

# Final report

*Project title:*

# Review of the Biosecurity Plan for the Berry Sector

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## Public summary

Australia's biosecurity system works in a dynamic environment with major challenges growing and evolving rapidly. Through this project, Plant Health Australia (PHA), with Horticulture Innovation levy investment, has developed the *Biosecurity Plan for the Australian Berry Sector (V 1.5)*. This Biosecurity Plan (BP) recognises that the operating environments affecting the biosecurity of the berry (blueberry, Rubus and strawberry) sector is vastly different today to that of the past, and that the industry's response capabilities need to keep pace if they are to remain relevant and effective into the future.

The BP lays the foundation for a stronger biosecurity system and more resilient berry producers by identifying and prioritising the growing number of exotic pests and pathogens that could, if introduced, impact on Australian berry production and trade. The BP also analyses the various preparedness resources currently available to manage these risks and provides a program of current and future activities intended to fill any gaps in preparedness and strengthen the sector's biosecurity response capability.

Over the course of the project, two independent exotic pest and disease reviews were undertaken, the first focussed on the Rubus and strawberry industries, and the second on the blueberry industry. Following the second review, a combined BP for the berry sector was developed. These reviews were conducted with valuable input from stakeholders including Berries Australia — representing Australian Blueberry Growers' Association (ABGA), Raspberries and Blackberries Australia Incorporated (RABA) and Strawberries Australia Inc (SAI) — along with biosecurity and crop protection experts from state, territory and Commonwealth governments.

There are three major components to a BP. The first is a review of all known exotic pest and disease species that are known to infect the target crop. This review highlighted over 450 different exotic pest and disease species that, if introduced, could impact the Australian blueberry, Rubus and/or strawberry production and trade. These species' reviews informed the development of risk ratings for each of the identified exotic pests and diseases. The risk ratings consider the potential of each species to enter, establish and spread within Australia and an estimate of their potential economic impact. Of those species reviewed, 34 species were deemed High Priority Pests (HPPs) of the berry sector.

The second component was an analysis of the preparedness resources that are currently available to each HPP, which were compiled to create a Preparedness Table. The resources included contingency plans, fact sheets, diagnostic and surveillance protocols and taxonomic reference specimens.

The third and final component of the BP was the development of a Biosecurity Action Plan that describes the critical activities that, if implemented, will improve the sector's biosecurity preparedness and response capabilities. The Action Plan, was developed and reviewed annually through a Biosecurity Reference Panel (BRP), comprising of industry and government representatives. The Action Plan outlines strategies, communication and engagement activities specific to the berry sector, as well as activities and resources utilised by other industries that share the same exotic pest and disease threats and identifies potential international and domestic collaboration opportunities.

### Keywords

Biosecurity Plan, High Priority Pests, Biosecurity Action Plan, pests, diseases, berries, blueberry, Rubus, strawberry.

## Introduction

Biosecurity planning provides a mechanism for agricultural industries, government, and other relevant stakeholders to actively determine pests of highest priority and analyse the risks they pose. It also provides a mechanism for industry, governments and other stakeholders to assess current biosecurity practices and future biosecurity needs. The identification, prioritisation and management of key biosecurity risks, through the development and implementation of preparedness resources including a Biosecurity Plan is a critical industry preparedness activity.

Blueberries, *Rubus* (blackberries and raspberries) and strawberries represented by Berries Australia, is the single biggest fresh produce category in Australian supermarkets with a combined value of over \$1 billion<sup>1</sup>. Biosecurity planning is integral to Berries Australia's objectives that include promoting sustainable agricultural production practices that minimise environmental and community impact, while supporting the growth of both domestic and international markets for Australian berries.

Australian berry production occurs year-round and, in most states and territories. The major production areas are located along the eastern seaboard, being Queensland (30%), Victoria (27%) and NSW (23%). As around 90% of domestic berry production is sold as fresh fruit,<sup>2</sup> disruption to the domestic supply chain due to an outbreak of an exotic pest or disease could have devastating short- and long-term impacts on supplier's bottom line and the berry sector more broadly.

Ensuring the berry sector has the capacity to minimise the risks posed by pests, and to respond effectively to any pest threats is a vital step for the future sustainability and viability of the industry. Through pre-emptive biosecurity planning processes, the sector will be better placed to maintain domestic and international trade and reduce the social and economic costs of pest incursions on both growers and the wider community. The information gathered during these processes provides additional assurance that the berry sector is free from specific pests and has systems in place to control and manage biosecurity risks, which assists the negotiation of access to new overseas markets.

As a part of Berries Australia, Australian Blueberry Growers' Association (ABGA), Raspberries and Blackberries Australia Incorporated (RABA) and Strawberries Australia Inc (SAI) have highlighted "*Productive management of biosecurity risks*" as an outcome within the Berries Australia Strategic Plan 2022-2025<sup>3</sup>. Biosecurity is also mentioned across several strategies under Outcome 2 "*Industry supply, productivity and sustainability*" in the sector's Strategic Investment Plan (SIP) (2022-2026) developed by Horticulture Innovation<sup>4</sup>. In the previous SIP (2017-2022), investment into biosecurity was limited to specific outputs and targeted pests or diseases<sup>5</sup>. This increased emphasis on biosecurity within the current SIP indicates an acknowledgment by industry of the importance of biosecurity to the berry sector, and a need for continuous investment to improve its biosecurity preparedness.

In collaboration with Berries Australia and Commonwealth, state and territory governments, Plant Health Australia (PHA) has developed Biosecurity Plan (BP) for the berry sector. The BP will provide a framework for improved biosecurity preparedness and practice through increasing industry awareness and risk mitigation relating to exotic pest incursions.

There are three major components to the BP. The first is the review of exotic pest species that are known hosts of the industry or sector. This species' review informs the development of risk ratings for each of the exotic pests identified. These risk ratings focus on the potential of each pest to enter, establish and spread within Australia and an estimate of their potential economic impact. The species that receive high risk ratings are given 'High Priority Pest' (HPP) status.

The second component is an analysis of the available preparedness resources in relation to the HPPs including contingency and continuity plans, fact sheets, diagnostic protocols and reference specimens, creating a Preparedness table.

The third and final component is the development of an Action Plan that describes the critical activities that are designed to improve biosecurity preparedness and response capability. The Action Plan, developed through consultation with industry and government stakeholders, outlines the strategies and activities that are the most important for the exotic pests of greatest concern. The activities outlined in the Action Plan include any required research, development and extension (RD&E) activity, potential international and domestic collaboration opportunities and activities and resources currently utilised by other domestic industries that share some of the same exotic pest threats.

The berry sector historically has had three separate BPs aligned to either the blueberry, *Rubus* and strawberry industries. Over the course of this project, several iterations of the *Biosecurity Plan for the Australian Berry Sector* were produced, the first focussed on the *Rubus* and strawberry industries. The project was extended beyond the original December 2023 end date to include the blueberry industry, with the final version incorporating all three crop types. This project aims to improve the biosecurity planning process and optimise future biosecurity investment for the berry sector through the development of a unified *Biosecurity Plan for the Australian Berry Sector (V 1.5)*.

## Methodology

The development of the *Biosecurity Plan for the Australian Berry Sector (V 1.0)* commenced with an extensive literature review and tabulation of exotic pests and diseases of the plant species produced by the sector. The review utilised a range of resources, including previous Biosecurity Plans (version 1.0 for Rubus and version 2.0 for strawberry), available peer-reviewed scientific literature and other noted sources such as the Centre for Agriculture and Biosciences International (CABI). With the assistance of Berries Australia, a Technical Review Panel (TRP) was then formed to review the literature gathered and to characterise each species based on its risk profile. The risk ratings were based on an assessment for their potential to enter, establish and spread in Australia and their potential economic impact on each berry category. This TRP met in July 2019 (see MS102), was coordinated by PHA and included representatives from Berries Australia and state and territory agriculture agencies and (Table 1).

**Table 1. Members of the Technical Review Panel (TRP) and Biosecurity Reference Panel (BRP) for the Rubus and strawberry industries (2019-2023).**

NAME	ORGANISATION (HISTORICAL)	MEMBER OF TRP	MEMBER OF BRP
Liz Minchinton	Department of Primary Industries Victoria <sup>1</sup>	✓	✓
Dean Harapas	DEDJTR	✓	✓
Amanda Kobelt	Department of Environment and Primary Industries	✓	
Ruth Huwer	NSW Department of Primary Industries	✓	
Rosalie Daniel	NSW Department of Primary Industries	✓	
Melinda Simpson	NSW Department of Primary Industries	✓	✓
Apollo Gomez	QDAF <sup>2</sup>	✓	
Christine Horlock	QDAF	✓	✓
Angela Atkinson	Victorian Strawberry Industry Development Committee	✓	✓
Amanpreet Singh	RABA	✓	✓
Rachel Mackenzie	Berries Australia	✓	✓
Leandra Fernandes	PHA	✓	✓
Victoria Ludowici	PHA	✓	✓
Penny Measham	Hort Innovation		✓
Bradley Mills	Hort Innovation		✓
Rebekah Pierce	NSW DPI <sup>3</sup>		✓
Pip Cotter	NSW DPI		✓
Chris Pittock	DEDJTR		✓

<sup>1</sup> Department of Primary Industries Victoria, Department of Environment and Primary Industries and DEDJTR now fall under the Department of Energy, Environment and Climate Action (DEECA) and AgVic

<sup>2</sup> QDAF is now Queensland Department of Primary Industries (QDPI)

<sup>3</sup> NSW DPI is now NSW Department of Primary Industries and Regional Development (NSW DPIRD)



Through this process, the information was compiled into several tables of important exotic and endemic pest species. These included:

- **Threat Summary Tables (TST).** An overview including risk assessments of all known exotic pests and diseases known to impact on the plant species produced by the blueberry, Rubus and strawberry industries.
- **High priority Pest lists (HPP).** These species based on the risk assessment process have the potential to cause substantial economic impact on the berry sector, either through production losses or market access issues.
- **Other Pests of Biosecurity Significance.** These species are economically important to the berry sector and are considered in the prioritisation of RD&E investment but do not undergo a formal pest risk assessment. They are economically important in least one of the following ways:
  - currently under quarantine arrangements or restricted to regions within Australia,
  - notifiable by law,
  - have market access implications,
  - able to be prevented from entering a farm through good biosecurity practice.

Once compiled, these lists formed the foundation of the Biosecurity Plan. An Action Plan was then developed with the assistance of a Biosecurity Reference Panel (BRP). The BRP (reported on in MS103) was convened by PHA and again comprised of representatives from each industry and the relevant state authorities and met in October 2019 (Table 1).

Action Plans are a critical component of the Biosecurity Plan. The Action Plan highlights current gaps in biosecurity industry preparedness and RD&E that could be ameliorated through future investment. It is developed in accordance with industry priorities and resource availability and aims to improve preparedness and response capability. A number of these priorities are still being addressed by industry.

The activities described within Action Plans are aligned with the five strategic priority areas of the [National Biosecurity Strategy](#) and provides industry with a plan with agreed activities and timeframes. The five strategic areas include:

1. Preparedness and Response
2. Capacity and Capability
3. Communications and Engagement
4. Innovation, Research Development and Extension
5. Collaboration and Partnerships

Following these meetings, the Biosecurity Plan was compiled and provided to Berries Australia for endorsement (in September 2020) followed by endorsement by the Plant Health Committee (PHC) which was received in November 2020. PHC is comprised of the Chief Plant Health Managers from each state/territory and a representative from the office of the Australian Chief Plant Protection Officer.

Aspects of the endorsed Biosecurity Plan including the HPP list, Other Pests of Biosecurity Significance and progress towards fulfilment of the Action Plan's activity schedule were then reviewed in February 2021 by the Biosecurity Reference Panel (BRP) (reported on in MS106).

The second BRP meeting was held on 3<sup>rd</sup> August 2022 (see MS109) and included discussions regarding the incorporation of the blueberry industry into the *Biosecurity Plan for the Australian Berry Sector (V 1.2)*.

The third BRP meeting reported on in MS111, was scheduled to be held in August 2023 however identifying a suitable time for industry representatives resulted in this being delayed. In the interim, the update to the blueberry industry TST commenced with the aim to hold a separate TRP meeting prior to a combined BRP meeting involving all berry sector representatives.

On 2<sup>nd</sup> May 2024, the TRP to review the blueberry TST was convened consisting of similar membership to previous TRPs and BRPs formed earlier in the project. Additionally on 8<sup>th</sup> May, the third BRP meeting incorporating all three berry industries met to include activities relevant to ABGA into the Action Plan (Table 2, MS112). The TST developed for the blueberry industry underwent the same process as for the Rubus and strawberry industries and was provided to and endorsed by Berries Australia in October 2024 followed by endorsement by the PHC in March 2025 (see MS113).

**Table 2. Members of the blueberry Technical Review Panel (TRP) and Biosecurity Reference Panel (BRP) (2024).**

NAME	ORGANISATION (HISTORICAL)	MEMBER OF TRP	MEMBER OF BRP
Stephen Quarrell	PHA		✓
Rebecca Powderly	PHA	✓	✓
Evie Kielnhofer	PHA	✓	✓
Gaius Leong	NSW DPI <sup>4</sup>	✓	
Helen Newman	DPIRD WA	✓	
Shannon Mulholland	DPI NSW	✓	✓
Leonie Martin	DPI NSW	✓	✓
Chris Pittock	AgVic	✓	✓
Melissa Simpson	DPI NSW	✓	
Elisse Nogarotto	AgVic	✓	
Jessica McLeod	DPIRD WA	✓	
Angela Monks	NRE Tasmania	✓	
Christine Wood	DPIRD WA	✓	✓
Angela Atkinson	Berries Australia	✓	✓
Kyla J Finlay	AgVic		✓
Monique Sakalidis	DPIRD WA		✓
Zac Hemmings	DPI NSW		✓

As the *Biosecurity Plan for the Australian Berry Sector (V 1.3)* was endorsed by Berries Australia and PHC, with changes from meetings held in May 2024 incorporated, a fourth BRP meeting reported on in MS113 was held on 25<sup>th</sup> November 2024 to ensure that all required updates were captured to produce *Biosecurity Plan for the Australian Berry Sector (V 1.4)*.

The fifth and final BRP was held on 20<sup>th</sup> October 2025 to incorporate final updates to the BP and produce the *Biosecurity Plan for the Australian Berry Sector (V 1.5)*. This meeting also included a workshop to capture recommendations for biosecurity activities relevant to the berries sector beyond the scope of the current project. Outcomes from this workshop will be expanded on in the Recommendations section in this report. See Appendix 1 for the *Biosecurity Plan for the Australian Berry Sector (V 1.5)* and Appendix 2 for the minutes from the October 2025 meeting.

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<sup>4</sup> NSW DPI is now NSW Department of Primary Industries and Regional Development (NSW DPIRD)

## Results and discussion

The revised Biosecurity Plan (BP) has been completed, endorsed by both industry and PHC. It has since undergone several revisions during the annual Biosecurity Reference Panel (BRP) meetings leading to the development of the *Biosecurity Plan for the Australian Berry Sector (V 1.5)*. See Appendix 1 for a copy of the latest version of the BP.

The BP features an analysis of all known exotic pests and diseases of the berry sector. This review highlighted over 450 different exotic pest and disease species that, if introduced, could impact the berry sector. These species' reviews informed the development of risk ratings for each of the identified exotic species. The risk ratings focus on the potential of each species to enter, establish and spread within Australia and an estimate of their potential economic impact. These risk analyses subsequently identified 34 High Priority Pests (HPPs) for the berry sector (see Appendix 1, page 25). The HPPs identified are those deemed to have an elevated likelihood of entry, establishment and spread in Australia and the potential to cause substantial economic impact to the berry sector if introduced through impacts on production or market access.

A further suite of pests and diseases were identified as Other Pests of Biosecurity Significance (Appendix 1, page 37). These pests are economically important to the berry sector and are considered to prioritise RD&E investment but do not undergo a formal pest risk assessment due to their limited distribution in Australia. The pests listed in these tables include species such as Kanzawa spider mite (*Tetranychus kanzawai*), which is restricted to New South Wales and Queensland, and is classified as a Declared Pest, prohibited by Western Australia and Green snail (*Cornu apertus*), which is a notifiable pest for most states and territories.

The Action Plan (see Appendix 1, page 41) was created in consultation with the BRP to provide guidance into future biosecurity related activities that aim to improve industry preparedness and response capability. The Action Plan describes the activities aligned to the strategic priority areas of the [National Biosecurity Strategy](#) and provides industry with an overarching plan with agreed activities and timeframes. Many of the activities highlighted within the Action Plan are ongoing and will continue after this project's completion.

Over the course of the project, the Biosecurity Planning team has undertaken a review of the Biosecurity Plan development process and have made several key changes, some of which were able to be incorporated into the *Biosecurity Plan for the Australian Berry Sector* in later versions. Two major changes included an update to the TST development process, which was used to develop the blueberry TST and updates to the Action Plan format, which were included over the course of several BRP meetings.

Further improvements to how Technical Review Panel (TRP) meetings and processes, Action Plan format and the Biosecurity Plan template will be incorporated into the next iteration of the *Biosecurity Plan for the Australian Berry Sector*. These suggested enhancements will be further expanded on in the Recommendations section in this report.

## Outputs

Table 3. Output summary

Output	Description	Detail
Threat Summary Table (TST) identifying and prioritising exotic berries pests	Technical review of exotic invertebrate and pathogens that pose a threat to the berry sector.	A foundational part of the Biosecurity Plan comprised of over 450 different exotic pest and disease species that could impact the berry sector. The TST is used to develop the High Priority Pest (HPP) list, species that have a high likelihood of entry, establishment and spread in Australia and the potential to cause substantial economic impact to the berry sector or create market access issues if introduced. See Appendix 1.
HPP Preparedness table and Action plan	A review of available resources for HPPs and development of a table with biosecurity related activities for the berry sector.	The Preparedness table is a gap analysis of resources available to address HPPs of the berry sector. The Action Plan describes critical activities that are designed to improve the berry sector's biosecurity preparedness and response capability. See Appendix 1.
Industry and government endorsed <i>Biosecurity Plan for the Australian Berry Sector (V 1.5)</i>	Exotic pest risk analyses, HPP list, Preparedness table, Action Plan with supporting biosecurity-focused content.	Biosecurity Plans are high level planning documents and have been provided to Berries Australia and Hort Innovation and uploaded onto the Biosecurity Portal. The Portal has access restricted to the relevant peak body(s), RDCs and state and Federal Government agencies. The Biosecurity Plan can be further disseminated further at Berries Australia's discretion. See Appendix 1.
Milestone Reports	Progress reports on Biosecurity Plan's development and the implementation of critical activities that aim to improve the berry sector's biosecurity preparedness and response capability	Milestone reports are submitted to Hort Innovation and disseminated at their discretion.
Final Report	Final report reviewing the outcomes of project MT18004.	Final reports are submitted to Hort Innovation and disseminated on the Hort Innovation website.

## Outcomes

Since the original development of the project's Monitoring and Evaluation (M&E) plan, a new Berry Strategic Investment Plan (SIP) has been developed covering the period of 2022-2026<sup>4</sup>. This SIP considers the berry sector (blueberry, Rubus and strawberry) as a whole and is more closely aligned to work undertaken through this project. For this reason, the 2022-2026 SIP has been utilised as the benchmark for determining whether the project has attained the desired industry outcomes.

**Table 4. Outcome summary**

Outcome	Alignment to fund outcome, strategy and KPI	Description	Evidence
<p><b>Intermediate Outcome</b></p> <p>Identification and prioritisation of the berry sector's exotic pest and disease threats and other pests and diseases of biosecurity significance</p>	<p><b>Outcome 2:</b> Industry supply, productivity and sustainability</p> <p><b>Strategy 6:</b> Protect the biosecurity status of the Australian berry industry</p> <p><b>KPIs:</b></p> <ul style="list-style-type: none"> <li>• Maintenance/tracking of the implementation of an industry biosecurity plan</li> <li>• Resources available to support growers to implement best practice on-farm biosecurity</li> </ul>	<p>The identification and prioritisation of pests and diseases for the berry sector is an important step in the development of the Threat Summary Table (TST), High Priority Pest (HPP) list and the Other Pests of Biosecurity Significance table. Members of the Technical Review Panel (TRP) and the Biosecurity Reference Panel (BRP) contributed to the assessment of pests and diseases.</p>	<p>The TST development process involved reviewing the old Biosecurity Plan, TSTs developed for other industries and online resources including CABI, scientific journals and extension material.</p> <p>The TST once developed is reviewed by the TRP and endorsed by Berries Australia and the Plant Health Committee ensuring that the information is accurate and relevant.</p>
<p><b>Intermediate Outcome</b></p> <p>Identification and implementation of risk mitigation activities to increase the industry's preparedness for exotic pests and diseases</p>	<p><b>Outcome 2:</b> Industry supply, productivity and sustainability</p> <p><b>Strategy 6:</b> Protect the biosecurity status of the Australian berry industry</p> <p><b>KPIs:</b></p> <ul style="list-style-type: none"> <li>• Maintenance/tracking of the implementation of an industry biosecurity plan</li> <li>• Resources available to support growers to implement best practice on-farm biosecurity</li> </ul>	<p>Following the development of the Biosecurity Plan, a Preparedness table (a stocktake of available resources for HPPs) gives the BRP an understanding of gaps in knowledge to address. The Action plan is reviewed on a regular basis by members of the BRP to confirm that activity updates are captured and new work being undertaken by members of the BRP can be acknowledged. The identification and prioritisation of activities within the Action Plan enables for RD&amp;E funding to be allocated appropriately.</p>	<p>The Preparedness table and the Action Plan are developed in consultation with the BRP to cross reference activities being conducted relevant to the berry sector.</p> <p>Berries Australia and Hort Innovation's involvement also means that the Action Plan can be aligned to the SIP and address the needs of the sector.</p>
<p><b>Intermediate Outcome</b></p> <p>Shared responsibility for biosecurity preparedness activities</p>			
<p><b>End-of Project Outcome</b></p> <p>Improved preparedness of the berry sector for exotic pests and diseases and a framework to coordinate biosecurity activities and investment for the berry sector over five years</p>			

## Monitoring and evaluation

This project had three key objectives:

1. Support the berry sector in satisfying its biosecurity obligations
2. Ensure that the berry sector and stakeholders have identified exotic pest risks and mitigation actions necessary to managing risks effectively
3. Establish a valid base for decisions on future investment in biosecurity-related RD&E

**Table 5. Key Evaluation Questions**

Key Evaluation Question	Project performance	Continuous improvement opportunities
1. To what extent has the project achieved its expected outcomes?	This project improved biosecurity preparedness of the berry sector against exotic pests and diseases through the development of a industry and PHC endorsed Biosecurity Plan (Objective 2). The planning process also involved the development of a Biosecurity Action Plan, which provides insight and a gap analysis into the berry sector’s biosecurity preparedness and their future RD&E needs (Objectives 2 & 3).	This project provided in sights regarding the biosecurity planning process namely the development of the Biosecurity Plan (BP), Threat Summary Tables (TST) and the Action Plan. This has led to improvements in the format of these key elements, which are currently being implemented in new Hort Innovation funded projects.
2. How relevant was the project to the needs of intended beneficiaries?	<p>The representative of Berries Australia interviewed at the end of the project believed that the project met industry needs in improving their biosecurity preparedness through the generation of a Biosecurity Plan including the development of the TSTs, High Priority Pest (HPP) list, Other Pests of Biosecurity Significance table and Action Plan and therefore improved their biosecurity preparedness. This project also addressed their biosecurity obligations as signatories of the Emergency Plant Pest Response Deed (EPPRD) as outlined in the project’s objectives. <sup>5</sup></p> <p>Overall, the representative stated that the BP review is a good process and showed interest in incorporating improvements made into future projects for the berry sector.</p>	<p>It was noted by the Berries Australia representative that the process to review the TST is time-consuming and created some difficulty in getting industry members to participate in the process.</p> <p>As mentioned in KEQ 1, continuous improvement to the BP development process have been implemented in new projects. These enhancements include:</p> <ul style="list-style-type: none"> <li>• The TST is now sent out to the TRP ca. 1 month in advance of the meeting</li> <li>• The out-of-session review gives TRP members the flexibility to review the TST and provide feedback when time permits</li> <li>• TRP meetings now typically run for ca. 2-3 hours rather than a full day.</li> </ul> <p>This new review process has improved meeting attendance and increased the quality of the risk assessments within as the members have sufficient time to research and consider the draft risk assessments.</p>

<sup>5</sup> Note that the Australian Blueberry Growers’ Association (ABGA) are not signatories to the EPPRD.

Key Evaluation Question	Project performance	Continuous improvement opportunities
3. How well have intended beneficiaries been engaged in the project?	As Biosecurity Plans are a high level, peak-body facing documents therefore industry engagement was monitored through attendance of key industry stakeholders at the Technical Review Panel (TRP) and Biosecurity Reference Panel (BRP) meetings.	As stated above, the industry partners were adequately engaged throughout the project through both TRP (year 1 and year 4) and BRP meetings (years 2-6).
4. To what extent were engagement processes appropriate to the target audience/s of the project?	The project's key industry stakeholders (Berries Australia) were engaged throughout the project including during the TRP (twice in year 1 and again in year 4) and during the annual BRP meetings.	As stated above, the industry partners were adequately engaged throughout the project through both TRP (year 1 and year 4) and BRP meetings (years 2-6).  It was noted by Berries Australia that the annual BRP review process gave an opportunity to provide time to consider resources that facilitated its continual improvement. It was suggested that international and industry participants would be beneficial to fill further gaps in future projects.
5. What efforts did the project make to improve efficiency?	Efficiencies were largely borne through reducing the PHA salary component and meeting costs via the adoption of online meetings formats, which reduced travel and the drafting of documents (i.e., TST, Action Plan) prior to stakeholder meetings to speed up this the development of the components of the Biosecurity Plan.	These learnings - including improvements in the TST format (see above) - are already being implemented in new Horticulture Innovation-funded projects.

## Recommendations

As mentioned in the Methodology and the M&E sections of this report, several improvements have been made over the course of the project and incorporated into the Biosecurity Plan (BP) development process. Some of these changes have only recently been implemented in new projects and were not able to be included in the late stages of MT18004.

Recommendations to process improvements include:

- Updating the Rubus and Strawberry TSTs to align with the Blueberry Threat Summary Table (TST). This project did not follow the typical timeline followed to update BPs. In previous berry focussed projects, the three berry industries BPs were revised separately, and industry linkages were not explored. At the beginning of this project the Rubus and strawberry industries were reviewed in one plan with a contract variation to include the blueberry industry made in 2023.

As previously stated, PHA has made several fundamental changes to the way that TSTs are researched and developed which has bolstered the quality of the BPs overall. These changes are reflected in the recent update to the Blueberry TST but are not reflected in the Rubus and strawberry elements of the BP.

It is therefore recommended that TSTs for Rubus and strawberry industries are updated to provide a unified data standard across all three industries' TSTs.

- Development of a new Action Plan that considers all industries under Berries Australia, with the new Action Plan template. PHA's new Action Plan template takes the form of a workplan designed to inform strategic investment through the SIAP process.

Following the inclusion of the blueberry into this project, the Action Plans were retrospectively combined to unify biosecurity related activities across the berry sector. A new Action Plan is recommended to be developed

with all areas of the berry sector considered during its development. This will minimise duplication of effort across industries and ensure that the three berry industries are considered in all relevant activities and their implementation.

The revision of the Action Plan would also provide Berries Australia with an opportunity to address several recommendations highlighted in the workshop held during the final BRP meeting held in October 2025 including:

- The development of a Biosecurity Incident Standard Operating Procedure (BISOP).
  - The development of Owner Reimbursement Cost (ORC) frameworks.
  - Development of a training framework to ensure Berries Australia staff are appropriately trained for their roles during a Response i.e., not all IDOs have undergone Industry Liaison Officer training.
- Australian Blueberry Growers' Association (ABGA) to consider becoming a signatory to the Emergency Plant Pest Response Deed (EPPRD). It is recommended for the ABGA to consider becoming a signatory to the EPPRD to comprehensively strengthen the berry sector's biosecurity capacity in the event of an incursion.
  - Support an annual review of the list of exotic pests and pathogens (Threat Summary Tables) to account for changes in taxonomy, hosts, geographic distribution and/or economic impact which may change the threat posed by each pest. These annual reviews would ensure the Threat Summary Tables remain current and lessen the need for full review each time the Biosecurity Plan is reviewed. As seen within the BRP process within this project, these reviews would be undertaken with the opportunity for continued collaboration with Commonwealth, State and Territory jurisdictions. The development of a new Biosecurity Plan on a five yearly basis could then be undertaken expediently with a focus on an assessment of preparedness and the review and continued refinement and implementation of the Action Plan.
  - Analysis of HPPs in preparation for Emergency Plant Pest (EPP) responses. Several plant industries, including Berries Australia, have recently communicated to PHA their concerns regarding the increasing size and frequency of investment requests by jurisdictions to fund EPP incursion Response Plans. The concerns stem from industry's awareness that the debt carried for failed responses limits their preparedness investment for future incursions. Given the biotic attributes of some HPPs and potential delays in detection, the likelihood of eradication success is not always clear. The outcomes of this analysis would be used to understand whether a HPP would be technically feasible to eradicate prior to an incursion and inform industry's decision making regarding whether to invest in a response. If a species' eradication likelihood is deemed low, greater investment would then be directed towards resources that enable a rapid transition to management, minimising the compounding monetary impact of frequent EPP incursions.
  - Exotic pest management reviews that provide understanding of how HPPs are managed internationally. These reviews would provide information to industry on how the HPPs are currently managed overseas including the crop scouting, pest identification and cultural, biological and chemical controls. The information within can be easily developed into extension resources during an incursion. These reviews would also generate an information package to enable the rapid generation of APVMA Emergency Permits during an incursion and potentially inform an exotic pest focussed Strategic Agrichemical Review Process (SARP) that focusses on the industries' HPPs. Due to constraints in levy availability, the generation of these pest management reviews species would initially focus on the HPPs deemed less likely to be eradicated in the analysis outlined above.

Additionally, it has also been noted that Berries Australia is in the process of developing a Memorandum of Understanding (MoU) with PHA to direct Biosecurity Activity Component funds to biosecurity activities. PHA will work closely with Berries Australia to ensure cohesion across the Action Plan, Strategic Investment Plan (SIP) and the MoU in prioritising biosecurity activities.

## Refereed scientific publications

None to report.

## Intellectual property

No project IP or commercialisation to report.

## Acknowledgements

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## Appendices

- Appendix 1 – *Biosecurity Plan for the Australian Berry Sector (V 1.5)* (**CONFIDENTIAL**)
  - Appendix 2 - Biosecurity Reference Panel #6 meeting minutes (**CONFIDENTIAL**)
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## References

- <sup>1</sup> Berries Australia – About Berries Australia (Accessed 17/11/2025) <https://berries.net.au/home/about/berries-australia/>
- <sup>2</sup> Horticulture Innovation Australia (2025). Australian Horticulture Statistics Handbook 2023/24 (Accessed 17/11/2025) <https://www.horticulture.com.au/growers/help-your-business-grow/research-reports-publications-fact-sheets-and-more/australian-horticulture-statistics-handbook/>
- <sup>3</sup> Berry Strategic Plan (2022-2025) (Accessed 17/11/2025)
- <sup>4</sup> Berry Strategic Investment Plan (SIP) (2022-2026) (Accessed 17/11/2025) <https://www.horticulture.com.au/globalassets/hort-innovation/levy-fund-financial-and-management-documents/sip-2022-2026-pdfs/hort-innovation-sip-2022-26-berry-r2.pdf>
- <sup>5</sup> Horticulture Innovation (2016) Raspberry and blackberry - 2017-2021 Strategic Investment Plan