below.

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In referencing this document, the preferred citation is: Plant Health Australia (2019) *Exercise Report: Exercise Bee Prepared*. Plant Health Australia, Canberra, ACT.

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Abbreviations

Table 1. Abbreviations

ABBREVIATION	FULL NAME
ACPPO	Australian Chief Plant Protection Officer
AHBIC	Australian Honey Bee Industry Council
CCEPP	Consultative Committee on Emergency Plant Pests
CPHM	Chief Plant Health Manager
EBP	Exercise Bee Prepared
EPPRD	Emergency Plant Pest Response Deed
ICC	Incident Control Centre
IMT	Incident Management Team
ORC	Owner Reimbursement Cost
PHA	Plant Health Australia
SPHD	Subcommittee on Plant Health Diagnostics



Figure 1. Hives are opened to allow surveillance teams to insert miticide strips into the brood box to test for the presence of varroa mite

OVERVIEW

Background

Experience from other beekeeping countries has highlighted the difficulty of eradicating *Varroa destructor* once detected, as well as the significant impact it can have on honey production and the provision of pollination services. In order to provide Australia with an increased likelihood of successful eradication, a rapid and effective response must be implemented immediately.

In 2011, an industry, government and researcher working group developed ‘A honey bee industry and pollination continuity strategy should *Varroa* become established in Australia¹’ which outlines the key actions government and industry should implement to prepare for the possible establishment of *Varroa* in Australia. Many of the actions have been implemented or are ongoing, and a range of other preparedness activities place Australia in a good position to respond to a detection of *V. destructor*.

In addition, the incursion of *V. jacobsoni* in Townsville, Queensland, and the House of Representatives Standing Committee on Agriculture and Water Resources on the biosecurity of the Australian honey bee industry have highlighted the need to identify options for responding to a detection of *V. destructor* under a range of likely scenarios to assist jurisdictions in the first month of an incursion.

Exercise Bee Prepared (EBP) has targeted these initial response activities, providing the opportunity for each jurisdiction to practice response planning for the first three days post-detection of *Varroa* mite in a managed hive in a peri-urban environment.

Intent of the exercise

EBP delivered a series of activities across Australia designed to investigate the national capability to rapidly respond to a *Varroa* mite detection in a peri-urban environment. To achieve this outcome, each jurisdiction was provided the opportunity to test their own capability, share outcomes and develop a national picture. The planning of the exercise was guided by the aim and objectives presented in Table 2.

Table 2. Aim and objectives of the exercise

Aim	To improve the rapid implementation of a response to a detection of <i>Varroa destructor</i> (<i>Varroa</i> mite) in Australia, with a focus on actions undertaken or planned prior to the first Consultative Committee on Emergency Plant Pests (CCEPP) meeting.
Objectives	<p>In relation to a detection of <i>Varroa</i> mite in a European Honey Bee hive situated in an urban/peri-urban environment, the exercise aimed to:</p> <ul style="list-style-type: none"> • Develop agreed national minimum standards for critical aspects of the immediate response activities • Develop or review the response strategies from each participating jurisdiction • Facilitate the development of checklists and protocols for actions undertaken in responding.

¹ beeaware.org.au/wp-content/uploads/2016/08/Varroa-continuity-strategy.pdf

DELIVERY SUMMARY

Exercise structure

Simulation activities were delivered in each jurisdiction (all states/territories and the Australian Government), with the focus on the host's capability to conduct the response as a Lead Agency. Observations and outcomes from the individual jurisdictional activities were consolidated and presented to a national workshop to achieve national consistency or an agreed pathway forward regarding the rapid Varroa mite response.

Across all activities delivered under EBP, there were a total of 273 participants.

Scenario context

A generic fictional scenario was developed for the exercise, which was able to be contextualised to the host jurisdiction, in terms of location and honey bee industry dynamics. The consistent elements of the scenario were:

- Detection of a suspect Varroa mite in a managed European honey bee hive in a peri-urban location
- Low numbers of mites present in a single hive, even where there were multiple hives on the property
- No direct indication of infestation source
- Suspect mites had been tentatively identified as *Varroa destructor* by a diagnostic laboratory
- Detection occurred the day prior to the activity being conducted and actual time, date and weather was used
- A local beekeeper was selected as the fictional point of initial detection, and real hive management and movement information was used for tracing
- The Incident Management Team (IMT) initiation coincided with the start of the exercise activity
- Relevant notifications of the Chief Plant Health Managers (CPHMs) and the Australian Chief Plant Protection Officer (ACPPO) had occurred in accordance with the Emergency Plant Pest Response Deed (EPPRD).

Jurisdictional activity summary

Jurisdictional activities were delivered in either a functional IMT or discussion format (Table 3), at the discretion of the host jurisdiction.

- Functional IMT: An Incident Control Centre (ICC) was set-up and participants undertook specific IMT roles. Activities undertaken, and outputs generated were consistent with the first day of an ICC operation.
- Discussion: Participants investigated the scenario and appropriate response actions in functional groups (most commonly planning, operations, legal and public information) utilising a set of guiding questions. Key response documentation was developed when time was available.

An optional functional field surveillance activity was offered for each jurisdiction. When undertaken, a surveillance team visited the site of the infested hive (under the scenario) to conduct hive surveillance activities utilising miticide strips and sticky mats with appropriate decontamination protocols. Alternatively, some jurisdictions provided a demonstration of the techniques using an empty hive (Table 3).

Table 3. Summary of jurisdictional workshops

JURISDICTION	LOCATION	DATE (IN 2018)	PARTICIPANTS	WOKSHOP STYLE	FIELD ELEMENT
Victoria	Melbourne	13 March	24	Functional	Yes
Australian Capital Territory	Canberra	26 April	37	Functional	Yes
New South Wales	Orange	24 May	44	Discussion	No
Queensland	Nambour	5 June	19	Functional	No
South Australia	Adelaide	15 June	21	Discussion	Demonstration
Tasmania	Hobart	17-18 July	36	Discussion	Yes
Western Australia	Perth	3 August	38	Discussion	No
Northern Territory	Darwin	20 September	46	Discussion	Demonstration
Commonwealth	Canberra	31 October	42	Discussion	No

National workshop

Consolidated observations from the jurisdictional activities were presented to the participants including the CPHMs, ACPPO, and representatives from the Australian Honey Bee Industry Council (AHBIC), with a focus on response elements where national inconsistencies or difficulties were identified. Through a facilitated discussion, each element was resolved, a pathway forward identified, or noted as an issue outside of the scope of the exercise.

The outcomes of these discussions are included in the *Outcomes* section of this report.



Figure 2. National Bee Pest Surveillance Program hive, Darwin

OUTCOMES

Each jurisdictional activity investigated the capability of the host jurisdiction to undertake a rapid response to a Varroa mite detection in a peri-urban setting. In all cases, a rapid response was able to be implemented utilising the resources, documentation and structures available, with no critical issues identified that would stop the ability of the agency to implement the response. Nonetheless, each activity recognised strengths and weaknesses, together with several elements that were inconsistently implemented between jurisdictions. Consequently, the outcomes from EBP have been grouped in three categories:

1. Jurisdictional outcomes: those that relate to jurisdictional processes, arrangements, legislation or operational delivery, and which are specific to the individual jurisdiction. These issues are not included in this report.
2. National positive and consistent outcomes: where most or all jurisdictions were able to deliver on the specific element and were consistent in the implementation.
3. National inconsistencies and challenges: those where jurisdictions either implemented the elements in an inconsistent manner, or where most or all jurisdictions were challenged to deliver effectively.



Figure 3. Participants discussing response approaches at the Tasmanian EBP activity

National positive and consistent outcomes

The rapid response to a Varroa mite detection in a peri-urban setting was a complex operation, but all jurisdictions were able to implement a response immediately. Through the EBP activities, jurisdictions were able to develop and implement several aspects of the response strategy effectively and in a nationally consistent way (Table 4).

Table 4. Observed national positive and consistent outcomes

ELEMENT	SUMMARY OF CONSISTENT IMPLEMENTATION
Surveillance team structure	Teams deployed to undertake delimiting surveillance of hives in the response included a government officer and a beekeeper (at a minimum). This structure increased the available surveillance resources and ensured each team contained beekeeping technical skills and appropriate authorisations.
Definitive identification	All jurisdictions have the capability within their government laboratories ² to complete the definitive identification of <i>Varroa</i> sp. based on morphology.
Beekeeper register	A register of beekeepers was available in all jurisdictions, where home location and contact details were captured (at a minimum). These were mandatory in some jurisdictions.
Rapid implementation of delimitation	Delimiting surveillance for the presence of Varroa mites in managed hives was implemented immediately.
Utilisation of miticide strips	A mixture of surveillance techniques were used across jurisdictions, with the consistent method being miticide strips and sticky mats in hives. Sugar shake, alcohol wash and brood uncapping were used as additional methods in most cases.
Trace-back period	When completing the trace-back interview with the owner of the initial infested hive, a one-year period for tracing bees and equipment was used.
Legislation	There is legislation in place to implement effective quarantine, movement control and operational measures for a response relating to honeybees. The legislation varied between animal, plant or biosecurity Acts.
Movement conditions	The risk items that movement conditions were applied to were bees, used hives and equipment, wax and unprocessed honey. Processed honey was always considered a nil-risk and was able to be moved out of a Restricted Area.
Integration of industry liaison	Effective utilisation and integration of industry liaison representatives was identified as a valuable element in all activities. Industry liaison representatives contributed to communications, planning and operations.
Hive depopulation method	Unleaded petrol fumes were the standard approach to depopulating hives, with freezing used only in circumstances where further investigation of the hive for mite densities was required.

² Noting that ACT utilised expertise at CSIRO

Resolutions to national inconsistencies and challenges

The issues presented below are where jurisdictions either implemented the response in an inconsistent manner (from a national perspective), or where all jurisdictions were challenged in their ability to implement. Issues are grouped into themes, with the context from the jurisdictional activities presented together with the outcomes and future actions identified through the national workshop.

Response intent

ISSUE	Destruction/depopulation of infested hive(s)
CONTEXT	<ul style="list-style-type: none"> Seven of eight jurisdictions agreed that known infested hives should be closed up and depopulated on the same day as the detection. The remaining jurisdiction inserted miticide strips and sticky mats to do surveillance and await CCEPP instructions. Where appropriate equipment was available and further inspection of hives were required, hives were depopulated by freezing. Freezing a hive allows the entomologists to do a detailed examination and determine the extent of the infestation. Where adequate freezers were not available or not required, the agreed depopulation method for hives was petrol fumes. Whether or not to depopulate other hives on the Infected Premises varied. It was agreed that known infested hives should be destroyed, but hives of unknown pest status near an infested hive was not widely agreed on.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> Unanimous agreement that infested hives should be destroyed as soon as possible (i.e. on the evening of detection, once all bees have returned). There is the agreed intent that other hives on an Infected Premises should also be depopulated, especially when it is only a small number. As the number of hives on the property increases it becomes harder to decide on the approach beforehand. Removal of all bees in a defined area should not be determined ahead of time. Surveillance and tracing should be the priority, then allowing for a decision on hive depopulation.



Figure 4. Collecting samples for laboratory analysis during hive surveillance activities as part of EBP

Surveillance, tracing and diagnostics

ISSUE	Surveillance and sampling kit resources
CONTEXT	<ul style="list-style-type: none"> • Bee surveillance kits require specialised equipment (e.g. beekeeping suits, miticide strips, hive tools). Dedicated honeybee surveillance kits are available in some jurisdictions, with remaining jurisdictions having to modify standard biosecurity kits at the time of an incursion. Some equipment can be sourced from hive owners at the inspection site and the beekeepers involved were satisfied with their own tools being used to reduce risk of spreading pests. • The best resourced jurisdiction (Victoria) has 23 kits. Even this is only enough to cover the first couple of days of a response before some components of the kits are exhausted. It is likely that access to kits may limit surveillance capacity. The longevity of kits may be dependent on decontamination requirements (e.g. can suits be reused without decontamination?).
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> • A national register of surveillance kits should be developed to provide a snapshot of how much surveillance could be done immediately. It would also identify where spare kits could be sourced from in an emergency. • A list of kit components has been developed by Victoria and was accepted as appropriate by other jurisdictions. It will be circulated through Plant Health Committee. • An alternative approach to standalone honeybee specific biosecurity kits, was the development of a honeybee biosecurity 'add-on' for a standard biosecurity kit. This would include the specialist equipment required for handling bees and undertaking surveillance (e.g. miticide strips). No pathway forward on this approach was identified.
ISSUE	Surveillance training program for beekeepers and jurisdictional staff
CONTEXT	<ul style="list-style-type: none"> • Victoria is the only jurisdiction with a formal training program in place for beekeepers who will support surveillance activities (State Quarantine Response Team), with NSW looking to initiate a similar program. • It was widely acknowledged through the activities that beekeepers are required to support surveillance teams. The beekeepers will require training to understand response processes and working as a government representative. • Jurisdictional staff may also benefit from undertaking bee handling training (which has occurred in some jurisdictions).
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> • All parties agreed there is a need for a national training strategy to be developed and implemented. This would provide benefit in terms of technical skills, ability to work in a response environment and build relationships between operational staff and bee keepers. • Victoria already has documentation including online and face to face training materials that they will share to move towards a national approach.

ISSUE	Surveillance strategy and prioritisation for Varroa
CONTEXT	<ul style="list-style-type: none"> • No agreed surveillance strategy was available to guide the development of the surveillance plan. • Prioritisation of target properties/hives was inconsistent between jurisdictions, with surveillance strategies utilising one, or a combination of the following approaches: <ul style="list-style-type: none"> ◦ Focusing on properties close to the known infested hive and working out ◦ Setting a perimeter of a specified distance and working in towards the detection site ◦ Following up on trace forwards and back • Surveillance zones varied from 10 km to 40 km in radius around confirmed infected hives and in some cases, around identified suspect infected hives. • It was accepted that a surveillance team could do four properties per day at most. • Managed hives were always the focus of surveillance activities, with feral hives investigated in an opportunistic manner.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> • Agreement that there should be a focus on establishing the spread of the pest, ensuring there are some surveillance resources deployed to determine if Varroa mite is widely established (i.e. conducting surveillance at a broad perimeter). • In a peri-urban setting, there is likely to be enough nearby floral resources to limit the distance travelled by bees, suggesting it is unlikely they will fly to their maximum range of 10 km. • All surveillance priorities were deemed important, with the allocation of surveillance resources dependent on the detection scenario. However, determining whether Varroa mite was widely established was identified as important information during the initial response efforts. • A generic surveillance strategy for Varroa mite would be difficult to develop, but a set of guidelines that could be used to inform the rapid development of a strategy during an incursion would be a valuable tool. Plant Health Committee should be requested to consider how to progress the development of the surveillance guidelines. • New technologies should be investigated that may support surveillance prioritisation, such as the BioSpark software developed by Queensland University of Technology researcher Grant Wells. This software can predict pest spread based on available data.

ISSUE	Diagnostics throughput for surveillance samples
CONTEXT	<ul style="list-style-type: none"> • The capability of all jurisdictions to complete identification of <i>Varroa destructor</i> was not an issue (even without a National Diagnostic Protocol). All jurisdictions have an accessible laboratory with entomologists confident of the ability to identify a Varroa mite to species level. • Difficulties in diagnostics arose in relation to laboratory capacity to process large numbers of samples, particularly sticky mats from hives which collect not only mites, but also a significant amount of ‘hive trash’. • Sticky mats can be processed in the field, but confidence in outcomes is not high (false negatives are the highest risk). • If freezing of hives for destruction and subsequent investigation was to be implemented, available freezer space reaches capacity quickly, as the entire hive needs to be placed in the freezer for several days to ensure the very centre of the hive reaches the required low temperatures. • Initial scoping of using mobile freezers was undertaken with no definitive outcome.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> • Identify laboratories available nationally that can undertake diagnostics and screening of sticky mats. Arrangements can then be pre-emptively put in place to support the distribution of sticky mat analysis during a response to these laboratories to increase surge capacity. Investigation of this approach should be undertaken by the Subcommittee on Plant Health Diagnostics (SPHD). • Pre-agreed lab arrangements are a good interim measure, but new tests and technologies that could be adopted in the future as an alternative to the sticky mat test must be investigated.

ISSUE	Sampling procedure(s)
CONTEXT	<ul style="list-style-type: none"> • The <i>National Varroa Mite Contingency Plan</i> identifies sampling rates in apiaries to achieve 95% confidence in the presence/absence of the pest, which was utilised by most jurisdictions. • Where multiple hives were present at a location, sampling approaches varied (e.g. systematic, random, etc.), but when a hive returned a positive result the premises was identified as infested and surveillance teams would move on to the next site. • The availability of protocols and standard operating procedures for undertaking surveillance on each hive varied between jurisdictions. Where available, the protocols were consistent.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> • A national standard operating procedure for sampling hives for Varroa mite would be beneficial. A request for the development of this document should be sent to the Bee Biosecurity Program Steering Committee for their consideration.

ISSUE	Standardised tracing questionnaire
CONTEXT	<ul style="list-style-type: none"> • Tracing hive movements is essential in a Varroa mite response, as hive movements are the primary cause of long-distance movement. • Honeybee specific tracing questionnaires were used in a few jurisdictions, while others used a generic questionnaire or undertook the interview unscripted. • In some cases, the tracing questionnaires are directly linked with the surveillance ICT systems (e.g. BioMAX).
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> • A national standard tracing questionnaire for Varroa mite should be agreed upon. The collection of the tracing questionnaires utilised in the exercise can be provided to the Bee Biosecurity Program Steering Committee for their consideration.

Movement controls and zoning

ISSUE	Restricted Area determination
CONTEXT	<ul style="list-style-type: none"> The <i>National Varroa Mite Contingency Plan</i> specifies a 25 km radius Restricted Area (due to a maximum honeybee flight distance of approximately 10 km). When implemented in jurisdictional activities, the Restricted Area varied between 10 km and 40 km. A Restricted Area was always implemented around Infected Premises, and in some cases Suspect Premises derived from direct linkages also had a Restricted Area applied prior to any detection of Varroa mite at that location. Utilisation of landmarks or land use classifications versus the implementation of a circular zone varied between jurisdictions. The legislated implementation of a Restricted Area could take up to several days, which could impact on the effectiveness of the response. Restricted Area terminology between jurisdictions was inconsistent. Different terms were used to describe zones with movement restriction, zones for surveillance and zones for destruction.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> A Restricted Area of 25 km radius was agreed as the appropriate size in the first instance. Additional detections, floral resource density, environmental conditions and other risk factors would be considered throughout the initial stages of the response and may result in a change to the Restricted Area size. While noting that the gazettal of a Restricted Area may take days to complete, each jurisdiction has mechanisms available to immediately implement appropriate movement restrictions.
ISSUE	Effective implementation of hive movement restrictions
CONTEXT	<ul style="list-style-type: none"> Normal movement of hives would be overnight on trucks. This movement would be difficult to track and monitoring all access points would be unfeasible. It was acknowledged that it will be almost impossible to actively enforce movement restrictions.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> Acknowledged the difficulty in implementing effective movement restrictions, noting that the emphasis needs to be on communication and community engagement in order to limit the movement of risk vectors. Pre-emptive communication to beekeepers highlighting the case for movement restrictions during a response to Varroa mite will be provided through AHBIC. An agreed policy on which response situations are likely to warrant the restrictions should be developed through the Bee Biosecurity Program Steering Committee. Using this information, AHBIC can provide a statement of support for the appropriate implementation of movement restrictions.

Destruction and decontamination

ISSUE	Destruction of managed hives
CONTEXT	<ul style="list-style-type: none"> • Depopulation of managed hives was achieved using petrol or freezing in all jurisdictions, which is effective at killing all bees present, and therefore all mites. • The subsequent destruction or decontamination of the equipment (such as the hive box and cleaned frames) varied between jurisdiction with no consistency in the determination of whether these remained a risk to the response. • There is a minimal risk of mites surviving on hive equipment without the presence of bees for more than a few days, but there is a potential impact to surveillance outcomes should a dead Varroa mite be detected on return surveillance visits.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> • No consensus was reached on this issue, as the decision will be response context dependent. Destruction or cleaning of infected hives should both be available options.

ISSUE	Reimbursement to hobby beekeepers for hives destroyed
CONTEXT	<ul style="list-style-type: none"> • Providing reimbursement to hobby beekeepers for the destruction of hives may not be covered under Owner Reimbursement Costs (ORCs; i.e. not Cost Shared) and provided a sticking point for the application of destruction strategies in some jurisdictions. • The decision by the jurisdiction or industry (through AHBIC) to provide payments for, or directly replace hives/equipment, under the exercise scenario, through <i>ex-gratia</i> payments or other means (i.e. would not be cost shared), varied between jurisdictions. In some cases, potential payments were linked to beekeeper registration.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> • All jurisdictions were willing to consider providing hive and equipment replacements for hobby beekeepers, either through payments or replacement. However, this would always be on a case-by-case basis and no pre-agreed policy should be developed. • AHBIC is open to the potential of contributing to non-cost sharable hobby beekeeper payments and equipment replacements, but like the jurisdictions, the decision will be on a case-by-case basis. The agreed engagement process is for the Lead Agency to contact AHBIC through the Chair or CCEPP representative to initiate the conversation. • AHBIC will undertake some initial work on the cost-benefit of hive replacements to hobby beekeepers (i.e. how many beehives could be reasonably replaced before the response becomes cost-prohibitive).

ISSUE	Reuse and decontamination of bee suits
CONTEXT	<ul style="list-style-type: none"> • Surveillance teams require bee suits (minimum of top, gloves and veil) to meet work health and safety requirements. Reuse of these suits presents a possible contamination risk between sites. • Transfer of Varroa mite between properties on a bee suit was determined to be low, but not zero. The greatest risk identified was linked to perceptions of potential mite movements, or the transfer of other pests and diseases. • There was no national consistency in the approach to reuse or decontamination of bee suits between properties. Some jurisdictions utilised disposable coveralls over bee suits. The agreed approach will have significant impacts on numbers of suits required and the contents of surveillance kits.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> • The use of disposable suits, likely over the top of standard beekeeping safety clothing, was recommended to reduce public perception of potential contamination.

ISSUE	Feral hive strategy
CONTEXT	<ul style="list-style-type: none"> Managed hives were prioritised for response activities in most jurisdictions. In most cases, identifying the location of feral hives and subsequently implementing appropriate actions was undertaken in an opportunistic manner during the first three days. Where destruction of feral hives was included in the response strategy, direct application of chemicals was the preferred method. Utilisation of fipronil baiting stations was considered by some jurisdictions, but there was no consistency in their application and confusion over whether it was allowed across different land use classifications (e.g. National Parks).
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> Confirmed that the focus of surveillance should be on managed hives in the first three days. This was primarily due to the highest risk on long distance movements occurring with managed hives. Feral hives must be surveyed at a later stage, as they are likely to be the pathway of introduction.

Registration and hive locations

ISSUE	Improved beekeeper registry
CONTEXT	<ul style="list-style-type: none"> All jurisdictions maintained a beekeeper registry. In some jurisdictions the registry was compulsory while in others it was voluntary. No jurisdiction had comprehensive coverage of all beekeepers. In most cases, registration captured beekeeper home address, but not the location of the hives. At least one register captured potential sites, but there was no guarantee the hives were currently located at these sites. A beekeeper registry was used in every jurisdictional activity to provide a targeted contact list. The potential for beekeepers to move their hives interstate for pollination or access to floral resources was identified as a risk and limitation of the registry.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> Acknowledged the difficulties in relation to knowing current hive locations, and that the current registers provide a good basis for determination. Focus will remain on increasing coverage of current registers. Noted that a national, mandatory beekeeping register is the ultimate goal, but implementation would be a difficult and slow process.

ISSUE	Requirement for an amnesty for unregistered beekeepers
CONTEXT	<ul style="list-style-type: none"> To encourage unregistered beekeepers to provide details during the response, an amnesty was proposed in several jurisdictions (for a short timeframe). Beekeepers found to be unregistered outside of the amnesty faced fines in those jurisdictions considering this approach.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> No pre-agreement to guarantee an amnesty system. Amnesties would be considered on a case-by-case basis at the time of an incursion.

Industry Liaison

ISSUE	Immediate engagement of industry liaison representatives
CONTEXT	<ul style="list-style-type: none"> All activities involved at least one honeybee industry representative. The industry representatives were active contributors to all response functions. Industry expertise was identified as critical in implementing an effective response, especially due to the limited technical knowledge of jurisdictional staff and the unique nature of the honey bee industry.
NATIONAL WORKSHOP OUTCOMES	<ul style="list-style-type: none"> Agreed that all honeybee industry engagement in a Varroa mite response should be initiated through AHBIC as the Party to the EPPRD. AHBIC will work with the Lead Agency to identify appropriate local/state beekeeping organisations, if required. Initial contact with AHBIC should be through the Chair or CCEPP representative. AHBIC will review and maintain the list of trained and authorised representatives available to fill industry liaison roles.

COMPLETION OF THE EXERCISE

EBP has successfully delivered ten simulation and workshop activities across Australia, raising awareness of the beekeeping industry and improving the capability to rapidly respond to a Varroa mite detection in a peri-urban setting. The learnings from the exercise are captured in this report and by each jurisdiction as a result of their activities.

To finalise the outcomes of the exercise, the national action items identified through the national workshop will be provided to the relevant group or organisation with the appropriate supporting information to allow items to be progressed. These covers agreeing on national policy, developing or updating supporting documentation, and a review of the National Varroa Mite Contingency Plan.