2021 National Fruit Fly Symposium

DAY 2 (5 MAY) – FRUIT FLY AND TRADE

Key Discussion Points

Horticulture overview

- Australia's horticultural exports to protocol markets have increased markedly over the last 20 years, and these are now our largest markets.
- By volume this is driven by citrus and grapes but smaller premium fruits (cherries, mangoes, etc.) are growing and globally there is rapid growth emerging in avocadoes, cherries, and blueberries.

International trade

- Protocol trade agreements provide for the higher costs of production to be met in the marketplace, but it is essential that we have transparency in supplying this quality of produce.
- Australia holds protocol agreements with nine markets. Each of these requires regular communication about fruit fly detections and outbreaks, and associated scrutiny of our biosecurity system.
- If there were to be a change in recognition of Australia's current fruit fly distribution profile, impacts on export pathway would be immediate and regaining pathways would likely be a long-term process.
    - Some markets preferentially import PFA fruit over treated product and we would see reduced demand and lower returns in these markets.
    - Where alternative treatment options are available we'd need to consider how this would play out in a real world sense in terms of our distribution networks, accessibility of production areas to treatment facilities, and increased time to get products to market.
    - Considerable time, money, and capability is required to both secure phytosanitary data sets, and then to progress these through the market access prioritisation process.
- In order to grow the sector, we need to continue our management of fruit fly and strengthen it to maintain current market access and to support additional markets for effective diversification.
    - We need to look at all those contributing components that may delay or hinder our ability to achieve market access and address them systematically.
    - We need to provide confidence that there is a market for that product and we need to buffer ourselves against shifting global pressures, including well-resourced competitors and waning international appetite for chemicals.
    - Fumigation is a popular treatment for horticulture and this technology remains a priority for Australia, but increasingly trading partners are wanting methyl bromide to be phased out.
    - Irradiation and air freight is a high priority treatment pathway for a number of our industries, so the DAWE has been broadening out negotiation to accept this treatment methodology.

Domestic trade

- Domestic fruit fly trade requirements strive for equivalence of conditions at our international/domestic borders, and this is overseen by state/territory governments on the Plant Health Committee.
- Tasmania prioritises maintaining freedom from fruit fly – it is critical that it's managed at the source, supported by controlled import pathways, treatments, and contemporary monitoring technologies.
    - talk about investment, not funding, because there has to be a Return on Investment.

- Western Australia is the only state with Mediterranean fruit fly and it's been present since late 1890s.
    - Need resources for Medfly R&D because differences in climate etc. make it hard to extrapolate with R&D done overseas.
    - Losing effective insecticides to control fruit fly would be a problem because many growers rely on cover sprays to control Medfly.
- Adjusting to both Medfly and Qfly in the same space would take some time and would have a significant impact for growers/industry.
    - governments need to do more to prepare industry for that possibility: explaining to industries what the loss of PFA would mean, immediate challenges, and medium-term challenges like new treatments, new markets, and the need for resourcing new arrangements, training, etc

Industry experiences

- Citrus has a history of fruit fly treatment research, exporting 20% from pest free areas, and 54% cold disinfestation although there are still con's to cold disinfestation treatment.
    - Currently the Riverland have the worst outbreak on record, and cannot move fruit out of the designated outbreak area to packhouses outside of the area. So, PFAs are very good, but they are awfully complex when there is an outbreak.
- Berries have identified the need to increase export capacity, in particular the successful negotiation of technical market access, as their top priority but they are currently significantly constrained by the lack of premium markets they can access due to trade restrictions based on fruit fly concerns.
    - Industry is acutely aware that more fruit fly R&D urgently needs to be completed before they can move forward but there is not research capability available to move with us. This is not only a berry problem, all of horticulture needs fruit fly R&D..
- Perfection Fresh have experienced a bad season across the board for fruit fly and it cost the company $1M last year because of a larval detection in its commercial produce.
    - Preparedness for traceability and market action during these incidences is paramount – need to reduce the scope of actions we're taking to minimise the impact into market place, and build stronger networks at the state and federal levels.

Grower experiences

- Operating domestically across a range of ICAs is highly complex and involves frequent auditing
    - We need to overhaul the domestic system, move from a paper-based system to electronic system, create a one-stop website for domestic market regulations (e.g. domestic MICOR), and really consider what we are trying to achieve.
- Preparedness is also needed and watching the challenges to the Riverland this year is just devastating. Likewise what would actually happen if a Medfly or some random exotic fly was found in Victoria? Are growers prepared for this? What does it actually mean for trade?
- The main issue that keeps coming up every year: no long-term funding strategies in place.
    - What concerns growers most of all is everything we can't control. You can be the best orchard manager in the country, but you can't control your neighbours. Growers want to see a long-term funding plan that can help us with real area-wide management.
- In 2018 Tasmania experienced an outbreak of Queensland fruit fly - as a grower, it was extremely daunting having protocols that we'd never been involved with before placed upon us.
    - To this day, two years after being declared fruit fly free, we still have no access to markets from inside our control zones to China, and the whole state is still shut out of Indonesia.
    - Communication from governing bodies to growers /stakeholders is critical. It was frightening to have regulators come to your business and tell you what you've been doing for 30 years you can no longer do.
    - For us in Tassie to have no permanent fumigation facility or irradiation accessible to growers is concerning. If a Medfly outbreak was to happen here in Tassie, as Victoria is free, we would need to rely on Victoria's preparedness and cooperation to take Medfly affected produce for treatment under secure conditions.

Research to support trade

- For Hort Innovation fruit fly is a major focus of activity - including providing robust data, including consumer insight, for new export strategies, market access applications and to support trade expansion initiatives and export technologies.
- QDAF has been working on a range of improvements for fruit fly treatments, including
    - A generic treatment for fruit fly so we don't have to research one fly and one crop at a time.
    - Expanding the list of crops that can access irradiation, including lodging a submission with FSANZ to accept research on phytosanitary irradiation for all fruits and vegetables.
    - Augmenting the dataset for treatment for VHT, irradiation, fumigation.
- CSIRO is running a major project on systems approaches to access markets
    - Involves multiple risk-reducing measures, at least two of which are independent
    - Benefits include improved fruit quality, timeliness to market, and addressing food safety concerns
    - Data is being collected to show systems approaches are effective for fruit fly and other pests
    - A website will shortly be launched: "*Phytosanitary Systems Approaches*"

Day 2 - Live Poll Results

1. What would you like the National Fruit Fly Council to focus its attention on next?

68%	Ways to adequately fund the national fruit fly management system
13%	Risks to east-west fruit fly distribution and associated trade impacts
9%	Identifying potential improvements to domestic or export market access
9%	Australia's capacity and capability to support trade related research

Day 2 - Questions and Answers

1. In your opinion what is the greatest single threat to international trade in fresh horticulture produce over the next 5 years? *(as answered by Wayne Prowse, Fresh Intelligence Consulting)*

Australia needs to be very careful when it comes to our competitiveness. South Americans are making a big impact in markets that we have historically traded to, so we need to be careful that our costs don't go out-of-control.

For example, prices went high in some domestic markets recently and we stopped exporting which puts us in danger of losing the market access in the longer term. We need to be aware of the global market and our position in that market or we could lose our trade. Once market access has been lost, it can be extremely difficult and time consuming to get back.

2. It would be interesting to see an analysis of which is the most important treatment for Queensland fruit fly into the growing protocol markets. If it's citrus then grapes in volume, then is it cold treatment and irradiation? How much of the high value volume is dependent on methyl bromide? *(as answered by Wayne Prowse, Fresh Intelligence Consulting)*

It is hard to put figures on that, but for citrus and grapes the treatments are dominated by cold treatment via sea cargo.

Australia does not export some commodities, such as some stone fruit, using methyl bromide fumigation, however exact data is not available. The Department of Agriculture, Water and the Environment (DAWE) continues to support irradiation as a phytosanitary treatment and considers this an important tool to assist trade in the future.

When DAWE negotiates new market access it consults closely with industry to identify all commercially viable treatments, supported by efficacy data, to provide as many options as possible for industry to trade.

3. In terms of remaining competitive with the Latin American countries, what are some important elements for us to improve on?

Some of our southern hemisphere competitors, particularly in Latin America, are highly experienced in the management of fruit fly. Their area freedom claims are supported by robust programs, that are intensively resourced, and cost shared.

To remain competitive with these countries, Australia should consider adopting a similar approach of coordinated and economical area freedom programs that are enhanced by the uptake of innovative technologies and alignment with international standards.

Ascertaining sustainable funding for activities that are essential to maintaining and improving Australia's market access position, such as fruit fly Research and Development, must be a priority.

The National Fruit Fly Council has sought to progress the issue of sustainable funding for national fruit fly activities for several years and has proposed a business case to guide an investigation into options.

4. Does Australia have market access advantage due to counter season, or are our major competitors also operating in the same season?

Although Australia has some major competitors in the southern hemisphere, historically we have had a strong market access advantage due to our counter season. As an example, Australia's close proximity to Asia reduces transport time and allows for the export of fresher, more attractive fruit and vegetables to Asian markets. By air, fresh produce can be packed and sent to Asian markets within 48-60 hours from harvest and by sea, fresh produce can arrive within 12-20 days of harvest. This is particularly beneficial in the counter seasonal months and when fresh produce is in short supply.

With the continual development of innovative technologies and approaches including a range of protected cultivation techniques, this market access advantage is expected to diminish over the next few years.

5. If we need to have rapid and new phytosanitary standards, what role does overseas standards development play for Australia's horticulture industries?

The International Plant Protection Convention (IPPC) is the international organisation responsible for setting the International Standards for Phytosanitary Measures (known as the ISPMs). Although the IPPC is a legally binding international agreement, the standards developed and adopted by the IPPC are not. That said, signatories to the IPPC are required to base their phytosanitary measures on the standards developed within the framework of the IPPC.

Australia is a signatory of the IPPC and a very active participant in the development of international phytosanitary standards. Australia also actively contributes to various technical panels and expert working groups within the IPPC to develop and improve the standards. These standards play a big role in Australia's international negotiation arrangements. The Department of Agriculture, Water and the Environment actively monitor trading partners interpretation and adoption of international standards, particularly those that are applicable to fruit fly. In addition to the international trade aspect, international standards also impact the activities that we undertake domestically as where possible, there should be alignment between domestic and international requirements.

Where there is insufficient or absent treatment data, Australia can refer to treatment schedules in other countries for guidance, for example treatment schedules developed by the United States Department of Agriculture.

6. What is being done as a contingency where Queensland fruit fly will establish across Australia or Mediterranean fruit fly in the east?

The National Fruit Fly Council has been working closely with the Department of Agriculture, Water, and the Environment (DAWE), state governments, Hort Innovation and key peak industry bodies on the potential impacts for domestic and international trade from a change to Australia's current fruit fly distribution.

This has included a series of workshops with key fruit fly affected industries to identify potential gaps or vulnerabilities in treatment options for export markets, and meeting with state and territory governments to review their preparedness to support business continuity if there were an outbreak of Mediterranean fruit fly (Medfly) in an eastern state.

These processes have identified for governments and industries the areas that should be strengthened to provide contingency options if Queensland fruit fly will establish across Australia or Medfly in the east. Importantly stakeholders must also be aware that if there were to be a significant change in recognition of our current fruit fly distribution, for example that Medfly was no longer limited to Western Australia, then there would be substantial trade disruption across Australia while new arrangements were being negotiated and embedded into current practices.

The National Fruit Fly Council will continue to encourage industries and governments to take action on contingencies for fruit fly.

7. How difficult is it to have the needs of a pest free area state like Tasmania met on the national stage? *(as answered by Andrew Bishop, Chief Plant Health Manager, Tasmania)*

Historically Tasmania's Pest Free Area (PFA) status has been well supported and aided by active regulation and programs interstate as well as the presence of mainland PFAs. The ability to maintain Tasmania as a PFA of course is enhanced significantly by its relatively small size, island status, and southern geography. As pest pressures, such as Queensland fruit fly, increase on the mainland and regulatory positions change interstate, that directly increases the off-shore risk to Tasmania.

Already subject to significant Tasmanian regulation to mitigate entry risk and maintain the PFA, these requirements are further tested requiring constant monitoring in the context of increased risk to ensure they are fit for purpose. Effective management of fruit fly at source has significant and direct benefits to Tasmania in mitigating risk which is then further mitigated by the stringent entry requirements in place. Hence the essence of a robust PFA is that multiple components need to be addressed to maintain the integrity of a PFA. For Tasmania, many of those components are likely external to the PFA with effective management at source being the most influential.

8. What would the state government's response be if Tasmania required the use of irradiation instead of fumigation for incoming fruit? What would the response of the Federal Government be? *(as answered by Andrew Bishop, Chief Plant Health Manager, Tasmania)*

Tasmania already accepts irradiation as an entry condition for fruit fly host produce and Australia allows irradiation for the imports of some commodities from international trading partners. However, there are a number of other treatments that are also available. These treatments are accepted nationally and internationally and provide various options for exporters/importers to send product to Tasmania. Whilst these treatments are valid and recognised it is not appropriate for Government to allow only one of those efficacious treatments.

However, if a situation were to arise where such treatments are deemed to be not efficacious and not recognised/accepted they would not be available to use. If irradiation was the only treatment available, then that would have to be solely used (apart from sourcing from a PFA). The Tasmanian Government is supportive of harmonised requirements wherever possible, inclusive of domestic/international protocols.

9. **In the past 6 months South Australia had a number of Q-Fly detections from commercial consignments from Victoria due to failures in the ICA 04 and 21 protocols. What is being done to ensure we strengthen these ICA arrangements so we don't have these issues next summer? SALLY**

While there has been larvae detections in host produce moving around the country this season, it must also be acknowledged that under Australia's Appropriate Level of Protection, State and Territory governments operate under a 'very low level of risk' rather than a 'zero risk' policy and other aspects of the system work to manage that low risk.

In regard to the recent incidents, Agriculture Victoria and Primary Industries and Regions South Australia are working closely in reviewing the incidents and are making necessary modifications, including to *ICA 04 - Fumigating with Methyl Bromide*.

In addition to this, the key ICAs for the movement of fruit fly host produce are currently being examined by Australia's Subcommittee on Domestic Quarantine and Market Access and Plant Health Committee to further strengthen the protocols. More broadly, a review of the ICA scheme will be undertaken as part of the Interstate Trade Review project being led by Plant Health Australia.

10. **Great to see a recognition of resourced response capacity in your recipe for fruit fly control and management, acknowledging risk is important. What are your thoughts on an effective shared investment strategy to fund this activity? *(as answered by Andrew Bishop, Chief Plant Health Manager, Tasmania)***

Yes, the important description here is 'shared investment'. Whatever model is used, the various funding parties need to see a return on that investment through obvious benefits to them. It is a complex matter but viewing it in a simplistic sense I would see a definition of the problem nationally and determination of what we wish to achieve nationally e.g. eradication of Medfly? Pushing Qfly back to certain areas? Improved management in-orchard? National application of modern technologies and treatments? Ideally, defined as a system of actions to generate outcomes that is costed and the funding model receives calculated contributions from governments and industries to achieve.

Perhaps a model with some resemblance to cost sharing arrangements used to fund exotic incursion responses under the Emergency Plant Pest Response Deed could be applicable. The vehicle for this sort of thinking is the National Fruit Fly Strategy - it is an essential platform for any such thinking. The matter though complex is doable, and offers various returns on investments for stakeholders, as well as effectively getting to grips with some wicked problems.

11. **While we have some effective in field control & suppression treatments, those are not always accepted in our major export markets. Do you have suggestions about who should drive development or efficacy testing of new chemical control options that would be more acceptable in our markets?**

Increasing global regulation of the agrichemical industry, along with other structural changes in the industry, has made the exploration and introduction of new chemistry challenging. As a result, the focus from most sectors is to look towards alternative technologies such as biopesticides, biological control agents, and even the potential for genetic modification.

Investment in new R&D technologies for chemical products to control horticultural pests is generally driven by individual industries. This is challenging both because the Australian market is quite small in global

agrichemical R&D terms to attract significant investments, and because regulatory approvals and registrations are costly and time consuming.

There are a range of different initiatives seeking to alleviate various agrichemical issues in Australia, including a Harmonised Agvet Chemical Control of Use Task Group, a Review of AgVet Chemicals Regulatory System, and collaborative agvet and industry forums on the issue. In terms of fruit fly specific solutions, however, it is clear that greater collaboration by industries and governments is needed to drive the development of agrichemical and alternative control options.

The NFFC is aware of this dilemma and is looking to engage with these stakeholders on steps and commitment needed to progress solutions in the coming months.

12. What are the implications on the domestic market if our fruit fly status changes and we lose market access? E.g. oversupply, being able to access treatment etc?

It is anticipated that a change in fruit fly distribution in Australia would have a substantial impact on domestic trade, at least in the short term. For example, the current metropolitan outbreak of Medfly in South Australia required movement controls to contain the pest, including at the South Australian Produce Markets.

If similar outbreaks were to occur in production areas in another State or Territory, it is likely there would be significant disruption to the local product supply chain including on commercial growers, packhouses, transport operators, market access certification, and treatment facilities.

It is difficult to determine the extent of the disruption and consideration would need to be given to issues such as proof of area freedom, secure movement of product, treatment options and facilities. The management of the outbreak would also have implications for trading partner confidence in the national system.

13. What is the current status on Coles and Woolworths accepting irradiation?

While we do not yet have a direct answer to this question, on 12 May 2021 Food Standards Australia New Zealand (FSANZ) approved the application from the Queensland Government Department of Agriculture and Fisheries to permit irradiation as a phytosanitary measure for all types of fresh fruit and vegetables. The report finds that:

- irradiation is an appropriate and effective treatment for regulated pests, including fruit fly, at the proposed dose range
- the use of irradiation as a treatment for pest disinfestation is technologically justified and effective in fulfilling its stated purpose
- there are no public health and safety concerns associated with the consumption of fresh fruit and vegetables that have been irradiated at doses of up to 1 kiloGray (kGy).

Steritech have advised that, prior to this announcement, multiple retail brands have proactively approached them to discuss the importance and future role of irradiation for domestic fresh fruit distribution. These organisations have clearly communicated recognition for the efficacy and benefits of the treatment and many have experienced some form of significant supply disruption or biosecurity recall through non-irradiation supply pathways.

Independent retailers and market agents have embraced irradiation as a sustainable solution helping protect Australian farmers while providing consumers with fresher fruit.

Steritech is working with state governments, suppliers and retailers to ensure the most reliable and effective solutions are utilised to protect Australia from further fruit fly spread. The financial risks to retailers and growers of ongoing fruit fly recalls have been a catalyst to conversations, noting that some significant retail brands have discussed the need for trials and or the importance of a bipartisan approach on this non-

commercial matter.

14. Is there likely to be an impact of pre-harvest treatments (insecticides) on international market access?

There is growing scrutiny of Maximum Residue Limits (MRLs) in the trade of fresh produce around the world. Accordingly, some trading partners are increasing their sampling rates and expanding the range of residues that can be detected in produce. In the case of pre-harvest treatments for fruit fly, there are some domestically accepted insecticides (e.g. dimethoate) that have low or zero MRL tolerance in certain international markets.

Where there is non-compliance with importing country requirements, it not only results in rejections or increased inspection rates, it also reflects poorly on Australia's horticulture export industries. To this end producers are responsible for being aware of, and adhering to, importing countries MRLs.

Further information can be sourced from State agriculture departments, Australian Pesticides and Veterinary Medicines Authority, peak industry bodies, Horticulture Innovation Australia, and National Residue Survey.

15. What is the step currently in place to ensure the research demand data required by the importing country is being readily made available to the researchers?

There are international guidelines on data requirements for phytosanitary treatments. The Department of Agriculture, Water and the Environment (DAWE) also works closely with both funding organisations, such as Hort Innovation, as well as researchers to provide advice on current international standards. Other data, such as requirements for distribution data for species tend to be handled on a case by case basis and DAWE works with state and territory governments and researchers to try and ensure that the appropriate data is collected.

16. Would an onsite immediate test (such as the DNA test currently on trial) able to be used by a locally trained person help to avoid this time delay and inaccurate diagnosis that cost Perfection this $million and product recall?

While there are promising developments in DNA testing for species identification and origin, the current capability and cost of taking this approach to accurately identify larval incursions makes it prohibitive. In the absence of access to rapid larval diagnostics, regulators generally take a precautionary approach to detections in seeking to protect potential spread of a pest. Given the severity of consequences, regulators must have absolute confidence in diagnostic tool. The Department of Agriculture, Water and the Environment has funded projects aiming to enhance rapid identification tools and appreciates that further development in rapid diagnostics are likely to be an important part of the regulatory framework in the future.

Nonetheless it is recognised that there are some important improvements that could be made by both regulators and industry to minimise future disruptions from fruit fly larval detections. This includes enhancements to traceability systems for biosecurity purposes, situational specific risk analysis, and improved communication processes.

17. For non-PFA areas, when all the domestic and export protocols are either end point treatments or block/property based, how do we use SIT or other forms of area wide management? What monitoring densities and corrective action thresholds should we apply on the blocks/properties?

In non-PFA areas the purpose of SIT or other forms of area wide management is to minimise pest pressure, particularly in the form of pressure from off-farm areas (e.g. backyard trees, abandoned orchards etc.). These are tools for fruit fly management rather than for market access.

The technical details around pest detections and corrective action thresholds, particularly where areas of low

pest prevalence are to be used to facilitate trade, are still being developed. There are some examples overseas where such systems have been put in place, but these may need to be adapted to suit Australian conditions and pest species. The development of such protocols can take considerable time and expense and there is no guarantee of them being accepted by trading partners.