Yarra Valley’s Queensland Fruit Fly Action Plan 2019-2020

1. Vision Statement

The Yarra Valley, in line with the Queensland fruit fly State-wide Action Plan, shares responsibility for protecting Agriculture in the region by strengthening regional awareness and preparedness, and harnessing industry and community action for fruit fly incursions.

# Introduction

Located on metropolitan Melbourne's eastern fringe, less than an hour from the Melbourne CBD, the Shire of Yarra Ranges (synonymous with the Yarra Valley) has a population estimate in 2016 of 155,312. The Yarra Ranges covers approximately 2,500 square kilometres and stretches from the densely populated outer Melbourne suburbs up into the surrounding foothills, agricultural valleys and forested areas of the Great Dividing Ranges (<http://www.yarraranges.vic.gov.au/About-Council/About-the-region>). (http://profile.id.com.au/yarra-ranges).

The region is a major Victorian producer of strawberries, blackberries, raspberries, apples, pears, cherries and wine grapes. Other smaller commercial crops include stone fruit, citrus, blueberries, tomatoes and capsicums. The 1850 agricultural properties (>10,700 Ha of crops and >20,000 Ha grazing land) have a combined economic benefit to the region of $818M (<http://www.agribusiness-yarravalley.com/about-us/yarra-ranges-region>).

Fruit flies are continuing to extend their range, moving into more marginal habitats and densely populated towns and suburbs. The Goulburn Valley saw unprecedented numbers of flies in the 2014-15 season and areas such as Alexandra, north of the Divide, have recorded fruit flies for the first time in the same season. The damaging level of the fruit fly populations has promoted significant investment in fruit fly control programs in regional Victoria, combined with the assistance of the achievements of the smaller community grants. Fruit flies have been most recently been reported in Harcourt, and anecdotal reports are indicating a rise in Fruit Fly occurrences in Yarra Valley’s neighbouring regions of Gippsland and Melbourne Suburbs, particularly the inner north Melbourne.

Queensland has historically been absent from the greater Yarra Valley. However, infrequent incursions have been noted since 2016.:

* A single detection in February 2016
* In the 2017-18 summer, Queensland fruit fly larvae were found in three sites in the Yarra Valley. Originally detected in a commercial crop, two more larval detections occurred in residential backyards. QFF adults were also detected in traps in the PFPP grid during the season.
* The 2018-19 season has witnessed three flies in traps in the commercial production area to date, and QFF larvae has been detected in a suburban backyard in a non commercial, more densely populated part of the region.

All detections to date have been appropriately monitored and treated where applicable with in the program.

The Yarra Valley Pest Free Places of Production (PFPP) was developed as a co-funded initiative between industry and the Department of Economic Development, Jobs Transport and Resources (DEDJTR) to facilitate market access in the Yarra Valley (YV). The PFPP provided YV fruit industries with access to area freedom status for QFF, which in turn allowed local fruit to be exported to QFF sensitive markets without the need for chemical or cold storage endpoint treatment. For three years (2013/14-2016/17) the project successfully coordinated the maintenance of an extensive network of fruit fly traps and legislation, which applied to individual accredited properties with in the zone of pest absence. The trapping grid consisted of 1 trap per property, surrounded by a support network of traps in a code of practice-based grid. Where properties were not clustered, there was often more than 1km between traps. The PFPP transitioned to ‘industry funded’ as of 2017 and was supported by the Yarra Valley regional action plan grant funding. Today, DEDJTR still monitor and manage the data from all the traps, now totalling 140 in number. The industry run PFPP included 34 accredited fresh produce growers, and the business management of the PFPP is performed by Agribusiness Yarra Valley. Area freedom and the PFPP protocol provided local fruit industries with a significant advantage in comparison to QFF affected industries. Advantages to the producers in Yarra Valley region included improved market access opportunities, avoided QFF management and disinfestation costs, resulting in improved fruit quality and shelf life condition. Growers within the PFPP were free to ship certified produce to QFF sensitive markets in South Australia, Western Australia and Tasmania. The PFPP protocol has since been abandoned due to the likelihood of not achieving “pest free” status again, and the trapping grid has been retained for area wide management of QFF. New systems are currently being trialled with the aim to establish new trade protocols.

The PFPP protocol provided significant benefits to YV fruit industries, with in excess of $2 million of fruit traded from the region to QFF sensitive domestic markets in 2014/15 under PFPP certification.

Domestic and international export

Growth in Australian fruit industries is largely contingent on accessing export (interstate and international) markets that are currently restricted due to the risk of introducing novel pest and diseases.

Since the PFPP stopped trading, the CSIRO in collaboration with federal government, state government and industry has been developing and implementing a Systems Approach Project for domestic market access. The project has developed a framework and methodology which quantifies the reduction in risk associated with standard industry practices to manage pests.

The framework is currently being applied to cherries, citrus, apples and *Rubus* across a variety of multiple pest species (Queensland fruit fly, Mediterranean fruit fly, Light brown apple moth and codling moth) with trials underway in three jurisdictions (Vic, WA and NSW). In the 2019/20 season, strawberries have been invited to be included in the Victorian trials.

The YV regional plan supports growers in the wider Yarra Valley to manage fruit fly. In doing so, it also supports the development of trade protocols. Grant funding, combined with grower and council investment has continued to allow for fruit fly trap monitoring, emergency response actions and project governance.

Keeping the Yarra Valley fruit fly free, or as an area of very low pest prevalence, is essential to support market access protocols, the economic viability of the whole Yarra Valley horticultural industry, and the region’s values. Value add industries, regional employment, as well as backyard and farmers market production will all benefit from QFF freedom. The establishment of QFF is a real risk: There are no barriers to fruit fly movement and many suitable host crops. Degree day modelling shows that 2-3 generations of fruit fly would be expected to survive in the Yarra Valley if it became established, making it “unsuitable to marginal” fruit fly habitat. Whilst not ideal for fruit fly, numbers could build up very quickly if crops were left hanging after adverse hail or rain events and appropriate orchard hygiene was not observed. Small microclimates created by irrigated horticultural production can increase the habitat suitability in pockets with in the region.

# Objectives of the Plan Summarised

The objectives are consistent with the objectives achieved in the previous years of the plan.

1. Build fruit fly awareness within the region targeting industry, local government and community.
2. Protection- keeping the Yarra Valley Fruit Fly Free
3. Collaboration and Coordination of Yarra Valley fruit fly response
4. Advocacy and awareness of the Yarra Valley Regional Fruit Fly Action plan’s importance and benefits, and legacy

# Key activities

### Objective 1: Build fruit fly awareness within the region targeting industry, local government and community.

#### Key Activities

* 1. School based activities to educate young people in the region about fruit fly awareness and encourage further reach into the rest of the community
  2. Fruit Fly awareness activities for the Yarra Valley Community

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| **Key Activity** | **Action** | **Rationale** | | | |
| 1.1 | Educate students at Primary schools, Secondary schools and TAFE in the Yarra Valley | Working with students to increase knowledge about the horticulture industry in the Yarra Valley and pest and disease in home gardens with a focus on Fruit Fly | | | |
| ***Key tasks*** | | ***Responsible*** | ***Priority rating*** | ***Due date*** | ***Alignment SWAP*** |
| Contacting Primary schools, Secondary schools and TAFE in the Yarra Valley to involve students in local programs | | Regional Coordinator | Low | 2020 | 2.1c |
| Delivery of developed resources to schools to strengthen and maintain involvement in QFF management, e.g Biosecurity, fruit trade and IPM in production systems | | Regional Coordinator, Education organisations,  Volunteers | Low | 2020 | 2.1c |
| **Key Activity** | **Action** | **Rationale** | | | |
| 1.2 | Fruit Fly awareness activities for the Yarra Valley Community | To build awareness of fruit fly including awareness of responsibilities for home gardeners and industry and public land managers to reduce the risk that Fruit Fly populations will establish. | | | |
| ***Key tasks*** | | ***Responsible*** | ***Priority rating*** | ***Due date*** | ***Alignment SWAP*** |
| Benchmarking what people in the Yarra Valley currently know about fruit fly  Dependant on survey methodology (Interviews, survey monkey or combination) Follow up survey annually. | | Regional Coordinator,  Education organisations (masters students) | High | 2020 | 2.1 |
| Review and improve the regional QFF Communication and Engagement plan | | Regional Coordinator, Council and other stakeholders | High | 2020 | 1.2a |
| Continue the seasonal media program focused on danger periods for Fruit Fly. Include social media (linked to state-wide approach) | | Regional Coordinator, State Government, Local government | High | 2020 | 1.2a |
| Attend local events to build fruit-fly awareness e.g. Wandin Field days, industry information days, local markets, interest groups | | Horticulture Industry, Education institutions, Regional Coordinator | High | 2020 | 1.2a |
| Nursery industry engagement to inform community at point-of-sale for host plants suggest liaising with large retailers, train nursery staff in QFF control strategies at customer level | | Regional Governance Group, Regional Coordinator,  State Wide Coordinator | Low | 2020 | 1.2a, 2.1c |
| Links to Fruit Fly information placed on local websites | | Local Council  Regional Coordinator | High | 2020 | 1.2a |

### Objective 2: Protection- keeping the Yarra Valley Fruit Fly Free.

* 1. Pilot citizen science program aimed at building community engagement and awareness
  2. Identify high risk practices in the region and increase the adoption of best practice by risk creators
  3. Develop and test an early response plan for the Yarra Valley - collaborate with the YVPFPP (growers with market access needs).
  4. Develop and implement a regional management plan for risk plants on Public Land
  5. Removal of risk plants

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| **Key Activity** | | **Action** | **Rationale** | | | | | | | |
| 2.1 | | Prevention, Awareness and Communication program is initiated and supported with engagement | An efficient way to increase community engagement in Fruit Fly Management is to involve them in monitoring their own land or area of employment. Aim message at providing benefits to self, neighbours and the region through voluntary surveillance. | | | | | | | |
| ***Key tasks*** | | | ***Responsible*** | ***Priority rating*** | | | ***Due date*** | | | ***Alignment SWAP*** |
| Develop and distribute best practice information packs appropriate to user groups (ID & surveillance techniques, response process) for the Yarra Valley – deliver to community groups and local schools (alongside education module). Investigate the use of a computer app for ID requests (share with other regional coordinators) request ID tools from DEDJTR’s online training module | | | Regional Coordinator, Education Institutions,  DEDJTR | Med | | | 2020 | | | 2.1c |
| Encourage land owners/managers to monitor for fruit fly and damage in their gardens - refine and implement a procedure for reporting and responding (checklist of what land manager must look for & actions to take) Include ID services, integrate “LAMP” and similar ID tools/services. | | | Regional Coordinator | Med | | | 2020 | | | 2.1c |
| Map the sentinel traps, include future traps, including emergency kit traps.  Record and map reported detections from the community. Refine the procedure to notify stakeholders. | | | Regional Coordinator, Auspest check, DEDJTR, Trapping service providers | Med | | | 2020 | | | 2.1c |
| Build local skills in Queensland Fruit Fly Identification among volunteers. Train volunteers to check sentinel traps to compliment cost of manually checked sentinel traps | | | Regional Coordinator, Education Institutions | Med | | | 2020 | | | 2.1c |
| Purchase and distribute response kits that include baits, traps, MAT and extra sentinel traps in case of a detection. Mapping and communication services. | | | Regional Coordinator, Regional Governance Group, Ag Vic chemical standards branch | Med | | | 2020 | | | 2.1c |
| Resources for key community groups to promote uptake of QFF awareness and information retention/application, e.g traps, ID tools, data sharing agreements, communication tools | | | Regional Coordinator |  | | |  | | | 2.1c |
| **Key Activity** | | **Action** | **Rationale** | | | | | | | |
| 2.2 | | Increase the adoption of best practice by risk creators | Identified risk sources such a fruit coming in to be packed from fruit fly infested regions need to implement best practice management for fruit fly to reduce the risk of fruit fly establishment | | | | | | | |
| ***Key tasks*** | | | ***Responsible*** | | ***Priority rating*** | ***Due date*** | | ***Alignment SWAP*** | | |
| Identify risk sources and develop best practice management information to manage risk in collaboration with stakeholders. | | | Regional Coordinator and Yarra Valley Fruit Fly Regional Governance Group, YVPFPP | | High | 2020 | | 2.1a,2.1b,2.1c | | |
| GIS mapping and deployment of sentinel traps at identified sites. Engage smart traps, Data sharing systems – automatic, link with National research. | | | Regional Coordinator, service providers, market access teams | | High | 2020 | | 2.1a,2.1b,2.1c | | |
| Investigate benefits of additional research into the institutional economics for risk creators. Build on Tereso’s study. | | | Industry, Regional Coordinator, TAFE Biosecurity  YVPPFP | | Low | 2020 | | 2.2a | | |
| Build awareness amongst regional growers, public land managers, tourists, nurseries, gardeners using a range of tools including videos, imagery, key messages, website and social media – Link to 2.1 | | | Regional Coordinator and Yarra Valley Fruit Fly Regional Governance Group, Education Institutions, YVPFPP | | Medium – | 2020 | | 2.1b,2.1c | | |
| Promote Best Waste-management Practices, identify target groups for this work and identify easy waste management solutions for the Yarra Valley. Develop links between growers and appropriate waste disposal sites | | | Regional Coordinator and local industry, YVPFPP. Researchers | | High | 2020 | | 2.1b | | |
| **Key Activity** | | **Action** | **Rationale** | | | | | | | |
| 2.3 | | Revise and adapt early response plan for the Yarra Valley - include all relevant stakeholders | Involve all stakeholders including industry in the development of an early response plan to prevent the establishment of Queensland Fruit Fly in the Yarra Valley if an incursion occurs. | | | | | | | |
| ***Key tasks*** | | | ***Responsible*** | | ***Priority rating*** | ***Due date*** | | ***Alignment SWAP*** | | |
| Identify who needs to remain involved, whom needs to be added and further develop the response plan including roles and responsibilities. | | | Regional Coordinator, Yarra Valley Fruit Fly Regional Governance Group, Local Government, YVPFPP  SIT PLUS | | High | 2020 | | 2.1a, 2.1b | | |
| Review and refine the series of QFF Outbreak Communication Plans including press releases and how to improve the media enquiries, communication chain, and deidentification of data. | | | Regional Coordinator, Yarra Valley Fruit Fly Regional Governance Group, Local government YVPFPP | | High | 2020 | | 2.1a, 2.1b | | |
| Develop methodology and procedure for responses to fruit fly outbreak and involve horticulture industries in the district. Determine who will fund (and lead) emergency responses, include a trial and review of the plan. Trial outsourcing the delivery of information to groups. | | | Regional Coordinator, DEDJTR  Industry  Council | | High | 2020 | | 2.1a, 2.1b | | |
| **Key Activity** | **Action** | | **Rationale** | | | | | | | |
| 2.4 | Support early detection activities and market access. | | **Involve industry in the development of an early response plan to prevent the establishment of Queensland Fruit Fly in the Yarra Valley - cannot be citizen science to support market access** | | | | | | | |
| ***Key tasks*** | | | ***Responsible*** | | ***Priority rating*** | ***Due date*** | | | ***Alignment SWAP*** | |
| Monitoring QFF activities with in the Area Wide Management (AWM) trapping grid, trade protocol trial traps, sentinel traps, and other regional trapping information.  Actioning the early response plan to minimise QFF establishment and reduce QFF impact. | | | YVPPFP, industry and Regional Coordinator, Trapping system providers | | High | 2020 | | | 2.1a,2.1b | |
| Review and optimise locations of all traps in and around grid to maximise usefulness and efficacy of AWM information. Protect market access trial requirements. | | | YVPFPP, Regional Coordinator, with cooperation from Market access and Agriculture Victoria | | High | 2020 | | | 2.1a,2.1b | |
| Liaise with grower groups, fruit fly researchers, market access teams and, local, state national organisations to integrate information and provide regional benefit. | | | Industry, researchers, state and national science and market access bodies | | High | 2020 | | | 2.1a,2.1b | |
| **Key Activity** | **Action** | | **Rationale** | | | | | | | |
| 2.5 | Removal of risk plants | | **Prevent the planting of host trees and remove risk plants from public land** | | | | | | | |
| ***Key tasks*** | | | ***Responsible*** | | ***Priority rating*** | ***Due date*** | | | ***Alignment SWAP*** | |
| Complete the regional management plan for risk plants on public lands. Possible council register. Advice for council workers on host plants. | | | Local Council, Regional Coordinator, DELWP, VicRoads, State government agencies. | | Med | 2020 | | | 2.1c, 2.1d | |
| Removal of risk plants on public land (continued) | | | Local Council, DELWP, VicRoads, State government agencies | | Med | 2020 | | | 2.1c, 2.1d | |
| Prevent planting of host trees by reviewing planting programs to identify risk trees | | | Local Government | | Med | 2020 | | | 2.1c, 2.1d | |
| Plan for abandoned orchards and unwanted trees in home gardens. Determine a better pathway for unmanaged or abandoned orchards to be addressed, support QFF host removal, including blackberries, non-viable commercial tree hosts and other host crops on private property. | | | Regional Coordinator | | Med | 2020 | | | 2.1b | |

### Objective 3: Collaboration and Coordination of Yarra Valley Fruit Fly response

3.1 Linking to national programs

3.2 Support the activity of the Regional Governance group

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| **Key Activity** | **Action** | **Rationale** | | | |
| 3.1 | Linking in to national and state programs | Establishing what other groups know about Fruit Fly including CSIRO, National Fruit Fly bodies, SIT Plus, Victorian and other state agriculture organisations, trial and apply QFF R&D locally in YV | | | |
| ***Key tasks*** | | ***Responsible*** | ***Priority rating*** | ***Due date*** | ***Alignment SWAP*** |
| Link to social research programs to learn best approach to reach these stakeholders. Link with Masters students engaged with Box Hill TAFE | | Regional Coordinator, Education Institutions | Med | 2020 | 1.4 |
| Link to YVPFPP and non PFPP grower groups | | Regional Coordinator, YVPFPP, industry groups | High | 2020 | 1.4 |
| Link to other regional coordinators and the Statewide coordinator to ensure up to date with current work in Fruit Fly | | Regional Coordinator, Statewide coordinator | High | 2020 | 1.4 |
| **Key Activity** | **Action** | **Rationale** | | | |
| 3.2 | Support the activity of the Regional Governance group | Ensuring that the Regional Governance group is engaged in the delivery of the regional plan to all relevant stakeholders | | | |
| ***Key tasks*** | | ***Responsible*** | ***Priority rating*** | ***Due date*** | ***Alignment SWAP*** |
| Support the group to understand their roles and responsibilities in relation to the plan | | Regional Governance Group Chair | High | 2020 | 1.3 |
| Organise and document meetings of the group for circulation in conjunction with the Chair | | Regional Coordinator | High | 2020 | 1.3 |

### Objective 4: Advocacy and awareness of the Yarra Valley Regional Fruit Fly Action plan’s importance and benefits

4.1 Advocate for the regional plan with key stakeholders

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| **Key Activity** | **Action** | **Rationale** | | | |
| 4.1 | Advocate for the Yarra Valley regional plan with key stakeholders | Key stakeholders know about the plan, its importance and benefits | | | |
| ***Key tasks*** | | ***Responsible*** | ***Priority rating*** | ***Due date*** | ***Alignment SWAP*** |
| Build awareness of the Plan amongst key stakeholders including Parks Victoria, Victorian Roads, MP’s, DEDJTR, Dept Sec, VFF | | Regional Governance Group Chair | Med | 2020 | 1.3 |
| Build awareness of the Plan amongst external stakeholder groups and neighbouring communities linked to the Yarra Valley geographically or commercially. Provide copies of resources developed by the RC and provide support to these groups to enrich their local delivery of the State QFF message | | Regional Coordinator  Regional Governance Group | Med | 2020 | 1.2 1.3 1.5 |
| Develop a legacy plan with key stakeholders for period post state government funding | | Regional Coordinator,  Regional Governance Group,  Council, PFPP, Industry, Community groups, govt agencies  Local government | High | 2020 |  |

# List of Regional stakeholders and their involvement in the development of the 2019-20 plan

Adam Upton (Chair of the YV Regional Governance Group)

Mick Blake (Biosecurity Centre of Excellence)

Charlotte Brunt (formerly YVPFPP, now Cherry Growers Association)

Kylie Ammerlaan (YV Agribusiness)

Hellen Ruddell & Tara Lemens (Economic Development Officer, Yarra Ranges Council)

Alison Jones (Victorian Cherry Growers Association)

Daniel Mansell (DEDJTR Biosecurity, observer role)

Tania Krause (DEDJTR Biosecurity)

Cathy Mansfield (State Wide Coordinator, DEDJTR Biosecurity)

Krys Lockhart (Montagues Fresh)

Anthony Corrone (YVPFPP Chair)

Jeff Mathews (YV Fresh)

Angela Atkinson (Strawberry IDO)

Melinda Simpson (RABA)

Michael Crisera (FGV)

Adrian Utter (Wine Growers YV)

Jonathan Eccles (Protected Cropping)

# Measurement of Success

Provide a description on how you will measure success of the plan each year?

This could be about developing an Evaluation plan

Key outputs achieved:

## Reports – updates to:

Education and training resources sourced or developed that support Yarra Valley Regional QFF Plan (1.1)

Communications and Engagement Plan (1.2)

QFF Outbreak Response Plan (2.3)

QFF-Outbreak Communication Plan (2.3)

Yarra Valley QFF risk plants management plan Risk assessment of QFF entry and breeding points in the Yarra Valley region (2.2)

Web resources to support regional community and industry inquiries (1.2)

## Studies – updates to:

STUDY: Benchmarking of QFF awareness in the Yarra Valley Region (1.2)

STUDY: Economic evaluation of the *cost of doing nothing* to support business engagement value proposition (2.2)

## Delivery

## Other Measurements include

Change in knowledge and awareness by community and industry from benchmarked level at start of the project.

Numbers of enquires to the Regional Coordinator

Participation numbers at events and meetings

Reach of social media posts

Feedback quotes from engagements

Referrals to other organisations