

Queensland Fruit Fly (QFF) and the home gardener

Plant Biosecurity Orange

There are over 250 species of fruit fly in the family Tephritidae which occur in Australia but only about ten are pests.

The fruit fly most likely to affect home gardeners and commercial growers in New South Wales is Queensland fruit fly (QFF) (*Bactrocera tryoni*).

Introduction

Queensland fruit fly (QFF) (Figure 1) is native to eastern Queensland and north-eastern New South Wales. The availability of suitable hosts and habitat in urban and horticultural production areas in Queensland, New South Wales, Victoria and the Northern Territory has allowed QFF to expand its natural range.

Why is QFF a problem?

QFF is a problem pest to home gardeners and fruit and vegetable growers. QFF attack and damage many fruit and vegetables.

Hosts include summer ripening fruit such as stone fruit, strawberries and apples and vegetables such as tomatoes and capsicums. Fruiting ornamentals such as flowering prunus and Manchurian pear and fruiting native plants such as lilly pilly are hosts.

If uncontrolled, fruit flies can damage up to 100% of some fruit crops.

What damage does QFF cause?

Adult female fruit flies lay their eggs in the flesh of ripening and ripe fruit. Once the eggs hatch, the larvae (maggots) begin to feed inside the fruit causing it to ripen prematurely. The skin of the fruit might look intact or show sting marks but under the skin the flesh becomes soft, mushy and brown with wriggling white maggots present.



Figure 1 Queensland fruit fly adult (7 mm)

What are your responsibilities?

Home gardeners and horticulture businesses benefit from a community approach to controlling QFF and restricting their spread.

If you grow fruit and vegetables in your home garden that QFF might attack, you are responsible for controlling the pest.

For information on QFF control strategies for the home gardener see Primefact 1188.

How do fruit flies affect horticultural businesses?

Fruit fly outbreaks:

- Cost money through lost income and in treatment and management programs
- Exclude fresh produce from interstate and overseas markets
- Increase food prices
- May limit production and the availability of some foods

How do fruit flies affect you

Before starting your fruit fly control, spend some time thinking about fruit fly, your situation and your garden:

- Are you prepared to control fruit fly on an ongoing basis?
- Are you willing and physically able to undertake particular control methods?
- Do you live in an area prone to fruit fly attack and want to control the pest, or do you want to prevent fruit flies from gaining a foothold in your garden?
- What fruit and vegetables in your garden are prone to fruit fly attack?
- Do you prefer to use low impact methods rather than chemical methods?
- Do you grow large quantities of crops or small amounts?
- Can you tolerate some fruit fly damage to your fruit and vegetables?
- Do you need to grow plants that are fruit fly hosts or could you replace some with non-host plants?
- Do you own or rent your garden?

What can you do?

Unfortunately there is no simple way to eliminate QFF. Instead, you will need to put in place a combination of methods to effectively control the pest. One important component in every control program is sanitation.

Sanitation means ensuring your garden hygiene practices such as picking up and destroying fallen fruit break the fruit fly life cycle and prevents fruit fly numbers increasing.

If you are unable or unwilling to control fruit fly, consider removing fruit and vegetable host plants and replacing them with alternative plants such as non-host vegetables and non-fruiting ornamentals.

When do you start?

Plant your control strategy and implement it. Action must be taken at the beginning of the QFF season (spring) to prevent fruit fly damage.

Your control strategy has to be ongoing. Because infestation could occur at any time in spring, summer or autumn. The methods you use may change as the growing season progresses.

Check your progress

Once you have chosen and implemented a fruit fly control strategy, evaluate its effectiveness over spring and summer and at the end of the growing season (autumn).

Consider the effectiveness of your strategy based on the following questions:

- Has there been a clear reduction in fruit fly numbers or crop damage?
- Did the control methods in your strategy suit your circumstances?

If you found that the strategy you used was not as effective as you would have liked, consider other changes you could make to better suit your situation.

Further information

Advice for gardeners in Australia 'Fruit fly and the Home Garden' www.preventfruitfly.com.au

Tri-State Fruit Fly Program – Host Check List Queensland Fruit Fly www.pestfreearea.com.au/host-list-of-banned-poduce.html

Department of Primary Industries (2012) NSW Primefact 1186: Queensland Fruit Fly (QFF)

Department of Primary Industries (2012) NSW Primefact 1188: Queensland Fruit Fly (QFF): control strategies for the home gardener

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