



QUEENSLAND FRUIT FLY

Season calendar of BACKYARD JOBS

SPRING

September	October	November
<ul style="list-style-type: none"> Remove QFF host plants if you are not going to control QFF in your garden Design your vegetable garden layout and cropping cycles so that QFF populations don't build up Set up traps to monitor for QFF and check traps weekly 		<ul style="list-style-type: none"> Pick and dispose of any excess ripe citrus especially grapefruit and late season oranges Pick up and dispose of any fallen loquats Spray high risk fruit if appropriate and always follow label instructions

Remember! In SPRING high risk fruits are late season citrus such as grapefruit and early ripening hosts such as loquats.

SUMMER

December	January	February
<ul style="list-style-type: none"> Net your vegetable garden or bag individual fruit Pick up fallen fruit everyday Check tomatoes for sting marks Heat treat fallen and infested fruit and vegetables to kill QFF maggots 		<ul style="list-style-type: none"> Trap and monitor QFF population levels weekly Spray high risk fruit if appropriate and always follow label instructions

Remember! In SUMMER high risks fruits are stonefruit such as cherries, apricots, peaches, nectarines and plums. High risk vegetables are tomatoes, capsicums and chillies.

AUTUMN

March	April	May
<ul style="list-style-type: none"> Pick up any fallen fruit to break the QFF lifecycle Heat treat fallen and infested fruit to kill QFF maggots 		<ul style="list-style-type: none"> Continue to monitor for QFF and check traps weekly Continue to spray high risk fruit if appropriate and always follow label instructions

Remember! In AUTUMN high risk fruits are pomefruit such as apples, pears and quinces, early citrus such as mandarins, also other fruit such as pomegranates and ornamental fruiting plants such as feijoa (pineapple guava).

WINTER

June	July	August
<ul style="list-style-type: none"> Prune fruit trees to a manageable height for ease of fruit picking and netting 		<ul style="list-style-type: none"> Replace unwanted QFF host trees with non-host plants Pick up fallen fruit

Remember! In WINTER the risk of QFF fly is lower but winter fruits can provide a food source for overwintering fruit flies. These include apples, pears, quinces and pomegranates left hanging on trees and ripe winter citrus such as oranges, mandarins and grapefruit.

DPI QFF factsheets for the home gardener are available: www.dpi.nsw.gov.au/agriculture/pests-weeds/insects/qff

FRUIT FLY CONTROL IN YOUR GARDEN IS A YEAR-ROUND ACTIVITY

START YOUR MONITORING PROGRAM 6-8 WEEKS BEFORE RIPENING BY INSTALLING TRAPS;
CONTINUE MONITORING UNTIL 2-3 WEEKS AFTER PICKING.

STOP FRUIT FLY

IT'S UP TO ALL OF US!

PROTECT OUR LOCAL FOOD-GROWING ENVIRONMENT

FRUIT	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
Loquat	●	●	●	●	●							
Apricot			●	●	●	●						
Valencia orange	●	●	●	●	●	●	●	●	●	●	●	●
Peach	●	●	●	●	●	●	●	●	●	●	●	●
Nectarine	●	●	●	●	●	●	●	●	●	●	●	●
Plum			●	●	●	●	●	●	●	●	●	●
Apple - Pink Lady					●	●	●	●	●	●	●	●
Feijoa Quince					●	●	●	●	●	●	●	●
Grapefruit - Ruby					●	●	●	●	●	●	●	●
Mandarin - Imperial					●	●	●	●	●	●	●	●
Navel - Leng	●	●	●	●	●	●	●	●	●	●	●	●

NOTE: Ripening periods will vary according to fruit variety, location and season.

PRE-HARVEST

- Install monitoring traps & monitor weekly;
- If QFF are found in traps apply weekly bait sprays; or
- Install insect nets / paper bags (the earlier the better).

RIPENING AND HARVEST

- Monitor traps and check fruit for sting marks;
- Continue weekly bait sprays;
- Repair holes in nets and keep the net off the fruit;
- Destroy fallen and infested fruit (plastic bag / slash / deep burial);
- Pick fruit as it ripens and don't let it over-ripen on the tree;
- Replace/recharge monitoring trap every 3 months.

POST-HARVEST

- Continue weekly bait sprays for 2-3 weeks;
- Remove and repair nets and move to another tree;
- Strip pick all remaining fruit and destroy (plastic bag / slash / deep burial)

To find out more prevention strategies visit: www.pestfreearea.com.au

MAKE YOUR OWN QUEENSLAND FRUIT FLY TRAP



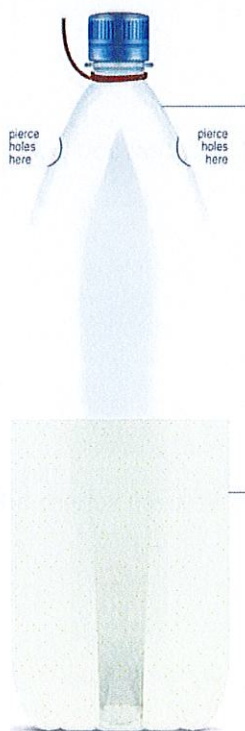
These homemade trap and bait recipes take just minutes to make with items you probably already have at home.

The liquid in home-made traps attracts flies into the trap and when the fly can't escape they drop into the liquid and drown.

The liquid will need replacing every 1-2 weeks, especially in hot weather, so it doesn't go off and attract ants. Place at least one trap per tree.

Make the trap

- Start with a plastic bottle (soft drink or similar) with lid.
- Cut two - three holes in the bottle about the size of a 5 cent piece, 10cm from the top.
 - The holes need to be big enough for fruit flies to get in.
 - The reason it's not at the top is because if the fly doesn't drown in the bait, it will fly to the top of the bottle to try to escape.
- Add in the bait from one of the recipes over the page.
- Screw on the lid, then tie twine around the bottle's neck and hang from your trees.



At a glance

- Home-made traps are an inexpensive way to try and control QFF in your garden.
- Traps can be made with items you may have around the house.
- Home-made traps are often less toxic than commercial traps. Many recipes don't contain any chemicals at all with others only having a small amount of cloudy ammonia.
- Use 1-2 traps in and around each tree and replace the baits at least every 1-2 weeks, or if they become full of flies, or the liquid evaporates too quickly.

FURTHER INFORMATION

www.pestfreearea.com.au

P: 03 5022 0327



Orange Juice bait

- One cup fruit juice (with pulp)
- One tablespoon of cloudy ammonia or wheelie bin cleaner (available from supermarkets and hardware stores)
- One drop of dish-washing detergent.



Refill the old traps in a well-ventilated space such as outside and on a solid surface. Credit: GS PFA

Yeast and juice brew

- One litre of long-life fruit juice
 - One litre of water
 - Two tablespoons of sugar
 - Two teaspoons of dry yeast
 - One drop of dish-washing detergent.
- (Courtesy Helen Rudd of Mildura)

Vegemite bait

- Mix up a solution of Vegemite and water - half a teaspoon of Vegemite and water
 - Add a drop of dish-washing detergent.
- (Courtesy Gardening Australia)

Vanilla essence bait

- One litre of water
- One teaspoon of vanilla essence
- Half a cup of brown sugar
- One teaspoon of dish-washing detergent
- Two tablespoons of cloudy ammonia (available from supermarkets and hardware stores)
- One drop of dish-washing detergent.

When to check your trap for fruit flies:

Check traps every week during spring, summer and autumn and then fortnightly during winter or if there is a couple of warm days (around 15°C).

Getting the best result from your traps:

- Make it a habit to refill your traps every 1-2 weeks.
- QFF are still active in Winter so don't forget to keep an eye on your traps over winter and refresh as needed.
- Avoid hanging traps in the sun as they will quickly become hot-houses that repel flies.
- Homemade recipes and traps are effective at drowning flies in the same liquid that attracts them. Unfortunately they may also catch other insects as well as Queensland Fruit Fly.



Home-made trap Credit: GS PFA

REFILLING YOUR BIOTRAP TO TACKLE QUEENSLAND FRUIT FLY

Credit: GSPFA

Yellow plastic BioTraps were provided to urban residents across the Greater Sunraysia region to help monitor and trap Queensland Fruit Flies (QFF) between 2016-2018. These traps can be easily refilled and re-used extending their life, saving you money as well as reducing waste.

What you will need:

Old BioTraps

Any BioTrap older than 3 months will no longer attract or kill flies and needs to be refilled (Image 1 and 2). Some old traps become brittle with age, so take care when refilling, to avoid splitting or cracking the plastic, as the flies may be able to escape before being killed.

BioTrap Gel and Insecticide cubes.

You will need a bottle of gel and insecticide cubes. These can be purchased from numerous local supplier - a list of stockists is available at www.pestfreearea.com.au

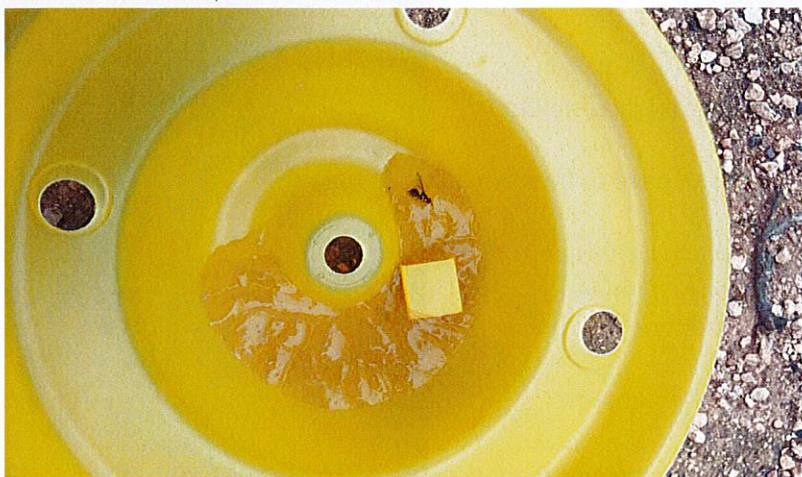


Image 1: The insecticide cube will kill the fly that enters the trap. Without the cube you will just be feeding flies Credit: GSPFA

At a glance

- If you have old yellow plastic BioTraps they can be re-used and refilled.
- Refilling traps every three months ensures they continue to attract and kill fruit flies all year round.
- Traps are only one tool to use in the fight against Queensland Fruit Fly and should be used in conjunction with other measures such as bait sprays, insect nets and good hygiene for best results.
- A short video is also available demonstrating how to refill your BioTraps. www.pestfreearea.com.au

FURTHER INFORMATION

www.pestfreearea.com.au

P: 03 5022 0327



Credit: GSPFA

How to refill a BioTrap:

1. Open the trap by carefully easing the clear plastic lid off the yellow base.
2. Clean out the trap if possible. However, it is alright if the dried gel remains in the trap, this won't reduce its effectiveness. Old gel can be softened by soaking in water for 5 - 10 minutes.
3. Carefully pour 50-60mls of BioTrap attractant gel into the trap. The gel is mostly protein, combined with a food-grade gum and a very small amount of ammonium hydroxide to stop fungal growth. It has been formulated specially to attract hungry QFF.
4. Add 1 yellow insecticide cube to the trap. This step is important as the cube has the chemical that kills the fly. Without the cube you are just feeding flies.
5. Carefully re-attach the lid of the BioTrap and hang the trap in a shady tree.
6. Wash your hands thoroughly and store any unused gel or cubes in an airtight container, in a cool, dry place, that is well-ventilated and out of the reach of children and pets.

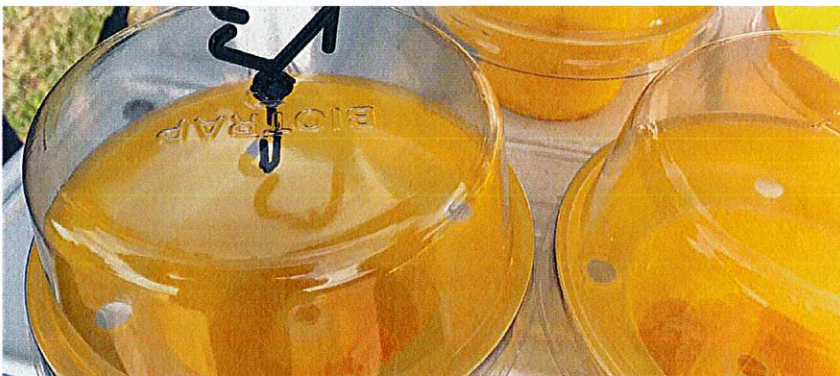


Image 2: Refill the old traps in a well-ventilated space such as outside and on a solid surface. Credit: GS PFA

Where to hang your trap:

The traps should be hung in trees where the flies are most likely to be. This increases the chances of the fly entering the trap. Traps should be hung:

- inside the canopy of a shady tree. The tree doesn't have to be a fruit tree;
- on the side of the tree that gets the morning sun and afternoon shade – eastern side. Traps in the shade will also last longer;
- at least 1.5m from the ground. This also keeps it out of reach of animals and small children.
- one trap every 15 metres is recommended for home gardens.

When to check your trap for fruit flies:

Check traps every week during spring, summer and autumn and then fortnightly during winter or if there is a couple of warm days (around 15°C).

Getting the best result from your traps:

- Make it a habit to refill your traps throughout the year so they are always working. The start of a new season could be a useful reminder.
- When checking your traps weekly, if you are catching blowflies it may mean the protein has gone off and needs to be changed.
- When refilling traps make sure there is no gel on the outside of the trap as this will prevent flies from entering the trap and being killed.
- The traps only attract flies from 10 to 15 metres so the best result will be achieved if they are hung near to where the flies are likely to be (see "where to hang your trap" below).
- Avoid hanging traps in the sun as they will quickly become hot-houses that repel flies.
- Homemade recipes and traps are effective at drowning flies in the same liquid that attracts them. The same recipes do not work as well with the yellow plastic BioTrap as the hole in the base limits the amount of liquid that can be used so it dries up too quickly to be effective.