

Alternative biosecurity pathways to markets

JANE MULLER

As fruit industries sharpen their focus on accessing high value export markets, CSIRO-led research is improving the science-base for biosecurity risk management.

Increasing the volume and value of export trade is recognised as essential for many fruit industries to assure their long-term success and growth. Alongside this, is a need to expand our options for meeting the biosecurity requirements of our trading partners.

Established end-point treatments, such as onshore or in-transit cold disinfestation, work effectively in many fruit export supply chains. In some cases, however, phytosanitary measures required by importing countries are unworkable or create the need for multiple treatments. An example for apple exporters, is the fumigation required for some markets to treat codling moth which can impact fruit quality.

Even production districts with pest free area status or pest free places of production would benefit from having a “Plan B” for seasons when pest outbreaks occur.

One of industry's options for expanding their biosecurity pathways is to develop ‘systems approach’-based protocols.

What are systems approaches?

Systems approaches enable the use of multiple measures across the production, harvest and post-harvest process that cumulatively reduce the risk of pest or pathogen movement to the appropriate level of phytosanitary protection. At least two of the measures must act independently.

A systems approach-based protocol can enable growers to use their professional farm practices and integrated pest management systems to their advantage. They can be approved for both domestic and international market access.

Systems approaches may offer a powerful alternative solution to biosecurity risk management in a range of situations, such as where

- end-point treatments are expensive, affect quality or shelf-life, prolong the time to market, diminish the market value of the produce, or provide more protection than might actually be required (e.g. for lower-risk or already uncommon pests)

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Elliot Howse, from WA Dept Primary Industries and Regional Development, monitors insect traps to help demonstrate low pest prevalence in apple orchards.



- chemical treatments such as sprays, dips or fumigants are withdrawn from the market, or access is restricted, or are not accepted by trading partners
- the pest pressure, exposure or susceptibility of the produce is low and management practices throughout the production system minimise the risk of pest infestation or movement.

Improving the evidence base for systems approaches

Establishing a systems approach requires selecting a mix of phytosanitary measures that is most effective and least trade restrictive – then demonstrating with strong scientific evidence that, cumulatively, the measures achieve the required biosecurity outcomes.

While systems approach protocols are used in horticultural trade, they can be difficult to reach agreement on in market access negotiations. This is partly because the underpinning methodologies to demonstrate the efficacy of these protocols are poorly developed when compared with end point treatments such as fumigation or irradiation.



... a powerful alternative solution to biosecurity risk management...



To address this, CSIRO is working closely with industry and Australian federal and state government partners to develop improved scientific methods to guide the design of systems approaches and validate their efficacy. The research – *Developing a national systems approach for meeting biosecurity requirements to access key Asian markets project* – is supported by Hort Innovation as a strategic partnership initiative under the Hort Innovation Frontiers Fund.

A key outcome of the project has been the publication of a methodological framework for the rigorous design of phytosanitary systems approaches. It identifies four biosecurity risk reduction objectives that can guide the selection of measures. The project is also developing qualitative and quantitative models that are applied to give confidence that the combination of measures used in the systems approach will sufficiently reduce risks. The results from the models enable industry to build a comprehensive data package to support a proposed systems approach protocol. The models can also help identify data gaps that need to be addressed.

Apple and cherry case studies

Case studies in apple and cherry production districts are providing an opportunity to put the risk framework and modelling tools to the test – while also helping these industries progress their market access goals.

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The apple case study is delivered by the WA Department of Primary Industries and Regional Development (DPIRD) with support from Pomewest. An extensive surveillance program along with monitoring of pre- and post-harvest fruit infestation rates is generating valuable data sets that can support the design of systems approach protocols for key pests such as Mediterranean fruit fly and light brown apple moth. The team are also working with APAL to identify analyses that may contribute to the apple industry's international technical market access strategy.

Cherry growers in Victoria and New South Wales are trialling a systems approach protocol for Queensland fruit fly through their case study. The protocol includes block-based pest monitoring throughout the growing season, a corrective action if triggered by monitoring results, and inspection by an authorised officer. Data gathered under the case study will be analysed and developed into a data package demonstrating the efficacy of the systems approach – ultimately aiming for formal acceptance of the protocol across Australia.

By demonstrating systems approaches in action and building the evidence base for their effectiveness, our research should give biosecurity stakeholders and trade partners greater confidence in the systems – and improve market access pathways for horticulture industries into high value export destinations. **AFG**

In dispute? Contact the Ombudsman

The Australian Small Business and Family Enterprise Ombudsman is encouraging apple and pear growers and traders involved in a dispute to contact her office.

The Ombudsman can provide growers and traders with information and dispute resolution options, including access to mediation services and produce assessors.

Assessors can address issues such as whether a trader was entitled to reject produce or whether a grower has received the correct payment from the trader.

The Ombudsman's approach is to focus on fair outcomes for growers and traders whilst maintaining good working relationships.

Our assistance team can help resolve disputes that arise over produce transportation and delivery.

Small businesses that need information or help with resolving a dispute can visit www.asbfeo.gov.au/assistance/horticulture-code or call the ASBFEO hotline on 1300 650 460.



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