

# Queensland fruit fly surveillance

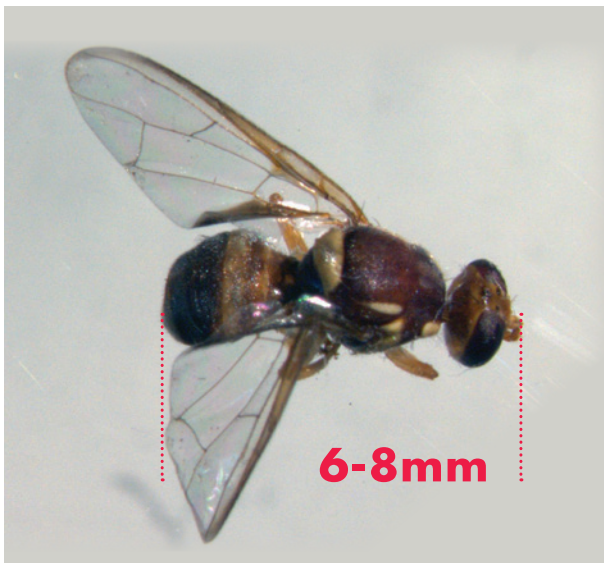
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## Surveillance

- Surveillance means to look for something regularly
- Surveillance can be looking in set traps AND looking for pest damage in several random parts of the crop area
- The keys to surveillance are to do it regularly and evenly all through the crop, including waste fruit
- Surveillance needs to be a representative sample of the whole population being studied. It needs to use a method that is recognised by others as a good true indication of the crop growing conditions (e.g. Queensland Fruit Fly Code of Practice)
- It is important to note that surveillance can also be used to prove there is not a pest problem

One surveillance tool involves attracting a pest to a trap for monitoring purposes (counting or observing). If a pest is detected early enough, actions can be taken in the immediate area to warn others it is a real threat, or to control the pest before it attacks valuable crops.

**Early action can mean only a small response is required, or fruit trade is not interrupted.**



**Queensland fruit fly (*Bactrocera tryoni*).**  
Photo credit: Lesley Ingram, Bugwood.org

## Traps

- Fruit fly traps can be purchased online or at Agricultural resellers
- Different fruit fly traps work in different ways
- It's best to use a variety of styles to catch different parts of the fly population
- All fruit fly traps need to capture or kill the QFF so we can count them, observe population trends, and perform identification analysis
- All traps need to have an attractant to lure the QFF towards the trap
- QFF traps are classed by their attractant type

## Useful Links

Bronwyn Koll has collated this table from information about products available at the time of publication. This information has been compiled with assistance provided by the product representatives, advice from Andrew Jessup, and four years of her own experiences using QFF traps in the Yarra Valley QFF surveillance project.

### Organic Crop Protectants (OCP)

[ocp.com.au](http://ocp.com.au)

<b>AgNova</b> <a href="http://agnova.com.au">agnova.com.au</a>	<b>Bugs for Bugs</b> <a href="http://bugsforbugs.com.au">bugsforbugs.com.au</a>
<b>BioTrap</b> <a href="http://biotrap.com.au">biotrap.com.au</a>	<b>Vasili's Choice</b> <a href="http://vasilisgarden.com">vasilisgarden.com</a>
<b>Amgrow</b> <a href="http://amgrow.com.au">amgrow.com.au</a>	<b>Searles</b> <a href="http://searlesgardening.com.au">searlesgardening.com.au</a>
<b>Gepro</b> <a href="http://gepro.com.au">gepro.com.au</a>	<b>Wild May</b> <a href="http://wildmay.net.au">wildmay.net.au</a>

**Report suspect QFF in the Yarra Valley to:**  
[qff@agribusinessyarravalley.com](mailto:qff@agribusinessyarravalley.com)



**Keep the Yarra Valley  
Fruit Fly FREE**

## What traps do I use to to monitor for Queensland Fruit Fly (QFF)?

<b>TYPE OF QFF / KILL METHOD</b>	<b>MALE QFF</b> <i>Use cuelure or equivalent to attract the male before mating</i>	<b>ALL QFF, FEMALE BIASED</b> <i>Uses protein or food to attract hungry QFF but mainly virgin female QFF</i>	<b>FEMALE QFF</b> <i>Uses fruit scents to attract pregnant female (ready to lay eggs inside of fruit)</i>	<b>NOTES</b>
<b>CHEMICAL</b> The active ingredient kills the trapped fly either by contact, inhalation or ingestion	<b>cuelure + insecticide in a protected wick</b> Brands available: Eco-lure® (OCP), MAT Cups (Bugs for Bugs), BioTrap, Searles	<b>protein gel + insecticide cube</b> Brands available: BioTrap	—	Good for monitoring and detailed ID on dry dead flies Usually instant death (little chance of the fly escaping) Chemical use may be restricted in some areas (e.g. children, pets, some organic crops)
<b>STICKY TRAP</b> Kills the trapped fly if it touches the sticky surface and can't move	<b>cuelure (non-insecticide version) in a protected wick + sticky card</b> Brands available: BioTrap	<b>protein gel + sticky card</b> Brands available: BioTrap  <b>fruit scent &amp; protein gel + sticky card</b> Brands available: FRUITION® Fruit Fly Trap (AgNova or Vasili's Choice)	<b>fruit scent &amp; protein gel + sticky card</b> Brands available: FRUITION® Fruit Fly Trap (AgNova or Vasili's Choice)	Good for monitoring and easy ID on dry dead flies, but difficult to remove stuck flies for detailed ID Can be chemical free Photo can be sent for ID Clear background with the grid is helpful
<b>DROWNS IN A LIQUID</b> Kills the trapped fly because the fly can't swim or balance on the surface of the liquid	<b>liquid male QFF attractant</b> Brands available: Wild May Fruit Fly Attractant, Gepro Eco Bottle Fly Trap	<b>liquid protein</b> Brands available: Cera Trap® (Amgrow), DIY recipe (liquid with yeast extract)	<b>liquid fruit scent</b> DIY recipe, orange or fruit juice and cloudy ammonia  <b>liquid with yeast extract + fruit scraps</b> DIY recipe (liquid with yeast extract)	Flies can decompose quickly, making ID difficult Some contents can be easily topped up (no need to buy parts) Content volume can vary between hot dry days and wet rainy days
<b>NOTES</b>	<ul style="list-style-type: none"> <li>Lure can attract about 200m radius</li> <li>Lure needs replacing every 3 months</li> <li>Male QFF are assumed to move early in the season and trap data can indicate the need to bait/take corrective action</li> </ul>	<ul style="list-style-type: none"> <li>Lure can attract about 15-20m radius</li> <li>Lure needs replacing every 6 weeks - 3 months (depending on type of protein lure)</li> <li>Proteins are good to catch active female QFF</li> </ul>	<ul style="list-style-type: none"> <li>Lure can attract about 15-20m radius</li> <li>Commercial lure needs replacing every 8 weeks</li> <li>Deploy early</li> <li>Fruit scents in traps can be overpowered by the scent of real fruit ripening</li> </ul>	