

Area wide pest management — an essential approach to fruit fly management

Bronwyn Koll, Queensland Fruit Fly Regional Coordinator, Agribusiness Yarra Valley

- Area Wide Management (AWM) is a common phrase heard when discussing prevention and control of fruit fly
- The fruit industry is encouraged to use AWM to reduce fruit fly pressure in production systems
- AWM requires the concerted effort of all land managers in a region to be effective
- Achieving this level of co-ordination in a region takes time, resources, planning, money, and most importantly, industry guidance

The Yarra Valley QFF program's greatest achievements using AWM techniques

The Yarra Valley has adopted many QFF AWM techniques. The Yarra Valley QFF prevention and awareness program (funded by *Managing Fruit Fly in Victoria 2015-2020* and *Victoria's Fruit Fly Strategy 2021-2025*) supports a trapping surveillance grid for early detection, and QFF awareness activities with the general public (community workshops, emergency response, fruit fly ID, and informative articles in print and on social media).

Achievements include:

- Yarra Valley resident's raised awareness about QFF. This message has also been extended over metropolitan and peri-urban Melbourne where there are home gardens with QFF infestations.
- Isolated QFF cases in the Yarra Valley have been detected early and reported to the program's funded Regional Co-ordinator.
- Cases have then each been rapidly responded to, promoting local action resulting in area wide benefit.

Affected land managers have been pre-prepared in the lead up to QFF being detected and have received 1:1 mentoring in control, management and prevention activities.

- Other land managers in the wider region have been notified through various communication networks, allowing individuals to each increase their own level of preventative action on their own properties.

The good news story is that QFF detections in the whole of the Yarra Valley have remained very low each fruit season (since the initial 2018 discovery of QFF). Given the rapid spread and establishment typical of QFF in other areas, mitigating the impact immediately has had large scale positive effect for the typically QFF free region. Delimiting activities have demonstrated that these cases have not spread past the area of concern, despite favourable QFF conditions.

This is supported by a high rate of action (baiting, trapping, fruit treatment and host crop removal) taking place amongst land managers. Ongoing surveillance and rapid response support in the years to come can help to preserve this.

Protecting more than just fruit from QFF

Integrated pest management (IPM) of other pest insects in production systems has been preserved and improved. Producers have installed an increased number of sticky traps, and whilst looking for QFF, production managers are now more aware of other pest insects compared to earlier scouting methods used.

A major benefit of not having to control QFF with broad spectrum cover sprays is the protection of systems that use biological predators to manage pests like Western flower thrip (*Frankliniella occidentalis*), a pest that does not have a chemical control alternative. In regions with high QFF pressure, some biological pest control programs have been ditched. Production systems are solely reliant on chemical control of other pests and on cover spray techniques for QFF management. The Yarra Valley is in a strong position going forward in IPM adoption if QFF remains a minor or zero threat regionally.

There are efficiencies and benefits when growers work together on QFF AWM in a region, including the early detection and rapid response program, the alerts and de-identified data sharing, and the efficiencies of delivering a centrally run regional surveillance network. The future use of a coordinated surveillance network extends into regional readiness for using sterile insects and other emerging technologies for QFF management in the future.

Sustainable funding into the future

In general, the export of fruit (including berries) out of a region like the Yarra Valley can help increase and regulate the domestic prices for all fruit. Often, surveillance programs linked to export protocols combined with QFF action and prevention activities are of benefit to everyone, reducing QFF risk and pressure each season.

Industry discussion is crucial to ensure that QFF AWM outcomes are achieved in regions, States and across the country. What is the value of the QFF AWM program to local fruit productivity and biological systems? How it could be possibly achieved with alternative means or alternative funding sources? Each region will have multiple pest management focuses, different crops, and different QFF pressure, and lessons can be learned from how other regions and other fruit industries have or haven't dealt with the issue. How can small regions equitably fund local QFF AWM action sustainably into the future?

Moving forward, the fruit fly program in the Yarra Valley will have to prioritise which activities are able to be delivered on a reduced budget if program funding declines. There are options to investigate co-funding, or in-kind contributions to the project if on-farm surveillance activities are all co-ordinated and linked.



Bron Koll providing information at a local event in the Yarra Valley. Photo credit: Agribusiness Yarra Valley

To contribute your ideas for the future of regional QFF AWM in the Yarra Valley contact:

Bron Koll,
Yarra Valley QFF Project Co-ordinator
qff@agribusiness-yarravalley.com
0490 381 999

OR

Your Berries Australia Industry Development Officer

Your experiences and thoughts will be valuable to prioritise action and ensure value from the program.

Area Wide Management information

Plant Health Australia and Hort Innovation have further resources on Area Wide Management:

Area-wide management of Queensland fruit fly and using sterile insects
www.farmbiosecurity.com.au/area-wide-management-of-queensland-fruit-fly-and-using-sterile-insects

Area Wide Management

www.preventfruitfly.com.au/controlling-fruit-fly/producers/area-wide-management/

Hort Frontiers Fruit Fly Fund Strategic Partnership Initiative

<https://area-wide-management.com.au>