

# FRUIT FLY

## QFF – what you need to know!

The Queensland fruit fly (QFF) has become established in Victoria's Goulburn Murray Valley (GMV), which will result in the pest surviving the cold winter and bouncing back in the summer without the need for new flies to come in from outside the area.

While GMV trapping data, derived from the deployment of 370 QFF traps positioned across the region, may suggest there are no QFF remaining in the GMV, the actual scenario is that it is in fact too cold for QFF to be attracted to traps.

During autumn, as daily temperatures decrease, QFF switch from mating mode to feeding mode. They fill up with protein from naturally occurring yeasts, fungi and bacteria to build up winter reserves.

A fruit flies imperative during winter is to conserve energy so that reserves picked up in autumn will carry it through winter into the spring when it can start to move around freely again.

QFF can survive extended periods at very low temperatures (even at less than 0 °C), without feed or water because their metabolism has slowed down – very much like a bear that's hibernating in a cave doesn't feed or drink for long periods.

QFF may walk around, if it's warm enough during the day to look for moisture or food and may even fly short distances, however their activity is severely restricted.



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During winter in the GMV fruit fly will not:

- Infest fruit
- Survive a southern winter as eggs, larvae or pupae unless they are in a warm position (above about 3 °C, e.g. in an active compost heap)
- Be attracted to pheromone (male-targeting) lures
- Mate
- Move at night

Suitable places of refuges include evergreen plants near heat sources and sunny evergreen orchards. Heat sources include houses, lighting, compost heaps, chook and stockyards along with evergreen trees surrounding open sunny ground. Heat sources can be:

- Active – i.e. they produce heat (e.g. heated houses, compost heaps) or
- Passive – i.e. they warm up in the sun and slowly release heat at night (e.g. woody evergreen plants, sports ovals)

### • What temperature kills fruit flies?

- Eggs – six to eight days at a constant 3 °C, shorter at lower temperatures, longer when it warms up during the day and cools down at night
- Larvae – 10 to 14 days at a constant 3 °C, shorter at lower temperatures, longer when it warms up during the day and cools down at night
- Pupae – zero survival at a constant 4 °C to 10 °C and below
- Adults – zero survival if there are five to seven days in a row where daily minimum temperatures are 10 °C to 7 °C, some survival after five consecutive days where temperatures fluctuate between 5 °C and 15 °C

### How long do adult fruit flies live?

- Summer – QFF are very active and spend a lot of energy on flying, mating and egg-laying – two to three months
- Winter – If they find suitable refuge, they go into a type of hibernation mode – six to nine months
- Total – two to 12 months

It is recommended that householders, farmers and commercial fruit growers remove unwanted fruit fly host plants, in their back and front yards, house paddock, along creek banks and on roadsides near their farm and other areas.

In the case that a farm has had fruit fly problems last season, property owners should consider future fruit fly control methods such as orchard hygiene and fruit fly baiting, placement of more traps for more accurate detection of fruit fly population incursions and purchase of approved pesticides and fruit fly baits.

The winter period is the ideal time for growers to ensure fruit fly control equipment and chemicals are up to date and well stocked for the upcoming growing season.