

Airborne releases of Sterile Fruit Flies for Cobram

Queensland fruit fly (Qfly) populations in and around Cobram will be disrupted by the release of sterile Queensland fruit flies as part of a national Hort Innovation project.

Approximately 2 million sterile Qfly per week will be released over about 16 square kilometres by a specialised small plane passing over Cobram in the next few months.

The Hort Innovation project 'FF17000- Post Factory Pilot of SITplus fly production' is led by Macquarie University in collaboration with SARDI, Agriculture Victoria, NSW DPI, and Plant and Food Research.

Sterile Insect Technique (SIT) is a method of pest control using the area-wide release of sterile insects to reduce reproduction in a wild-population of the same species. The release of sterile flies over Cobram aims to suppress an urban population to prevent it moving out into the surrounding horticulture.

Cobram was selected as a release site due to its existing intensive trapping grid, the proximity of horticulture to the town, and support for the project from growers, Moira Shire Council and the Goulburn Murray Valley (GMV) Regional Fruit Fly Project.

Goulburn Murray Valley Regional Fruit Fly Coordinator Ross Abberfield said SITplus complimented the coordinated approach to the Area Wide Management of the pest undertaken as part of the GMV Regional Fruit Fly Project.

The release of the sterile flies is part of a multi-pronged strategy that includes surveillance trapping, baiting, removal of unwanted or unmanaged host trees, and an extensive community awareness and education campaign.

"The release of sterile flies over Cobram as part of SITplus is an innovative advancement in how we control and prevent the spread of wild Qfly populations," Mr Abberfield said.

The sterile flies are grown to the pupal stage in Port Augusta, then sterilised at Netley before being shipped to special rear-out facilities in NSW and Victoria where the sterile adult flies emerge from the pupal case and are 'conditioned' ready for release. The Victorian rear-out facility is at Tatura.

The first sterile pupae are due to arrive in Tatura on 13 March and the first release of sterile flies over Cobram is planned for 20 March provided weather conditions are suitable. The plane releasing sterile flies will make a limited number of passes over the Cobram urban area in a single flight, once a week during March through until approximately the end of May.

Sterile flies will be colour-coded by presence of a special dye visible under ultraviolet light, to distinguish them from wild flies in traps.

Additional traps will be installed around the drop zone to study the dispersal of the sterile flies and help scientists more accurately estimate the size of the wild fruit fly population. This is important for future releases of sterile flies because the ratio of sterile flies to wild flies needs to be high enough to successfully compete with, and disrupt the breeding of, wild flies.

The SIT method was employed to combat the impacts of Qfly on Australian horticulture through the creation of the SITPlus™ partnership in late 2014. Since then, thanks to a major investment of money and time by a wide range of partners, this national, long-term strategic research and development partnership has achieved great success in building foundations crucial for future commercial application of the integrated pest management solution.

A wealth of knowledge has been both drawn on and developed, resulting in the successful development of a SIT factory in South Australia. The factory can now quickly produce large quantities of sterile flies. As a result, SITPlus™ has moved into a commercial pilot phase in 2019.

Further releases will commence in Cobram next spring as wild flies become more active.

SITplus is one aspect of fruit fly control and prevention and the community, growers, industry and government agencies are reminded to remain vigilant in undertaking steps and actions to help reduce the spread of Qfly.