

Harcourt Valley Fruit Fly Regional Action Plan 2018-2019

1. Vision statement

Harcourt Valley Landcare aims to achieve the development of a Harcourt Valley Fruit Fly Action Group to build awareness and prevention of Queensland Fruit Fly (QFF) in the Harcourt Valley as part of their first Action Plan. Harcourt Valley aims to prevent fruit-fly from establishing in the area.

2. Objectives of the 2018-2019 Plan

1. The Harcourt Valley has strengthened fruit fly management through coordination and collaboration between industry, government and community.
2. Fruit fly prevention practices in the Harcourt Valley region is improved in commercial orchards and vegetable farms, vineyards, backyards, small-scale self-sufficient farms and other areas.
3. Prioritisation of future programs of work, research and awareness to prevent and manage potential fruit fly incursion in Harcourt Valley.

3. Key long-term outcomes for fruit fly action in Harcourt Valley

- Coordinated, sustainable and cost-effective prevention of fruit fly in the Harcourt Valley for all landholders and communities with fruit trees.
- Coordinated, sustainable and cost-effective management of fruit fly in the Harcourt Valley for all landholders and communities with fruit trees, if or when relevant.
- Domestic trade of fruit from the Harcourt Valley is maintained and improved through phytosanitary controls (plant health certification) acceptable to trading partners.
- Decision making for QFF management in the Harcourt Valley that is informed by relevant and timely research, development and extension (RD&E).
- Lobby for regional recognition by trading partners, government and industry as an Area of Low Pest Prevalence (ALPP) once certification becomes available.

4. Summary of Harcourt Valley Action Plan Stages

Stage 1 - Year one: 2018-2019

Harcourt Valley Landcare was successful in obtaining a \$4,000 grant to develop the first fruit fly action plan for Harcourt Valley. This first action plan focuses on a targeted group of stakeholders, brought together to focus on developing a new fruit fly action group for Harcourt, appropriate preventative measures including tree removal and monitoring programs to reduce risk of fruit fly outbreaks, and to start increasing awareness in the community. This Action Plan was adapted from the Goulburn Murray Valley Action Plan for 2018-2019 and will be used to build an ongoing program of fruit fly prevention, management, research and awareness into the future.

Stage 2 and beyond – Year two: 2019 – 2020, 2020+

It is envisaged that a coordinated fruit fly action group in Harcourt will work in partnership with agencies, researchers and the community to develop a funded program of works in Harcourt Valley. The ongoing program of works include, but will not be limited to:

- A monitoring program, using landowners and citizen scientists
- Rogue tree and disused orchard removal
- A waste management strategy for orchards and affected fruit
- Education and awareness in local communities, including landholders and backyard growers
- Preparedness workshops: trap building, baiting and insecticide management
- A dedicated paid Fruit Fly Officer for Harcourt Valley
- A research program for evidence based management of fruit fly in Harcourt Valley
- Lobby for an *Area of Low Pest Prevalance* certification process
- Lobby for inclusion within the Hort Innovation SIT male sterilization program when it becomes available
- Consideration of an emergency response plan

It is anticipated that successive action plans will review previous action plans, build on the works undertaken and broaden stakeholder engagement. Future action plans will focus on obtaining funding for works, and implementing on-ground actions.

5. Brief background

Harcourt Valley is a small apple-growing area in Central Victoria, 90 minutes north of Melbourne and 30 minutes south of Bendigo. Our area consists of Harcourt township and the region included in the Harcourt Valley Landcare (see Figure 1). Our community has been growing apples in Harcourt since 1857 and produces 40% of Victoria's apples as well as pears and stone fruit. Apples are synonymous with the Harcourt brand, which attracts tourists and tree-changers. Together with the local cidery and wine industries, fruit growing employs many people in our community.

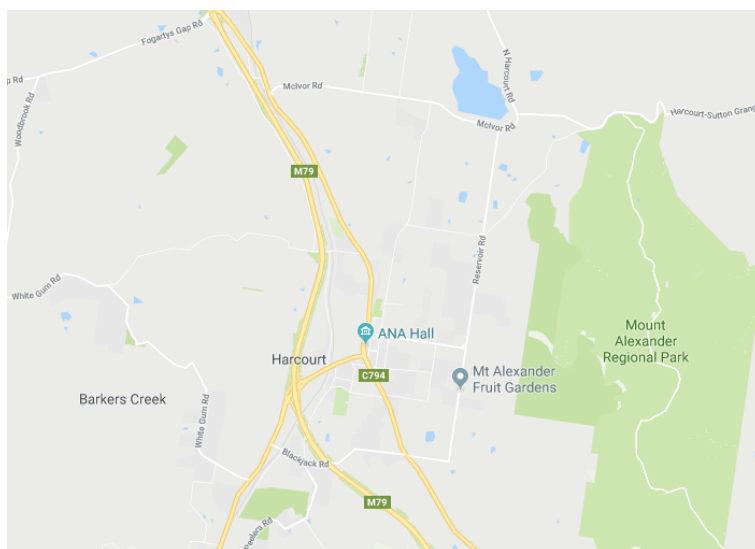


Figure 1 – Harcourt Valley fruit fly action area (sourced from Google Maps, 24 October 2018)

Despite this, Harcourt Valley is drastically unprepared for the significant threat Queensland fruit fly (*Bactrocera tryoni*) poses. Although the orchard industry is lively, many orchards have been closed since Harcourt's fruit-growing hey-day in the 1950s. This has left acres of neglected fruit trees that offer the perfect breeding ground for fruit fly. With fruit fly already confirmed in Bendigo, Harcourt is at risk of becoming the next fruit-fly hotspot. Since fruit from Harcourt Valley orchards are processed in the Yarra and Goulburn Valleys, and sold into markets (wholesale and Farmers Markets), the Valley has the potential to act as a stepping stone to other parts of Victoria.

In March 2018, there were two unconfirmed (e.g. no samples seen or identified by Authorities) reports of fruit fly in Harcourt Valley backyards. These reports were from credible sources. Following from this, the fruit growing community in the Harcourt Valley commissioned this Fruit Fly Action Plan to identify means by which fruit fly incursion into the Harcourt area can be prevented. We also acknowledge that whilst Harcourt Valley has only had two unconfirmed cases of fruit-fly, and one unconfirmed case in Castlemaine, we need to prepare for potential incursion and associated management in the future.

This first fruit fly action plan is the result of collaboration between commercial growers in the area (orchards, vineyards, vegetable), local residents with backyard fruit trees, small-scale self-sufficient farmers, council, community members, and other fruit growing areas to collaborate on the future of fruit fly prevention in Harcourt Valley.

Best practice fruit fly invasion prevention within home gardens includes a holistic management approach, including but not limited to: fruit fly monitoring and trapping; exclusion; removal of unwanted host plants; baiting; cover; spraying; hygiene; management required to care for fruit trees; voluntary consideration of planning non-host species when unable to manage the plants etc. Commercial best practice includes monitoring, baiting and insecticide applications, and increasing biodiversity and ecological function. International and domestic protocols to control fruit fly invasion include post-harvest treatments such as fumigation, irradiation, cold treatment and different combinations of cold and fumigations treatments. These treatments often limit fruit storage life and affect the quality of fruit sent to markets.

The *Managing Fruit Fly in Victoria Action Plan 2015-2020* was designed to provide key actions required to manage fruit fly across Victoria. This state-wide action plan (SWAP), was developed by the Victorian Government in conjunction with industry and the community, and focused on three main action areas:

1. Strengthening the coordination and collaboration of fruit fly management
2. Improving the management of fruit fly
3. Enabling intrastate, interstate and international trade.

The Fruit Fly Action Plan presented below is aligned to the SWAP. Tasks, responsibilities for these tasks, and how the plan aligns with the SWAP is presented, along with an outline of actions needed to progress this action plan at a later date.

6. Key activities for 2018-2019

Priority activities to prevent fruit fly incursion within Harcourt Valley during 2017-2018 are listed in the tables presented in the following sections.

The following list includes activities of particular pertinence to Harcourt Valley:

- Establish a Harcourt Valley Fruit Fly Action Group
- Individuals/groups will conduct and share research on current fruit fly knowledge available. Knowledge should be from reliable sources and based on robust science
- Community engagement and education
- A tree removal program plan
- A fruit fly monitoring plan

As QFF is a long-term and ongoing issue for Harcourt Valley, there will need to be continued group momentum to implement this and subsequent plans. Some ways of doing this may include:

- Harnessing local QFF champions in towns around the broader Mount Alexander area
- Program of engagement to bring the community on the QFF journey
- QFF information evenings and “show and tell”, sharing stories of failure and success
- Finding sources of ongoing funding e.g. council QFF position
- Partner with other organisations to implement the plan

Momentum building activities have been added in the Objectives listed below.

Objective 1: The Harcourt Valley region has strengthened fruit fly management through coordination and collaboration between industry, government and community.

Key Activities

- 1.1 Form a Harcourt Valley Fruit Fly Action Group
- 1.2 Undertake Harcourt Valley Fruit Fly Action Group meetings to coordinate and implement the 2018-2019 plan
- 1.3 Ensure the Action Group establishes a relationship with other regions, states and national fruit fly programs

#	Key activity	Rationale			
1.1	Form a Harcourt Valley Fruit Fly Action Group	To ensure collaboration, good governance and project delivery, and harnessing of the groups' multidisciplinary skills to implement the Plan regionally.			
Tasks		Responsible	Priority rating (20% time)	Due date	Alignment SWAP
To identify key stakeholders in the Harcourt Valley area		Harcourt Valley Fruit Fly Action Group	High	Ongoing	1, 2

Establish a Harcourt Fruit Fly Action Group as a sub-committee of Harcourt Valley Landcare.	Harcourt Valley Fruit Fly Action Group	Very High	31/11/18	1, 2	
To determine key roles and functions of the Harcourt Fruit Fly Action Group. Group to read Harcourt Valley Action Plan, <i>Managing Fruit Fly in Victoria Action Plan 2015-2016</i> and understand SWAP.	Harcourt Valley Fruit Fly Action Group	Very High	31/11/18	1, 2	
#	Key activity	Rationale			
1.2	Undertake Harcourt Valley Fruit Fly Action Group meetings to coordinate and implement the 2018-2019 plan	To ensure collaboration, good governance and project delivery, and harness the skills of the group to implement the Plan.			
Tasks		Responsible	Priority rating (10% time)	Due date	Alignment SWAP
Document and monitor progress against the plan quarterly		Harcourt Valley Fruit Fly Action Group	High	Quarterly	
Work with partner organisations to undertake actions in the plan – see Objective 3 below		Harcourt Valley Fruit Fly Action Group	High	Ongoing	1, 2
Determine Action Group members that will coordinate, monitor and implement the plan		Harcourt Valley Fruit Fly Action Group	Very High	31/11/18	1, 2
#	Key activity	Rationale			
1.3	Ensure the Action Group establishes a relationship with other regions, states and national fruit fly programs	To ensure that information is shared amongst the Harcourt Valley Community, duplication of work is reduced and advances in knowledge of fruit fly work from around Australia benefit Harcourt Valley.			
Tasks		Responsible	Priority rating (10% time)	Due date	Alignment SWAP
Choose a representative of the Harcourt Valley Action Group or the paid position to connect with other region, state and national programs. Attend meetings, determine synergies between groups and learn from experts in fruit fly		Harcourt Valley Fruit Fly Action Group and Representative, Council	Medium	Ongoing	1, 2
The representative/paid position advocates for longer-term planning, resourcing and alignment between the regions at a state and national level to ensure sustainability.		Harcourt Valley Fruit Fly Action Group Representative, Council	Medium	Ongoing	1, 2

Objective 2: Fruit fly prevention practices in the Harcourt Valley region is improved in commercial orchards and vegetable farms, vineyards , backyards, small-scale self-sufficient farms and other areas.

2.1 Increase awareness of best practice with commercial producers and community

2.2 Develop a plan for unwanted or unmanaged host species e.g. rogue trees, old orchards and blackberries

2.3 Develop a Harcourt Valley Fruit Fly Monitoring Plan

2.4 Consider the need for an Emergency Outbreak Plan

#	Key activity	Rationale			
2.1	Increase awareness of best practice with commercial producers and community	Awareness of best management practice by commercial horticulture producers and the community to improve prevention of fruit fly in the region.			
Tasks		Responsible	Priority rating (20% time)	Due date	Alignment SWAP
Share knowledge of good quality current research and practice to fruit growers. This could be made available through tours, research, reviews, guest speakers, collation of knowledge, information evenings, mail out, websites etc. Knowledge sharing could include holistic management approaches, organic approaches, case studies, hygiene, baiting, netting, waste management, management strategies for incursion, trap making workshop, light attracting traps, wintering habits and management, risks of abandoning trees and vegetables, biotrap information night etc. Where possible, identify sources of good quality information based on source type and robust science.		Harcourt Valley Fruit Fly Action Group to coordinate knowledge share and community to be responsible for gathering and sharing knowledge	Very High	30/6/19	1, 2
Engage stakeholders in the review and workshop for the 2018-2019 Action Plan		Harcourt Valley Landcare and Consultant	High	14/12/18	1, 2
Make the Action Plan and fruit fly information available to the broader community. This will include case studies, a guide on how to recognise fruit fly, what to do if fruit fly I.D. is confirmed, wintering habits and management, risks of abandoning trees and vegetables, affected plants and holistic management for home gardener, trapping and trapping workshops, netting, waste management etc. Community engagement can be done by engaging local media, Connecting Country Landcare Coordinator,		Harcourt Valley Fruit Fly Action Group and partner organisations (e.g. Council, Growing Abundance etc)	Very High	14/12/18	1, 2

websites (including Ag Vic QFF website), Facebook, mail out to residents/letter drop, council dissemination, schools, partner with community organisations, garden centres, Bendigo Fruit Fly group and community trap weekends/workshops, flyers, interactive participation based education, information evenings, council website, newspaper articles etc.					
#	Key activity	Rationale			
2.2	Develop a plan for unwanted or unmanaged host species e.g. rogue trees, old orchards and blackberries	Unwanted or unmanaged host trees can provide breeding sites for fruit fly that pose significant risk to commercial orchards and home gardeners			
Tasks		Responsible	Priority rating (25% time)	Due date	Alignment SWAP
Identify a member of the Harcourt Valley Fruit Fly Action Group to be responsible for the development of a rogue tree and old orchard plan		Harcourt Valley Fruit Fly Action Group	Very High	14/12/18	1, 2
Develop a plan for rogue and old orchard management, including but not limited to: <ul style="list-style-type: none"> • Tree register for host trees • Roadside tree removal and blackberry management • Set of criteria for the removal of trees/plants/orchards • Negotiate with public (e.g. council) and private landholders to ensure they are aware of their obligations in relation to unmanaged host trees and plants e.g weeds of national significance. • Identify areas of neglected trees and their owners • Works plan to remove trees • Seek funding (see 3.3 below) – council, grants etc • Community awareness campaign and voluntary tree removal program 		Harcourt Valley Fruit Fly Action Group and Responsible Member	Very High	31/6/19 – for plan, actions will be ongoing	1, 2

<ul style="list-style-type: none"> • Utilise what other areas have done e.g. Cobram • Consider partnering with council on an accredited voluntary tree removal program with contractors and volunteers to remove trees • Tree replacement program i.e. a tree for native trees • Consideration of rogue tree amenity and use e.g. for bees and beauty • Partnerships e.g. Growing Abundance, Council, SES etc. • Lobby for regulatory change to enforce management of host species e.g. similar to fire vegetation management 					
#	Key activity	Rationale			
2.3	Develop a Harcourt Valley Fruit Fly Monitoring Plan	Currently individuals or farms have their own fruit fly monitoring plan. Having a Group plan will allow a coordinated approach to monitor and prevent fruit fly in the Valley.			
Tasks		Responsible	Priority rating (20% time)	Due date	Alignment SWAP
<p>Develop a fruit fly monitoring plan that includes all stakeholders – from farms, to residents and broader community. The fruit fly monitoring plan should include, but not be limited to, methods and approaches to monitoring including a grid approach, year round trapping, combined trapping and mapping program (e.g. traps mapped), mapping infestations and areas being treated, coordinate with government authorities and land as well as consider the State monitoring program (currently two locations in Harcourt), and sending Fruit Fly samples to Ag Victoria. Consider using phone and tablet apps to map the locations of fruit fly observations and make them available on the internet. Consider linking tree removal program and mapping of fruit and vegetable locations with monitoring.</p>		Harcourt Valley Fruit Fly Action Group	High	30/6/19	1, 2, 3

Engage community in fruit fly monitoring through a citizen science program e.g. backyard traps and cameras/apps	Harcourt Valley Landcare and Consultant	High	14/12/19	1, 2
Consider new approaches to fruit fly monitoring and sharing of ideas and resources e.g. traps with cameras, phone and tablet apps etc.	Harcourt Valley Fruit Fly Action Group	Medium	14/12/19	1, 2
#	Key activity	Rationale		
2.4	Consider the need for an Emergency Outbreak Plan	Currently individuals or farms have their own monitoring and management plans. Formulating a Group plan will allow a coordinated approach to managing a fruit fly outbreak in the valley.		
Tasks		Responsible	Priority rating (20% time)	Due date
Harcourt Valley Fruit Fly Action Group to consider the need for an Emergency Outbreak Plan, and what such a plan would include. For example: <ul style="list-style-type: none"> Who is responsible – suggest shire council, Field Officer is sent out by Ag Victoria for commercial growers Do we need one if we have good community education? Funding – shire council? What do other regions do? Triaged/risk based approach to emergency e.g. fire risk or danger rating Simple and complex plans based on level of outbreak Community engagement and information exchange 		Harcourt Valley Fruit Fly Action Group and Mount Alexander Shire Council	Medium	10/10/19
				Alignment SWAP
				1, 2, 3

Objective 3: Prioritisation of future programs of work, research and awareness to prevent and manage potential fruit fly incursion in Harcourt Valley.

- 3.1 Seek funding for a ongoing Fruit Fly Officer for Harcourt Valley
- 3.2 Seek funding to undertake broader stakeholder awareness campaigns, including community outreach and workshops
- 3.3 Seek funding for a rogue tree and old orchard removal program
- 3.4 Seek funding for the development of a monitoring and waste management program
- 3.5 Identify and prioritise new research required to manage fruit fly in Harcourt Valley

#	Key activity	Rationale			
3.1	Seek funding for a ongoing Fruit Fly Officer for Harcourt Valley	To have a single and steadily employed fruit fly point of contact for all stakeholders, and someone to implement, coordinate and monitor this and ongoing fruit fly action plans			
Tasks		Responsible	Priority rating (0% time)	Due date	Alignment SWAP
Harcourt Valley Action Group lobbys for a council paid position to coordinate fruit fly sightings, confirmations, monitoring and mapping, information dissemination, and continued work in the Mount Alexander Region. Information about fruit fly should be available on council webpage.		Harcourt Valley Action Group and Mount Alexander Shire Council	High	ASAP	1, 2
Identify partners to help with implementation and funding arrangements for this and other action plans e.g. The Growing Abundance Project, Repair Café, Bendigo Fruit Fly, mens sheds, schools, Harcourt Lions, Castlemaine Rotary, community champions etc.		Harcourt Valley Action Group	Very High	ASAP	1, 2
#	Key activity	Rationale			
3.2	Seek funding to undertake broader stakeholder awareness campaigns, including information collation, knowledge sharing, community outreach and workshops	Awareness of best management practice by commercial horticulture producers and the community to improve prevention of fruit fly in the region.			
Tasks		Responsible	Priority rating (10% time)	Due date	Alignment SWAP
Action Group and partners to apply for funding to undertake awareness campaigns e.g. community outreach, workshops, school outreach, citizen science, knowledge sharing activities etc		Harcourt Valley Action Group, identified partners	Very High	Ongoing	1, 2
#	Key activity	Rationale			
3.3	Seek funding for a rogue tree and old orchard removal program	To remove host trees that increase the risk of fruit fly incursion.			
Tasks		Responsible	Priority rating (5% time)	Due date	Alignment SWAP
Identify funding sources		Harcourt Valley Action Group and partners	High	30/1/19	1, 2

Apply for funding for works using plan identified in 2.2		Harcourt Valley Action Group, and partners	High	Ongoing	1, 2
#	Key activity	Rationale			
3.4	Seek funding for the development of a monitoring program	Finances are not available within the community to support monitoring, and are required to undertake an efficient monitoring program.			
Tasks		Responsible	Priority rating (10% time)	Due date	Alignment SWAP
Apply for funding for works using plan identified in Activity 2.23		Harcourt Valley Action Group, identified partners	High	31/3/19	1, 2
Identify funding opportunities and apply for funding using plans		Harcourt Valley Action Group, identified partners	High	Ongoing	1, 2
#	Key activity	Rationale			
3.5	Identify and prioritise new research required to manage fruit fly in Harcourt Valley	To ensure important research questions are answered and prevention and management is tailored for the needs of Harcourt Valley.			
Tasks		Responsible	Priority rating (10% time)	Due date	Alignment SWAP
Identify new research opportunities and prioritise them. For example, organic management methods, using monitoring data, etc.		Harcourt Valley Action Group and identified partners	Low	Ongoing	1, 2, 3
Determine additional research and funding opportunities through RD&D funding programs. Support the development of a National Fruit Fly Levy.		Harcourt Valley Action Group, and identified partners	Low	Ongoing	1, 2, 3

7. Stakeholders involved in the development of the plan

The 2018-2019 Action Plan was reviewed by the stakeholders listed below. In addition, an externally facilitated workshop on Wednesday 10th October 2018 in Harcourt resolved all major comments on the Action Plan. The Action Plan was sent out to 21 stakeholders including representatives from local and state government, wineries, cideries, commercial growers, local residents and small-scale self-sufficient farmers. Of the 21 invited to participate, the list below is of stakeholders that provided feedback on the Action Plan:

- Terry Willis, Project Manager, Harcourt Valley Landcare
- Jo Williams, SunFruit, representing Sunraysia Region
- Megan Hill, DEDJTR Biosecurity
- Milo, Thomson Orchards
- Ant Wilson, Organic Orchardist and Harcourt Organic Farming Co-Op Representative

- Colin Pickering, Blackwood Orchards
- Judy Hutchins, Harcourt Resident and Fruit Grower
- Ali Brooks, Maldon Cherry Farm and Mount Alexander Fruit Fly Facebook Group
- Ingrid Button/John Reid, The Growing Abundance Project
- Sandra Jacka and Family, Harcourt resident and small-scale self-sufficient farmer
- Robyn Miller, Harcourt Resident
- John Munday, Harcourt Resident

A final version of this plan was peer-reviewed by technical experts.

8. Measurement of success

Success for the first Action Plan will be demonstrated by:

- Completion of the Harcourt Valley Fruit Fly Action Plan 2018-2019 in its final form, and its local dissemination via media and landcare coordinator (Asha Bannon)
- Stakeholder engagement in the development of the Action Plan, including a workshop
- The formation of a Action Group for Harcourt
- A plan for rogue and old orchard trees has been drafted
- A monitoring plan has been drafted
- At least one knowledge sharing and one community education method/event completed
- At least one funding application for Stage 2 and beyond was lodged