

Maintaining Tasmania's freedom from fruit fly

A strategy for the future

2022-2027*



Tasmanian horticulture relies heavily on the state's fruit fly pest free area (FF-PFA) status for Queensland fruit fly (*Bactrocera tryoni*) and Mediterranean fruit fly (*Ceratitis capitata*) for access to international markets.

Our freedom from these pests underwrites access by Tasmanian growers to premium markets that value Tasmania's clean-green brand attributes; a key principle of Tasmania's Agri-Food Plan.

Export of fruit fly host commodities for the 2019-20 season totalled approximately \$40 million. Much of this value was generated by exports to key fruit fly sensitive markets in Asia. Tasmania has a very strong system for managing the risk that Queensland fruit fly (Qfly) and Mediterranean fruit fly (Medfly) pose to our horticultural industries. We must ensure that these arrangements remain robust and effective for the foreseeable future.

The current technically sound biosecurity arrangements for mitigating risks of fruit fly entry into Tasmania are working. Except for a 2018 incursion, Tasmania has for several decades maintained its international status as an area free of Qfly and Medfly.

The arrangements stretch across the biosecurity continuum: pre-border, border and post-border:

- Pre-border activities include clearance checks of vehicles and goods in Melbourne. Checks for fruit fly host produce are completed at the time of embarkation on the TT-Line ferries. Biosecurity Tasmania stays alert to the pests' spread on the mainland and has tough requirements on imports that are

appropriate to the level of risk. All fruit fly host material must be free of fruit fly *before* it is shipped to Tasmania. High-risk fruit fly produce is checked by a specialist team in Victoria.

- At the border Biosecurity Tasmania maintains a strong presence of uniformed officers and detector dog teams checking passenger arrivals at ports and airports and aiming for 100% inspection of air passenger arrivals. Behind the scenes, officers with dogs and scanners check incoming parcels across a range of entry points. Surveillance is also completed in commercial food distribution centres. Biosecurity Tasmania's presence has been boosted in recent years by the Securing Our Borders program, sampling thousands of consignments destined for supermarket shelves.
- Post-border, across Tasmania a network of about 1100 fruit fly traps with attractant lures are managed by Biosecurity Tasmania. The traps are strictly monitored to detect any incursion of the pests at the earliest opportunity and to continually demonstrate Tasmania's freedom from fruit fly. Biosecurity Tasmania also undertakes a seasonal communications campaign to encourage community members and industry stakeholders to report any suspect signs of fruit fly.

**This is a revision and update of Maintaining Tasmania's Freedom from Fruit Fly – A Strategy for the Future 2017-2050. The Strategy revision follows a five yearly review of the original document.*

Biosecurity Tasmania will continue to maintain and enhance these protection arrangements across the biosecurity continuum.

Whilst the Tasmanian Government implements all these measures and more to protect against Qfly and Medfly, the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) is responsible for negotiation and maintenance of our Fruit Fly-Pest Free Area status with trading partners.

The risk of entry, establishment and spread of Qfly and Medfly has been assessed as very low. However, should this occur, the estimated economic consequences would be high.

It is also important to recognise that Tasmania's risk profile is changing. These risks include increased volume of imported fruit fly host produce and movement of people and vehicles into the State, as well as projected changes to climate. This rolling five-year strategy provides an overarching timeframe to assess risk areas and improvement opportunities in Tasmania's fruit fly management. It is prudent to implement a strategy to ensure that we maintain Fruit Fly-Pest Free Area status and that Tasmanian fruit continues to have the recognized premium brand value sought by our export markets into the future. Our pre-border, border, and post-border activities are continually reviewed and adjusted accordingly based on observations and data collected throughout each season. Also, we will conduct five-yearly tactical reviews and validations of the strategy. This iterative process will provide effective horizons for forward risk prediction, analysis and mitigation measures.

Stakeholder Involvement

It is recognised that continued system development should be informed by stakeholders who have a direct interest in managing Tasmania's fruit fly risk. It is vital that those who benefit from or manage fruit fly-free horticulture are consulted regularly and involved in the continuous development of our fruit fly systems.

Biosecurity Tasmania will continue to directly engage with stakeholders on current conditions, proposed management, and regulatory updates.

Climate risks and opportunities

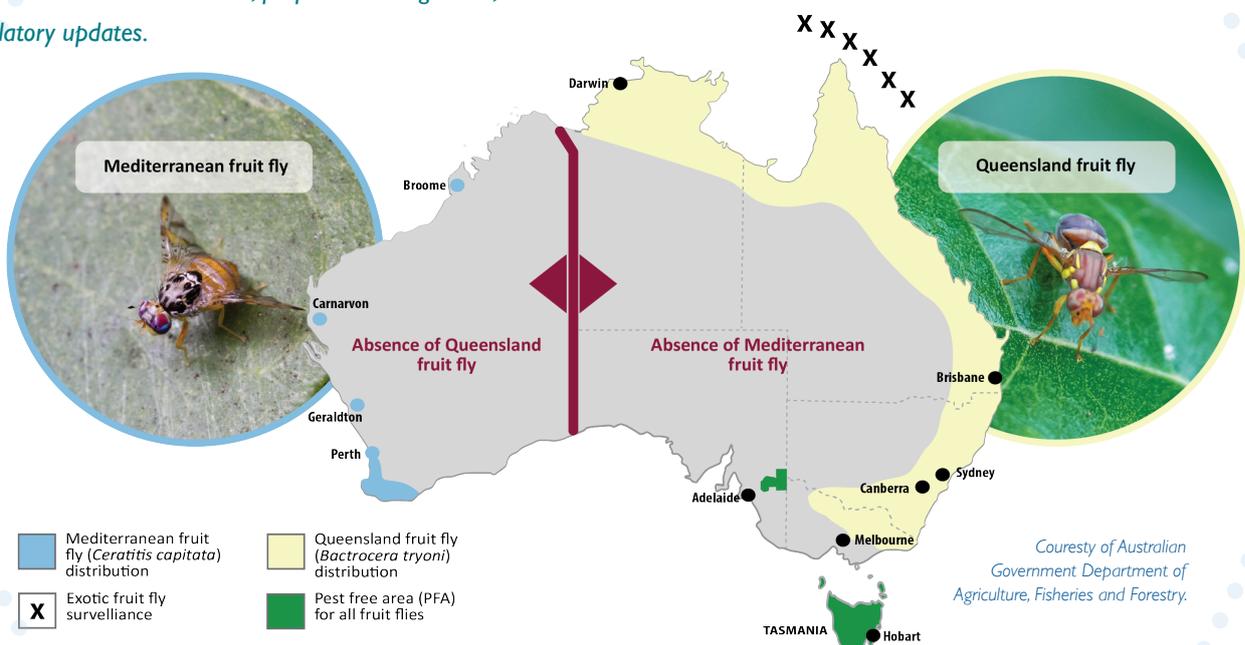
Though Australia is confronted with a changing climate, Tasmania's fruit industry is in a key position to benefit from being a leader in climate-resilient horticulture.

Tasmania is uniquely placed within the export market due to our temperate climate: a cold winter followed by a long mild growing season. A cooler climate reduces the likelihood of many pests establishing. Survival of fruit flies is based on temperature, moisture, and suitable and timely host fruit availability. Temperature is the variable of most significance for Tasmania.

Modelling suggests that Tasmania's temperature increase will be slower than that of mainland Australia. A strong biosecurity management plan coupled with a climate that will not be as affected by the onset of climate warming puts Tasmania in a position to be a leader in climate-resilient horticultural practices.

Based on Tasmania's current climate, there are no areas in the State where Qfly could permanently establish. Medfly could potentially establish on Flinders Island. However, even a transient occurrence from a border incursion could still cause severe damage to production, reputation, and trade. Unfortunately, if climate trends continue, conditions for permanent establishment of Qfly and Medfly on the Tasmanian mainland are likely to be seen from the 2040s onward.

Independent modelling of fruit fly risk under various warming scenarios has been completed and will be published. Further studies on both Qfly and Medfly are currently being undertaken by the Queensland Department of Agriculture and Fisheries.



Alternative Treatment to Existing Fumigation Treatments

Where entry based on area freedoms is not available for interstate produce, methyl bromide fumigation is the predominant method of treatment of fruit fly host material imported into Tasmania. It is used to treat about two-thirds of all such inbound consignments. Eventual global phasing out of methyl bromide is called for under the Montreal Protocol on Substances that Deplete the Ozone Layer. This requires that we identify and investigate a range of alternative methods of treatment, including irradiation. Phytosanitary irradiation is a leading alternative to post-harvest chemical treatment, hot and/or cold disinfestation and fumigation.

Biosecurity Tasmania is confident in the suitability of alternative treatments to methyl bromide fumigation. We fully support industry in the uptake of alternative treatments such as irradiation.

Pest Free Properties and Places

All of Tasmania is a pest free area for Qfly and Medfly. An emerging approach in some mainland growing areas where fruit fly exists, involves pest-free places of production (PFPP) and pest free production sites (PFPS). PFPP and PFPS strategies include growing product in regions locally-free of the pests or in structures proofed against target species: e.g. protected environments such as greenhouses with double doors, air curtains etc. The benefit for Tasmania with acceptance and recognition of such an approach is that in the event of a State incursion, opportunities to continue exports based on such freedoms may be available.

Biosecurity Tasmania will assess the implications of PFPP and PFPS for Tasmanian import requirements. Benefits to entry risk management and maintenance of export trade in Tasmania in the event of an incursion will be considered as part of this.

A Winter Window?

Temperatures in Tasmania for the five coldest months of the year currently prevent the completion of the Qfly life cycle, whereby larvae are unable to develop to sexually mature adults, mate and lay eggs in fruit. This is an opportunity for a 'winter window' period to be negotiated with trading partners. Under a winter window arrangement, Qfly host produce could be imported without treatment, on the basis that any larvae in imported fruit could not lead to eggs being laid in locally grown fruit. This would reduce costs to industry and the community. The lower temperature thresholds for critical growth periods for Medfly mean that a winter window for this species is unlikely to meet Tasmania's Appropriate Level of Protection (ALOP).

Biosecurity Tasmania will determine winter window options and consult on their feasibility with stakeholders prior to any implementation.

Sterile Insect Technique

The use of Sterile Insect Technique (SIT) to suppress or eradicate populations of Qfly and Medfly has been used to varying degrees within Australia over the past two decades. SIT is useful where there is insufficient natural attrition over winter to extinguish incursion populations and where alternative control measures are difficult to employ. SIT is unlikely to be deployed for Qfly incursions in Tasmania due to a limited window of suitable temperature conditions, as well as natural population extinction over winter. SIT is more likely to be deployed for Medfly incursions, depending on size. Regardless of whether SIT is used to eradicate Tasmanian incursions, Tasmania has a clear interest in the widespread uptake of SIT in mainland states to counter the abundance and spread of fruit fly. Adoption of SIT in fruit fly regions interstate has the potential to lower risk of fruit fly entry to Tasmania.

Tasmania is, and will continue to be, represented on SIT national committees. This representation will continue so that we can contribute and remain up to date with policy and technical discussions pertaining to deployment of SIT for managing fruit fly outbreaks. Tasmania also participates in National Fruit Fly Council coordinated policy discussions on how SIT can be best used to protect Australia's fruit fly pest free areas.

Strong Partnerships

Good communication, strong partnerships and the accreditation of suitable industry protocols are key biosecurity principles and have served Tasmania well in recent years. The *Biosecurity Act 2019* offers a legislative basis to formalize partnerships and pathways for industry to take on formal roles in State-based biosecurity self-management. The export cherry sector in Tasmania is ahead of the game with certified self-inspection (by accredited exporters) of product bound for international markets, already occurring.

Biosecurity Tasmania will expand the adoption of co-regulatory approaches with willing industry partners.

Tasmanian Involvement in National Fruit Fly Initiatives

Tasmania is an active member of Australia's National Fruit Fly Council (NFFC). The NFFC, made up of governments, growers, and research funders, oversees the implementation of the National Fruit Fly Strategy (NFFS). The NFFS was first released in 2008 and current objectives include minimizing the incidence and spread of fruit fly and facilitating a cooperative and committed national approach to fruit fly management.

Tasmania is also a signatory to Australia's National Fruit Fly Management Protocol (ANFFMP), endorsed by Plant Health Committee in December 2021. Tasmania will continue to support its evolution through representation on the Australian Fruit Fly Technical Advisory SubCommittee.

Biosecurity Tasmania is committed to meeting its obligations under the ANFFMP, to ongoing active membership of the NFFC, and to being guided by the NFFS. We will also continue to provide technical advice and assistance through related committees and sub-committees.

Maintaining Tasmania's Freedom from Fruit Fly – Strategic Actions 2022 – 2027

Biosecurity Tasmania will continue to directly engage with stakeholders on current conditions, proposed management, and regulatory updates.

- Industry representatives continue to be engaged through regular meetings of the Tasmanian Fruit Fly Taskforce and via Biosecurity's Market Access staff. Biosecurity Tasmania will continue to provide education and vigilance messaging to the community around fruit fly risks and reporting.

Independent modelling of fruit fly risk under various warming scenarios has been completed and will be published. Further studies on both Qfly and Medfly are being undertaken by the Queensland Department of Agriculture and Fisheries.

- Modelling and studies will be published for access by Tasmanian growers and the broader community.

Biosecurity Tasmania is confident in the suitability of alternative treatments to methyl bromide fumigation. We fully support industry in the uptake of alternative treatments such as irradiation.

- Biosecurity Tasmania will continue to support active uptake and use of suitable alternative treatments to methyl bromide fumigation, and recently provided written support for national broadening of produce types permitted for irradiation treatment.

Biosecurity Tasmania will assess the implications of PFPP and PFPS for Tasmanian import requirements. Benefits to entry risk management and maintenance of export trade in Tasmania in the event of an incursion will be considered as part of this.

- Biosecurity Tasmania will, in consultation with the Australian Government and trading partners, consider the implications and suitability of PFPP and PFPS for Tasmania.

Biosecurity Tasmania will determine winter window options and consult on their feasibility with stakeholders prior to any implementation.

- Biosecurity Tasmania will work with the Australian Government and other stakeholders to determine the feasibility of a winter window approach.

Tasmania is, and will continue to be, represented on SIT national committees. This representation will continue so that we can contribute and remain up to date with policy and technical discussions pertaining to deployment of SIT for managing fruit fly outbreaks. Tasmania also participates in National Fruit Fly Council coordinated policy discussions on how SIT can be best used to protect Australia's fruit fly pest free areas.

- Biosecurity Tasmania will support the ongoing uptake of SIT by mainland jurisdictions, and although Qfly SIT is not currently suitable for Tasmania, the use of it by other jurisdictions will mitigate the risk of incursion to Tasmania. The use of Medfly SIT will remain a potential tool for Tasmania to use, should it be required.

Biosecurity Tasmania will expand the adoption of co-regulatory approaches with willing industry partners.

- Biosecurity Tasmania recognizes that co-regulatory approaches are an integral part of contemporary biosecurity regulation and is committed to pursuing such an approach.

Biosecurity Tasmania is committed to meeting its obligations under Australia's National Fruit Fly Management Protocol, to ongoing active membership of the National Fruit Fly Council, and to being guided by the National Fruit Fly Strategy. We will also continue to provide technical advice and assistance through related committees and sub-committees.

- Biosecurity Tasmania will retain integral membership of and involvement in national fruit fly representative and technical expertise bodies.