

Fruit Fly management without Dimethoate

Jane Richter, Communications Manager, Berries Australia

Dimethoate (O,O-dimethyl S-methylcarbamoymethyl phosphorodithioate) is a broad use, systemic organophosphorus insecticide and acaricide that has been used in both agricultural and home garden situations. Dimethoate products have been used since 1956 and products were first registered under previous state and territory-based registration schemes.

Along with other pesticides of this class, the mode of action is through inhibition of the enzyme acetylcholinesterase. This inhibition results in the over-stimulation of those parts of the nervous system that use acetylcholine to transmit nerve impulses.

The APVMA began its reconsideration of dimethoate together with that of the related chemical, omethoate in 2004. At the commencement of this reconsideration, dimethoate products were registered for more than 200 use patterns and to control more than 80 insect pest species in horticultural, cereal and field crops and pastures.

Dimethoate is currently registered **on label** to control Queensland fruit fly in blueberries. It is also registered **on permit** for general orchard clean-up purposes (for all fruit fly host crops) under the Minor Use Permit PER13859 Version 3 valid until 30 June 2025.



Queensland Fruit Fly captured in Brisbane Queensland

Photo credit: James Niland

This permit was updated recently by the APVMA and includes some subtle changes:

- Inclusion of the phrase “PLUS OTHER REGISTERED PRODUCTS” containing 400g/L DIMETHOATE as the only other active constituent on the products covered by the permit
- The Withholding Period, Safety Directions, Re-Entry and Additional Conditions have been updated

There is high probability that the APVMA will not renew this permit again for the following reasons:

1. The APVMA do not believe that these claims fit under a minor use permit as the permit covers a broad range of crops, many of which are **not classified as minor crops**
2. The APVMA note that the extremely broad host and pest range suggests that use could **exceed 10,000 hectares nationally**, thereby excluding this use under a minor use permit
3. The **Dimethoate chemical review outcomes are now known** and many of these crops will no longer fit under this permit

We understand that many blueberry growers have relied on the use of Dimethoate up to this point, but with the likely withdrawal of this chemical option, it is important to understand what other resources are available to help you to make changes to your fruit fly management plans.

Here is a summary of some of the key resources currently available for berry growers at the online **RESOURCE LIBRARY** on our industry website at berries.net.au/resource-library

To find all resources available, enter 'fruit fly' in the Search box

Control methods for Fruit Fly – Blueberries

To assist the Blueberry industry and increase the general understanding of fruit fly management, the National Fruit Fly Council (NFFC) has developed a primer which provides an overview on fruit fly management techniques and covers key pest species, general life cycle information, monitoring, key sources of infestation, currently available chemical controls, lure and kill techniques as well as briefly covering other tools and future emerging opportunities for fruit fly control.

Queensland fruit fly surveillance

In this article from the Spring 2021 edition of this journal, Bronwyn Koll provides a very useful summary table which explains the different types of traps that are available to monitor for QFly.

ABC guide to managing Qld Fruit Fly

This 3-step guide to managing Qld fruit fly was originally produced by NSW DPI and IPDM supplier Bugs for Bugs

Habitat hosts of Queensland fruit fly

Fruiting plants growing in non-production areas and property perimeters are ideal hosts for Queensland Fruit Fly (QFF). In this article by Bronwyn Koll published in the Summer 2023 edition of this journal encourages Berry growers to remove or manage these key risk areas to improve their overall QFF management and prevention outcomes.

FACTSHEET: Fruit Fly Control

Berries Australia has recently published a Factsheet for berry growers summarising the recommended 4 strategy IPM approach of maintain good hygiene, monitor populations, bait females and annihilate males.

Australian Handbook for the identification of fruit flies (Version 3.1)

Published in 2018, the handbook is a compilation of diagnostic information for 65 fruit fly species and is intended to facilitate rapid diagnosis of fruit fly species and be a comprehensive guide for Australian diagnosticians and field officers

Reducing reliance on chemical control of fruit fly in blueberries: A Case Study from Smart Berries, Crows Nest, Queensland

This article from the Autumn 2024 edition of this journal by Qld IDO Wendy Morris highlights the actions taken by a Queensland blueberry producer to reduce their reliance on chemicals for fruit fly management

Area wide pest management – an essential approach to fruit fly management

This article by Bronwyn Koll from the Autumn 2023 edition of this journal explains area wide pest management (AWM) as an essential approach to fruit fly management.

Managing Queensland Fruit Fly in Berries

An article by Melinda Simpson published in the Summer 2019 edition of this journal and covering identification, monitoring and management options.