# Information Sheet

## Qfly

### What is Biosecurity?

Biosecurity means protecting the economy, environment and the community from the negative impacts of pests, disease, weeds and contaminants.

Biosecurity practices include:

* disinfecting
* signage
* maintaining boundary fences
* checking for strays
* restricting visitor and vehicle movements
* ensuring all machinery brought onto the property is cleaned
* good husbandry
* ensuring purchases are from reliable sources
* inspecting the flock or herd regularly
* quarantining new stock

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### Where do pests and diseases come from?

Western Australia (WA) has very few pests and diseases of note. However, with every import of goods (fruit, vegetables, wooden items, car, fabric) and with every tourist holiday, pests and diseases can catch a ride. Some from interstate, others from overseas.

### How do we prevent the establishment of pests and diseases in this country?

**Legislation**

Federal

[Biosecurity Act 2015](https://www.legislation.gov.au/Details/C2017C00303)This Act is about managing diseases and pests that may cause harm to human, animal or plant health or the environment.

State  
[Intergovernmental Agreement on Biosecurity | Council of Australian Governments (coag.gov.au)](https://www.coag.gov.au/about-coag/agreements/intergovernmental-agreement-biosecurity#:~:text=%20An%20Agreement%20between%20the%20Commonwealth%20of%20Australia%2C,minimise%20the%20impact%20of%20pests%20and...%20More%20)  
[Biosecurity and Agriculture Management Act 2007 - [02-c0-01].pdf (legislation.wa.gov.au)](https://www.legislation.wa.gov.au/legislation/prod/filestore.nsf/FileURL/mrdoc_41976.pdf/$FILE/Biosecurity%20and%20Agriculture%20Management%20Act%202007%20-%20%5B02-c0-01%5D.pdf?OpenElement)

**Quarantine**

Fumigation or destroying materials brought into WA.

**People involved**

* The Plant Pathologists
* Entomologists
* Quarantine Officers
* Fumigators
* Communicators
* Geographic Information Systems Officers
* Microbiologists

# Case study

# Queensland Fruit Fly Biosecurity Dalkeith Incident

According to the Department of Primary Industry and Regional Development (DPIRD). the Queensland fruit fly (Qfly or *Bactrocera tryoni*) is considered to be one of the most serious pests of fruit and vegetables in Australia. It is declared a pest in WA and needs to be eradicated if found.

For more information: [Queensland fruit fly](https://agric.wa.gov.au/n/4182)

### The Dalkeith Incident

Trigger

Permanent Qfly traps are located around the Perth region and on 26 February 2020 two single male Qfly were trapped in the Dalkeith area. Supplementary traps were installed and monitored in the area. On 23 March 2020, DPIRD detected five adult male Qfly within 1 km and 14 days of each other in the supplementary traps.

Response

A Quarantine Area Notice (QAN) was declared on 3 April 2020. As prescribed in the legislation, landowners in the QAN must not remove fruit from the QAN unless it is treated AND they must manage plants or trees by picking ripe fruit and removing fallen fruit every three days. They must EAT or TREAT (eat, cook, freeze or solarise) the removed fruit.

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| To solarise fruit, it is placed in a sealed heavy-duty black plastic bag and placed in direct sunlight, on a hard surface, for a minimum of seven days. |

Significant resources were allocated to the incident to eradicate Qfly from WA. Some of the activities included:

* Installation and monitoring of traps
* Scheduling and attending private property inspections
* Baiting properties and street trees
* Communication information to stakeholders in the QA.
* Introducing sterile insect technology.

There were three phases in this response:

1. The initial preparation, detection, delimitation and analysis phase lasting from March to August 2020.
2. The Spring Baiting Program lasted from September to 8 December 2020 and aimed to double bait all premises within the QA for two weeks before single baiting all premises in the QA each week.
3. The Summer program lasted from 14 December 2020 to 29 January 2021 and aimed to release 3000 sterile insect technique Qfly per hectare per week and to continue to encourage residents within the QA to manage their Qfly host plants to prevent any breeding of Qfly.

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| How the coronavirus pandemic affected efforts to control the Qfly The response was carried out during the worldwide coronavirus pandemic.  From 23 March 2020, the National Cabinet banned non-essential activities and gatherings, and from 31 March, gatherings of more than two were banned, with people encouraged to stay home.  Due to the coronavirus, at the start of the response the State did not use door knocking to engage premise owners in the Outbreak Zone (OZ). An on-line registration system was set up for use by premise owners that had poor uptake (less than 2% of the households in the target area).  Guidelines were developed to enable staff to door knock and engage with residents.  The coronavirus delayed completion of the initial preparation, detection and analysis phase because the IMT were not able to use door knocking to contact premise owners in the OZ.  This delay in being able to implement the treatments described in the National Fruit Fly Code of Practice had an impact on the size and duration of the outbreak. It is estimated that for every week of delay in responding with a comprehensive treatment results in a month being added to the response. |

Summary of incident:

* Since March 2020, there were 340 adult Qfly and eight infested premises detected in Perth’s Western Suburbs
* An incident was declared on 23 March 2020
* A QA was established on 3 April and the area expanded on 10 July 2020
* The initial quarantine area of 1130 hectares was later expanded to 2053 hectares due to more detections
* 13 500 properties were in the QA
* At least 250 000 host plants were in the QA
* Response staff carried out 160 000 property inspections
* Up to 350 people were employed by the response at any one time
* More than 150 vehicles were used in the response
* 13 527 kg of lemons were collected for disposal
* 2595 kg of cumquat were collected for disposal
* 1527 kg of oranges were collected for disposal
* 19.7 million flight ready sterile Qfly were released to wipe out any remaining wild Qfly

Result

Qfly were found in the Coolbellup area in January 2021 and a subsequent QAN was activated and in place until 24 May 2021.

On 21 May 2021, WA was declared free of Qfly after a 15 month-campaign to eradicate the pest.

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| See also: PPT Infographic 4: Future Food Security provided in teacher resources. |

## Acknowledgement **References**

Australian Government (2017) ‘Biosecurity Act 2015’ *Federal Register of Legislation* available at <<https://www.legislation.gov.au/Details/C2017C00303>> accessed on 10 August 2021

Council of Australian Governments (13 January 2012) ‘Intergovernmental Agreement on Biosecurity’ available at <<https://www.coag.gov.au/about-coag/agreements/intergovernmental-agreement-biosecurity#:~:text=%20An%20Agreement%20between%20the%20Commonwealth%20of%20Australia%2C,minimise%20the%20impact%20of%20pests%20and...%20More%20>> accessed on 10 August 2021

Department of Primary Industries and Regional Development (21 May 2021) ‘Queensland fruit fly’ available at <<https://www.agric.wa.gov.au/plant-biosecurity/queensland-fruit-fly>> accessed on 10 August 2021

Western Australian Government (13 June 2019) ‘Biosecurity and Agriculture Management Act 2007’ available at <<https://www.legislation.wa.gov.au/legislation/prod/filestore.nsf/FileURL/mrdoc_41976.pdf/$FILE/Biosecurity%20and%20Agriculture%20Management%20Act%202007%20-%20%5B02-c0-01%5D.pdf?OpenElement>> [PDF 803 Kb] accessed on 10 August 2021