Queensland Fruit Fly

Challenges and Opportunities

Queensland fruit fly (Qfly), an exotic species to Victoria, is now established in the Goulburn Murray Valley (GMV) and compromises the quality of fruit and vegetables produced within our region, renowned as being an agricultural powerhouse. Qfly also compromises exports and places the horticultural industry and thousands of direct and indirect jobs in jeopardy.

The GMV Qfly Area Wide Management (AWM) program was introduced in 2017 as a means of managing and controlling fruit fly and educating the general community about how they can contribute to protecting our valuable fruit industry

The program was adequately funded in its early years with a budget that enabled a proactive approach to managing Qfly within the GMV. The program was sufficiently resourced, and supported the education of the community and enabled a prompt response to Qfly detected hotspots in urban, peri-urban and rural areas. This approach was made possible via an intensive High Input AWM program that reduced fruit fly 95 per cent in its first year and a further 60 per cent in its second year of operation.

During the high input phase of AWM (2017-2020), the program was heavily supported by many organisations, some with over 3,000 volunteers. The program removed over 94,000 host plants, while education, workshops and training programs were presented to 18,000+ attendees. The “No Flies on Us” message was promoted extensively.

Unfortunately from 2020/21 to the present, the program has experienced significant funding reductions (-62.5 per cent) allowing only a Low Input AWM program where resources (including staff) were significantly reduced, a substantial number of urban monitoring traps were removed and the program went from 409 monitoring traps to 200, with urban traps decreasing from 102 traps to 19. This has ultimately led to a less proactive approach to Qfly control, placing extensive pressure on the horticultural industry in the rural areas.

During the Low Input AWM phase, Qfly populations increased five-fold compared with the successful High Input AWM phase.

The current and historic lack of certainty regarding the fruit fly program’s continuation since its implementation has been troubling and counterproductive for the general community and the horticultural industry in relation to control of Qfly. The current Victorian Fruit Fly Strategy expires in June 2025, with the GMV AWM program scheduled to conclude also, again creating uncertainty regarding the future management and control of Qfly within Victoria.

MITCHELL MCNAB
Fruit Grower and Chairperson of Fruit Growers Victoria

“The GMV has a proven fruit fly program that the local growers rely on to educate the general community to control and manage fruit fly. The program plays an important role in sustaining local production and protecting our valuable exports.”

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In Victoria, commercial horticulture represents a total of 2,760 horticultural farm businesses (121,600 hectares). It's the position of industry that it's unreasonable for growers to be held responsible for managing/controlling fruit and vegetables grown in Victorian residential dwellings and amongst the 8.8 million (approx) hectares of public land managed or owned by the Victorian Government. Fruit and vegetable growers already manage Qfly and contribute significant funds towards its control within their farms.

Since the conclusion of High Input AWM which occurred in 2021, fruit fly numbers have now increased approximately 183 per cent. In 2024 alone, Qfly numbers increased approximately 90 per cent based on trapping data.

Between 2019-2021, a sterile insect technique (SIT) trial was undertaken in Cobram Victoria, in conjunction with the GMV AWM program. The SIT trial results in Cobram established the program as being the most successful SIT trial undertaken in eastern Australia, with reductions of over 83% confirmed for the test area (Cobram).

The success of the Cobram SIT trial is confirmed in the analysis where the data indicates that Qfly numbers declined, in all seasons, during the SIT program in Cobram except in the summer (peak Qfly season) of the third year. The cause for this peak was the release of poor quality, sub-optimal sterile Qfly which failed to impact the local wild population. This problem was soon remedied and Qfly declines returned during late summer and autumn 2022. The project later concluded in 2022.

Mr Jessup also confirms within this expert analysis that Victoria as well as NSW and SA would benefit significantly from a high input AWM program in combination with SIT.

In addition, Mr Jessup found that SIT without AWM was tested in Hillston, NSW. Some Hillston traps captured 34 Qfly in a two-week period, a threat level not seen in Cobram, suggesting that SIT without AWM is less successful than SIT with AWM.

> **ANDREW JESSUP**
> *Renowned expert and specialist in Fruit Fly and consultant on horticultural entomology and market access.*
>
> *"The high input (AWM) strategy was a fruit fly management success. Never before has the whole community, from the Victorian Government to the backyard grower worked so well together to the benefit of all."*

Solution

In 2024, Greater Shepparton City Council engaged an internationally renowned expert and specialist in fruit fly to undertake an analysis into the effectiveness of the program since its inception and to determine forecasts of fruit fly numbers should the government not continue the program beyond June 2025.

The outcome of the analysis which also considered weather and climate impacts, confirmed that High Input AWM has successfully controlled and reduced Qfly numbers within the GMV.

The analysis also found that the current approach of Low Input AWM due to reduced funding is not sustainable as a measure of Qfly management as it lacks the intensive activities previously possible when the program was adequately funded.

The analysis makes concerning forecasts for 2026 onwards should the GMV not have an adequately funded High Input AWM program to control fruit fly numbers. A best-case scenario without a High Input AWM program within the GMV beyond 2026 is an increase of over 200 per cent in Qfly numbers, with a worst case scenario being an increase of over 600 per cent. These predictions were based on historic trends and weather/climate conditions. Future years would experience a rapid continued rise in Qfly numbers without AWM.

To further safeguard the horticultural industry, the establishment of a high quality SIT facility is proposed which would produce sterile Qfly in the short term to manage the Goulburn Murray Valley's current fruit fly threat, whilst however offering immediate expansion potential to enable the production of other sterile pests to safeguard horticulture within the Goulburn Murray Valley, Victoria and interstate. The proposed SIT facility would also act as a backup to the South Australian facility. The roll-out of SIT fly release throughout the Goulburn Murray Valley, in tandem with the delivery of an AWM program would further sustain the roll-out of sterile flies.

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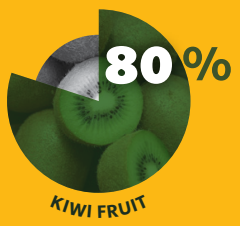
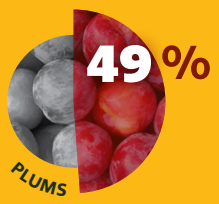
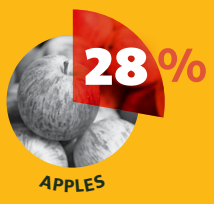
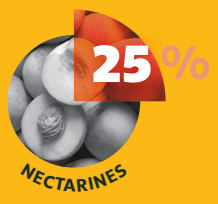
% Australian Fruit Production in the Goulburn Murray Valley Region (GMV)

The Goulburn Valley is the largest producer of canning pears in the Southern Hemisphere and the Murray Valley is the largest producer of Stone Fruit in Australia.









The proposed establishment of a production and sterile release facility, to be operated by regional communities and industry, will promote horticultural investment by reducing risk, will promote trade by reducing phytosanitation barriers, and will promote sustainability by reducing reliance on insecticides.

The proposed solution to manage Qfly numbers within the GMV:

1. **The establishment of a high quality SIT facility to provide effective biosecurity within the GMV against Qfly, with the capability of supporting GMV and other regions/states with pests beyond Qfly.**
2. **Reintroduce a High Input AWM program that will fund adequate resources to enable a proactive approach to fruit fly management.**

Economic Benefits

In 2021-22, the gross value of horticulture within Victoria was $3.9B, with the GMV alone contributing more than $1.6B. Victoria contributed 45 per cent ($1.6B) of the value of Australia's total horticultural exports with a significant portion of those exports coming from the GMV.

The horticultural industry without a sound approach to managing and controlling Qfly will compromise the sustainability of businesses, employment, production and exports within the GMV and broader Victoria.

Investment

$12m for the establishment of a high quality SIT Facility

$10m for the running costs over a five year period (production and release of sterile flies within GMV)

$1 million per annum for the GMV AWM Fruit Fly Program

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