



DELIVERING A SOLUTION FOR QUEENSLAND FRUIT FLY

WHAT ARE THE BENEFITS TO THE HORTICULTURAL SECTOR?

SIT is a potential game changer for Australia's horticultural industries, offering a new, environmentally friendly, sustainable and cost-effective approach to Qfly management. By using the technique, Australian growers can:

- Reduce their use of pesticides
- Expand their production of high quality crops that are free of Qfly infestation
- Benefit from increased market access opportunities.

Using SIT to combat Qfly also gives greater protection to the honey bee industry through reduced chemical impacts and increased pollination rates.

CONTACT US

For more information about SITplus, contact Horticulture Innovation Australia on 02 8295 2300 or email contact@horticulture.com.au.





SITplus is a five-year \$45 million research and development partnership that aims to deliver an integrated pest management solution to the major horticultural pest Queensland fruit fly (Qfly). Through a strategic, coordinated and national approach using cutting edge Sterile Insect Technique (SIT), the partnership is set to transform the way Qfly is managed in Australia.

THE SITplus PARTNERSHIP IS SET TO TRANSFORM THE WAY QFLY IS MANAGED IN AUSTRALIA

STRATEGIC PARTNERS

Primary Industries and Regions South Australia (PIRSA)
 South Australian Research and Development Institute
 Horticulture Innovation Australia Limited (Hort Innovation)
 CSIRO Biosecurity Flagship
 Plant & Food Research Australia
 New South Wales Department of Primary Industries
 Department of Economic Development, Jobs, Transport
 and Resources (Agriculture Victoria)
 Macquarie University



WHAT IS QFLY?

Qfly is an endemic pest in the Australian horticultural sector, affecting the quality of the fruit and vegetables we eat and costing the sector \$300 million in lost markets.

Sustainable management of Qfly is vital to Australia's \$6.9 billion horticultural sector, which relies on domestic and international trade.

Qfly can impact horticultural production in Australia in two ways – by damaging produce in the field leading to yield losses and by affecting the health status of the crops for international markets.

HOW DOES SIT WORK?

SIT involves the strategic release of large numbers of male fruit flies that have been sterilised. The sterile male flies are strategically released to greatly outnumber the wild male population and as a result limit the opportunity for wild females to mate with wild males. The outcome of this disruption to mating is the suppression of subsequent generations of the wild flies. SIT can be effective in dealing with incursions of Qfly, for protecting the status of pest free areas and for suppression in Qfly endemic areas where integrated pest management has been successful.

The 'plus' in SITplus emphasises the aim of the partnership to be about more than just breeding of sterile insects – it's about innovative science to produce male only flies for release, thus greatly reducing production cost, and providing a framework of integrated ecological and behavioural science which can maximise the impact



LANDMARK SIT FACILITY

Underpinning the partnership is a A\$3.8 million investment by PIRSA and Hort Innovation, to build a facility in Port Augusta, South Australia where sterile Qfly will be bred to produce the sterile, male fruit flies. The SIT facility will have the capacity to produce 50 million sterile male Qfly each week.

of sterile flies when deployed in Australia, and New Zealand (if required). Including New Zealand in this partnership is part of a proactive strategy to ensure the country remains Qfly free.

SIT has already been used with great success around the world to combat a range of fruit fly species. This will be the first time that male only Qfly have been used in SIT.