

Acknowledgements

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Overview

The National Fruit Fly Strategy 2020–25 provides a framework for stakeholders to coordinate fruit fly activities across Australia. While no new funding has been provided for the strategy, this implementation plan has been developed to identify and monitor key activities that have been prioritised by stakeholders and resourced in 2020–21.

The implementation plan acknowledges the considerable and ongoing contribution by many different stakeholders to fruit fly management in Australia. Importantly it provides an opportunity to collectively consider potential gaps to be addressed in this system as guided by the SWOT analysis (page 4), the Intergovernmental Agreement on Strengthening Australia's Fruit Fly Management System, and the 2015 National Fruit Fly Research, Development and Extension Plan.

The National Fruit Fly Council will oversee this implementation plan for the strategy. The Council brings together governments, growers and research funders to provide advice and strategically contribute to issues through forums such as the National Biosecurity Committee, Plant Health Committee, Hort Innovation, and peak industry bodies and grower groups.

The Council will prepare a formal report against the implementation plan annually and will use this as a basis to review progress against the Strategy's Strategic Framework (overleaf) and to identify priorities for the financial year ahead.

Groups contributing	to implementation plan activities
DAWE	Australian Government Department of Agriculture, Water and the Environment
States & Territories	State and territory governments and their respective agricultural departments
NFFC	National Fruit Fly Council – representatives from the federal, state and territory governments, Hort Innovation, industry and Plant Health Australia (PHA)
РНС	Plant Health Committee - Plant Health Managers (federal, state and territory governments)
	SDQMA – Sub-Committee on Domestic Quarantine and Market Access
	SPHD – Sub-Committee on Plant Health Diagnostics
	SNPHS – Sub-Committee on Plant Health Surveillance
Industry	Growers and peak industry bodies of fruit fly affected industries
Regions	Regional grower groups, local governments and communities supporting fruit fly management
Hort Innovation	Research and development corporation for Australia's horticulture industry
Researchers	Fruit fly researchers across governments, universities, and other research providers



The strategic framework

Vision

Australia has a robust fruit fly management system that supports growth in horticultural production, market access and trade.

Goal

Australia will have a contemporary, viable, cost-effective, and coordinated national approach to fruit fly management, with stakeholders committed to the national strategy.

Strategic objectives



MAINTAIN AUSTRALIA'S FREEDOM FROM EXOTIC FRUIT FLY

Maintaining freedom from exotic fruit flies is important to the sustainability of Australia's horticultural industries.

Key Performance Indicator: *Incursion(s) of exotic fruit fly in Australia are detected early and eradicated*



MINIMISE THE INCIDENCE AND SPREAD OF FRUIT FLY

Improving the management and suppression of established fruit fly species and preventing their further spread will help support productivity, reduce management costs, and enable trade and market access opportunities through low pest prevalence and pest free areas.

Key Performance Indicator: Domestic and international recognition of fruit fly pest free areas is retained or increased.



IMPLEMENT NATIONAL SYSTEMS THAT SUPPORT MARKET ACCESS

Being able to provide markets (domestic and international) confidence in our fruit fly system will ensure Australian growers can capitalise on our reputation for high quality produce.

Key Performance Indicator: *No critical non-conformance in the national fruit fly assurance system.*



FACILITATE A COOPERATIVE AND COMMITTED NATIONAL APPROACH TO FRUIT FLY MANAGEMENT

Cooperation of governments, industries and communities, who operate in different fruit fly management areas, is vital to the success of the fruit fly system.

Key Performance Indicator: Consistency between the strategy and strategic fruit fly objectives of governments, industries and communities.



Priority areas

Eight different, yet interdependent, priority areas have been identified for the strategy.

1. Market access



Develop a framework of policy, legislation and operations that enables market access with the least trade restrictive measures, is legally enforceable and technically justified.

3. Prevention, preparedness and response



Continue to support the development and resourcing of prevention, preparedness and response measures for incursions or outbreaks.

2. Management of established fruit fly



Build and promote efficient and effective methods to manage established fruit fly species, to reduce the impact on production and to facilitate access to sensitive markets.

4. Research



Maintain and enhance fruit fly research capability, capacity and resources, pursuing research and extension that focus on nationally agreed priorities.

5. Surveillance



Ensure a nationally consistent surveillance framework that provides clarity around fruit fly distribution, prevalence and control.

6. Diagnostics



Maintain and enhance rapid diagnostic capability and capacity to support responses to incursions or outbreaks and to confirm area freedom.

7. Communication and engagement



Adopt systems and mechanisms for the efficient and effective communication, training, extension and uptake of fruit fly information by a broad range of audiences.

8. Cooperation



Maintain and enhance engagement processes that serve to coordinate, progress and improve fruit fly management systems.



SWOT analysis 2020-21

Strengths Weaknesses **Funding:** Limited ongoing funding for national • National focus: Renewed national commitment to projects/programs. fruit fly cooperation, including funding to strengthen **Complex system:** Managing the varied interests the national fruit fly system. across the range of differing fruit fly status and host • Reputation: Recognition of East-West pest vulnerabilities. distribution profile and workable treatment protocols **Inter-dependence**: System success relies on for international market access. cooperation across governments, industry, **Expertise:** A network of experienced and communities and research funders. knowledgeable people in managing fruit fly and/or **Competition:** Fruit flies are one of many pests to be maintaining freedom from unwanted pest fruit flies. resourced and cost-benefits are often poorly **Strategic:** Revised National Fruit Fly Strategy and understood. engaged National Fruit Fly Council to monitor and provide advice on Strategy implementation. **Opportunities Threats Exotic incursion:** Lack of preparedness for an exotic • Coordinated research: Levy funded research through fruit fly incursion outside of the Torres Strait. Hort Innovation and \$13M government funded **Inadequate response:** Loss of ongoing industry research program to June 2022. support for the Exotic Fruit Fly Torres Strait • National system improvements: \$10.4M Response Program (concludes June 2021). Commonwealth government funding for policy and **Loss of market access: U**nworkable protocols or loss system capability developments. of market confidence in current protocols. • **SIT:** Maturity of the Qfly SIT program. Pest free areas: Loss of market confidence in **Medfly eradication:** ABARES Analysis of technical existing pest free areas. feasibility and cost-benefit of eradication of Medfly. **SIT:** Lack of strategic planning for, and/or loss of **Sustainable funding:** Consideration of options to ongoing funding for, Medfly and/or Qfly SIT fund national activities. programs. Improved communication: Better coordination of **Minor species:** Risk of minor native species communication and engagement amongst impacting market access. governments, industry, research, and communities. **Domestic:** Poor stakeholder cooperation on • Area wide management: Increase support for domestic fruit fly issues. programs to address urban/peri-urban risks. **Climate change:** Potential increase to the geographic **Improved market access:** Negotiation of

range for fruit fly and corresponding expansion of

horticultural production areas.



international protocols, and review of the domestic

General surveillance: Recognition and use of

non-government surveillance data.

ICA system.

1. Market access



Develop a framework of policy, legislation and operations that enables market access with the least trade restrictive measures, is legally enforceable and technically justified.

Australia has strong domestic and international biosecurity systems that are vital for supporting market access for fruit fly affected industries. These systems need to reflect internationally accepted standards and protocols, uphold risk management principles, and be transparent and scientifically robust in order to maintain confidence among domestic and international trading partners. To achieve this, it is important that fruit fly policy, legislation and operations meet market access needs and are continuously improved.

Key stakeholder activities	Lead/Cummont	Deliner
Activity	Lead/Support	Delivery
Negotiate international market access protocols for fruit fly that maintain, improve or open access to markets.	DAWE	Ongoing
Communicate international market access requirements for fruit fly and associated issues to industry and state/territory governments.	DAWE	Ongoing
Strengthen current market access data packages and address any perceived gaps to support negotiation of international market access.	DAWE / Hort Innovation	Ongoing
Finalise the stabilisation phase of the Fruit Fly National Management Protocols	DAWE	July 2020
Align management practices to the Fruit Fly National Management Protocols	PHC / States & Territories	December 2020
Seek acceptance of the Fruit Fly National Management Protocols from trading partners.	DAWE	Ongoing
Monitor national fruit fly system assurance activities that underpin international market access, including obligations to demonstrate pest status.	DAWE / States & Territories	Ongoing
Complete the first phase of the Interstate Trade Review and the Interstate Certification Assurance (ICA) Scheme review (against ISO9000 and auditing arrangements), including industry engagement.	PHC / SDQMA, PHA	June 2021
Monitor and report against the domestic phytosanitary system for fruit fly through the National ICA Audit Program.	PHC / States & Territories	Ongoing
Investigate and rectify areas of non-compliance identified in the national and domestic systems that underpin market access.	DAWE, PHC / States & Territories	Ongoing
Implement improvements to methyl bromide fumigation processes	Victoria, Tasmania / PHC	June 2021
Explore the strategic and technical application of irradiation as a fresh produce fruit fly treatment at the Phytosanitary Irradiation Chapman Forum	Steritech	TBC. Delayed.
Support development of alternative market access approaches (e.g. Areas of Low Pest Prevalence, winter windows, systems approach, climate models) to underpin trade negotiations for fruit flies.	DAWE / PHC & Industry	Ongoing
National Fruit Fly Council activities		
Activity		Delivery
Monitor issues arising in domestic and international trade and provide strastakeholders and decision-makers for resolution.	ategic advice to	Ongoing
Regional Workshops. Provide an overview of current national activities infand national market access and seek feedback on regional issues affecting	_	June 2021

2. Management of established fruit fly



Build and promote efficient and effective methods to manage established fruit fly species, to reduce the impact on production and to facilitate access to sensitive markets.

Better understanding of established fruit flies helps to improve the effectiveness of control methods and tools. It is important that growers have a range of management and disinfestation options to control fruit fly and maintain or gain access to markets. These options must be economical and be underpinned by evidence and confidence in supporting assurance systems.

Key stakeholder activities		
Activity	Lead/Support	Delivery
Identify and promote best-practice in-field control based on current and emerging research and consistent with protocol requirements.	Industry / Researchers, Hort Innovation	Ongoing
Report to stakeholders on the findings of the ABARES economic and technical feasibility analysis for eradication of Medfly from Australia and seek feedback.	DAWE / NFFC	End of 2020
Undertake a benefit-cost analysis of Qfly SIT (using ABARES) and report to SITplus and the NFFC	Hort Innovation	September 2020
Facilitate stakeholder consideration of future direction and commercial opportunities for SIT in fruit fly management.	Hort Innovation (SITPlus Program)	September 2020
Implement area wide management practices and promote adoption of related social and technical research to improve outcomes.	Regions / Hort Innovation, States & Territories	Ongoing
National Fruit Fly Council activities		
Activity		Delivery
Provide advice to decision-makers on the ABARES Medfly eradication ana SIT.	lysis and the future of	March 2021
Communications: identify and promote roles and responsibilities and information channels for sharing fruit fly management information.		December 2020
Communications: promote effective in-field management practices for Qfly and Medfly; and priorities for future improvements (e.g. chemicals) through industry articles and e-newsletters.		June 2021
Communications: promote urban and peri-urban fruit fly management and area-wide practices through industry articles, and e-newsletters.		Ongoing
Fruit Fly Symposium: include information on current and emerging researd fruit fly management; and priorities for future improvements.	ch outcomes for in-field	June 2021
Regional Workshops: determine needs and provide regional-specific information on research outcomes for in-field fruit fly management and seek feedback on research gaps. Look at alternative ways of delivering information given COVID-19 restrictions.		June 2021



3. Prevention, preparedness and response



Continue to support the development and resourcing of prevention, preparedness and response measures for incursions or outbreaks.

Australia works hard to maintain freedom from exotic fruit flies and to minimise the spread of established fruit flies into pest free areas. Understanding fruit fly characteristics and risk pathways can help in the design of detection and control measures to manage incursions and prevent fruit fly spread. Governments, industries and communities also have a role to play in taking steps to prepare for potential risks, including planning for fruit fly eradication and for business continuity. There are high returns on investment for prevention and preparedness activities and these remain a priority for Australia's fruit fly management system.

Key stakeholder activities		
Activity	Lead/Support	Delivery
Engage with stakeholders on pest prioritisation of exotic fruit flies.	PHA / DAWE	Ongoing
Communicate potential or identified areas of risk of exotic fly incursion.	DAWE	Ongoing
Implement incursion and eradication procedures in pest free areas accordance with the National Fruit Fly Management Protocols.	States & Territories / DAWE, Industry	As needs basis
Implement incursion and eradication procedures for exotic incursions.	State & Territories / PHA, DAWE, Industry	As needs basis
Initiate a project for biosecurity preparedness for exotic fruit flies.	Hort Innovation	December 2020
Administer the Exotic Fruit Fly in Torres Strait Response Plan to eradicate incursions of exotic fruit fly species from Torres Strait in response to detections from NAQS surveillance.	Queensland / DAWE, PHA	June 2021
Revise the Torres Strait Response Plan and submit to stakeholders for consideration for support beyond June 2021.	Queensland / DAWE, PHA	End 2020
Monitor and address non-compliance and/or failures associated with domestic trade regulations.	PHC, SDQMA	Ongoing
Deliver fruit fly control responsibilities in the areas of Victoria adjacent to the Riverland Pest Free Area.	Victoria / South Australia	Ongoing
Formalise a national SIT policy for consistent application of this technology.	DAWE / PHC	End 2020
Resolve transitional support for the existing WA Medfly SIT facility and cost-benefit / beneficiary analyses to identify future funding contributions.	Western Australia, South Australia / PHC	End 2020
National Fruit Fly Council activities		
Activity		Delivery
Investigate the role of maintaining an East-West distribution profile in Australia and its supporting factors (e.g. Qfly and Medfly SIT etc.).		March 2021
Communications: raise awareness of high-risk exotic species and associated processes to contain/report, and promote compliance with trade protocols and regulations.		Ongoing
Regional Workshops: support and promote preparedness planning for fruit fly outbreak in pest free areas. Look at alternative ways of delivering information given COVID-19 restrictions.		June 2021
Fruit Fly Symposium: include information on current and emerging priorities for fruit fly prevention, preparedness and response.		June 2021
Review incursion contingency planning for high-risk exotic fruit flies, including status of industry planning and compatibility with EPPRD.		June 2021



4. Research



Maintain and enhance fruit fly research capability, capacity and resources, pursuing research and extension that focus on nationally agreed priorities.

Research, development and extension activities underpin all elements of fruit fly management, including operations, legislation, regulation, market access, biosecurity and improvements in management practices. Research provides technically justifiable approaches and innovative solutions to enable market access and sustainable production. It is essential that capability and capacity is maintained, and that research, development and extension is prioritised, coordinated and strengthened through national and international research linkages.

Key stakeholder activities		
Activity	Lead/Support	Delivery
Coordinate the Research Program under the Intergovernmental Agreement (IGA) on Strengthening Australia's Fruit Fly Management System.	DAWE	June 2022
Monitor research on <i>Phenology demography and distribution of</i> Australia's fruit fly.	PHC	June 2022
Monitor research on <i>Methyl bromide disinfestation treatments against</i> fruit fly	PHC	June 2022
Monitor research on <i>A national biocontrol program to manage pest fruit flies</i>	PHC	June 2022
Monitor research on <i>Systems approaches for horticultural market</i> access	PHC	June 2021
Delivery of the SITPlus Program research projects (funded under Hort Frontiers Strategic Partnership)	Hort Innovation	June 2022
Host a fruit fly research exchange forum (8 th Australian Biology of Tephritid Fruit Flies Conference) – currently delayed due to COVID-19 restrictions.	Researchers / Queensland University of Technology, Queensland Department of Agriculture and Fisheries	TBA 2020-21

National Fruit Fly Council activities	
Activity	Delivery
Monitor progress and provide advice to government decision-makers on research gaps and project proposals under the IGA Research Program.	Ongoing
Increase information sharing between the Council, research funders and research providers to assist in identification and prioritisation of research through regular engagement at meetings and field visits.	Ongoing
Run a workshop with industry and other stakeholders to identify priority areas for improving the fruit fly management system and associated research gaps.	June 2021
Fruit Fly Symposium. identify current research needs and potential 'blue sky' research as outcomes of the Symposium.	June 2021



5. Surveillance



Ensure a nationally consistent surveillance framework that provides clarity around fruit fly distribution, prevalence and control.

Surveillance systems provide early detection of fruit flies, deliver information for risk analyses and demonstrate the fruit fly status of an area. They are an integral part of fruit fly management and essential for rapid responses and access to markets. While surveillance must be done in accordance with agreed standards and protocols, it is also increasingly important that it is efficient, effective and able to harness information from both specific (programs to formally demonstrate pest presence or absence) and general (drawn from various government or non-government) sources.

Key stakeholder activities		
Activity	Lead/Support	Delivery
Undertake surveillance of high-risk pathways for exotic fruit flies, including ports of entry surveillance conducted by States and Territories and the Torres Strait surveillance conducted by NAQS.	DAWE / States & Territories	Ongoing
Implement domestic trapping consistent with the National Fruit Fly Management Protocols/pest freedom requirements.	PHC / DAWE	Ongoing
Incorporate all state and territory government fruit fly trapping data into a single system (AUSPestCheck).	States & Territories	Ongoing
Determine potential opportunities for general surveillance and citizen science in fruit fly management.	PHC / Regions, NFFC	Ongoing
National Fruit Fly Council activities		
Activity		Delivery
Monitor State reports of fruit fly distribution/detections.		Ongoing
Investigate recent information on trap techniques and their efficiency and effectiveness.		Dec 2020
Become informed about trends in digital surveillance and associated Al technology		June 2021
Communications: develop industry article on best-practice trapping for different fruit fly scenarios and emerging trends and potential improvements for trapping.		June 2021



6. Diagnostics



Maintain and enhance rapid diagnostic capability and capacity to support responses to incursions or outbreaks and to confirm area freedom.

Accurate and rapid fruit fly identification underpins responsiveness to potential incursions or outbreaks and increases the chance of successful eradication. Tools and materials that enhance the ease and throughput of identification of species complexes are of particular value. Confidence in diagnostic capability across a range of established and exotic fruit fly species is fundamental to providing national assurance of area freedom.

Key stakeholder activities		
Activity	Lead/Support	Delivery
Promote the use of the Fruit Fly ID Australia website and <i>Australian Handbook for the Identification of Fruit Flies</i> .	PHC / DAWE	Ongoing
Incorporate a national diagnostic standard for Sterile Insect Technique fruit flies in the National Management Protocols.	DAWE / PHC	June 2021
Across all disciplines: Expand the National Plant Biosecurity Diagnostic Network (NPBDN) to be the central point for all activities within the national plant biosecurity diagnostics system.	PHC / SPHD	Ongoing
Across all disciplines: Provide a career pathway for diagnosticians, including through the National Professional Development Program.	PHC / SPHD	Ongoing
Across all disciplines: Establish an expert group to develop and maintain a record of emerging plant pests that pose a potential threat to plant health in Australia.	PHC / SPHD	Ongoing
Across all disciplines: Identify, monitor and improve the scope and role of individual collections to support trade, biosecurity, and the national plant diagnostic system.	PHC / SPHD	Ongoing
Across all disciplines: Develop mechanisms to improve the capture of data from various sources including diagnostics, surveillance, collections, research and area freedom activities.	PHC / SPHD	Ongoing
Across all disciplines: Continue to verify the performance of diagnostic laboratories for identification of species of interest through appropriate quality management systems.	PHC / Australian National Quality Assurance Program	Ongoing



7. Communication and engagement



Adopt systems and mechanisms for the efficient and effective communication, training, extension and uptake of fruit fly information by a broad range of audiences.

A cohesive fruit fly management system relies on effective sharing and adoption of relevant information. It improves the quality of decision-making and ensures stakeholders at all levels are better equipped to manage fruit fly challenges. Reliable and up-to-date information is also instrumental in maintaining or enhancing industry competitiveness. Improved communication and engagement across fruit fly management systems will help increase the uptake of innovation and creation of shared outcomes. It is also important that information reaches all those who contribute to or benefit from fruit fly management systems, including consumers, wholesalers, retailers, exporters, importers, transport operators and treatment providers.

Key stakeholder activities			
Activity	Lead/Support	Delivery	
Develop a Communication and Stakeholder Engagement Framework for delivery of the Smart Fruit Fly Management measure.	DAWE	April 2020	
Keep stakeholders informed and engaged on Smart Fruit Fly Management measure activities and progress.	DAWE	Ongoing	
Progress fruit fly opportunities under the Hort Innovation Extension and Adoption initiative.	Hort Innovation	Ongoing	
Deliver fruit fly related community engagement work, including the Australian Interstate Quarantine website, respective state and territory websites and fruit fly communications campaigns	States & Territories / Regions, PHA	Ongoing	
Support regional fruit fly committees and area wide management groups	States & Territories / Industry	Ongoing	
Include social research outcomes in extension activities.	States & Territories / Hort Innovation	Ongoing	
National Fruit Fly Council activities			
Activity		Delivery	
Communications: extend information through the Prevent Fruit Fly website, twitter, e-newsletter, industry articles, Communique, Annual Summary etc.		Ongoing	
Fruit Fly Symposium and Regional Workshops: provide information on current and emerging fruit fly issues and seek input on solutions and priorities. Look at alternative ways of delivering information given COVID-19 restrictions.		June 2021	
Engage with peak industry bodies, grower groups and relevant international forums to help identify fruit fly issues and priorities across Australia.		Ongoing	



8. Cooperation



Maintain and enhance engagement processes that serve to coordinate, progress and improve fruit fly management systems.

A coordinated national system requires cooperation across disciplines and geographic boundaries towards achieving agreed common goals. Industry, government, researcher and community forums all play a role in raising awareness of fruit fly issues, determining priorities, directing and providing resources and monitoring progress. Collectively these forums represent the national system and are fundamental sources of information and influence which must be connected to one another and be able to serve the national interest.

Key stakeholder activities		
Activity	Lead/Support	Delivery
Coordinate fruit fly management within each State, including provision of information to stakeholders.	States & Territories / PHC	Ongoing
Uphold governance structures that serve to support fruit fly management, including Plant Health Committee, Australian Fruit Fly Technical Advisory Committee and the National Fruit Fly Council	States & Territories, DAWE	Ongoing
Host a South Australian Fruit Fly Summit – currently delayed due to COVID-19 restrictions.	South Australia	ТВА
National Fruit Fly Council activities		
Activity		Delivery
Deliver a revised National Fruit Fly Strategy for 2020-25 and Implementation Plan for 2020-21.		July 2020
Monitor and report on the implementation of the revised Strategy and associated Implementation Plan.		June 2021
Develop a project proposal to progress consideration of sustainable funding for critical fruit fly management activities in Australia.		September 2020
Increase engagement between regional groups, peak industry bodies, governments, researchers and research funders on national fruit fly issues through NFFC communications activities.		Ongoing
Manage the NFFC as a national forum for governments, research funders and growers to advise on fruit fly issues and champion a National Fruit Fly Strategy.		Ongoing
Communications: promote awareness of the national fruit fly system, and the roles and responsibilities of stakeholders in upholding the system.		Ongoing
Fruit fly Symposium 2020-21: use the Symposium to collaborate on workable solutions for key national fruit fly issues and incorporate into future NFFC implementation plans.		June 2021



Notes		
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