

Horticulture Innovation Australia

Final Report

Establishment of systems to validate Pest Free Place of Production for Queensland fruit fly in the Yarra Valley

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The Dept of Economic Development, Jobs, Transport
& Resources

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MT13031

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Summary

The Yarra Valley (YV) is located one hour east of the Melbourne CBD, at the headwaters of the Yarra River, with an elevation of 150-200m above sea level. Traditionally focused on dairy and/or livestock production, horticultural production is now on the increase with numerous wine grape, strawberry, rubus, cherry and pome fruit producers farming in the region.

Due to changes to the management of Queensland fruit fly (QFF) in Victoria, rubus, cherry and strawberry industry groups farming in the YV were required to treat fruit under an approved treatment protocol in order to access the South Australian, Western Australian and Tasmanian markets.

A two-year project was funded to develop and implement a Pest Free Places of Production (PFPP) program in the YV, which would enable local fruit industries to consign produce to QFF sensitive markets without the need for treatment. In accordance with domestic quarantine requirements, a program was designed in accordance with the requirements of International Standards for Phytosanitary Measures Pest Free Place of Production or Production Sites (ISPM-10), and the QFF Code of Practice (COP).

The first stage of the project involved the development deployment of required QFF surveillance and phytosanitary systems required under ISPM-10 for the region to qualify as a PFPP for domestic trade. Domestic recognition of the region's PFPP status was achieved in year one of the project following the provision of a detailed trade submission to the QFF sensitive state quarantine agencies of Tasmania, South Australia and Western Australia.

Minimal quantities of fruit were exported in the first season (2013/14), however 60 tons of cherries, 10 tons of raspberries, 24 tons of blackberries, 14 tons strawberries and an additional 10 tons of cherry tomatoes were marketed into the SA and WA markets the following season (2014/15). Industry representatives have since estimated the value of this trade under the YV protocol to be in excess of \$2 million.

Whilst no QFF have been detected in permanent QFF traps throughout the duration of the project, the incidence of the pest across much of northern Victoria has risen dramatically to a point where large numbers of flies are being detected north of the great dividing range on a routine basis irrespective of the time of year.

Based on an escalating risk profile for QFF, the project management committee is now working towards redesigning the project from one based on pest freedom, to one that is compliant with the requirements of ISPM 35 (Systems approach for pest risk management fruit fly (Tephritidae). A systems based approach, focused on risk management principles, is now considered to provide a more viable and robust management option to YV producers.

Keywords

Keyword	Abbreviation	Description
Code of Practice	COP	Means the Code of Practice for the Management of Queensland Fruit Fly (Revision 1.1, 1996).
Department of Economic Development, Jobs, Transport and Resources	DEDJTR (shortened to DED)	Means the Government Department responsible for economic development, jobs, transport and resources in Victoria, which includes domestic plant quarantine and market access.
FlyBase		Means the database that stores all fruit fly surveillance trap locations, monitoring frequency and detections , as well as, any larval detections.
Horticulture Innovations Australia Limited	HIA	Means the not-for-profit, industry-owned company that works in partnership with Australia's horticulture industries to invest in research, development and marketing programs that provide benefit to industry and the wider community.
Interstate Certification Assurance	ICA	Means the nationally recognised scheme based on Quality Management principles for the provision of accreditation to businesses for self-certification of host material to meet inter/intrastate quarantine conditions.
International Standards for Phytosanitary Measures 10	ISPM-10	Means the international standards for the establishment of pest free places of production and pest free production sites.
Pest Free Places of Production	PFPP	Means places of production that align to the standards specified in the International Standards for Phytosanitary Measures (ISPM) 10.
Plant Biosecurity Act 2010	<i>the Act</i>	Means the Victorian Act that authorises DED staff to conduct fruit fly eradication activities.
Queensland Fruit Fly	QFF	Means all life stages of the Victorian declared exotic pest <i>Bactrocera tryoni</i> (Froggatt).
Yarra Valley Pest Free Places of Production	YV	Means places of production in the Yarra Valley region that align to the standards specified in the International Standards for Phytosanitary Measures (ISPM) 10.

Introduction

Bactrocera tryoni, Queensland fruit fly (QFF) is native to subtropical and tropical regions of Australia and infests a wide variety of European and Asian fruits. In Victoria, citrus, stone fruit, chillies, capsicums, strawberries and tomatoes are especially vulnerable, with apples and grapes susceptible to a lesser extent.

Traditionally many parts of Victoria have been considered outside the ecological range of QFF and therefore regional quarantine arrangements, regulation and treatments have been effective in keeping QFF out of production areas. QFF freedom confers significant market access advantages (domestic and international) to fruit producers as well as providing significant economic benefits through savings related to orchard management costs.

In 2012, Victorian Government policy on QFF management shifted from retention of state-wide freedom to management of the pest under an endemic status. This policy shift effected fruit growers in regions like the Yarra Valley (YV), who were required to treat host fruits prior to consignment to a QFF sensitive market. Since the changes in management of QFF in Victoria, all fruit fly management programs have been based on a cost-shared basis. This has led to extensive industry involvement in the establishment and management of Victorian QFF programs.

Growers in the Yarra Valley approached the Victorian government in an effort to find alternative methods for accessing domestic markets, without the need to treat produce for QFF.

To improve domestic fruit marketing arrangements, local fruit industries with support from the Victorian government, agreed to fund a project designed to establish properties within the YV as QFF Pest Free Places of Production (PFPP).

To meet existing domestic quarantine requirements, the PFPP project was designed in accordance principles described within International Standards for Phytosanitary Measures (ISPM) 10 and administered in accordance with the requirements of the Code of Practice (the COP) for the Management of QFF.

Methodology

The following methodology was adopted to establish a governance framework to coordinate delivery of the project and to implement required surveillance and compliance programs in accordance with national pest management standards.

1. A project governance framework and work plan (refer attachment 1) was developed to establish the project and monitor operational service delivery. The project committee also assisted with development of a detailed trade submission (refer attachment 2) relating to the acceptance of the regions QFF free status. The submission was presented to interstate agencies responsible for Agriculture and Primary Industries for consideration and acceptance.
2. A QFF surveillance program was developed and implemented, which required the deployment and maintenance of 126 permanent QFF traps within the region, established in accordance with the National QFF Code of Practice (COP). This included the deployment of at least a single surveillance trap on, or within one kilometre of each participating property, in addition to a 1 km trapping grid surrounding the property (i.e. one QFF trap per kilometre). Additional sentinel traps were also installed in "high risk" areas within the region's buffer zone, which included towns and some major road junctions.
3. An awareness program was developed (refer attachment 3) and delivered to raise awareness of the importance of QFF to local industry, community groups and the regions shire council.
4. A compliance program was developed (refer attachment 4) and delivered which included;
 - a. Gazettal of a Restricted Area under the Victorian *Plant Biosecurity Act 2010* to to restrict the receipt of uncertified QFF host produce by accredited businesses farming in the region.
 - b. The development of a quality assurance based trade agreement, which allowed local fruit producers, participating in the project, to self-certify produce consigned to the Western Australian, South Australian and Tasmanian markets.

Outputs

Output 1 - QFF area freedom status for the Yarra Valley region is recognised by all domestic trading partners for the export of fresh fruit.

International Standards for Phytosanitary Measures 10 (ISPM-10), titled *Requirements for the establishment of pest free places of production and pest free production sites*, is universally accepted by domestic plant quarantine agencies as the standard for pest freedom trade negotiations of quarantine material.

To demonstrate compliance with the requirements of ISPM-10, a detailed trade submission was developed and presented to Western Australian, South Australian and Tasmanian plant quarantine officials for their consideration and acceptance.

Acceptance of the region's QFF freedom status was provided in November 2013, which required changes to interstate market access legislation to be enacted by each of these state.

Since these markets have been opened, 40 local YV fruit growers have qualified as pest free places of production, which includes 12 businesses accredited by the Victorian government to issue Plant Health Assurance Certificates (PHAC) for untreated produce traded to the QFF sensitive markets.

Output 2 – QFF area freedom status will be extended to the international export of fresh fruit as soon as future marketing opportunities are developed.

QFF area freedom status for the YVPFPP has not been recognised by international markets during the project's two year period of operation, however the system is reflected within the cherry industry's biosecurity plan management plan which is intended for use as part of future international trade.

Planning for an extension of the current project MT13031 is to be sought through HIA later this month. DEDJTR also plans to discuss the process for international recognition of the PFPP with Australian Department of Agriculture (DoA), which will seek to develop protocols to enable trade to fruit fly sensitive overseas markets.

Outcomes

At the beginning of the project, market potential was estimated to be 25% of the current production of fresh fruit in the YV.

Due to the prolonged period of protocol development and acceptance, minimal quantities of fruit were exported in the summer of 2013/14. The late January implementation led the loss of the main seasonal production window, which was coupled with extreme weather events that negatively impacted the quality of late season fruit available for interstate marketing.

The summer of 2014/15 did prove successful, with the following export quantities (Table 1) consigned to interstate markets.

Table 1 – Export results for the YVPFPP

Export from YV PFPP	Tonnes	Cartons
Blackberries	24.1	16,408
Blueberries	0.5	312
Cherries	59.8	11,956
Cherry tomatoes	10.0	2667
Raspberries	9.9	6,352
Red currents	0.5	338
Strawberries	13.5	3600
TOTAL	118.4	41,633

The estimated value of this trade in 2014/15 was calculated by industry at a little over \$2 million. This meant consumers in the receiving states had access to fruit, which in most cases would not normally be available. This 'exported' fruit also led to less fruit being sold to local Victorian markets, providing better returns to Victorian growers.

The establishment of the PFPP not only enabled interstate trade, but allowed growers to avoid the detrimental impact of fumigation with methyl bromide (and associated temperature elevation) and the alternative cold storage option. Both treatments significantly affect berry, cherry and strawberry fruit quality and shelf life. This in some instances, had led to trade of these commodities to interstate markets totally ceasing. As well as the effect of treatment, the logistical requirements for post-harvest treatment are also avoided, meaning the packed produce can be consigned directly from the farm gate, further reducing cost of production and increasing fruit quality and shelf life.

Initial costings indicated that establishing and running the accreditation arrangement would be much cheaper than fumigation, without any of the drawbacks with respect to fruit quality, elevated temperature or extended transit time to market. The PFPP promotes a smaller environmental footprint by releasing no ozone depleting gases, while also spending less time in storage and

transport. This program also has also supported the retention of organic status of produce.

Outcome 1 – Enable growers to better understand the phytosanitary systems underpinning domestic trade of fresh fruit and vegetables, as well as improved on farm biosecurity strategies implemented to prevent the entry and spread of Queensland fruit fly and other threats to production.

- The project delivered several information sessions to local fruit industry members, which raised their awareness of the interstate quarantine trade system for host produce. In particular industry members have more knowledge of protocol accreditation requirements and the importance of on farm biosecurity strategies to prevent the entry and spread of QFF in the region.

Outcome 2 – Build grower skills in the management of biosecurity threats to the region to support securing international market access for the region's fruit producers.

- The project delivered several sessions to fruit growers and associated support industries regarding the importance of QFF to the YV region and how can contribute to keeping the pest out.
- Surveillance data generated suggests that whilst the YV remained completely free of the pest, during the course of the project, much of northern and eastern Victoria was affected by large and persistent QFF populations. As a result, the project management committee has now decided that a QFF Outbreak Contingency Plan needs to be developed in order to local fruit growers in the event of an outbreak being detected.
- Future discussions with the Australian Department of Agriculture, through Cherry Growers Australia, are planned and support recognition of the regions freedom status by international trading partners

Outcome 3 – Provide a template protocol for implementation of PFPP status for other regions in southern Victoria that can demonstrate, through trapping and inspections, that QFF is not present in their region.

- Since the commencement of the YV PFPP, a similar protocol has been developed to facilitate trade from Victoria's largest hydroponic tomato grower, Flavorite Tomatoes, to Western Australia and South Australia. This protocol was largely based upon the principles developed under MT13031. Flavorite has estimated that the protocol they are using is saving them in the vicinity of \$400,000 per year in avoided fumigation and logistics costs.

Evaluation and Discussion

In order to demonstrate the value of the project to levy payers and financial contributors, the management committee commissioned an evaluation (refer appendix 4), which primarily focused on quantifying the economic benefit the project afforded local fruit growers. Information required for the evaluation was obtained from questionnaires sent to each accredited business, which sought responses regarding the amount of fruit traded, the values of this fruit, fumigation and transport costs, whether the accreditation was easy to maintain and how many PHACs were issued.

All respondents felt that the establishment of the PFPP enabled more trade with SA and WA. Factors contributing to this increase in trade were reported as;

- Reduced Costs
 - Fumigation costs at the Melbourne Markets were higher than the cost of the PFPP accreditation, especially once logistical costs and delays associated with treatment were included.
- Increased fruit quality and shelf life
 - Severe impacts are associated with the use of methyl bromide and cold storage protocols on fruit quality and shelf life compared to untreated fruit.
 - Fumigation causes discolouration of stem colour on cherries, which places produce out of specification

- Better cool chain management
 - Fumigation requires temperature elevation and if product is insufficiently cooled post treatment, may result in rejection at the destination (supermarkets) for being outside the required temperature specifications.
- Increased business flexibility
 - businesses are able to “ship straight off farm, removing an extra link out of the logistics chain and making transit cheaper and quicker”.
- Less regulatory burden
 - PFPP protocol accreditation was much easier to use and follow in comparison to cold storage and fumigation protocols.

MT13031 has proven that a fruit marketing protocol based on the requirements of ISPM-10 can be successfully used as a basis for exporting QFF host produce. The protocol has allowed for trade from QFF endemic areas to QFF free states without the need for costly and often damaging post-harvest disinfestation treatment.

YV industries have now demonstrated the economic importance of the project to local fruit producers, who in turn have recommended that a two year project extension be submitted to HIA. Importantly, the committee has also acknowledged the changing nature and distribution of QFF in Victoria and have also directed that the project extension should include work on a contingency plan for regional outbreak management. This plan will require a redesign of the project to meet the requirements of ISPM-35 (Systems approach for pest risk management of fruit flies, Tephritidae).

Redesigning the YV protocol from one based on pest freedom to one based on a systems approach, is now considered the best option for enabling continuation of trade if QFF were to be detected in the region. The contingency plan will allow for customised management practices for possible future incursions in the region, outside of those described in the COP. Whilst some renegotiation with interstate markets will be required to achieve this, key QFF management elements required under ISPM-10 are also reflected under ISPM-35, indicating that risk ratings will remain unchanged.

Recommendations

-HIA to consider the proposal to extend the project for a further two years, which will allow:

- the YV protocol to be redesigned to meet the requirements of ISPM-35.
- the collection of additional trade data to inform a more comprehensive evaluation of the benefits of the project;
- more time to increase grower skills in the management of biosecurity threats, such as producing an outbreak contingency plan should QFF be detected in the region;
- continued communication and education to local industry and residents regarding the importance of good garden hygiene and remind visitors not to bring QFF host product onto participating properties, minimising the risk of QFF infestation;
- continue to work towards gaining international recognition for the area.

Scientific Refereed Publications

Nil

Intellectual Property/Commercialisation

No commercial IP generated.

References

ISPM-10, Phytosanitary Measures Pest Free Place of Production or Production Sites.

ISPM-35, Systems approach for pest risk management of fruit flies (Tephritidae).-

The Code of Practise for the Management of Queensland fruit fly 1996

Yarra Valley Pest Free Place of Production protocol (PS-37)

The Plant Biosecurity Act 2010

Acknowledgements

Governance group:

Gabrielle Vivian-Smith (Chief Plant Health Officer), Gary D'arcy (Manager Domestic Quarantine), Daniel Mansell (Senior Officer Domestic Quarantine), Greg King (Project Officer, Domestic Quarantine), Tanya Krausse (Project Officer, Domestic Quarantine), Melinda Bowen (Project Officer, Domestic Quarantine), Greg Jones (Finance Officer) and Andrew Henderson (Communications Officer).

Project Management Committee:

Stephen Chapman (Chairman and strawberry/cherry grower), Charlotte Brunt (Secretary and YV Fresh), Alison Brinson (original Secretary IDO/Raspberries and Blackberries Association (RABA), Jonathan Eccles (RABA), Jason Hingston (Industry development officer, Victorian Strawberry Industry Development Committee), Tim Jones (Cherry grower and Cherry Growers Australia representative), Sam Cooley (Driscolls Australia), Tony Fillipi (Fruit Growers Victoria), Virginie Gregoire (previous Industry Development Officer, Fruit Growers Victoria) and Lou Zarro (Shire Yarra Ranges).

Appendices

Appendix 1.

Project governance framework and work plan- Yarra Valley Pest Free Place of Production

Background

Changes in Victorian state Government policy meant that it was difficult for fruit growers in the Yarra Valley to consign their fruit to Queensland Fruit Fly sensitive markets interstate. The treatments that allow movement of the fruit was both detrimental to fruit storage, and expensive to apply. The Yarra growers contacted DEPI in an effort to find alternative methods to access the interstate markets. In conjunction with Horticulture Australia (HAL) a project based on a systems approach for QFF management was initiated.

Issue

Since the changes to QFF management in Victoria all fruit fly management programs are based upon a cost shared basis. Due to the cost shared nature, industry funders are fully involved in the management of this program. Two Committees have been established to provide governance to the project .

DEPI will create a Governance group to oversee the project comprising of:

- Gabrielle Vivian-Smith, (A/Direction Plant Biosecurity and Product Integrity)
- Gary D'Arcy, (Manager Product Integrity)
- Daniel Mansell (Senior Officer Plant Standards)
- Greg King (Fruit Biosecurity Officer),
- Greg Jones (Finance Officer),
- Andrew Henderson (Communications)

The key responsibilities of the DEPI Governance Committee are to

1. provide strategic direction for the project
2. monitor program performance against milestones
3. oversight of program strategies
4. monitor the program against the budget
5. provide reports as required by funding agencies.

The project Management Committee will coordinate the project and comprise of:

- Stephen Chapman, (Chairman and Strawberry/Cherry grower)
- Alison Brinson, (Secretary/IDO RABA)
- Jason Hingston, (IDO VSIDC)
- Tim Jones, (Cherry grower)
- Sam Cooley, (Driscolls Australia)
- Virginie Gregoire, (IDO FGV)
- Lou Zarro, (Shire Yarra Ranges)
- Charlotte Brunt (YV Fresh)

- Greg King and Daniel Mansell (DEPI).

The key responsibilities of the Industry Management Committee are to

1. Define Industries participating and gain ongoing support
2. Define individual growers and businesses
3. Liaise with local Yarra residents and council
4. Produce communications material
5. Monitor the project implementation
6. Provide advice to the Governance Committee
7. Create Project Terms of Reference.

Objective

The objective of the governance sub project is to ensure industry co-funders are fully involved in the management of the Yarra Pest Free Place of Production, including assisting in project development and support, and project implementation. It is especially important that meeting dates are set and adhered to.

Step	Days expected	Actual date	Status	Comments
Stage 1 (Project development)				
Develop management options	10	April /May	Complete	Management options to be drafted by G D'Arcy, G.King and D.Mansell largely reflecting the systems approach in ISPM 10
Prepare Industry information template- compile information	10	May	Complete	Industry templates identifying industries size, markets, value- G.King/Industry
HAL application	5		Complete	G'Darcy/Management Committee Project design, industry contributions
Establishment of Management Committee meeting schedules- monthly- Management Committee				
Terms of Reference for Management committee	10	August September	Completed	G.King/Management Committee. Will provide key structure for Management Committee
Identify participating growers/businesses	15	September- November	Completed	Management Committee
Finalise Maps	5	November	Completed	Management Committee DEPI

Deploy trap and monitor trap run		September- onwards	DEPI	
Negotiations with interstate regulators	6	October onwards	Completed	G'Darcy ,D.Mansell, G.King
Development of Protocols (PS-37)	20	October	Completed	D.Mansell, G.D'Arcy G.King
Communications activities updated	4	December onwards	started	D Chy/A Henderson G.King
Auditing of growers	5		started	APCO
End				

Appendix 2

Yarra Valley Pest Free Place of Production, Agreement for Interstate Trade – 29/01/2014

Background

Due to recent changes to the management of QFF in Victoria, rubus, cherry and strawberry industry groups farming in the Yarra Valley are now required to treat fruit with methyl bromide or cold treatment in order to access QFF sensitive markets. Cherry growers also have access to pre-harvest treatments under ICA-21, although these treatments heavily effect on-farm integrated pest management programs.

A two-year co-managed industry/government program has been established for the development, implementation and management of QFF PFPP's in the Yarra Valley (see map). The Yarra Valley PFPP has been developed in a manner consistent with ISPM 10 and is compliant with the QFF COP¹.

Regional overview

The Yarra Valley is located one hour east of the Melbourne CBD, at the headwaters of the Yarra River with an elevation of 150-200m above sea level. Traditionally focussed on dairy and/or livestock, primary industry within the region is now heavily focused on the production of fruit for processing (wine grape) and fresh consumption (strawberry, rubus, cherry and pome).

Rainfall is winter/spring is dominant, with the summer relatively cool, dry and humid. There is limited maritime influence. The small diurnal temperature range reflects the proximity of the sea. Average rainfall for the region is between 750-950mm annually.

Mean max/min temperatures in the Yarra Valley ²												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max	26.0	26.4	23.9	19.0	15.9	12.3	12.2	13.4	16.0	18.9	22.1	24.0
Min	11.2	11.7	10.6	8.5	6.4	4.4	4.2	5.2	6.2	7.8	9.4	10.6

¹ Code of Practice for the Management of Queensland Fruit Fly 1996

² Based upon BOM data for Coldstream

Agreement

The following is provided to describe how the Yarra Valley PFPP complies with the requirements of ISPM 10.

A Pest Free Place of Production (PFPP) is determined as a:

“place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period”.

The concept of a pest free place of production can be applied to any premises or collection of fields operated as a single production unit. If the pest is found in a pest free place of production, that place loses its status but other places of production in the area operating the same system are not directly affected.

ISPM 10 Requirement	Yarra Valley Proposal
Definition of Yarra Valley PFPP	<ul style="list-style-type: none">• See map and corresponding Order
Biology of pest <ul style="list-style-type: none">• the natural spread of the pest (or its vectors, if appropriate) is slow and over short distances• the possibilities for artificial spread of the pest are limited• the pest has a limited host range• the pest has a relatively low probability of survival from previous seasons• the pest has a moderate or low rate of reproduction• sufficiently sensitive methods for detection of the pest are available, either by visual inspection or by tests applied in the field or in the laboratory, at the appropriate season• as far as possible, factors in the biology of the pest (e.g. latency) and in the management of the place of production do not interfere with detection.	<ul style="list-style-type: none">• QFF biology already well known and is described in the QFF Code of Practice• Victorian QFF populations are dispersed throughout Northern Vic, with southern regions in east Gippsland less impacted due to the cooler climate

ISPM 10 Requirement	Yarra Valley Proposal
<p>Characteristics of the place of production</p> <ul style="list-style-type: none"> • location at a sufficient distance from possible sources of pest infestation, with appropriate isolation (advantage being taken of physical features that can act as barriers to pest movement) • clear delimitation, with officially recognized boundaries • access to the buffer zone (if appropriate) • absence, in the place of production or production site of hosts of the pest other than those meeting the conditions for export • absence in the buffer zone (if appropriate) of hosts of the pest or adequate control of the pest on these hosts. 	<ul style="list-style-type: none"> • Peri-urban, region primarily focused on stock and pasture production • Relatively cool, region hottest month is February with a mean maximum temperature of 26.4 degrees • The region is surrounded by large tracts of native forest • Sourcing produce is limited to the identified buffer area (see map) • Geographically isolated from QFF populations in NE and SE Vic • ~ 150 km from nearest ongoing QFF outbreaks detected prior to QFF management changes in Jan 2013
<p>Operational capabilities of the producer</p>	<ul style="list-style-type: none"> • Mandatory accreditation for participants – growers and packers <ul style="list-style-type: none"> ○ Packed product inspection prior to certification ○ Unable to receive uncertified host produce unless from a Yarra Valley PFPP property • Only certified produce can be received – e.g. ICA-21 Part B • Non-commercial QFF hosts removed from commercial fruit production area on participating properties • No QFF host waste disposal on site
<p>Requirements and responsibilities of DEPI</p>	<ul style="list-style-type: none"> • Legislation: S18 of Biosecurity Act, offense to sell QFF infested produce • Development and management of accreditations • Management of QFF traps as per COP • Coordination of response to QFF detections

ISPM 10 Requirement	Yarra Valley Proposal
Systems to establish pest freedom	<ul style="list-style-type: none"> • 15+ year trapping history demonstrating pest freedom • 123 QFF traps installed in Yarra Valley region <ul style="list-style-type: none"> ○ Monitored by DEPI in accordance with QFF COP ○ Trap/s installed on each property, or within 1km of a trap (where properties are close together) • Average 3km buffer around participating businesses. The buffer takes into account geography (hills, state parks, etc.)
Systems to maintain freedom	<ul style="list-style-type: none"> • Only receive certified produce or from participating growers in Yarra Valley PFPP • Ongoing trapping as per QFF COP <ul style="list-style-type: none"> ○ Weekly summer and fortnightly winter trapping • Response to detections as per QFF COP • Accreditations stop mixing of treated and untreated produce
Verification that pest freedom has been attained or maintained	<ul style="list-style-type: none"> • 15+ year trapping history demonstrating pest freedom • Ongoing trapping as per QFF COP <ul style="list-style-type: none"> ○ Weekly summer and fortnightly winter trapping • Produce post-harvest inspections as per PS/ICA arrangement
Will buffer be required?	<ul style="list-style-type: none"> • Average 3km buffer around participating businesses taking into account geography (hills, state parks, etc.) • Communications programs focused at community actions and on-farm biosecurity will be implemented • Very limited DEPI QFF operations outside buffer

Operational specifications

Legislation

DEPI will implement legislation that will restrict the receipt of uncertified produce by accredited businesses. Businesses not operating under a PFPP will be able to continue receiving uncertified produce.

Accreditation

All participating businesses in the Yarra Valley PFPP will be accredited with DEPI; these accreditations will be listed in the monthly ICA status report. All Yarra Valley businesses certifying produce under the Pest Free Places of Production will be accredited under the Victorian accreditation PS-37. Businesses accredited under the procedure will issue Plant Health Assurance Certificates for their produce.

Property freedom accreditations are issued to growers and packers. Packers sourcing produce from other growers in the Yarra Valley PFPP must be supplied a property freedom form covering the grower's property/s (similar to ICA-23).

Accreditation will restrict the:

- growing of non-commercial host produce on the property
- disposal of waste host produce on-site.

Surveillance

Surveillance in Yarra Valley PFPP's is conducted in accordance with the QFF COP. 123 traps are installed in the region and are monitored in accordance with the COP. At least one trap is installed on each participating property, with at least a 1km grid surrounding each property where access allows. Where there is a group of small properties, traps will be installed in a grid pattern to ensure a trap is within 1km of each property; similarly, if a property is longer than 1km, traps will be installed in a 1km grid pattern on the property. Traps in the buffer are focused on regional centres, with sentinel sites throughout the rest of the buffer (traps allowing) in accordance with Western Australia agreement.

The South East Corner of the buffer is quite hilly with mainly pasture and limited road access, while the South West corner of the buffer is mainly national park/water catchment, with limited road access.

Since Victoria is no longer a fruit fly sensitive market, Queensland fruit fly surveillance activities outside the Yarra Valley PFPP buffer are minimal, therefore it is unlikely that DEPI will detect any QFF outbreaks that occur outside the buffer area.

DEPI QFF monitoring in the Yarra Valley region has been in operation since 1996, these efforts enabled trade and supported research and development outcomes. The following table outlines the trapping history in the region during this period (see map for 2011/12 trap locations).

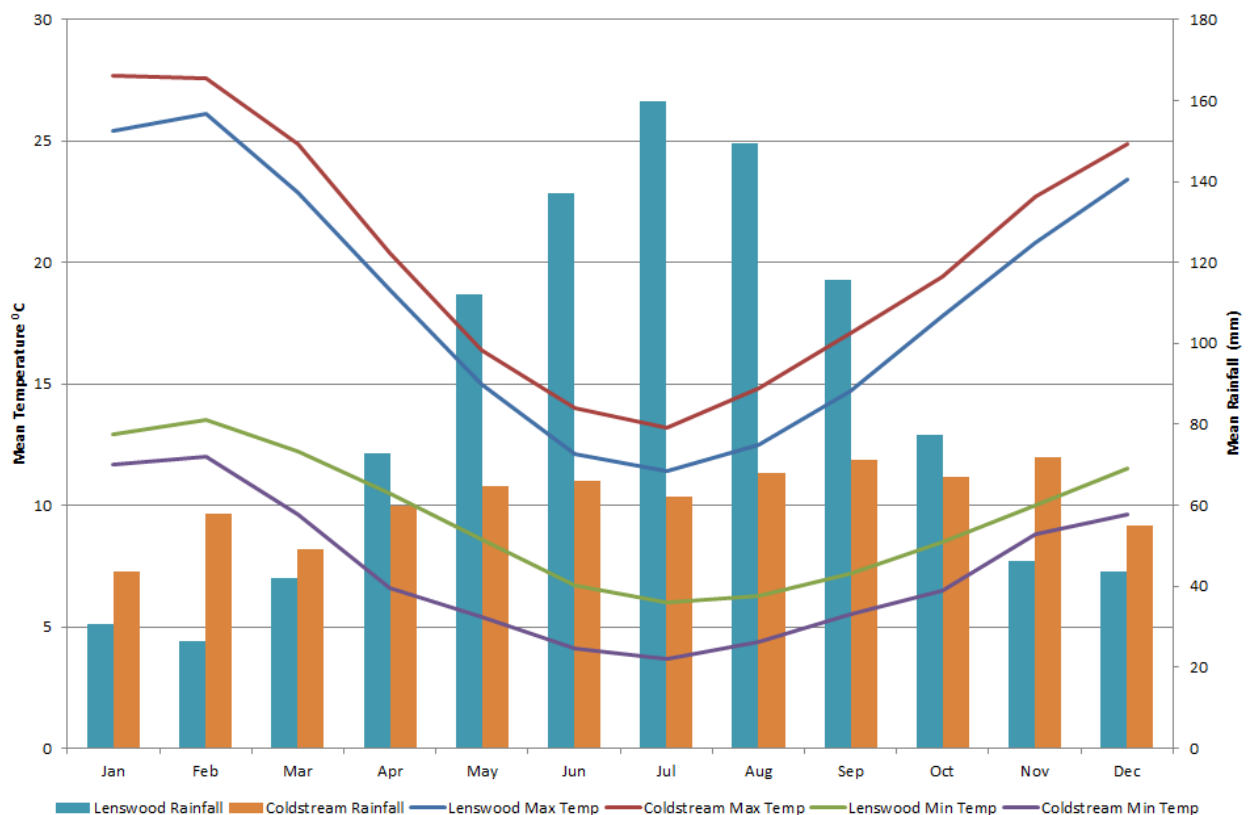
Year	# Traps	# QFF detections	Comments
1996/97	13	nil	
1997/98	13	nil	
1998/99	13	nil	
1999/00	13	nil	
2000/01	13	nil	
2001/02	13	nil	
2002/03	13	nil	
2003/04	13	nil	
2004/05	53	nil	40 sites installed and monitored for 12 months around Coldstream (all sites on a 1km grid) as part of a HAL proof of concept project
2005/06	13	nil	
2006/07	13	nil	
2007/08	13	nil	
2008/09	13	nil	
2009/10	79	1 QFF (15/02/2010)	From a site in Wandin, business importing QFF host material from NSW.
2010/11	77	nil	
2011/12	77	nil	
2012/13	25	nil	
2013/14	123 ³	nil	Trap sites reconfigured for Yarra Valley PFPP.

QFF Detections

Response to detections of QFF will be in accordance with the QFF COP (e.g. outbreak threshold and supplementary trap installation in response to detections). Where an outbreak is detected within the buffer, all accreditations under the Yarra Valley PFPP will be suspended.

³ To date, these traps have not QFF detected (correct at 01/06/14)

The Lenswood reinstatement dates from the QFF COP, or dates calculated from the current agreed formula, will be used for the Yarra Valley. Lenswood has the closest weather conditions to Coldstream. The main difference being the higher rainfall in Lenswood over the winter months (see figure below).



Buffer

An average 3km boundary around the Yarra Valley PFPP sites has been established. The buffer has been designed to take into account the natural geography of the area. The Yarra Valley is a relatively hilly area that makes up the main water catchment area for Melbourne, therefore a large proportion of the region is forest with restricted access. The buffer has been designed to align with the peaks of hills and road access. A large proportion of the buffer encompasses forested areas where QFF hosts are limited.

Reporting

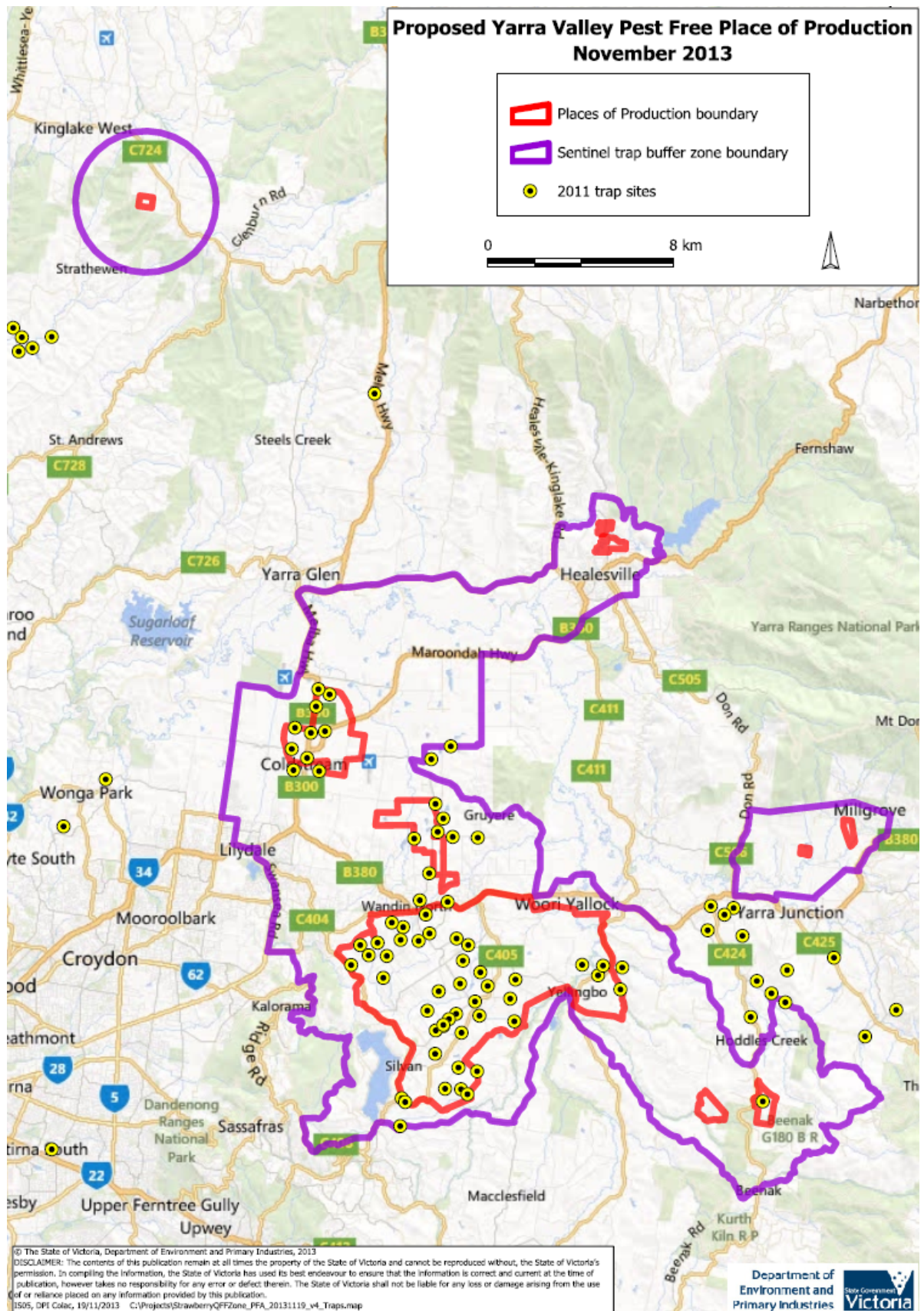
DEPI will provide the following reports to interstate authorities:

- Fortnightly QFF data reported via email – positive and negative trap catches
- Email advice supplied within 24 hours, where an outbreak or flies are detected.
- Monthly accreditation status report for accredited businesses (ICA status report)

Attachments

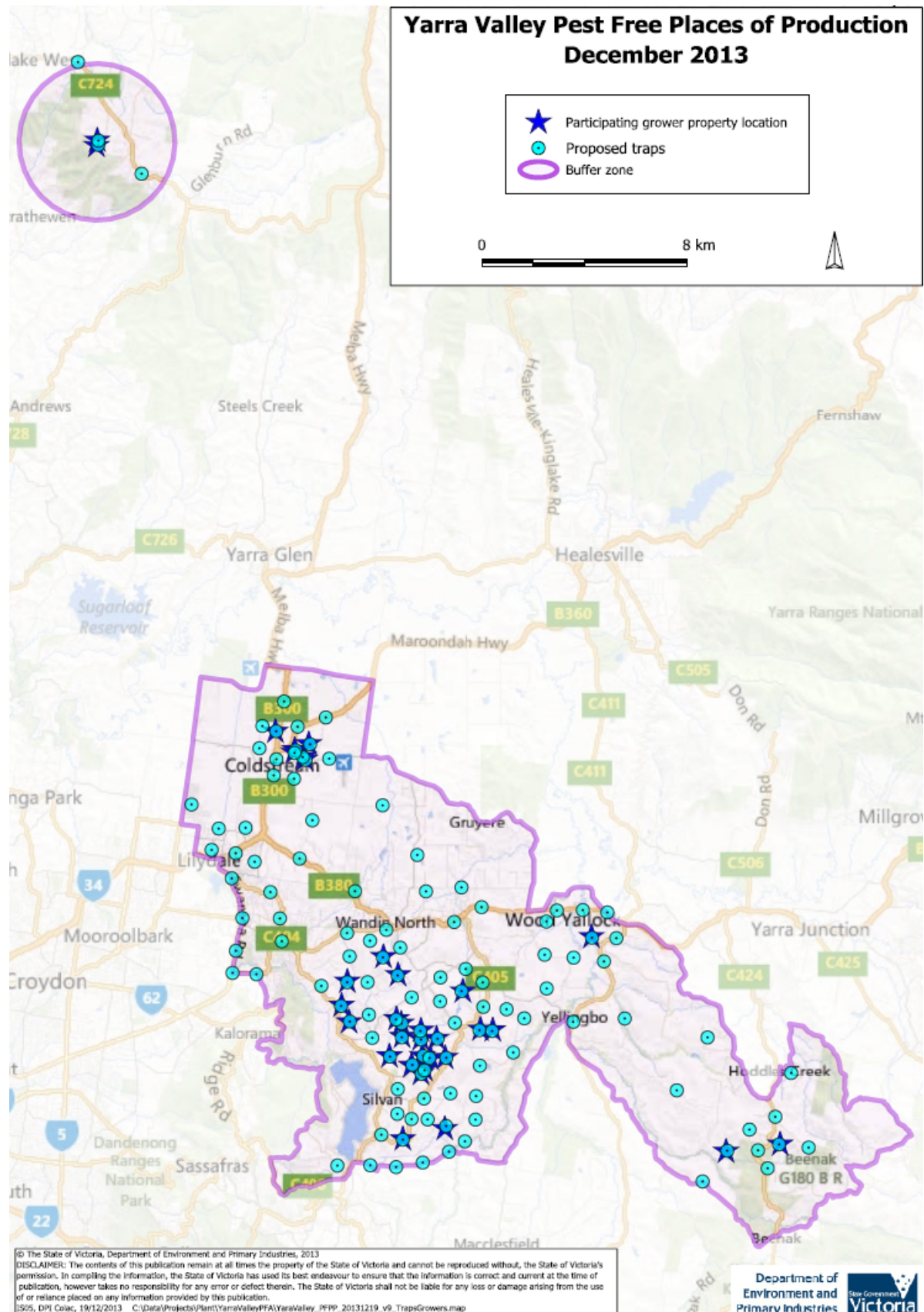
- Attachment 1 2011/12 QFF Trap Locations with Original 2013/14 PFPP Boundaries Overlaid
- Attachment 2 Yarra Valley Pest Free Places of Production Map
- Attachment 3 Western Australian protocol for Yarra Valley Pest Free Places of Production for Queensland fruit fly (*Bactocera tryoni*) – 20 December 2013

2011/12 QFF Trap Locations with Original 2013/14 PFPP Boundaries Overlaid



Yarra Valley Pest Free Places of Production Map

The below map is shows current trap sites installed in the region.



557. WESTERN AUSTRALIAN PROTOCOL FOR YARRA VALLEY PEST FREE PLACES OF PRODUCTION FOR QUEENSLAND FRUIT FLY (*Bactocera tryoni*) – 20 December 2013

1. Definitions
 - “Yarra Valley” means the area in Victoria as set out in the attached map titled “Yarra Valley Pest Free Places of Production December 2013”.
 - “Qfly” means Queensland Fruit Fly (*Bactocera tryoni*)
 - “Code of Practice” means the Code of Practice for Management of Queensland Fruit Fly – Revision 1.1 September 1996
2. Surveillance traps for Qfly installed in the Yarra Valley area in accordance with the attached map titled “Yarra Valley Pest Free Places of Production December 2013” using Cuelure traps prepared in accordance with the Code of Practice.
3. Surveillance conducted in accordance with the frequency specified in the Code of Practice to confirm that the area remains free from Qfly.
4. Each participating grower in the area has at least 1 trap within a 1km trapping grid in the production area.
5. Trap numbers and placement in the buffer zone to be accordance with attached map titled “Yarra Valley Pest Free Places of Production December 2013”.
6. Each consignment sent to Western Australia to be accompanied by either:
 1. An Interstate Plant Health Certificate issued by the quarantine authority in the exporting state or territory; or,
 2. A Plant Health Assurance Certificate issued in accordance with a quality assurance arrangement approved by the Director General of the Department of Agriculture and Food, Western Australia, as meeting the following:
 - a. The conditions 1 – 6 in the document titled “Protocol for Yarra Valley pest free places of production for Queensland Fruit Fly (*Bactocera tryoni*) – 20 December 2013” have been met.
 - b. The consignment has been inspected at a 2% / 600 unit rate and found free from Qfly.
7. An outbreak of Qfly as determined by the Queensland Fruit Fly Code of Practice will result in the immediate suspension of this protocol.

Attachment 3

Queensland fruit fly – Yarra Valley Pest Free Places of Production Communications Strategy (for 2014)

Background

On 1 July 2013, DEPI changed its management of Queensland fruit fly (QFF) in Victoria, entering into partnership with industry to co-fund and manage QFF in priority areas (e.g. Greater Sunraysia Pest Free Area) where QFF eradication is still considered feasible.

Growers in the Yarra Valley region have been affected by these changes, having lost state-wide QFF freedom, which impacts on their ability to export QFF host produce to QFF sensitive interstate markets. To continue consigning QFF host produce into these markets, growers must treat fruit, which increases the cost of production and can impact the shelf life of the fruit.

A solution was reached to establish a Pest Free Places of Production (PFPP) in the Yarra Valley region to facilitate both domestic and international market access using newly developed market access protocols. The program will prove the absence of QFF within a buffer in the Yarra Ranges region, while providing ongoing assurance that the region remains free of the pest. DEPI will implement legislation and accreditation programs to provide assurance that produce certified from PFPP sites is free from QFF infestation.

Objective

- To inform identified Victorian growers, industries and residents about the Pest Free Places of Production (PFPP) program operating in the Yarra Valley and encourage non-participating growers to become involved in the program.
- To inform growers and pack houses how fruit must be consigned to meet market access requirements.
- To promote on-farm biosecurity and the benefits offered by the plant property identification code (PIC) program to growers and industries.
- To educate local residents about QFF and its management to help protect the Yarra Valley from QFF infestation.

Key messages

Growers, industry

- A Pest Free Place of Production (PFPP) program is operating in the Yarra Valley to allow participating growers to export QFF host produce to sensitive interstate markets without the need for chemical or cool storage treatments that are detrimental to fruit shelf life.
- Participating growers benefit from access to QFF sensitive markets without the need for costly treatments which are detrimental to fruit shelf life.
- The Yarra Valley PFPP production program is available to all local cherry, rubus and strawberry growers. Contact Tanya Krause – 0412 021 136, to learn more about the program and become a PFPP grower.
- Growers wanting to supply produce to QFF sensitive markets need to meet accreditation requirements set by destination market to maintain market access.
- It remains an offence to sell QFF infested fruit.
- DEPI is introducing PICS to plant industries to minimise the impact of a pest or disease outbreak on horticultural production and market access.
- Improve biosecurity on your property to ensure your business is not left exposed to the damaging effects of a plant pest or disease outbreak. Apply for a PIC today.

Local residents

- Queensland fruit fly (QFF) attacks a wide range of fruits and fruiting vegetables, leaving them inedible.
- To safeguard local fruit growers and residents, horticultural industries and government are working together to keep the Yarra Valley QFF free.
- QFF adults are approximately 7 millimetres long, reddish-brown in colour, and have distinct yellow markings.
- If you suspect that you have QFF on your property, report it to DEPI on 8371 3500 (Melbourne Markets).

- You can minimise the risk of attracting QFF to your garden by picking fruit as it ripens and disposing of unwanted, fallen or rotten fruit.
- For more information on QFF, visit the DEPI website, www.depi.vic.gov.au/qff or speak to your local nursery, hardware or chemical retailer.

Audiences

- Participating fruit growers and industries (strawberry, rubus, cherry)
- Local residents
- Non-participating local grower

Tools & Tactics

<i>Tool</i>	<i>Description</i>	<i>Timing</i>	<i>Cost</i>	<i>Actioned by</i>
DEPI				
Ministerial - New protocol bears fruit for Yarra Valley growers	Promote new pest-free protocol in place which has allowed Yarra Valley berry and cherry growers to ship to fruit fly sensitive domestic markets without the need for disinfestation treatment.	April 2014	DEPI contribution	DEPI
Industry/grower liaison	Attend industry meetings to promote and explain how the PFPP works, its benefits to growers, how PICs can help improve biosecurity on-farm and encourage other Yarra Valley producers to become involved Grower information session to encourage new business accreditations for 2014-2015 season	March 2014 – ongoing 13 Aug 2014	DEPI contribution	DEPI (T. Krause)
DEPI and HIN websites	Maintain PFPP and QFF information on DEPI website	Ongoing	DEPI contribution	DEPI
CSC FAQ	Revise/develop FAQs for Customer	Ongoing	DEPI contribution	DEPI (T. Krause)

	Service Centre to handle incoming queries relating to the newly formed Yarra Valley PFPP and QFF			
Direct mail/email	Correspondence with participating businesses and industry on PFPP issues. Correspondence with businesses interested in becoming accredited for 2014-2015 season.	Ongoing	DEPI contribution	DEPI
Industry updates (email/direct mail, fact sheets)	Notices to industry and YV PFPP accredited businesses about market access requirements and trading restrictions to enable continued market access	Ongoing	DEPI contribution	DEPI
Industry				
YV PFPP management committee meetings	Hold regular meetings with PFPP management committee members, provide progress reports, discuss and work through any	Monthly, as required	\$0	S. Chapman

	issues and priorities. (Comprises DEPI, participating industry reps, some growers and local shire representative)			
Newsletter	Include DEPI media release in industry newsletter/on website	March 2014	\$0	Industry
Grower meetings	Promote and explain how the PFPP works, its benefits to growers, encourage other Yarra Valley producers to become involved	Ongoing	\$\$	Industry
Industry notice – New businesses	Industry notice to promote grower information session held on 07 August	August 2014	\$0	Industry/ Mgmt committee
Media release	Reminder for new businesses to submit applications for 2014-2015 season by 19 September 2014 (Weekly Times)	Sept 2014		
Participating industry website	Post information about the PFPP, its benefits and how to become involved	Ongoing	\$0	Industry
Local media release – about	Reminder about QFF and garden	September	\$0	Industry

QFF	hygiene needed during spring to minimise the risk of attracting QFF			
Poster	Develop A3 pdf poster for use by participating businesses, highlighting the need for property visitors to follow entry conditions.		\$\$	Industry
Local media release – summer garden hygiene	Encourage residents to implement good garden hygiene to minimise risk of QFF infestation	Jan 2015	\$0	Industry or DEPI
Local media release – QFF holiday reminders	Encourage residents to implement good garden hygiene, remind visitors to not bring QFF host produce onto participating PFPPs over the Easter holidays (Note: only relevant if there are businesses who run tourism arm on their PFPP)	September 2014 – June 2015	\$0	Industry
Participating growers (typically those with tourism business)				
Property entry signage	Promote the need for participating businesses to	Ongoing	\$40 each www.farmbiosecurity.com.au	Growers

	purchase and use biosecurity signage to help notify visitors to contact the property owner before entering production areas			
Participating grower website	Include message for visitors to not bring QFF host produce onto properties		\$0	Growers
Poster	Display poster at frequently visited indoor places on property (e.g. café, tearoom, chemical shed, restroom) to reinforce the need for visitors to avoid bringing QFF host fruits onto the property	Ongoing	\$0	Growers
Local council				
Local council website	Include project snapshot on 'What's New' and business section and FAQs , add QFF to pest control – insects and bugs page	Ongoing	Council contribution	Local council
Direct mail/letterbox drop/insert	Inform households about the new PFPP, what they can do to help support		Council contribution	Local council

	local growers and their community			
TOTAL			\$	

Appendix 3

Yarra Valley Pest Free Places of Production

Sub-project Plan - Compliance

Background

In conjunction with industry and government, the development of Pest Free Places of Production has been funded by Horticulture Australia (HAL), voluntary contributions and in-kind contributions from DEPI. The Pest Free Places of Production (PFPP) will be established in the Yarra Valley region to primarily benefit, strawberry, rubus and cherry growers. The PFPP project will be administered in accordance with the policy and operational principles outlined within the International Standards for Phytosanitary Measures (ISPM) 10 and technical requirements of the Code of Practice for the Management of Queensland fruit fly (QFF).

The project will be overseen by a DEPI Governance Committee, while an industry lead Management Committee will focus on implementation of the project. The project will include the deployment and ongoing monitoring of 123 permanent QFF traps across production and buffer areas in the Yarra Valley. Legislation will be implemented to restrict the receipt of uncertified produce by accredited businesses. All participating businesses in the PFPP will be accredited by DEPI and will have additional restrictions placed on them through the requirements of the accreditation. Businesses not operating under the PFPP will not be impacted by the legislation of associated compliance activities.

Objective

The objective of this project is to develop appropriate compliance procedures to ensure that the PFPP is maintained in accordance with interstate agreements, which require:

- Accreditation of participating businesses, either with QFF property freedom approval, or the PS-37 accreditation for issuance of Plant Health Assurance Certificates (PHAC)
- Receipt of produce from only participating PFPP growers, or certified sources (e.g. ICA-21)
- Removal of non-commercial host produce within commercial production areas
- No on-site waste disposal of QFF host produce

Step	Days expected	Actual date	Status	Comments
Stage 1 (program proposal)				
Obtain list of businesses wishing to participate in Yarra Valley PFPP	10	27 November – 16 December 2013	Complete	Develop nomination letter and application document to be sent back to DEPI

Step	Days expected	Actual date	Status	Comments
Develop Yarra Valley PFPP management proposal for market access and obtain interstate approval	20	November – 19 December 2013	Complete	Negotiate with SA, WA and Tas interstate agencies to identify the key points for the management of Yarra Valley PFPP to reduce the likelihood of QFF populations in the district while also ensuring the area remains free of the pest
Develop legislation for restriction of receipt of uncertified produce by PFPP participating businesses	3	December 2013 – 31 January 2014	Complete	
Develop accreditation procedure for certification of QFF host produce from Yarra Valley PFPP businesses and obtain interstate approval	20	14 – 28 January 2014	Complete	Provide draft accreditation document to interstate authorities and industry stakeholders seeking comment/approval under a bilateral agreement for movement of QFF host produce from Yarra Valley PFPP businesses to SA, WA and Tas
QA procedure (internal)	5	29 - 31 January 2014	Complete	Send document to Gary D'Arcy for comment/approval
Stage 2 (Project Implementation)				
Distribute property freedom application forms to participating PFPP businesses	5	14 - 21 January 2014	Complete	
Process property freedom applications (APCO) and issue approval forms	Ongoing	Expect to be complete by mid February	Completed	Applications will be processed as they are received by APCO
Provide accreditation document (PS-37) to APCO for provision of accreditation	1	31 January 2014	Complete	Document will be distributed by APCO to interested parties
Accredit (audit) businesses wishing to consign produce to SA, WA and Tas under PS-37 (APCO)	3	February	Completed	APCO to accredit PFPP businesses on a first-come first-served basis
Compliance Audits of businesses that have used accreditation	3	May-June	Not Started	APCO to arrange compliance audits of accredited businesses

Step	Days expected	Actual date	Status	Comments
Accredit new businesses for 2014-2015 season (including initial audit)	3	June-August	Not Started	APCO to accredit new PFPP businesses on a first-come first-serve basis
Re-accreditations activities (including audits)	5	January - February 2015	Not Started	APCO to arrange
End				

Yarra Valley PFPP Compliance Plan		2013			2014											
Stage	Task	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1	Obtain list of businesses wishing to participate in Yarra Valley PFPP															
1	Develop Yarra Valley PFPP management proposal for market access and obtain interstate approval															
1	Develop accreditation procedure for certification of QFF host produce from Yarra Valley PFPP businesses and obtain interstate approval															
1	QA procedure (internal)															
2	Distribute property freedom application forms to participating PFPP businesses															
2	Process property freedom applications (APCO) and issue approval forms															
2	Provide accreditation document (PS-37) to APCO for provision of accreditation															
2	Accredit (audit) businesses wishing to consign produce to SA, WA and Tas under PS-37 (APCO)															
2	Compliance Audits of businesses that have used accreditation															
2	Accredit new businesses for 2014-2015 season (including initial audit)															
2	Re-accreditation activities of existing accreditations (including audits)															
2	Re-accreditations completed (including audits)															