



# KVH 2014 Activity Report

## Wider Biosecurity

Throughout 2014 KVH has focused more on working with Government and industry to improve biosecurity preparedness for the kiwifruit industry.

Biosecurity preparedness for kiwifruit pest and disease incursions is an important priority for KVH. It involves making sure New Zealand's multi-layer biosecurity system operates effectively (from offshore through to post-border); and that both government and industry are well prepared to respond to future biosecurity outbreaks.

Key KVH activities for its wider biosecurity role and Key Performance Indicators are outlined below and include:

- **GIA** – establishing an effective partnership with government to manage biosecurity activities for our industry and to ensure the whole biosecurity system is adequately resourced and focussed to protect our industry.
- **Emerging risks** – identifying what the key threats are to our industry and engaging in readiness and response activities to be prepared for these.
- **Entry pathways** – how is the New Zealand biosecurity system operating to keep these emerging risks out? Ensuring any weaknesses are addressed.
- **Responding** – implementation of rapid response plans in an incursion situation.
- **Supply chain management** – managing the risk of spreading pests and diseases that may already be present undetected in our industry.

## Government Industry Agreements (GIA)

In May 2014 KVH formalised a biosecurity partnership with Government on behalf of the New Zealand kiwifruit industry by becoming the first signatory of the Government Industry Agreements (GIA).

Signing the GIA Deed commits government and industry to a more proactive and engaged working partnership to help protect our kiwifruit industry. GIA enables signatories to be part of the decision-making process around readiness and response activities for priority pests and diseases.

*Key performance indicators:*

- KVH become the first signatory to GIA for biosecurity readiness and response.
- Attended and presented at a number of GIA forums on behalf of kiwifruit industry.
- Proactively engaged all horticulture sectors to align thinking and approach to GIA.
- Led industry involvement in GIA cost sharing negotiations for future readiness and response activities.
- Participated on the Financial Arrangements Joint Working Group to develop guidelines for cost-sharing of readiness and response activities under GIA
- Participated on the Response Guide Joint Working Group to develop guidelines for managing biosecurity responses under GIA
- Initiated and participated on the Interim Fruit Fly Council, made up of representatives from horticultural industries and MPI to develop an Operational Agreement for fruit flies and reduce impacts to this sector of any future incursions which includes managing detection, eradication and reducing production and market access impacts of an incursion.
- KVH is formalising how the kiwifruit industry will participate in future biosecurity responses, through a project that establishes the industry's governance, systems and capability needed to join a response under GIA.

## Emerging Risks

Part of KVH's wider biosecurity role is to identify biosecurity organisms that pose a potential risk to the kiwifruit industry if they were to enter New Zealand. While fruit fly is the kiwifruit industry's top priority pest due to its likelihood of entering New Zealand, it's important we understand, and are also prepared, for other biosecurity risks that could potentially cause harm to the industry. Generic readiness and response plans will be created for bacteria, fungi, virus and arthropods to ensure that the industry has a plan in place regardless of what the next major incursion may be. In addition, specific add-ons to these generic plans will be created for organisms identified as priority threats to the industry.

### *Key Performance Indicators:*

- Development of a risk matrix to prioritise emerging risks and a short list of priority threats with peer review of the frame work and results completed by scientists at Plant & Food Research (PFR) and MPI Risk Analysis. *See Appendix 1.*
- Development of further priority pest fact sheets – available on the KVH website at [www.kvh.org.nz/emerging\\_risks](http://www.kvh.org.nz/emerging_risks)
- Regular communication with industry, government and international contacts on emerging risks providing up-to -date knowledge on industry threats.
- KVH is a member of the Fruit Fly Risk Management Working Group which involves members of MPI and other horticultural sectors and has been developed to manage the risk of fruit fly entering New Zealand through the commercial fresh produce pathway.

## Entry Pathways

Not only is it important to identify and understand the high-risk biosecurity organisms that could threaten New Zealand's kiwifruit industry, it's equally essential to identify and understand their potential pathways of entry and how biosecurity is managed on these pathways.

KVH has been developing an understanding of how biosecurity is managed on key pathways and communicating this knowledge to the industry. KVH has then been working with MPI and other key industries to implement improvements in this system (pre-border, border and post border) to provide a higher level of biosecurity for these pathways.

### *Key Performance Indicators:*

- Development of a profile series to provide the industry with an overview of how biosecurity practices operate for the following:
  - Recreational vessels
  - International mail
  - Detector dogs at the border
  - Cruise ships
  - Transitional facilities
- Cruise ships were a major focus for KVH in 2014. Identified as a high risk pathway, KVH advocated for a greater level of biosecurity intervention on the cruise ship pathway. This engagement with MPI has been successful and resulted in an increase use of detector dogs for all first port of arrivals and many second port of arrivals for cruise ships (resulting in the interception of 500 biosecurity risk items, 76 percent of which were fresh produce).
- KVH is still calling for increased measures and has requested that all fruit and vegetables loaded onto cruise vessels bound for New Zealand comply with the New Zealand Import Health Standards for fruit and vegetables to reduce the potential impact of risk items that pass through the border undetected. MPI has accepted the merits of this request and indicated this approach will be used for the current and future cruise ship seasons.
- Working in partnership with Port of Tauranga Ltd to establish a partnership focused on achieving 'Operational Biosecurity Excellence at Port of Tauranga'. This brings together the port community (Government, commercial operators within the port and key primary industries) to pursue this goal.

- Advocating for establishment of performance targets for marine ports, and transparent ranking of New Zealand marine ports for their biosecurity performance (this involves a set of proposals which MPI is evaluating).
- Supplying input to reviews of key Import Risk Analyses and Import Health Standards, including two relating to kiwifruit ('pollen' and 'germplasm') and others relating to other fresh produce imports.
- Participated in a review of 'pathways of entry for fruit flies', following two Queensland Fruit Fly finds.

### **Biosecurity Response**

A key focus for KVH is working with MPI to respond when high-risk organisms are detected in New Zealand.

*Key performance indicators:*

- In 2014 KVH led the kiwifruit industry input to three biosecurity responses:
  1. Queensland fruit fly in Whangarei (January 2014)
  2. White peach scale in Tauranga (February 2014)
  3. Queensland fruit fly in Whangarei (April 2014)
- Participated as an industry representative on the Response Strategic Leadership (RSL) team for both Queensland fruit fly responses.
- Participated as an industry representative on the response liaison team in Wellington for the January QFF response
- Led the industry stakeholder conference calls and industry update conference calls throughout the response process and kept industry updated with the response process through regular communications.
- Initiated and participated in Whangarei fruit fly site visits.
- Continue to work with Zespri, MPI and other industries to pre-negotiate market access arrangements for New Zealand kiwifruit in the event of a future fruit fly outbreak (so that trade impacts can be minimised). Negotiating protocol finalised.

### **Supply Chain Management—Kiwifruit Plant Certification Scheme**

In May 2014, KVH launched the Kiwifruit Plant Certification Scheme (KPCS) to manage the biosecurity risk associated with nursery plant movements. The KPCS is being phased in over a transition period, enabling nurseries and the industry to adjust to the scheme. It will come into full effect in October 2016.

By purchasing certified plants from participating nurseries, growers have assurance they are investing in the best possible start when establishing new vines.

*Key Performance Indicators:*

- Kiwifruit Plant Certification Scheme was launched in May 2014.
- Nurseries now joining the KPCS and certifying kiwifruit plants to the first of two Standards—the 'Core' Standard.
- Three nurseries have already joined the KPCS.
- Development is underway for 'Nursery Best Practice Guidelines' to help nurseries achieve the Core Standard.
- Development is underway of the 'High Health Standard'.

## Psa-V Operations

A focus for KVH throughout 2014 has been offering an increased level of support to kiwifruit growers in regions outside of the wider Bay of Plenty as Psa-V spreads into these regions.

This approach has been achieved by building on the successful implementation of the National Psa-V Pest Management Plan (NPMP) in 2013. It is also supported by the industry's increasing knowledge on Psa-V best practice management in limiting the impacts of Psa-V.

Grower education of Psa-V best practice management and industry compliance with the NPMP remains an important part of the overall KVH function. This is achieved through regular industry meetings, technical forums and distribution of the latest research and development information through a number of mediums including the KVH website, the weekly KVH Bulletin and KVH publications such as the Seasonal Management Guides.

### *Key Activities and Key Performance Indicators:*

- No new regions have become Psa-V positive in 2014.
- Whangarei and the South Island remain 'Exclusion' regions.
- North-West Auckland and Hawkes Bay containment regions have achieved good Psa-V control
- Development of a Psa-V Seasonal Management Wall Chart and online Guides. A simple tool to assist growers with planning Psa-V management strategies.
- KVH recommended product list is updated regularly identifying products effective against Psa-V available through KVH Bulletin, Seasonal Management Guides and website
- Technical information shared with industry people and chemical merchants through regular Psa technical forums—19 meetings were held this year with minutes also circulated to KVH regional coordinators and supplier technical reps in the regions.
- Research and development reports available on KVH website.
- 100% of KPINs have Psa-V Orchard Management Plans in place. KVH following up with the small percentage of those whose plans are not compliant.
- As of 8 October, 94% of orchards in Containment and Exclusion regions have submitted mandatory monitoring results.
- Tauranga East and Tauranga West were combined into one 'Tauranga' region.
- Removal of Controlled Areas in Kerikeri, Wanganui, Hawkes Bay and Gisborne.
- Follow up of 135 orchards identified through the Zespri Spray Diaries that did not apply any Psa-V protectant sprays during the 2013–2014 growing season.
- KVH, together with funding support from Regional Councils and landowners, has facilitated removal of 37 abandoned orchards in 2014. (In total 93 orchards have, or are being, managed or removed).
- KVH has provided technical advice and assistance arranging contractors to complete the work.
- Removal of a further ten abandoned orchards is underway.
- Registration and the requirement to complete and implement Risk Management Plans for post-harvest operators, processors, pollen providers, budwood distributors and nurseries.
- Audit process in place to check compliance annually for the above Risk Management Plans.
- 155 plant/machinery movement permissions issued from December 2013 to September 2014.
- Auditing of more than 15,000 harvest bins to Containment and Exclusion regions to ensure orchards in these regions are not placed at risk from possibility of plant material from Recovery regions entering their orchards.
- Independent orchard monitoring facilitated and paid for (subsidised in the case of South Island) by KVH across Exclusion regions to ensure susceptible orchards in these regions are still free of Psa-V during high-risk spring period.
- Meetings and training sessions with growers and post-harvest in the regions to ensure readiness and provide support.
- KVH continues to pay for testing in Containment and Exclusion regions; and provides support in sampling/symptom identification and sample collection.

## Research and Development

Over the past year, there have been significant advances in understanding PsA-V, and in finding tools and solutions to enable growers to remain productive.

The learning and experience of researchers, technical staff and growers is confirming that, with the right tools and orchard management activities, kiwifruit can be grown profitably in a PsA-V environment.

KVH and Zespri's Innovation team continue to work on the PsA-V Research and Development (R&D) programme which was established in 2011.

### Key Performance Indicators:

- The New Zealand research strategy for PsA-V recovery has recently been reviewed and updated to provide greater focus in the research programme and greater coordination between the research groups in New Zealand.
- The research strategy has been refined and ratified by KVH, Zespri, NZKGI and Plant & Food Research.
- 89 research and development projects are underway.
- 21 completed research and development project reports received and available on the KVH website at [www.kvh.org.nz/latest\\_RD](http://www.kvh.org.nz/latest_RD).
- \$1,641,396 spent on PsA-V research and development for 2013/14 with \$12m invested to date.
- Product testing continues, focusing on finding a range of appropriate chemical and biological products for the control of PsA-V.
- Key work has included research into how the plant defends itself against bacterial disease through its chemical composition.
- A focus has been on understanding critical periods of plant growth. This work will support the development and uptake of effective orchard management activities.

## Communications

- **Website**
  - Around 37,000 visits to the KVH website by more than 12,000 individual users during 2014.
  - Users have viewed more than 146,000 website pages
  - Almost 1,500 registered users for the restricted area of the website
- **Grower Communications**
  - Weekly *KVH Bulletins* have been released in 2014 to 2,081 subscribers
  - On average 44% of users open the KVH Bulletin each week
  - Sixteen regular articles about KVH activity contributed in 2014 to the Industry Publications including the *Kiwiflier* and *Kiwifruit Journal*.
  - Contributions to associated industry publications including *The New Zealand Beekeeper* and *The Nursery and Garden Industry NZ*.

## Governance and administration

- Monthly average number of phone calls to KVH 0800 number is 260
- Responded to more than 108 queries through the website
- 11 KVH Board meetings scheduled for 2014

### Number of Employees

Full Time – Fixed Term	Full Time - Permanent	Contractors
7	1	3

### KVH Board meeting attendance by Director (January to 1 November 2013)

Name	Attendance
Peter Ombler	8
Mike Chapman	8
Simon Limmer	8
Paul Jones	7*

Craig Thompson	7
Tony Murray	7**
Nathan Flowerday	6

\* Resigned from Board July 2014

\*\* Resigned from Board September 2014

#### Other KVH Meetings 2014

With whom	Number of meetings
Banks	2
Regional Councils	14
Government and officials	67
Postharvest CE and/or postharvest grower	59
Regional grower meeting rounds (incl FON & Roadshows)	66
Tech rep meetings	19
Beekeepers / pollen providers	9
Wider biosecurity	43
Industry Meetings (NZKGI, IAC, ISG)	28
On orchard visits	159
Nursery Visits	8

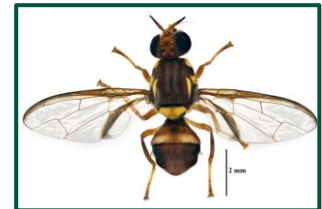
# Appendix 1

## Emerging Risks: Kiwifruit's most unwanted

From a list of almost fifty pests and pathogens identified as potential threats to the industry, KVH has developed a draft top priority list using a risk matrix developed specifically for this purpose. Both the matrix and the results produced have been peer reviewed by independent experts and will be periodically updated to reflect changes in pathogen status internationally.

### Fruit Flies (Mediterranean, Oriental and Queensland species)

- High likelihood of entry with eight post border incursions since 1989.
- Production impacts for a wide range of horticultural crops.
- Severe market access restrictions, particularly for Queensland Fruit Fly which is not present in nearly all the kiwifruit industry's major markets.



### Brown Marmorated Stink Bug (*Halymorpha halys*)

- High likelihood of entry as a hitchhiker species on inanimate objects such as shipping containers, used cars and passenger luggage.
- New Zealand's climate is considered favourable for establishment should it be introduced.
- Highly mobile and capable of spreading rapidly.
- Native to parts of Asia and undergoing rapid expansion in both USA and Europe.
- Significant production impacts on many horticultural crops causing cosmetic damage that makes produce unfit for sale. Kiwifruit is a known host.



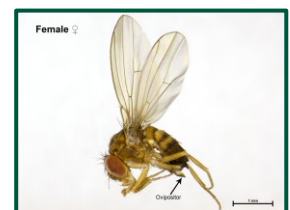
### Psa—strains not yet in New Zealand

- Different outbreaks of Psa have been caused by four related, but genetically distinct lineages of *Pseudomonas syringae* and it is likely that many more exist in wild kiwifruit populations.
- Psa1 and Psa2 (strains found in Japan and Korea respectively) are of particular concern as they appear more virulent against Hayward cultivars than the Psa-V strain currently in NZ.
- The introduction of any new strain is a concern as it introduces new genetic material that can be horizontally transferred with our existing strain of Psa-V, causing new variants of the bacteria.
- The impact new Psa strains may have on "Psa tolerant" cultivars is uncertain at this stage.



### Spotted Wing Drosophila (*Drosophila suzukii*)

- Serious horticultural pest resulting in major economic impact through control costs, production impacts and market access implications.
- Lays eggs in ripening fruit making it soft and unmarketable.
- High likelihood of establishment if it were to enter as surveillance trapping has limited effectiveness.



### *Ceratocystis fimbriata*

- Fungal pathogen complex causing significant damage to kiwifruit orchards in Brazil with some growers reporting over 50 percent vine loss.
- Hayward on Bruno rootstock also affected.
- Vine death can occur extremely rapidly following expression of symptoms.
- No known effective treatments.

