

# Fruit fly eradication in the Fruit Fly Exclusion Zone: questions and answers

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### What is the Fruit Fly Exclusion Zone?

Southern NSW is on the ecological edge of the fruit fly's natural range. A trade zone – called the Fruit Fly Exclusion Zone (FFEZ) – has been established to maximise the access to export markets by eliminating fruit flies from that zone, and from nearby areas. The main horticultural production areas of Griffith, Leeton and Hillston are inside the FFEZ.

### Where do fruit flies come from?

The main fruit fly pest in NSW is Queensland fruit fly (QFF). Other lesser-known fruit flies are resident in parts of New South Wales.

The home range of Queensland fruit fly is Queensland and the northern coast of New South Wales. Fruit fly outbreaks in southern NSW are often the result of infested fruit being brought into the southern regions by travellers. Adult flies moving in from the area adjacent to the FFEZ can also result in outbreaks.

### How are fruit flies detected?

- By catching adult flies in a grid of traps maintained by NSW Department of Primary Industries (NSW DPI) in many southern NSW cities and fruit growing areas within the FFEZ.
- By members of the public who find larvae in fruit – either from backyard trees or bought from a shop – and report the finding to NSW DPI.

### Why should I be concerned about fruit fly control in the FFEZ?

There are two reasons to be concerned about fruit flies becoming established in the Fruit Fly Exclusion Zone.

- You will not be able to grow fruit without regular sprays of insecticides – year in, year out.
- New South Wales' valuable commercial fruit industries will lose their 'clean and green' advantage. This will adversely affect trade and consequently rural and regional economies.

### How can I help?

- When travelling, **don't bring fruit past the warning signs**. Spread the word to incoming travellers.
- If you find insect larvae (maggots) in fruit, contact the local office of NSW DPI.
- Allow access to your property to identified NSW DPI staff who are carrying out fruit fly operations.
- Pick up fallen fruit and wrap it in a plastic bag. Leave the bag in the sun for three days to kill any larvae then put it in the garbage bin.
- Advise visitors not to bring fruit when they come to visit – it may be infested.

### What is the Government doing?

The New South Wales government has long had a policy of acting on behalf of the community in:

- preventing the introduction of fruit fly by requiring all commercial shipments of fruit to be free of fruit fly
- controlling fruit carried into the FFEZ by travellers at random roadblocks
- detecting and eradicating any fruit flies which have been introduced into the Zone.

Although fruit fly prevention and eradication is controlled by law (*Plant Diseases Act 1924*), this legislation cannot be fully effective without the cooperation of the travelling public and local residents in and around the Fruit Fly Exclusion Zone. This partnership has been effective in keeping the FFEZ largely free of fruit fly for many years. Major benefits of the program are seen by household fruit and vegetable growers and New



South Wales commercial producers through reduced insecticide use and therefore cost savings.

### **What happens if I am in an outbreak area?**

If fruit fly is confirmed on your property, or near your property:

- An intensive search for fruit fly larvae in fruit will be carried out in surrounding properties to assess the extent of the outbreak. Additional fruit fly traps will be installed in the area to help monitor the situation and determine how long treatment should continue.
- You will be notified by leaflet that you are in an outbreak area.
- Where possible, 24 hours notice will be given by leaflet or local press before commencement of eradication (treatment) operations.

### **Can I take fruit off my property when notified that I am in an outbreak area?**

No. It is most important that you do not move fruit (unless cooked or preserved). If you do, you risk creating another outbreak. You will be notified (by leaflet or local press) of the completion of the program, at which time this restriction will be lifted.

### **What about community consultation?**

When an outbreak is detected, it is necessary to react quickly, in order to prevent the outbreak from spreading – leaving little time for prior consultation. However, every effort will be made to consult affected persons or community groups during operations. The response has been developed over many years of experience and is designed to minimise the impact on affected residents.

### **Who will require access to my property?**

Staff of NSW DPI, who are properly identified and involved in the fruit fly operations, require access to affected properties. *These personnel have no need to undertake any other activity on your property, other than that associated with fruit fly operations.*

### **Who is involved in an outbreak?**

NSW DPI staff coordinate the response to a fruit fly outbreak. An Outbreak Supervisor is responsible for all activities relating to the outbreak, including bait sprays, cover spray and hygiene teams.

Team members all carry an official NSW DPI identification tag. Any employee of NSW DPI will be happy to show their identification on request. If you are in any doubt, ring the nearest office of NSW DPI for confirmation that the persons identified are operating in an official capacity.

If you have any comments to make on any aspect of the operations on your property, please contact the Fruit Fly Control Leader on 6951 2651.

### **How is fruit fly eradicated in my area?**

Following the detection of fruit fly, an outbreak area is defined for treatment, extending for a 1.5 km radius from the point where the infestation or flies are found. Within this area, a zone of 200 m radius from the point where the infestation or flies are found is defined for intensive treatment.

The treatment program involves:

- a bait spraying program
- a cover spray
- a ground spray application
- possible release of sterile fruit flies.

### **What is baiting?**

The bait is a mixture of a yeast/protein extract that attracts fruit flies, and a dilute solution of maldison insecticide, which kills the flies once attracted to the bait. The two ingredients are diluted with water (2 per cent protein solids plus 1 per cent maldison). Maldison has low mammalian toxicity and a short residual life (half-life in air of about 1.5 days).

Fruit flies shelter in shady vegetation such as fruit trees, ornamental trees and shrubs. Bait is applied in 100 mL doses into foliage, at the rate of 100 spots per hectare (6 to 8 spots per residential property). This ensures that a baited spot is within the daily wandering range of each fly within the treatment area.

### **What is a cover spray?**

Bait spraying alone will not be enough to control high populations of QFF. Cover sprays of dimethoate or fenthion kill the fruit flies that seek shelter in the tree canopy and maggots in fruit. Fruit should not be eaten or picked until the withholding period has expired. For best results it is important that satisfactory spray coverage of fruit be achieved.

### **What is ground spraying?**

Ground spraying is used to control fruit fly under trees that are known to be infested. Usually only two applications are necessary. A spray of chlorpyrifos is applied to the ground under infested trees from the trunk to the outer perimeter of the foliage and to any compost heaps in the vicinity. This is to kill any larvae or emerging adults that may be in the soil or compost.

### **How are sterile Queensland fruit flies used?**

Sterile flies may be used to combat outbreaks of Queensland fruit flies. Releases may occur before or after the baiting program. Sterile Queensland fruit flies are released by various methods, depending on the situation. Releases usually occur over a period of up to 10 weeks.

Any wild female fruit flies in the area have a high probability of mating with sterile male flies, which prevents them from laying fertile eggs.

### **Can sterile fruit flies harm me or my garden fruit?**

Fruit flies do not have biting mouthparts – they cannot bite children, pets or fruit. They are attracted to water and moisture, including perspiration, when they are thirsty. They may land on people and drink moisture, but they cannot bite. They may also land on wet washing on clothes lines.

### **When can I eat my fruit?**

In the eradication program, where an infestation is found, the ground under the tree will be treated with an insecticide (chlorpyrifos) to kill any fruit fly that has dropped to the ground to pupate. It would not be safe to eat any fallen fruit. The treatment will be carried out by trained NSW DPI staff under a permit issued by the Australian Pesticides and Veterinary Medicines Authority (APVMA).

If your fruit has been infested with fruit fly larvae, then the trees will be sprayed with dimethoate or fenthion (the cover spray), and you will be notified by leaflet of the date of spraying. You should not eat this fruit until after 7 days from the date of spraying (this is known as the withholding period). After this period, you may eat the fruit from your property, after washing it. Remember that you may not move fruit off your property until you are advised by leaflet that the eradication program has been completed.

The main part of the program is the use of bait application. These sprays are directed at foliage and not at fruit. Unsprayed fruit may be eaten. On rare occasions, some bait application may contact fruit and this fruit should not be eaten. (Sprayed fruit will be obvious from the brown stain left by the solution.)

### **What about fruit on the ground?**

Fallen fruit under trees should be picked up, put in plastic bags and left in the sun for at least three days. This will kill the larvae. The bag should then be put in the garbage bin.

### **How toxic are the insecticides used in fruit fly eradication?**

Maldison, fenthion and dimethoate are organophosphate insecticides, which are regularly used in fruit fly control in most parts of Australia and the rest of the world where fruit flies are established. In some circumstances, the ground may be sprayed with chlorpyrifos, another organophosphate insecticide.

The World Health Organisation (WHO) classifies maldison as slightly hazardous, and fenthion, dimethoate and chlorpyrifos as moderately hazardous. The use patterns are approved by the APVMA for use in fruit fly control, and as such are safe to humans when applied according to directions, and when the withholding period is observed.

### **What if I am an organic grower?**

Special arrangements may be negotiated for small areas of organically grown fruit; however, you should contact NSW DPI as soon as possible. Some treatment must be used but it will not affect your organic status.

Remember that it is only possible to grow organic fruit because your neighbours cooperate in fruit fly eradication.

### **What is the government doing about reducing insecticide use in fruit fly eradication?**

- NSW DPI has continually refined eradication procedures over the past 50 years.
- Insecticide use is already very low, because rapid detection means small treatment areas. The use of bait sprays reduces costs and usage of insecticides, and minimises disturbance to householders. Also, the use of sterile flies to treat Queensland fruit fly outbreaks reduces the need for insecticide use.

### **When is quarantine lifted and eradication completed?**

As previously stated, you will be notified of the completion of the eradication program and subsequent lifting of quarantine restrictions, by a leaflet in your letterbox or through the local press.

### **Where can I get further information?**

Contact 1800 001 490

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