

Your Fruit Fly Toolkit



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Fruit fly is a difficult but manageable pest.
There is no silver bullet.
You need to use a systems approach to get the best results.

What are the essentials of a systems approach?

1. **Protein baits** - Attract and kill female flies
2. **Male annihilation technique (MAT)** - Attract and kill male flies
3. **Monitoring** - Inspect crops regularly and use male traps
4. **Sanitation** - Remove residual fruit after harvest and destroy neglected fruit trees

When combined and maintained rigorously, these strategies can provide excellent control. In certain high risk crops additional tools such as female traps may also be of value and insecticide cover sprays are sometimes necessary. Currently registered insecticides are very toxic to beneficial insects and are not compatible with integrated pest management. Cover sprays should only be used as a last resort.

We encourage all fruit growers to think of fruit fly as a seasonal pest that needs to be managed all year round - even when susceptible fruit are not necessarily present.

Bugs for Bugs has been helping growers manage fruit fly for more than 40 years. We supply a comprehensive range of fruit fly management products including protein baits, MAT cups and traps.

This fruit fly toolkit provides a practical guide to using our fruit fly management products. For more information about [fruit fly management](#) visit our website.



Protein baiting with Fruit Fly Lure



Fruit Fly Lure is an Australian made, easy to mix, autolysed protein. It is highly attractive to Queensland fruit fly and other fruit fly species. When mixed with a toxicant it can be used to attract and kill adult fruit flies.

How does it work?

- The protein plus toxicant attracts and kills adult flies
- Female fruit flies must feed on protein before they can sting fruit

How to mix our protein bait

- Mix Fruit Fly Lure with water at 2 L per 100 L of water
- Add toxicant at the label rate – **scan the QR code to access a full list of registered toxicant options**



How to apply

- Apply fresh on day of mixing
- Use 15 L of mixture per ha
- Apply as a spot or band to the host plants or suitable substrate
- Note: this is not a cover spray

When to apply

- Start early (before fruit becomes susceptible) and continue for at least 3 weeks after harvest or until there is no remaining residual fruit
- Apply every 5-7 days (more often if you see any signs of damage or increased fruit fly activity)
- Re-apply after rain

Tips for best results

- Start early (at least 2 weeks before fruit becomes susceptible)
- Apply regularly and don't miss a treatment
- Increase frequency during high risk periods
- Apply mixture to foliage or trunk of host plant (not on ground or grass)
- On some varieties protein may cause fruit burn (test before use and minimise fruit contact)
- Treating larger areas including non-fruiting blocks and surrounds will improve results
- For improved longevity and rainfastness, use with our Fruit Fly Lure Thickener



Male annihilation with **MAT cups**



MAT cups are designed to reduce the male fruit fly population. They are a powerful management tool, however they should only be used in addition to (not instead of) protein baiting.

We offer two styles of MAT cup:

- An impregnated cotton wick in a plastic housing
- A cardboard cup with an impregnated corrugated cardboard inner
- Both MAT cup styles are designed to protect the ingredients from rain and UV degradation. We have developed the cardboard version as a biodegradable option.



How does it work?

- MAT is a targeted attract and kill strategy for male Queensland fruit flies
- MAT cups contain a powerful male sex attractant (cue lure) and a toxicant
- Male Queensland fruit flies are attracted to the cups and die as result of ingesting the toxicant
- MAT cups are most effective when used over large areas or entire cropping regions to achieve area wide management
- MAT cups can significantly reduce the local fruit fly population when used over successive seasons

How many do I need?

- Apply 10 - 20 MAT cups per hectare depending on crop sensitivity and local fruit fly pressure
- Apply new cups three times per year (in Spring, Summer and Autumn)
- Leave each MAT cup in the field for a full 12 months (biodegradable cups can be left in the field indefinitely)

How does MAT affect male fruit fly monitoring?

MAT cups compete with male fruit fly traps. It is important to take this into account when using male trap counts to assess fruit fly activity.



Monitoring with Fruit Fly Trap Pro



Monitoring fruit fly populations helps us understand fruit fly activity in an area, and we can use this information to fine tune control programs. The Fruit Fly Trap Pro specifically attracts male Queensland fruit flies.

We offer two colour variations

- Clear base with yellow lid
- Yellow base with clear lid

How does it work?

- The trap contains a cotton wick impregnated with a powerful male sex attractant (cue lure) and an insecticide
- Male Queensland fruit flies are attracted from distances of up to 400 meters and collect in the trap where they can be counted

How many traps do I need?

1 trap per 5-10 ha (minimum 3 traps per farm)

How to assemble the Fruit Fly Trap Pro

- Wear gloves (to avoid contact with the pheromone wick)
- Push hook through lid into pheromone wick holder
- Insert 4 plastic entry ports into side of trap (align tab at top of hole)

How to deploy the Fruit Fly Trap Pro

- Place traps in areas where fruit fly is likely to be active (e.g. along borders and rivers/waterways)
- Hang at head height in host tree/crop shaded from direct sunlight
- Empty traps and record fly catches at least weekly
- Replace pheromone wick every three months
- Replacement Q Fly Wicks are available from Bugs for Bugs

How to interpret your trap counts

Male traps are a useful tool for monitoring population trends but trap counts must be interpreted carefully. It is important to note that:

- These traps only catch male fruit flies
- Trap counts are not a good indication of potential for fruit fly damage in the crop (your monitoring program should include regular crop inspections, looking for adult flies and evidence of stinging)
- Fruit fly traps do not control fruit fly



Contact us for more information about fruit fly management

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