Tiakitanga Pūtaiao Aotearoa

# 24<sup>th</sup> Biosecurity Emerging Risks System Report

19 September 2022 to 21 August 2023

November 2023

New Zealand Government



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# **Executive summary**

In the 11 months between 19/09/2022 and 21/08/2023, the MPI Emerging Risks System identified eight pests that required changes to import health standards to mitigate biosecurity risks to New Zealand.

Over this period, we received 676 new alerts about potential emerging risks, including forty five alerts relating to high priority organisms (HPOs). The majority of these were able to be closed quickly because the information was not new, did not represent an increased biosecurity risk or the risk would be mitigated by existing controls.

At the end of the reporting period, risk assessments or evaluations have been completed for 175 alerts, and six alerts related to high priority organisms were in progress. The completed assessments in this reporting period resulted in 9 changes to standards and 15 pests being subject to ongoing active monitoring.

Active monitoring is initiated when risk analysts and managers have determined that current alerts do not represent an increase to biosecurity risk by these pests at this time, but there is sufficient information to suggest the pest may continue to emerge as a risk. We actively monitor these causative agents for changes in risk factors (e.g. new country distributions, new hosts or new pathways) using periodic searches of databases and other internet sources, in addition to continued monitoring through the Emerging Risks System.

These results confirm both the resilience of our biosecurity standards to mitigate most new and emerging risks without further intervention, and the value of the emerging risk system to proactively identify adjustments or interventions needed in the small number of cases where standards will not effectively mitigate emerging risks.

#### 175 risk assessments and risk management evaluations were completed

	2 were related to		10 were related to	×.	163 were related to
ໂທງແ	animal health	~	aquatic health		plant health

#### Outcome of new alerts for HPOs

НРО	No. alerts	Resolved (no risk/managed)	Pending
Xylella fastidiosa (Pierce's disease of grapevines)	7	4	1 risk assessment 1 management evaluation 1 IHS amendment
Halyomorpha halys (brown marmorated stink bug)	6	6	-
'Candidatus Phytoplasma asteris' (aster yellows 16Srl or 16Srl-B)	5	5	-
Anoplophora glabripennis (Asian longhorned beetle)	3	3	-
Pantoea ananatis (fruitlet rot of pineapple)	3	2	1 management evaluation
Bactrocera dorsalis (Oriental fruit fly)	2	2	-
Bursaphelenchus xylophilus (pine wilt nematode)	2	2	-
Infectious salmon anaemia virus (ISAV)	2	2	-
Lycorma delicatula (spotted lanternfly)	2	2	-
Puccinia graminis f. sp. tritici (wheat stem rust)	2	2	-
Aphanomyces invadans (epizootic ulcerative syndrome)	1	1	-
Ceratitis capitata (Mediterranean fruit fly)	1	-	1 risk assessment
Ceratocystis fimbriata (ceratocystis blight)	1	1	-
Drosophila suzukii (spotted-wing drosophila)	1	1	-
Fusarium circinatum (pine pitch canker)	1	1	-
Liriomyza huidobrensis (serpentine leafminer)	1	1	-
Marteilia refringens ()	1	1	-
Phytophthora ramorum (sudden oak death)	1	1	-
Potato spindle tuber viroid (PSTVd)	1	1	-
<i>Pseudomonas syringae pv. actinidiae</i> (bacterial canker of kiwifruit, Psa)	1	1	-
Solenopsis invicta (red imported fire ant, RIFA)	1	1	-
Tomato apical stunt viroid (TASVd)	1	-	1 risk assessment

Causative agent	Pathway/IHS amended
Liriomyza huidobrensis (serpentine leafminer)	Fresh produce
Liriomyza trifolii (serpentine leafminer)	Fresh produce
Ralstonia pseudosolanacearum ()	Peanut seeds for sowing
Tomato brown rugose fruit virus (TBRFV)	Tomato and capsicum seeds for sowing
Xylella fastidiosa (Pierce's disease of grapevines)	Carya illinoinensis seeds for sowing, Thymus nursery stock
Xylella fastidiosa subsp. fastidiosa	Lebanon nursery stock
Xylella fastidiosa subsp. sandyi	Nerium oleander nursery stock
<i>Xylella</i> spp.	Multiple new hosts nursery stock

#### Alerts which resulted in changes to import health standards

#### Organisms for which we initiated monitor for change activities

Mung bean yellow mosaic virus	Neofusicoccum mediterraneum ()
Squash leaf curl virus	Neopestalotiopsis protearum ()
Bivalve transmissible neoplasia (transmissible cancer)	Nigrospora vesicularifera ()
'Candidatus Phytoplasma asteris' (aster yellows)	Peronosclerospora neglecta ()
Curvularia eragrostidis ()	Pestalotiopsis vismiae ()
Cylindrocladiella peruviana ()	Phyllachora maydis (tar spot)
Dickeya solani (blackleg disease of potato)	Phytophthora lateralis (Port-Orford-cedar root disease)
Diplocarpon coronariae ()	Platynota stultana (omnivorous leafroller)
Fungi infecting truffles	Pseudomonas poae ()
Fusarium luffae ()	Senecavirus A (Senecavirus A vesicular disease)
Fusarium odoratissimum (Panama disease)	viruses of salmon
Lasiodiplodia brasiliensis ()	Watermelon crinkle leaf-associated virus 1
Lasiodiplodia pseudotheobromae ()	Xanthomonas prunicola ()
Margarodes spp. (ground pearls)	Xylaria bambusicola ()
Monilinia fructigena (syn. Monilia fructigena)	Yellow tailflower mild mottle virus (YTMMV)

# 24th Biosecurity Emerging Risks System Report

MPI's Biosecurity Emerging Risks System (ERS) is designed to proactively identify and manage emerging risks to New Zealand's plant, animal and aquatic biosecurity. It is a centralised system that takes a systematic intelligence-led approach to help MPI and industry prioritise and coordinate risk-based interventions for new and emerging biosecurity risks.

An important part of the system is communicating emerging risk information to stakeholders, so they:

- have an opportunity to consider and take appropriate action within their own sphere of influence and
- can see what happened with information (alerts) they sent into the system.

This, the 24<sup>th</sup> Biosecurity emerging risks system report, provides information about alerts progressed through the system between 19 September 2022 and 21 August 2023.

### **Overview of Biosecurity Emerging Risks System**

The ERS is an important component of New Zealand's biosecurity system. The biosecurity system is designed to prevent or manage risks of harm that pests and diseases may cause to our economy, environment, human health and a range of social and cultural values. It does this by:

- stopping pests and diseases that could cause significant harm before they arrive and
- dealing with them if they do enter the country.

Part of stopping pests and diseases before they arrive is identifying potential future (emerging) risks and assessing whether our existing biosecurity risk management approaches will need to be adjusted to keep them out. Regular reporting from across the Ministry and external stakeholders provides the ERS team information to identify key emerging risks.

Every New Zealander can engage with the ERS and be biosecurity conscious. We encourage anyone with new information about a potential new or changing pest or disease risk that could impact primary industries or New Zealand's biosecurity system to <u>emergingrisks@mpi.govt.nz</u>.

MPI's Biosecurity Emerging Risks System provides a central entry point for emerging risk information from staff, stakeholders and other sources to be received, properly assessed and have appropriate action taken.

#### What happens when information is sent to the Emerging Risks System

New information is received and processed as "Alerts". The ERS team reviews each alert. We mainly focus on identifying significant new pests and changes in distribution, virulence, or outbreaks of high priority organisms of biosecurity concern to New Zealand. However, all new information is considered for assessment. We take risk management action if the information signals an increased risk to New Zealand biosecurity.

The following diagram provides more information about what can happen with each alert.



# Overview of ERS activities (reporting period 19/09/22 – 21/08/2023)

In the reporting period we started **676** new alerts and **175 alerts progressed beyond the initial screening stage** 10 were related to Aquatic Health, 2 were related to Animal Health and 163 were related to Plant Health

In the reporting period, **9 import health standards (IHSs)** were amended (Table 1) 0 were related to Aquatic Health, 0 were related to Animal Health and 9 were related to Plant Health

Information from **34 alerts** were logged for review when the relevant IHS schedule is updated (Table 2) 0 were related to Aquatic Health, 0 were related to Animal Health and 34 were related to Plant Health

**19 alerts** were evaluated by risk managers and were considered managed by existing standards (Table 3)

0 were related to Aquatic Health, 0 were related to Animal Health and 19 were related to Plant Health

**64 alerts** were closed following risk assessment because they did not represent an increase in biosecurity risk (Table 4) 7 were related to Aquatic Health, 1 were related to Animal Health and 56 were related to Plant Health

**34 alerts** are being actively monitored for further information (Table 5)

2 were related to Aquatic Health, 1 were related to Animal Health and 31 were related to Plant Health

**2 alerts** were sent to the border for their information (Table 6)

0 were related to Aquatic Health, 0 were related to Animal Health and 2 were related to Plant Health

**13 alerts** had a risk assessment and are pending risk management evaluation (Table 7)

1 was related to Aquatic Health, 0 were related to Animal Health and 12 were related to Plant Health

# Summary of actions and outcomes of emerging risk alerts

# Table 1: Alerts resulting in a change to an import health standard (IHS)

Risk managers determined that risk management action was required to manage the emerging risk during the reporting period. Usually, we amend a schedule of an import health standard to manage the changed risk.

Alert ID	Alert details	Significance	Summary	Field of alert
4041-1	Change in distribution: First report of <i>Tomato</i> brown rugose fruit virus in Mexico, affecting Solanum lycopersicum (tomato) and <i>Capsicum</i> sp. and in Israel affecting <i>Solanum</i> lycopersicum (tomato).	<i>Tomato brown rugose fruit virus</i> is not present in New Zealand and causes leaf and fruit disease affecting the crop values of tomatoes. Tomato and capsicum may be imported from Israel on the seeds for sowing pathway.	Risk management evaluation found that the risk on the tomato and capsicum seeds for sowing pathway was not managed by existing standards and recommended that additional measures were required. The seeds for sowing IHS has been amended to introduce measures that ensure this risk is appropriately managed. These actions occurred in 2019 but documentation in ERS was not completed at the time due to a system malfunction. This was resolved recently, explaining the delay in reporting.	
8504-1	New country post border detection/incursion: Australia will be publishing an International Plant Protection Convention (IPPC) notification on 30 July 2021 for an outbreak of <i>Liriomyza</i> <i>huidobrensis</i> (serpentine leafminer).	Liriomyza huidobrensis is not present in New Zealand and is a major quarantine pest with an excess of 360 host plants. Numerous hosts may be imported from Australia on the fresh produce, nursery stock and cut flowers and foliage pathways. Risk assessment determined that the fresh produce pathway required risk management evaluation.	Risk management evaluation found that the risk on the fresh produce pathway was not managed by existing standards and recommended that additional measures were required. The IHS 152.02 for fresh fruit and vegetables from Australia has been amended to include the leafminer on the pest lists of the schedules for celery, brassica, lettuce, basil, parsley, and pea to ensure this risk is appropriately managed.	
8541-1	New country post border detection/incursion: Australia will be publishing an International Plant Protection Convention (IPPC) notification on 30 July 2021 for an outbreak of <i>Liriomyza</i> <i>trifolii</i> (American serpentine leafminer).	Liriomyza trifolii is not present in New Zealand and is a major pest of ornamental and vegetable crops. Numerous hosts may be imported from Australia on the fresh produce, nursery stock and cut flowers and foliage pathways. Risk assessment determined that the fresh produce pathway required risk management evaluation	Risk management evaluation found that the risk on the fresh produce pathway was not managed by existing standards and recommended that additional measures were required. The IHS 152.02 for fresh fruit and vegetables from Australia has been amended to include the leafminer on the pest lists of the schedules for celery, brassica, lettuce, basil, parsley, and pea to ensure the risk is appropriately managed.	

Alert ID	Alert details	Significance	Summary	Field of alert
9630-1	New research/awareness: The bacterium <i>Ralstonia pseudosolanacearum</i> has been reported from <i>Arachis hypogaea</i> (peanut) in South Korea.	Ralstonia pseudosolanacearum is not present in New Zealand and causes bacterial wilt disease in multiple hosts. This bacterium is seed transmitted on <i>Arachis hypogaea</i> , which can be imported as seeds for sowing from all countries under basic conditions.	Risk management evaluation found that the risk on <i>Arachis hypogaea</i> seeds for sowing pathway was not managed by existing standards and recommended that additional measures were required. The seeds for sowing IHS has been amended to introduce measures that ensure this risk is appropriately managed.	
9693-1	New research/new awareness and new or change in pathway/commodity type: The bacterium <i>Xylella fastidiosa</i> is reported to be seed transmitted in <i>Carya illinoinsis</i> (pecan) in the USA.	<i>Xylella fastidiosa</i> causes severe damage to several major crops, forest, and ornamental plants. Pecan may be imported on the seeds for sowing pathway.	Risk management evaluation found that the risk on the <i>Carya illinoinensis</i> seeds for sowing pathway was not managed by existing standards and recommended that additional measures were required. The seeds for sowing IHS has been amended to introduce measures that ensure this risk is appropriately managed.	
9871-1	New research/new awareness: EFSA has updated the host plant database for the bacterium <i>Xylella</i> spp. and reports new host plants.	Xylella fastidiosa is not present in New Zealand. It causes severe damage in several major crops including citrus and grapevine. Xylella fastidiosa has hundreds of host plant species. The new hosts (Malus domestica (apple), Berberis thunbergia (Japanese barberry), Jasminum azoricum (jasmine), Pyrus communis (pear), Scabiosa sp. (pincushion flower), Calocephalus brownie (cushion bush) and Gazania rigens (treasure flower)), may be imported on the nursery stock pathway.	Risk management evaluation found that the risk from the multiple new hosts on the nursery stock pathway was not managed by existing standards and recommended that additional measures were required. The nursery stock IHS has been amended to introduce measures that ensure this risk is appropriately managed.	
10014-1	Change in distribution: First report of the bacterium <i>Xylella fastidiosa</i> subsp. <i>fastidiosa</i> from Lebanon.	Xylella fastidiosa subsp. fastidiosa is not present in New Zealand and causes Pierce's disease of grapevine. <i>Elaeagnus angustifolia</i> (Russian olive) and <i>Lavandula</i> spp. (lavenders) are potential hosts which may be imported from Lebanon on the nursery stock pathway.	Risk management evaluation found that the risk on the nursery stock pathway from Lebanon was not managed by existing standards and recommended that additional measures were required. The nursery stock IHS has been amended to introduce measures that ensure this risk is appropriately managed.	

Alert ID	Alert details	Significance	Summary	Field of alert
10299-1	New host association: EFSA has published an updated host list for the bacterium <i>Xylella fastidiosa</i> (version 7, January 9, 2023) with fifteen new host species in five genera. <i>Thymus vulgaris</i> (thyme) is reported as a host for the first time.	Xylella fastidiosa is not present in New Zealand and causes severe damage in several major crops including <i>Citrus</i> and <i>Vitis vinifera</i> (grapevine). <i>Xylella fastidiosa</i> has hundreds of host plant species. Thyme may be imported from all countries as nursery stock.	Risk management evaluation found that the risk on the <i>Thymus</i> nursery stock pathway was not managed by existing standards and recommended that additional measures were required. The nursery stock IHS has been amended to introduce measures that ensure the risk is appropriately managed.	A Contraction
10381-1	Change in distribution: First report of the bacterium <i>Xylella fastidiosa</i> subsp. <i>sandyi</i> causing leaf scorch of oleander ( <i>Nerium oleander</i> ) in Erbil, Iraq.	<i>Xylella fastidiosa</i> subsp. <i>sandyi</i> is not present in New Zealand. It causes oleander leaf scorch which eventually leads to the death of the plant. Oleander and other hosts may be imported from Iraq on the seeds for sowing and nursery stock pathways.	Risk management evaluation found that the risk on <i>Nerium</i> oleander on the nursery stock pathway was not managed by existing standards and recommended that additional measures were required. The nursery stock IHS has been amended to introduce measures that ensure this risk is managed appropriately.	

### Table 2: Alerts noted for future review of import health standards (IHS)

For these alerts, risk managers determined that the change in risk should be considered at the next IHS review. We did not believe these alerts required immediate action. The rationale for each decision is reported in the alert summaries.

Alert ID	Alert details	Significance	Summary	Field of alert
3397-1	New host association: <i>Grapevine Pinot gris</i> <i>virus</i> (GPGV) identified from seven new hosts: <i>Ailanthus</i> (tree of heaven), <i>Asclepias</i> (milkweed plants), <i>Crataegus</i> (hawthorn), <i>Fraxinus</i> (ash), <i>Rosa</i> (roses), <i>Rubus</i> (raspberry and others), and <i>Sambucus</i> (elder) in Hungary.	GPGV is not present in New Zealand and causes leaf deformation, delayed bud burst, mite attack and poor fruit set in grapevines around the world. A number of these new hosts may be imported on the nursery stock pathway.	Risk management evaluation found that the risk of GPGV associated with <i>Ailanthus</i> , <i>Asclepias</i> , <i>Crategus</i> , <i>Fraxinus</i> , <i>Rosa</i> , <i>Rubus</i> , and <i>Sambucus</i> nursery stock does not require immediate action. There is no open pathway for <i>Ailanthus</i> nursery stock and low demand for <i>Asclepias</i> , <i>Crataegus</i> , <i>Fraxinus</i> and <i>Rosa canina</i> on this pathway as they have not been imported in the last 5 years. <i>Rubus</i> nursery stock may only be imported into Level 3B PEQ as there are currently no MPI offshore approved facility for the importation of <i>Rubus</i> material. However, noting this lack of demand and uncertainties about the impacts of the disease, variants of the virus, epidemiology, and vector/s, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for the <i>Delphinium</i> , <i>Crataegus</i> , <i>Aesculus</i> , <i>Rosa</i> , <i>Rubus</i> and <i>Hydrangea</i> schedules that the new hosts are managed under in the nursery stock IHS.	
4673-1	Newly described organism/taxon: Two new fungal species <i>Colletotrichum pyrifoliae</i> and <i>C. jinshuiense</i> described from China causing anthracnose in <i>Pyrus</i> spp. (pear). New host association: First report of <i>Colletotrichum conoides</i> , <i>C. siamense</i> , <i>C. wuxiense</i> , <i>C. citricola</i> , <i>C. karstii</i> , and <i>C. plurivorum</i> fungi as causal agents of anthracnose in <i>Pyrus</i> spp. (pear) from China.	<i>Colletotrichum pyrifoliae</i> is a newly discovered organism that is not known to be present in New Zealand. It was associated with the leaves of Pyrus <i>pyrifolia</i> (nashi pear). Nashi pear can be imported from China on the fresh produce pathway.	Risk management evaluation found that the risk on the <i>Pyrus pyrifolia, Pyrus</i> sp. nr. <i>communis,</i> and <i>Pyrus bretschneideri</i> (pear) pathways do not require immediate action because commercial production systems and targeted measures on the pear from China pathways are likely to reduce the risk to an acceptable level. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements on the fresh pear pathway.	

Alert ID	Alert details	Significance	Summary	Field of alert
6174-1	New research/new awareness: Australia Consultative Committee on Emergency Plant Pests has concluded that it is not technically feasible to eradicate the insect fall armyworm ( <i>Spodoptera frugiperda</i> ) because of its reproductive capacity, ability to fly long distances and wide host range, combined with the remoteness and spread of known infestations.	Fall armyworm has been detected in New Zealand and is suspected to have arrived on the wind from Australia. In warmer countries, it is a serious pest of agricultural crops and is known to feed on over 100 species including maize, rice and sorghum. Multiple species may be imported from Australia on the cut flowers and foliage pathway.	Risk management evaluation found that the risk on the cut flowers pathway from Australia does not require immediate action because both pre-export and on-arrival inspections should detect the pest on this pathway. However, risk managers recommend that this alert should be logged for consideration at the present review of the requirements for this pest on the cut flowers and foliage pathway.	*
6380-1	New country post border detection/incursion: Detection of the bacterium <i>Ralstonia</i> <i>pseudosolanacearum</i> in a symptomatic geranium plant ( <i>Pelargonium</i> sp.) imported from Guatemala in a Michigan greenhouse (United States). The host was the variety Fantasia 'Pink Flare' ( <i>Pelargonium hortorum</i> ).	<i>Ralstonia pseudosolanacearum</i> is not present in New Zealand and causes bacterial wilt disease in multiple hosts. <i>Pelargonium</i> <i>hortorum</i> may be imported on the nursery stock, seeds for sowing and cut flowers & foliage pathways.	Risk assessment determined that symptoms on nursey stock and cut flowers would be visually detectable during inspection. Risk management evaluation of the seeds for sowing pathway concluded the available evidence for seed transmissibility of the pest does not meet the ISPM 38 guidelines to justify measures. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Pelargonium</i> spp. in the seeds for sowing IHS.	
7743-1	New host association: First report of the fungus <i>Colletotrichum tropicale</i> infecting avocado ( <i>Persea americana</i> ) in Mexico, and passionfruit ( <i>Passiflora edulis</i> ) in Brazil.	Colletotrichum tropicale is not present in New Zealand and causes anthracnose disease on avocado fruits and leaf necrosis on passionfruit. Avocado and passionfruit may be imported on the seeds for sowing and nursery stock pathways. Risk assessment determined that risk management evaluation was only required for the passionfruit seeds for sowing pathway.	Risk management evaluation found that the risk on the passionfruit seeds for sowing pathway does not require immediate action because there is no evidence suggesting that <i>C. tropicale</i> is seed transmitted. Moreover, passionfruit seeds for sowing have not been imported from Brazil or any other country where the fungus is known to occur in the last five years. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Passiflora edulis</i> seeds for sowing IHS.	*

Alert ID	Alert details	Significance	Summary	Field of alert
7938-1	New host association: First report of the fungus <i>Diaporthe malorum</i> infecting Tasmanian bluegum ( <i>Eucalyptus globulus</i> ) in Portugal.	Diaporthe malorum is not present in New Zealand and causes stem canker, leaf spots and seed decay in its hosts which include Eucalyptus globosus. Both Eucalyptus globosus and the alternative host maritime pine ( <i>Pinus pinaster</i> ) may be imported on the seeds for sowing pathway.	Risk management evaluation found that the risk on the <i>Eucalyptus globosus</i> and <i>Pinus pinaster</i> seeds for sowing pathways does not require immediate action because there is a low demand for these pathways. <i>Eucalyptus globosus</i> and <i>Pinus pinaster</i> seeds for sowing have not been imported from Portugal (the only country that where the fungus is known to occur) in the last 5 years. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Eucalyptus globosus</i> globosus and <i>Pinus pinaster</i> seeds in the seeds for sowing IHS.	
7939-1	New host association: First report of the fungus <i>Diaporthe crousii</i> infecting <i>Eucalyptus globulus</i> (Tasmanian bluegum) in Portugal.	<i>Diaporthe crousii</i> is not present in New Zealand and can cause dieback, stem canker, leaf spots, fruit rot or seed decay resulting in economic losses in several crops. <i>Eucalyptus</i> <i>globulus</i> may be imported on the nursery stock and seeds for sowing pathways. Risk assessment determined that there was a potential risk on the seeds for sowing pathway.	Risk management evaluation found that the risk on the <i>E. globulus</i> seeds for sowing pathway does not require immediate action because there is low demand for this pathway. <i>E. globulus</i> has not been imported from Portugal (the only country where the fungus is known to occur) in the last 5 years. This is a new and emerging pest therefore it is not known if <i>D. crousii</i> is seed transmitted or seed borne. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>E. globulus</i> in the seeds for sowing IHS.	*
7982-1	Change in distribution and new host association: The fungus <i>Lecanosticta acicola</i> was identified as the causal agent of blight symptoms in <i>Pinus</i> spp. (pines) and <i>Cedrus</i> spp. (cedar) in Turkey.	Lecanosticta acicola is not present in New Zealand and causes brown spot needle blight of <i>Pinus</i> species which can lead to stunted growth and tree mortality. <i>Cedrus libani</i> may be imported on the nursery stock pathway. <i>Cedrus libani</i> and <i>Pinus</i> spp. may be imported on the seeds for sowing pathway subject to mandatory fungicide treatment.	Risk management evaluation found that the risk on the <i>Cedrus</i> spp. nursery stock pathway does not require immediate action because there is low demand for this pathway (there is no history of trade). The current measures for whole plants and tissue culture provide some management of residual risk. <i>Cedrus</i> spp. whole plants require a permit so APHD would become aware of interest on the pathway before imports occur. Risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Cedrus</i> spp. plants for planting in the nursery stock IHS.	

Alert ID	Alert details	Significance	Summary	Field of alert
8139-1	New host association: First report of the bacterium <i>Dickeya fangzhondai</i> infecting <i>Colocasia esculenta</i> (taro).	Dickeya fangzhondai is not present in New Zealand and causes soft rot in multiple types of plants. Taro may be imported on the fresh produce and nursery stock pathways. Risk assessment determined that the nursery stock pathway required risk management evaluation.	Risk management evaluation found that the risk on the taro nursery stock pathway does not require immediate action because <i>D. fangzhongdai</i> is currently being considered as part of a wider consulted amendment project for <i>Dickeya</i> species and their hosts. Risk managers recommend that this alert should be logged for consideration at the present review of the requirements for this pest in the nursery stock IHS.	
8220-1	Newly described organism/taxon: New phytoplasma, ' <i>Candidatus</i> Phytoplasma dypsidis' belonging to a new 16Sr group described from cultivated palm species in Australia.	Phytoplasmas are associated with diseases of hundreds of plant genera and can lead to severe decline and death of plants. Several types of palms may be imported from Australia on the nursery stock and seeds for sowing pathways. Risk assessment determined that the nursery stock pathway required risk management evaluation.	Risk management evaluation found that the risk on the nine hosts on the nursery stock pathway does not require immediate action because there is low demand for this pathway (the hosts have not been imported from Australia in at least 10 years). However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for these hosts in the nursery stock IHS.	
8286-2	New host association: First report of Ti ringspot associated virus (TiRSaV) on <i>Prunus armenica</i> x <i>salicina</i> (plum) intercepted in PEQ on 2 plants from France.	Ti ringspot associated virus is not known to be present in New Zealand. Ti ringspot is an emerging foliar disease of the ti plant ( <i>Cordyline fruticosa</i> ) in Hawaii. Ti plants may be imported from France and Hawaii on the cut flowers and foliage pathway. Ti plant, <i>Prunus armeniaca</i> (apricot) and <i>Prunus salicina</i> (Japanese plum) can be imported from both countries on the nursery stock pathway.	Risk management evaluation found the risk of TiRSaV on <i>Cordyline fruticosa</i> cut foliage and branches from Hawaii or France does not require immediate action because there is low demand for this pathway. <i>C. fruticosa</i> cut foliage and branches have never been imported from Hawaii or France. However, risk managers recommend that this alert should be logged for consideration in the current review of the requirements for the three cut flower and foliage IHSs. (The risk management evaluation for the nursery stock pathway had already concluded as alert 8286-1.)	

Alert ID	Alert details	Significance	Summary	Field of alert
8305-1	New research/new awareness: qPCR quantification of the bacterium <i>Ralstonia solanacearum</i> spread in susceptible and resistant <i>Eucalyptus</i> sp.	<i>Ralstonia solanacearum</i> causes plant wilt disease (the most important bacterial disease of plants). There is no recent evidence to suggest that any strains of <i>R. solanacearum</i> are present in New Zealand. <i>Eucalyptus</i> sp. may be imported on seeds for sowing and nursery stock pathways. Alert 8305-1 is related to the seeds for sowing pathway.	Risk management evaluation found that the risk from <i>R. solanacearum</i> on the <i>Eucalyptus</i> seeds for sowing pathway does not require immediate action because there is insufficient evidence for seed transmissibility of the pest on this pathway. The evidence for seed transmission of <i>R. solanacearum</i> on <i>E. pellita</i> seeds does not meet the ISPM 38 guidelines to justify measures currently. Risk managers recommend that this alert should be logged for consideration at the next review of the requirements of the <i>Eucalyptus</i> seeds for sowing IHS.	
8376-2	New host association: <i>Apple stem grooving virus</i> (ASGV) detected in a mixed infection on peony plants ( <i>Paeonia</i> sp.) in China.	Apple stem grooving virus is not present in New Zealand and causes various diseases such as pear black necrotic leaf spot disease in pear and bud union disorder in citrus. Peony may be imported from China on the nursery stock and seeds for sowing pathways. Alert 8376-2 is related to the seeds for sowing pathway.	Risk management evaluation found that the risk on the seeds for sowing pathway does not require immediate action because the evidence for seed transmissibility of the pest on <i>Paeonia</i> spp. does not meet the ISPM 38 guidelines to justify measures currently. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements of the <i>Paeonia</i> seeds for sowing IHS.	
9055-1	Change in distribution and new host association: The bacterium <i>Dickeya</i> <i>fangzhondai</i> infecting three orchid species ( <i>Dendrobium anosmum, Phalaenopsis amabilis</i> and <i>Paphiopedilum concolor</i> ) in Vietnam.	<i>Dickeya fangzhondai</i> is not present in New Zealand and causes soft rot in orchids. Orchids and some of the other known hosts may be imported on the nursery stock pathway.	Risk management evaluation found that the risk on the Allium cepa, Aloe vera, Artocarpus heterophyllus, Colocasia esculenta, Dendrobium anosmum and D. nobile, Paphiopedilum concolor, Phalaenopsis spp. (including P. amabilis and P. aphrodite) nursery stock does not require immediate action because there is low demand for this pathway (the species have not been imported from Vietnam in the last 5 years). However, risk managers recommend that this alert should be logged for the Dickeya consulted amendment project currently under way.	

Alert ID	Alert details	Significance	Summary	Field of alert
9236-1	New host association: The bacterium <i>Dickeya fangzhongdai</i> has been reported on <i>Musa</i> sp. (bananas and plantains) in China.	<i>Dickeya fangzhongdai</i> is not present in New Zealand and was reported to cause peduncle soft rot in <i>Musa. Musa</i> from China is currently an inactive pathway, although there are historical imports of tissue culture.	Risk management evaluation found that the risk on the <i>Musa</i> spp. nursery stock pathway does not require immediate action because the pathway is currently prioritised for review and this emerging risk will be considered during the review. Import permits are unlikely to be issued before the review is completed. Risk managers recommend that this alert is logged for consideration at the review of the requirements for <i>Musa</i> spp. in the nursery stock IHS.	***
9337-1	Change in distribution: ' <i>Grapevine flavescence dorée phytoplasma</i> ' was detected on grapevine ( <i>Vitis vinifera</i> ) in Romania.	<i>Grapevine flavescence dorée phytoplasma</i> causes flavescence dorée disease in grapevines. Other hosts of the pathogen include <i>Alnus glutinosa</i> , <i>Salix</i> sp. and <i>Corylus</i> <i>avellana</i> which may be imported from Romania on the nursery stock pathway.	Risk management evaluation found that the risk of 'Grapevine flavescence dorée phytoplasma' on Alnus glutinosa, Salix sp. and Corylus avellana nursery stock does not require immediate action because there is low demand for them (they have not been imported from Romania in the last 10 years). However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for Alnus glutinosa, Salix sp. and Corylus avellana in the nursery stock IHS.	
9417-1	New host association and change in distribution: First report of the fungus <i>Caryophylloseptoria pseudolychnidis</i> causing necrotic leaf spots on Chinese ginseng ( <i>Panax</i> <i>notoginseng</i> ) in China.	<i>Caryophylloseptoria pseudolychnidis</i> is not present in New Zealand and causes necrotic leaf spots on Chinese ginseng. The closely related Korean ginseng is organically grown in New Zealand and Chinese ginseng may be imported on the nursery stock pathway.	Risk management evaluation found that the risk on the <i>Panax notoginseng</i> nursery stock does not require immediate action because there is low demand for this pathway ( <i>P. notoginseng</i> has not been imported from China or South Korea in the last 5 years). However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Panax notoginseng</i> in the nursery stock IHS.	****
9456-1	New host association and change in distribution: The fungus <i>Alternaria burnsii</i> has been reported to infect onions ( <i>Allium cepa</i> ) in Myanmar.	<i>Alternaria burnsii</i> is not present in New Zealand and causes leaf necrosis on onion. Risk assessment determined that the onion nursery stock pathway required risk management evaluation.	Risk management evaluation found that the risk associated with <i>Alternaria burnsii</i> on onion nursery stock does not require immediate action because there is a low demand for this pathway and there is no history of onion nursery stock imports from Myanmar. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Allium cepa</i> nursery stock IHS because there is no specific measure for <i>A. burnsii</i> .	

Alert ID	Alert details	Significance	Summary	Field of alert
9458-1	New host association: The fungus Pestalotiopsis lushanensis causing leaf blight on big-leaf podocarp ( <i>Podocarpus</i> macrophyllus) in China.	<i>Pestalotiopsis lushanensis</i> is not present in New Zealand and causes grey blight disease in Camellia. Big-leaf podocarp may be imported from China and Thailand on the nursery stock pathway.	Risk management evaluation found that the risk on <i>Podocarpus macrophyllus</i> nursery stock does not require immediate action because there is low demand for this pathway. However, risk managers recommend that this alert be logged for consideration at the next review of the requirements for <i>P. macrophyllus</i> (whole plants, cuttings, and tissue culture) in the nursery stock IHS.	****
9576-1	New host association: First report of the fungus <i>Diaporthe tulliensis</i> infecting peepul tree ( <i>Ficus</i> <i>religiosa</i> ) in China.	<i>Diaporthe tulliensis</i> causes disease in multiple hosts including stem canker in kiwifruit and leaf spot disease in peepul tree ( <i>Ficus religiosa</i> ). Peepul tree may be imported from all countries on the nursery stock pathway.	Risk management evaluation found that the risk on <i>Ficus</i> religiosa nursery stock pathway does not require immediate action because there is low demand for this pathway (it has not been imported in the last 10 years). However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Ficus</i> religiosa in the nursery stock IHS.	
9873-1	New country post border detection and new host association: Tomato necrotic ringspot virus (ToRSV) has been detected from a consignment of wax plants ( <i>Hoya australis</i> ) from Thailand.	ToRSV is not present in New Zealand and causes leaf and stem necrosis in tomato and capsicum. <i>Hoya australis</i> may be imported on the nursery stock pathway.	Risk management evaluation found that the risk on the <i>Hoya</i> nursery stock pathway does not require immediate action because visual inspections in PEQ are likely to detect the disease which may manage the risk. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Hoya</i> in the nursery stock IHS.	
9885-1	Change in distribution: <i>Chickpea chlorotic dwarf virus</i> is reported on <i>Solanum lycopersicum</i> (tomato) from Kenya.	<i>Chickpea chlorotic dwarf virus</i> (CpCDV) is not present in New Zealand and causes stunting and reduced seed production in many economically important host plants. <i>Carica</i> <i>papaya</i> (papaya) is a host that could be imported from Kenya on the nursery stock pathway.	Risk management evaluation found that the risk on the papaya nursery stock pathway does not require immediate action because there is low demand on this pathway ( <i>Carica</i> <i>papaya</i> nursery stock has not been imported from Kenya in the last 5 years). However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Carica papaya</i> in the nursery stock IHS.	3 th

Alert ID	Alert details	Significance	Summary	Field of alert
9976-1	Change in distribution: <i>Tomato chlorosis virus</i> has been found for the first time in Albania in tomato ( <i>Solanum lycopersicum</i> ) hybrids grown as greenhouse crops.	<i>Tomato chlorosis virus</i> causes yellow leaf disorder and yield loss in several hosts, including tomato and potato. Some of its hosts, such as the ornamental globe amaranth ( <i>Gomphrena globosa</i> ) are asymptomatic when infected and may not be detected by visual inspection alone. Several hosts may be imported from Albania on the nursery stock pathway.	Risk management evaluation found that the risk with importation of <i>Gomphrena globosa</i> (globe amaranth) plants for planting on the nursery stock pathway does not require immediate action because there is low demand for this pathway (the commodity has not been imported from Albania in the last 5 years). However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>G. globosa</i> plants for planting in the nursery stock IHS.	
9988-1	Change in distribution: First detection of <i>Citrus yellow vein clearing virus</i> (CYVCV) in Tulare County, California, USA.	CYVCV is not present in New Zealand. It causes yellowing and necrosis in citrus trees but is well managed on the <i>Citrus</i> nursery stock pathway. An alternative host, <i>Malva sylvestris</i> (common mallow) may be imported from the USA on the nursery stock pathway.	Risk management evaluation found that the risk on the <i>M. sylvestris</i> nursery stock pathway does not require immediate action because there is low demand for this pathway (there are no records of the import of <i>M. sylvestris</i> nursery stock). However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>M. sylvestris</i> nursery stock in the nursery stock IHS.	
9994-1	New host association: The bacterium ' <i>Candidatus</i> Phytoplasma solani' found on <i>Dianthus barbatus</i> (sweet William) in Serbia.	'Candidatus Phytoplasma solani' is not present in New Zealand and causes 'bois noir' in grapevines, 'stolbur' in tomatoes, potatoes and other wild and cultivated plants, maize redness, lavender decline, and yellowing, reddening, decline, dwarfism, leaf malformation and degeneration diseases of other plants. Sweet William may be imported on the nursery stock pathway.	Risk management evaluation found that the risk with importation of <i>Dianthus barbatus</i> on the nursery stock pathway does not require immediate action because <i>D. barbatus</i> is not usually imported from countries where ' <i>Candidatus</i> Phytoplasma solani' is present. Measures for the management of this agent in the <i>Dianthus</i> genus are already being investigated as part of a wider phytoplasma project.	

Alert ID	Alert details	Significance	Summary	Field of alert
10086-1	Change in distribution: The oomycete <i>Phytophthora occultans</i> is reported for the first time from the Czech Republic, causing dieback of <i>Buxus sempervirens</i> (common box hedge).	<i>Phytophthora occultans</i> is not present in New Zealand and causes root rot, wilting, and whole plant death in <i>Buxus sempervirens</i> (common box hedge). Some hosts may be imported from the Czech Republic on the nursery stock pathway.	Risk management evaluation found that the risk with importation of the three host genera on the nursery stock pathway does not require immediate action because there is low demand for this pathway (the commodity has not been imported from the Czech Republic in the last 5 years). However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Buxus</i> , <i>Choisya</i> and <i>Dracaena</i> in the nursery stock IHS.	
10108-1	New host association: Several new host plants have been reported for <i>Tomato brown rugose fruit virus</i> (ToBRFV) in Jordan.	ToBRFV is not present in New Zealand and causes a reduction of fruit quantities and quality in tomato and capsicum. Two of the new hosts <i>Malva parviflora</i> (cheese weed) and <i>Portulaca oleracea</i> (common purslane) may be imported on the nursery stock pathway.	Risk management evaluation found that the risk on the <i>M. parviflora</i> and <i>P. oleracea</i> nursery stock pathways do not require immediate action because there is low demand for these pathways. <i>M. parviflora</i> has no record of trade, and <i>P. oleracea</i> has only been imported once (2019) in the past 5 years. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>M. parviflora</i> or <i>P. oleracea</i> in the nursery stock IHS.	
10121-1	Change in distribution: First report of <i>Cactus virus X</i> (CVX) on dragon fruit ( <i>Hylocereus undatus</i> ) in Spain.	<i>Cactus virus X</i> does not occur in New Zealand. It causes necrotic, chlorotic and mottling diseases in a variety of cactus plants. Some of the known hosts of CVX may be imported from Spain on the seeds for sowing and nursery stock pathways. Alert 10121-1 relates to the nursery stock pathway.	Risk management evaluation found that the risk on the <i>Hylocereus undatus</i> nursery stock pathway does not require immediate actions because there is low demand for this pathway, and the last import of this commodity was from a country where CVX is not known to occur. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Hylocereus undatus</i> nursery stock.	

Alert ID	Alert details	Significance	Summary	Field of alert
10192-1	New host association: Alert PP 16-039 (alert source: The bacterium <i>Pseudomonas syringae</i> pv. actinidiae (Psa) isolated from non-kiwifruit plant species in China) was requested to be re- assessed by risk manager.	Psa is present in New Zealand, under official control, and causes canker disease in Kiwifruit. <i>Paulownia tomentosa</i> (princess tree) may be imported on the nursery stock pathway from Australia.	Risk management evaluation found that the risk on <i>P. tomentosa</i> nursery stock pathway does not require immediate action because <i>P. tomentosa</i> has never been imported into New Zealand before. MPI has been made aware of an upcoming import from Australia and has completed technical advice for this import which determined the risk of infection with Psa is low as the material is going to spend time in the Mickleham PEQ facility before being exported to New Zealand. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Paulownia</i> in the nursery stock IHS.	
10291-1	New research/new awareness: *Duplicate of 6603* The final Australian review of import conditions for cucurbitaceous seeds for sowing identified 8 pathogens as quarantine pests. Three of them, <i>Bitter gourd yellow mosaic virus</i> (BgYMV), <i>Cucumber fruit mottle mosaic virus</i> (CFMMV) and <i>Tomato black ring virus</i> (TBRV), require assessment.	This risk assessment is a clone of Alert 6603. The alert was cloned to allow a revision of the risk management evaluation of TBRV on the cucumber ( <i>Cucumis sativus</i> ), pumpkin and zucchini ( <i>Cucurbita pepo</i> ) seeds for sowing pathway.	Risk management evaluation found that the risk on the cucumber and squash seeds for sowing pathways does not require immediate action because there is insufficient evidence for seed transmissibility of TBRV in cucumber and squash and does not meet the ISPM 38 guidelines to justify measures on the seeds for sowing pathway currently. Also, commercial production systems for cucumber and squash seeds for sowing are likely to reduce the risk to an acceptable level. However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Cucumis sativus</i> and <i>Cucurbita pepo</i> in the seeds for sowing IHS.	
10301-1	New country post border detection /incursion: The bacterium <i>Ralstonia pseudosolanacearum</i> (phylotype 1) is now present in outdoor environments in the Netherlands, isolated from surface water and wild bittersweet nightshade ( <i>Solanum dulcamara</i> ).	<i>R. pseudosolanacearum</i> is not present in New Zealand and causes bacterial wilt disease in a large range of host plants. Multiple hosts may be imported from the Netherlands on the nursery stock, seeds for sowing and cut flower pathways. Alert 10301-1 relates to the nursery stock pathway.	Risk management evaluation found that the risk on the <i>Casuarina equisetifolia</i> and <i>Dahlia</i> nursery stock pathway does not require immediate action because there is low demand for this pathway (for example there is no record of <i>C. equisetifolia</i> ever being imported). However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>C. equisetifolia</i> and <i>Dahlia</i> spp. in the nursery stock IHS.	

Alert ID	Alert details	Significance	Summary	Field of alert
10308-1	Change in distribution and new host association: First report of the fungus <i>Alternaria</i> <i>burnsii</i> in Taiwan infecting <i>Impatiens hawkeri</i> (Guinea impatiens).	<i>Alternaria burnsii</i> is not present in New Zealand and causes foliar blight in <i>Impatiens hawkeri</i> , <i>Allium cepa</i> (onion), and <i>Zea mays</i> (maize). <i>Impatiens hawkeri</i> may be imported on the nursery stock pathway.	Risk management evaluation found that the risk of <i>A. burnsii</i> on <i>I. hawkeri</i> nursery stock from Taiwan does not require immediate action because <i>I. hawkeri</i> cannot be imported from Taiwan (it is not an approved country in the <i>Delphinium</i> schedule). The only approved country where the fungus is present is the UK, but <i>I. hawkeri</i> has never been imported from the UK. However, as there are no measures in place in the <i>Delphinium</i> schedule for <i>A. burnsii</i> , risk managers recommend that this alert be logged for consideration at the next review of the requirements for <i>I. hawkeri</i> in the nursery stock IHS.	**
10331-1	New research/new awareness: Several isolates of the fungus <i>Ceratocystis fimbriata</i> isolated from teak ( <i>Tectona grandis</i> ), mango ( <i>Mangifera indica</i> ), <i>Eucalyptus</i> spp., brown salwood ( <i>Acacia mangium</i> ), pomegranate ( <i>Punica granatum</i> ) and common fig ( <i>Ficus carica</i> ) caused disease and/or death in kiwifruit ( <i>Actinidia chinensis</i> and <i>A. deliciosa</i> ).	<i>Ceratocystis fimbriata</i> is present in New Zealand, although the strains described in the alert source are unlikely to be established here. <i>Ceratocystis fimbriata</i> is a regulated pest in New Zealand. This fungus causes discolouration of the xylem, root rot, and wilting in hosts such as kiwifruit, kumara and pomegranate. Previous risk assessments determined that the nursery stock pathway is the main risk of introduction to New Zealand. This alert identified that the <i>Punica granatum</i> nursery stock pathway may not have the same level of protection as for other species.	Risk management evaluation found that the risk of <i>C. fimbriata</i> on <i>P. granatum</i> nursery stock from multiple countries does not require immediate action because there is low demand for this pathway (it has not been imported since 2010). However, as there are no specific measures in place to manage this pest on this pathway, risk managers recommend that this alert be logged for consideration at the next review of the requirements for <i>P. granatum</i> in the nursery stock IHS.	
10454-1	Change in distribution and new host association: Sun spurge ( <i>Euphorbia</i> <i>helioscopia</i> ) has been reported to be a plant reservoir for the bacterium <i>Curtobacterium</i> <i>flaccumfaciens</i> pv. <i>flaccumfaciens</i> in Algeria.	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> is not present in New Zealand. It causes bacterial wilt in several bean species, ornamentals, and maize. Many of the hosts may be imported from Algeria as seed for sowing. The sun spurge may be imported from countries where the bacterium is present on the seeds for sowing and nursery stock pathways.	Risk management evaluation found that the risk on the <i>Euphorbia helioscopia</i> nursery stock pathway does not require immediate action because there is low demand for this pathway (there are no records of import of <i>E. helioscopia</i> nursery stock from Algeria or any other country in the history of QuanCargo). However, risk managers recommend that this alert should be logged for consideration at the next review of the requirements for <i>Euphorbia</i> in the nursery stock IHS	

# Table 3: Alerts closed because existing measures are appropriate to manage risk

These alerts were initially screened by risk analysts for a more in-depth risk assessment and then passed to risk managers, who determined that the risk was effectively managed with existing measures.

Alert ID	Alert details	Significance	Summary	Field of alert
3275-1	Change in distribution: Publications in Chinese suggest the possible presence of the bacterium <i>Xylella fastidiosa</i> on grapes ( <i>Vitis</i> sp.) in China.	<i>Xylella fastidiosa</i> is not present in New Zealand. It causes severe damage to several major crops, forest, and ornamental plants. Grapevine ( <i>Vitis</i> spp.) may be imported from China on the nursery stock pathway.	Risk management evaluation determined that the risk associated with <i>Xylella fastidiosa</i> on the <i>Vitis</i> spp. plants for planting pathway is appropriately managed by existing measures.	
3309-1	New research/new awareness: Reduced susceptibility of <i>Homalodisca vitripennis</i> (glassy winged sharpshooter) to commonly applied insecticides.	Homalodisca vitripennis is not present in New Zealand. It can feed on multiple hosts of economic importance. This pest is considered a threat because it is a vector of Pierce's disease ( <i>Xylella fastidiosa</i> ) in grapevines and other plants. Of relevance to this alert, <i>Vitis</i> spp. (grapes) can be imported from Mexico on the fresh produce pathway.	Risk management evaluation determined that the risk associated with <i>Homalodisca vitripennis</i> on the <i>Vitis</i> spp. fresh produce pathway was managed by existing measures. Risk management evaluation occurred in 2018 but documentation in ERS was not completed at the time due to a system malfunction. This was resolved recently, explaining the delay in reporting.	
3558-1	New research/new awareness: Kiwifruit Vine Health have raised concerns that fumigation may not kill <i>Lycorma delicatula</i> (spotted lanternfly) egg masses due to the protective coating secreted over eggs after laying.	<i>Lycorma delicatula</i> is not present in New Zealand. It causes damage to several horticultural species such as kiwifruit, pip fruit, stone fruit and especially grapevine. Several commodities may be imported from countries where the insect is present. Alert 3558-1 relates to the wood products pathway.	Risk management evaluation determined that the risk associated with <i>Lycorma delicatula</i> on the wood products pathway is appropriately managed by existing measures.	
4452-2	New research/new awareness: An updated pathogen profile of the fungus <i>Teratosphaeria gauchensis</i> , a causative agent of stem canker disease on <i>Eucalyptus</i> species, includes records on host species, distribution, and disease symptoms.	<i>Teratosphaeria gauchensis</i> is not present in New Zealand and causes stem canker in <i>Eucalyptus</i> species. Alert 4452-2 relates to the <i>Eucalyptus</i> seeds for sowing pathway.	Risk management evaluation found that the risk on <i>Eucalyptus</i> spp. seeds for sowing pathway is appropriately managed by existing measures. This is because there is no current evidence for seed transmission in these species. Additionally, generic measures such as seed cleaning and inspection are likely to manage any likelihood of its entry on <i>Eucalyptus</i> seeds. The ERS team will actively monitor the literature for evidence of seed to seedling transmission of the pathogen in <i>Eucalyptus</i> seeds.	

Alert ID	Alert details	Significance	Summary	Field of alert
4585-1	Change in distribution: Detection of the bacterium <i>Xylella fastidiosa</i> subsp. <i>multiplex</i> in Italy (Toscana region), Portugal, and update on the Spanish situation (detections mainland: Alicante, Madrid, Andalucía; Islas Baleares: Mallorca, Ibiza, Menorca).	Xylella fastidiosa subsp. multiplex is not present in New Zealand and is associated with scorch disease in a wide range of trees, including phony peach disease and plum leaf scorch. Prunus spp. (stonefruit) and Fragaria spp. (strawberry) may be imported from Italy on the nursery stock pathway.	Risk assessment determined that there was a potential risk for the strawberry pathway only. Risk management evaluation determined that the risk associated with <i>Xylella</i> <i>fastidiosa</i> on the <i>Fragaria</i> plants for planting pathway is managed appropriately by existing measures.	
4722-1	Change in distribution and new host association: First report of <i>Dacus ciliatus</i> (Ethiopian fruit fly) in Iraq. The fly was also found infesting <i>Psidium guajava</i> (guava), <i>Mangifera indica</i> (mango) and <i>Solanum</i> <i>melongena</i> (eggplant) in Kenya.	Dacus ciliatus is not present in New Zealand and is a major pest of a wide range of <i>Cucurbitaceae</i> (gourds: cucumber, melons, squash, etc) in Africa, Asia and the Middle East. Of importance to this alert, risk assessment determined that there may be a risk on the mango fresh produce pathway from India.	Risk management evaluation determined that the risk associated with <i>Dacus ciliatus</i> on the fresh mango from India pathway is managed by existing measures.	
5130-1	New research/new awareness: An industry stakeholder has advised that Australia will require mandatory methyl bromide fumigation of pomegranate ( <i>Punica granatum</i> ) fresh produce from USA for <i>Amyelois transitella</i> (Navel orangeworm), and requests that New Zealand's measures are reviewed.	Navel orangeworm is not present in New Zealand. It is a serious pest of almonds, walnuts, pistachios and figs in the USA. It is often associated with citrus fruit but is not usually considered a pest on these species. Pomegranate may be imported from the USA on the fresh produce pathway.	Risk management evaluation determined that the risk associated with navel orangeworm on the <i>Punica granatum</i> fresh produce pathway is managed by existing measures.	
5131-1	New research/new awareness: An industry stakeholder has advised that Australia will require mandatory methyl bromide fumigation of pomegranate ( <i>Punica granatum</i> ) fresh produce from USA for <i>Platynota stultana</i> (omnivorous leafroller), and requests that New Zealand's measures are reviewed.	The omnivorous leafroller is not present in New Zealand. In the USA it causes serious damage in vineyards, but can also affect other fruit such as kiwifruit, pip fruit, stone fruit, citrus and pomegranate. Pomegranate may be imported from the USA on the fresh produce pathway.	Risk management evaluation determined that the risk associated with the omnivorous leafroller on the <i>Punica granatum</i> fresh produce pathway is managed by existing measures.	

Alert ID	Alert details	Significance	Summary	Field of alert
6047-1	New research/new awareness: The bacterium <i>Pectobacterium parmentieri</i> (blackleg disease of potato) found in Poland, Norway, Switzerland, Scotland, and Canada associated with potato ( <i>Solanum tuberosum</i> ).	<i>P. parmentieri</i> has recently been renamed from some strains of <i>P. wasabiae</i> . <i>P. wasabiae</i> is present in New Zealand but risk assessors were uncertain whether the new naming could be applied to domestic strains. <i>P. parmentieri</i> causes blackleg disease of potato. Potato nursery stock may be imported from several countries where <i>P. parmentieri</i> is present.	Risk management evaluation determined that the risk associated with <i>P. parmentieri</i> on the <i>Solanum tuberosum</i> (potato) nursery stock pathway is appropriately managed by existing measures. Based on advice received form the Plant Health and Environment Laboratory it is highly likely that the <i>P. wasabiae</i> recorded in New Zealand is in fact <i>P. parmentieri</i> .	
7187-1	Change in distribution: The peach fruit fly <i>Bactrocera zonata</i> has been detected for the first time in Chowchilla Madera County, California, USA.	Bactrocera zonata is not present in New Zealand. It is an invasive fruit fly that affects several hosts of economic importance including stone fruit, apples, pears, citrus, tomato and cucumber. Many of these hosts may be imported from the USA on the fresh produce pathway.	Risk management evaluation determined that the risk associated with multiple hosts on the fresh produce pathway from the USA is managed by existing measures.	
7230-1	New research/new awareness: The Australian Department of Agriculture, Water and the Environment has released a draft risk analysis on fresh apple ( <i>Malus</i> spp.) from the Pacific Northwest states of the USA that identifies 24 pests requiring risk management measures. These pests include <i>Choristoneura rosaceana</i> (oblique-banded leafroller).	<i>Choristoneura rosaceana</i> is not present in New Zealand. The caterpillars cause leaf and fruit damage of some hosts. The worst-affected hosts are roses. Australia identified this pest as a risk on fresh apples, which may be imported into New Zealand on the fresh produce pathway.	Risk management evaluation determined that the risk associated with <i>Choristoneura rosaceana</i> on the <i>Malus</i> spp. fresh produce pathway is managed by existing measures.	
7672-1	New research/new awareness: Insecticide resistance in California populations of the glassy-winged sharpshooter <i>Homalodisca vitripennis</i> .	The glassy-winged sharpshooter is not present in New Zealand. It was introduced to California and has become an agricultural pest especially to viticulture. Several of the sharpshooter's hosts are eligible for import on the cut flowers and foliage pathway.	Risk management evaluation determined that the risk associated with glassy-winged sharpshooter on the cut flowers and foliage pathway is managed by existing measures. The ERS team will actively monitor for changes in spread of insecticide resistance.	A B C

Alert ID	Alert details	Significance	Summary	Field of alert
7672-3	New research/new awareness: Insecticide resistance in California populations of the glassy-winged sharpshooter <i>Homalodisca vitripennis</i> .	The glassy-winged sharpshooter is not present in New Zealand. It was introduced to California and has become an agricultural pest especially to viticulture. Several of the sharpshooter's hosts are eligible for import on the nursery stock pathway.	Risk management evaluation determined that the risk associated with glassy-winged sharpshooter on the nursery stock pathway is managed by existing measures. The ERS team will actively monitor for changes in spread of insecticide resistance of this pest.	
7829-1	New host association: New Zealand native sedges in the genus <i>Gahnia</i> , being grown overseas have been identified as hosts of <i>Xylella fastidiosa</i> (Pierce's disease of grapevines).	<i>Xylella fastidiosa</i> is not present in New Zealand. It infects a wide range of hosts and causes severe damage in several major crops including citrus and grapevine. <i>Gahnia</i> spp. may be imported on the seeds for sowing and cut flowers pathways. Alert 7829-1 relates to the cut flowers pathway.	Risk management evaluation found that the risk on the <i>Gahnia</i> spp. cut flowers pathway is appropriately managed by existing measures because cut flowers and foliage of <i>Gahnia</i> sp. are only allowed from Australia where <i>X. fastidiosa</i> is not known to occur. The ERS team will actively monitor the literature for evidence of the pathogen's change in distribution.	
7888-1	New research/new awareness Ecuador proposes fungicide treatment measures for <i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i> on <i>Cannabis sativa</i> seed for sowing.	<i>Fusarium oxysporum f. sp. vasinfectum</i> is not present in New Zealand and causes wilt symptoms in a variety of hosts including capsicum and cannabis. <i>C. sativa</i> may be imported on the seeds for sowing pathway.	Risk management evaluation determined that the risk associated with <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> on the <i>C. sativa</i> seeds for sowing pathway is appropriately managed by existing measures because it is uncertain whether <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> is seedborne in this host.	*
8233-1	Change in distribution: First report of the fungus <i>Macrophomina pseudophaseolina</i> in Australia on <i>Arachis hypogaea</i> (peanut) and <i>Parkinsonia aculeata</i> (Jerusalem thorn). New host association: the fungus was found infecting <i>Ipomoea batatas</i> (sweet potato) for the first time.	Macrophomina pseudophaseolina is not present in New Zealand and can cause charcoal rot disease on several host crops of economic importance including peanut, cowpea, sweet potato, melon and watermelon. Risk assessment determined that there may be a risk on the watermelon fresh produce pathway from Australia.	Risk management evaluation determined that the risk associated with <i>Macrophomina pseudophaseolina</i> on fresh melon pathways is managed by existing measures.	
9719-1	New research/new awareness: The fungus species <i>Diaporthe compacta</i> (leaf spot) symptom expression is only known for artificial and not natural infections. There has also been a recent report of the fungus causing symptomless infections in unwounded <i>Actinidia</i> sp. (kiwifruit) plants.	<i>Diaporthe compacta</i> causes leaf spot and fruit lesions in wounded Kiwifruit. Kiwifruit plants may be imported on the nursery stock pathway.	Risk management evaluation determined that the risk associated with <i>Diaporthe compacta</i> on the <i>Actinidia</i> spp. plants for planting pathway is appropriately managed by existing measures.	*

Alert ID	Alert details	Significance	Summary	Field of alert
9765-1	New research/new awareness and new host association: The fungus <i>Phomopsis longicolla</i> reported as a cause of post-harvest rot of <i>Actinidia</i> spp. (kiwifruit) in China.	Phomopsis longicolla is not present in New Zealand. It causes Phomopsis seed decay in soybean and now possibly post- harvest fruit rot and leaf spot in kiwifruit. Kiwifruit may be imported on the fresh produce and nursery stock pathways.	As the fungus causes rot in fruit, nursery stock was not assessed further. Risk management evaluation on the <i>Actinidia</i> fresh kiwifruit pathway determined that the risk associated with <i>Phomopsis longicolla</i> is managed by existing measures.	
10211-1	New host association: Brassica yellows virus reported from <i>Vigna unguiculata</i> (cowpea) and <i>Fragaria x ananassa</i> (strawberry) in China.	Brassica yellows virus (BrYV) is not present in New Zealand. It causes yellowing and rolling of leaves in plants of the Brassicaceae family. Strawberry may be imported on the nursery stock pathway.	Risk management evaluation determined that the risk associated with BrYV on the strawberry nursery stock pathway is managed by existing measures.	

# Table 4: Alerts closed because they do not represent a significant change or increase in risk to New Zealand biosecurity

These alerts were screened, passed to risk analysts for a more in-depth risk assessment and then closed because they do represent a change or increase in biosecurity risk. NB: Some alerts closed at this stage generate active monitoring and/or situational awareness for border staff and are recorded in tables 5 and 6 respectively.

Alert ID	Alert details	Significance	Summary	Field of alert
4960	Change in distribution: First report of the powdery mildew fungus <i>Erysiphe takamatsui</i> in China, affecting <i>Nelumbo nucifera</i> (sacred lotus) plants.	The fungus <i>Erysiphe takamatsui</i> is not known to be present in New Zealand and causes powdery mildew on the sacred lotus ( <i>Nelumbo</i> <i>nucifera</i> ). Sacred lotus may be imported as nursery stock from all countries.	Risk assessment determined that the change in distribution of <i>Erysiphe takamatsui</i> into China does not represent a risk to New Zealand biosecurity on the <i>Nelumbo nucifera</i> nursery stock pathway because basic measures (e.g. fungal treatment of bulbs and 3 months in L2 PEQ) are likely to manage the risk.	*
5001	Change in distribution: The citrus black spot fungus <i>Phyllosticta citricarpa</i> was detected in a few shipments of citrus fruit imported by the European Union from Tunisia.	<i>Phyllosticta citricarpa</i> is not present in New Zealand and causes black spot on citrus fruit and necrotic lesions on citrus leaves and twigs. Citrus may be imported from Tunisia as nursery stock.	Risk assessment determined that the change in distribution of <i>Phyllosticta citricarpa</i> into Tunisia does not represent a risk to New Zealand biosecurity on the nursery stock pathway because there are specific measures in place that require the plants to be tested for this pathogen.	
5186	Change in distribution: First record of Southern tomato virus (STV) from Germany on tomato (Solanum lycopersicum).	Southern tomato virus causes leaf distortion and necrosis and reduced fruit set in tomato. It has also been isolated from healthy tomato plants. Tomato may be imported from Germany on the seeds for sowing pathway.	Risk assessment determined that the change in distribution of Southern tomato virus into Germany does not represent a risk to New Zealand biosecurity on the tomato seeds for sowing pathway because the virus is already present and widespread in New Zealand.	*
6005	Change in distribution: Transcontinental expansion of the bacterium <i>Vibrio</i> <i>parahaemolyticus</i> sequence type 36 into Lima, Peru, detected in human clinical samples.	Vibrio parahaemolyticus is present in New Zealand. It is a contaminant of seafood which causes foodborne illness in people. Seafood may be imported from Peru and aquatic animals may also enter as hitchhikers in the ballast water of ships.	The initial screening for this alert notes that the current import health standards for shellfish importation and the International Maritime Organization Ballast Water Convention minimise the risk of entry. This is not changed by the expansion of the pathogen into Peru. Further risk assessment is not required.	*
7711	New country post border detection/incursion: The invasive Japanese shore crab ( <i>Hemigrapsus sanguineus</i> ) reported in Port Phillip Bay, Australia.	The Japanese shore crab is not present in New Zealand. Native to the northwest Pacific, it is an introduced and invasive species in North America and Europe. Introduction to New Zealand could occur as biofouling or in ballast water of ships.	The initial screening for this alert notes that the current standards minimise the risk of entry. This is not changed by the expansion of the crab into Australia. Further risk assessment is not required. The ERS team passed the information on to the team responsible for craft risk management standards to monitor as part of the biofouling and invasive species programme.	-

Alert ID	Alert details	Significance	Summary	Field of alert
8371	New research/new awareness: Western Australia is implementing measures to prevent the introduction of abalone viral ganglioneuritis ( <i>Abalone herpesvirus</i> ) into its territory.	Abalone herpesvirus is not present in New Zealand. Outbreaks in wild or farmed abalone can lead to 90% mortality. It is a WOAH-listed disease. Abalone may be imported on the marine molluscs for human consumption pathway.	The information in this alert has been passed on for inclusion in an import risk analysis on molluscs that is currently being drafted.	*
8459	New host association: The Brazilian catfish ( <i>Pseudoplatystoma corruscans</i> ) found to be susceptible to infection with the bacterium <i>Edwardsiella ictaluri</i> (enteric septicemia of catfish).	<i>Edwardsiella ictaluri</i> is not present in New Zealand. It causes enteric septicemia of catfish and some other fish species. Two species of fish of the same Family as <i>P. corruscans</i> may be imported on the ornamental fish and marine invertebrate pathway.	Risk assessment determined that the new host association between <i>Edwardsiella ictaluri</i> and <i>P. corruscans</i> does not represent a risk to New Zealand biosecurity on the ornamental fish pathway because <i>P. corruscans</i> cannot be imported into New Zealand and there is no evidence that any other species in this Family can be infected, especially when kept in aquaria environments.	*
8616	New research/new awareness: The bacterium <i>Aeromonas schubertii</i> was found to cause mortality in farmed Penaeid shrimp in China.	Aeromonas schubertii has not been reported in New Zealand. It is an environmental bacterium which occasionally causes disease and high mortality in fish and shrimp kept in aquaculture facilities. Penaeid shrimp may be imported on the aquatic products pathway.	Risk assessment determined that the new awareness that <i>A. schubertii</i> is increasingly associated with disease and mortality in farmed shrimp in China does not represent a risk to New Zealand biosecurity on the aquatic products pathway because it is unlikely the bacteria would have a negative impact in New Zealand. Aeromonads are opportunistic pathogens. At present there is no evidence to suggest that <i>A. schubertii</i> associated with farmed shrimp is a primary pathogen. Several import risk analyses have recently assessed the risks for <i>Aeromonas</i> spp. affecting shrimp as negligible and the information from China does not change our conclusions.	-
9084	New host association and change in distribution: Outbreak of infectious spleen and kidney necrosis disease (caused by <i>red sea bream iridovirus</i> ) affecting tilapia ( <i>Oreochromis niloticus</i> ) aquaculture in Brazil.	This WOAH-listed aquatic disease is not present in New Zealand. Infection can cause no mortality, or significant disease with high mortality. It is usually a disease of marine fish. Tilapia is an unusual freshwater host. Tilapia may be imported on the aquatic animal products pathway, but there are no negotiated veterinary certificates for fish from Brazil.	Risk assessment determined that the newly discovered host association between <i>red sea bream iridovirus</i> and tilapia represents a potential risk to New Zealand on the aquatic animal products pathway. Since there are currently no imports from Brazil, this alert was passed on to risk managers as a FYI to consider updating Schedule 3 of the aquatic animal products IHS.	-

Alert ID	Alert details	Significance	Summary	Field of alert
9735	New host association: The fungus <i>Mucor irregularis</i> causing kiwifruit rot in China.	<i>Mucor irregularis</i> is not known to be present in New Zealand. It causes fruit rot in kiwifruit, mangosteen, durian and habanero pepper, and kernel brown spot in corn. Kiwifruit ( <i>Actinidia</i> sp.) may be imported on the fresh produce pathway from USA and on nursery stock pathway from all countries.	Risk assessment determined that the new host association between <i>Mucor irregularis</i> and kiwifruit does not represent a risk to New Zealand biosecurity on the fresh produce and nursery stock pathways because it is expected that fruit for export is undamaged and <i>M. irregularis</i> cannot colonise undamaged fruit. The alert source did not state whether the fungus was isolated from plant parts that may be eligible for import as nursery stock. Risk managers have been informed about the alert. The ERS team will actively monitor the literature for further developments regarding <i>M. irregularis</i> on <i>Actinidia</i> sp.	
9769	New host association and change in distribution: First report of the fungus <i>Calonectria canadiana</i> infecting <i>Prunus persica</i> (peach) in China.	<i>Calonectria canadiana</i> causes fruit rot and leaf and stem blight in its hosts, which include <i>Prunus persica</i> (peach) and <i>Fragaria x</i> <i>ananassa</i> (strawberry). Most hosts can be imported on the nursery stock pathway.	Risk assessment determined the new host association between <i>C. canadiana</i> and peach does not represent a risk to New Zealand biosecurity because symptoms are likely to be expressed and detected during PEQ in whole plants. Also, as the fungus is only known to associate with roots in soil, it is unlikely to be associated with tissue culture. The alert was passed to risk managers for their information.	
9881	New country post border detection/incursion: APHIS establishes quarantine for the Mexican fruit fly ( <i>Anastrepha ludens</i> ) in Hargill and Lyford, Willacy County, Texas, and expands the quarantine area in Cameron, Hidalgo and Willacy Counties, Texas.	Anastrepha ludens causes damage by feeding and laying eggs in the fruit of hosts such as citrus, apple and pear. These hosts and several others may be imported from the USA on the fresh produce pathway.	Risk assessment determined that the new country post border detection/incursion of <i>Anastrepha ludens</i> in Texas does not represent a risk to New Zealand biosecurity because the fly is managed in imports by a requirement for all host material to come from pest free areas of production. The information will be passed on to risk managers for their awareness.	
9911	Change in distribution: Rice leaf blight caused by the bacterium <i>Pantoea ananatis</i> in Kerala, India.	Pantoea ananatis is not present in New Zealand. It causes diseases in multiple hosts, including Zea mays (maize) and Allium spp. (onion and similar). Multiple hosts may be imported from India on the cut flowers & foliage and nursery stock pathways.	Risk assessment determined that the change in distribution of <i>Pantoea ananatis</i> in India does not represent an emerging risk to New Zealand biosecurity, as the level of risk has not increased following this alert. This alert is additional information to ongoing MPI activity and will be passed to risk managers.	

Alert ID	Alert details	Significance	Summary	Field of alert
9956	Change in distribution: APHIS expands and establishes quarantine areas for the bacterium ' <i>Candidatus</i> Liberibacter asiaticus' (causal agent of Citrus Greening or Huanglongbing) in California, USA.	<i>Candidatus</i> Liberibacter asiaticus' is not present in New Zealand. It causes citrus greening disease in <i>Citrus</i> spp. Citrus may be imported from the USA on the nursery stock and fresh produce pathways.	Risk assessment determined that the change in distribution of ' <i>Candidatus</i> Liberibacter asiaticus' in California, USA does not represent an increase in biosecurity risk because there are specific measures for the pathogen and its vectors on the nursery stock and fresh produce pathways. Additionally, the change in distribution is still within California, which is a known area of the pathogen's distribution. Risk managers have been informed about the alert.	×
9991	New host association: Monitoring for change has identified several asymptomatic hosts of the fungus <i>Quambalaria cyanescens</i> within its known host range.	<i>Quambalaria cyanescens</i> is not present in New Zealand. It causes grapevine decline in grapes but is asymptomatic in several hosts. Some of the known hosts include <i>Eucalyptus</i> , cherry and pomegranate and these may be imported on the nursery stock pathway.	Risk assessment determined the association of <i>Quambalaria cyanescens</i> with several host species does not represent a potential risk to New Zealand biosecurity because the evidence for pathogenicity is scarce and controversial. Following the only evidence of disease causation by <i>Q. cyanescens</i> in grapevine, the fungus is likely to be detected during the post-entry quarantine for nursery stock of grapevine. Risk managers have been informed about the alert. The ERS team will continue monitor the literature for evidence of disease causation by <i>Q. cyanescens</i> in other hosts and more evidence of pathogenicity in grapevine.	*
10004	New country post border detection/incursion: First detection of the atlas moth ( <i>Attacus atlas</i> ) in the USA.	The atlas moth larvae feed on the mature leaves of multiple host plants including citrus and avocado. Of the possible hosts, guava and sugar apples may be imported from the USA on the nursery stock pathway.	Risk assessment determined that the detection of <i>Attacus</i> <i>atlas</i> in the USA does not represent a risk to New Zealand biosecurity on the nursery stock pathway because the alert notes the detection of a single individual with no evidence of an established population in Washington state, USA. The species has no history of invasive ability and the current basic measures outlined in the nursery stock IHS would mitigate the pest species.	
10022	Change in distribution: The fungus <i>Eutypella parasitica</i> is reported for the first time from Switzerland from a canker on <i>Acer pseudoplatanus</i> (sycamore).	<i>Eutypella parasitica</i> is not present in New Zealand. It causes cankers and necrotic lesions in maples ( <i>Acer</i> spp.). Maples may be imported from Switzerland on the nursery stock pathway.	Risk assessment determined that the change in distribution of <i>Eutypella parasitica</i> into Switzerland does not represent a risk to New Zealand biosecurity on the nursery stock pathway as symptoms are expected to be detected within the 6 months required in PEQ.	

Alert ID	Alert details	Significance	Summary	Field of alert
10025	New research/new awareness: The pine wood nematode <i>Bursaphelenchus xylophilus</i> is reported for the first time in larch species, <i>Larix olgensis</i> (syn. <i>Larix gmelinii var. olgensis</i> ), <i>L. kaempferi</i> and <i>L. principis-ruprechtii</i> (syn. <i>Larix gmelinii var. principis-ruprechtii</i> ) in China.	<i>Bursaphelenchus xylophilus</i> is not present in New Zealand. It causes wilting in hosts such as <i>Pinus radiata</i> (radiata pine). Larch may be imported on the nursery stock or wood products pathways.	Risk assessment determined that the new record of <i>Bursaphelenchus xylophilus</i> on <i>Larix</i> spp. in China does not represent a risk to New Zealand biosecurity because infected nursery stock will likely be detected during post- entry quarantine. In addition, the nematode strictly relies on its beetle vector ( <i>Monochamus</i> spp.) to colonise new hosts and the vector does not occur in New Zealand. There are specific measures for both the nematode and its vectors in the different wood product IHSs.	A B C
10026	Change in distribution: The California citrus thrips ( <i>Scirtothrips citri</i> ) is reported for the first time from Israel.	<i>Scirtothrips citri</i> is not present in New Zealand. The insect is a pest with multiple hosts including citrus and blueberries. It feeds on young leaves and developing fruit. Citrus may be imported from Israel on the fresh produce pathway.	Risk assessment determined that the change in distribution of <i>Scirtothrips citri</i> to Israel does not represent a risk to New Zealand because the association of <i>S. citri</i> with citrus was with very young fruits and the flower ovary, not the mature fruit that may be imported.	
10029	Change in distribution: First report of <i>Tomato brown rugose fruit virus</i> (ToBRFV) in Finland.	<i>Tomato brown rugose fruit virus</i> is not present in New Zealand. It causes wrinkling and deformation in tomatoes and capsicums. Both hosts may be imported from Finland on the seeds for sowing pathway.	Risk assessment determined that this change in distribution of <i>Tomato brown rugose fruit virus</i> into Finland does not represent a risk to New Zealand biosecurity on tomato and capsicum seeds for sowing as seeds must be sourced from a pest free area or pest free place of production or be tested for the virus.	A DE
10030	Change in distribution: The <i>Tomato mottle mosaic virus</i> (ToMMV) was found for the first time in the Netherlands in tomato seeds.	ToMMV is not present in New Zealand. It causes disease in tomato ( <i>Solanum lycopersicum</i> ) and capsicum ( <i>C. annum</i> , <i>C. frutescens</i> ). Capsicum has previously been able to be imported from the Netherlands as fresh produce, but this pathway is currently closed.	Risk assessment determined that the change in distribution of <i>Tomato mottle mosaic virus</i> to the Netherlands does not represent a risk to New Zealand biosecurity on the fresh produce pathway because infected capsicums will not be used for fresh produce due to quality issues. This pathway is closed while the Netherlands implement the required pest free place of production for the <i>Tomato brown rugose fruit</i> <i>virus</i> . Risk managers have been informed about this alert.	
10031	New country post border detection/incursion: First report of <i>Tomato leaf curl New Delhi virus</i> (ToLCNDV) in Slovakia.	ToLCNDV is not present in New Zealand. It causes production losses in tomatoes and can infect multiple other hosts, several of which may be imported from Slovakia on the seeds for sowing pathway.	Risk assessment determined that the detection of <i>Tomato</i> <i>leaf curl New Delhi virus</i> in Slovakia does not present an increase in biosecurity risk to New Zealand because this alert reports an incursion that has since been eradicated.	

Alert ID	Alert details	Significance	Summary	Field of alert
10036	New country post border detection/incursion: The oriental fruit fly, <i>Bactrocera dorsalis</i> has been detected in North Hills area, Los Angeles County, California, USA.	<i>Bactrocera dorsalis</i> is not present in New Zealand and causes damage to fruit such as apple, pear and grapes. Host material may be imported as fresh produce from California.	Risk assessment determined that the detection of <i>Bactrocera dorsalis</i> in California does not represent a risk to New Zealand biosecurity on the fresh produce pathway because this pest is not widespread and is currently under control in California. The alert was sent to risk managers for their awareness.	
10053	Change in distribution: First report of <i>carrot torrado virus 1</i> (CaTV1) naturally infecting carrots ( <i>Daucus carota</i> ) in Spain.	<i>Carrot torrado virus 1</i> is not present in New Zealand and can infect carrot, celery, and <i>Angelica keiskei</i> (ashitaba) plants. It is unconfirmed whether symptoms on infected carrot and celery are attributable to CaTV1. Observed symptoms include leaf reddening, chlorosis, mosaicism and ring spots. Carrot and celery can be imported from Spain on the seeds for sowing pathway.	Risk assessment determined that the change in distribution of <i>Carrot torrado virus 1</i> (CaTV) to Spain does not represent a risk to New Zealand biosecurity on the seeds for sowing pathway because there is no evidence that CaTV1 infects seeds.	
10070	New host association: The fungus <i>Cadophora</i> <i>luteoolivacea</i> has been reported to infect <i>Malus</i> spp. and <i>Pyrus</i> spp. (apple and pear) in Europe.	<i>C. Luteoolivacea</i> is present in New Zealand and causes disease in kiwifruit, avocado and grape vines. The new association with apples and pears may represent a new strain adapted to these hosts that may not be present in New Zealand. <i>Malus</i> and <i>Pyrus</i> may be imported from several countries as fresh produce and nursery stock.	Risk assessment determined that the new host association between <i>C. luteoolivacea</i> and <i>Malus</i> and <i>Pyrus</i> does not represent a potential risk to New Zealand biosecurity on the nursery stock and fresh produce pathways because this assessment provides evidence that the strain from the alert is present in New Zealand.	
10085	New host association: The fungus <i>Neoscytalidium novaehollandiae</i> has been reported to cause dieback on <i>Pinus eldarica</i> (Eldarica pine tree) in Iran.	<i>N. novaehollandiae</i> is not present in New Zealand. It causes chlorotic lesions, decline, and dieback on <i>Pinus eldarica</i> (synonym of <i>P. brutia</i> ), which may be imported as seeds for sowing.	Risk assessment determined that the new host association between <i>Neoscytalidium novaehollandiae</i> and <i>Pinus</i> <i>eldarica</i> does not represent a risk to New Zealand biosecurity on the seeds for sowing pathway because there is currently no evidence for <i>N. novaehollandiae</i> being seed borne or transmitted on <i>Pinus</i> seed. There is already ongoing monitoring for change for evidence of seed association for this fungus.	A B C

Alert ID	Alert details	Significance	Summary	Field of alert
10090	Change in distribution: The balsom fir sawfly ( <i>Neodiprion abietis</i> ) is found on <i>Abies concolor</i> trees (white fir) in Mexico.	<i>Neodiprion abietis</i> is not present in New Zealand. It affects plant growth in fir, pine, and spruce trees. Hosts <i>Cedrus</i> spp. may be imported into New Zealand from Mexico on the nursery stock pathway.	Risk assessment determined that the change in distribution of <i>Neodiprion abietis</i> into Mexico does not represent a risk to New Zealand biosecurity on the nursery stock pathway because the treatments for insects in the <i>Cedrus</i> and <i>Abies</i> schedule will manage the risks for this pest. Risk managers have been informed about this alert.	*
10096	Change in distribution: The chilli thrips <i>Scirtothrips dorsalis</i> is found in the state of Colima, Mexico in Mexican lime ( <i>Citrus</i> <i>aurantiifolia</i> ) orchards.	S. dorsalis is not present in New Zealand. It is a pest of economic significance that can affect several horticultural and native New Zealand plant species. Several host species may be imported from Mexico on the nursery stock and fresh produce pathways.	Risk assessment determined that the change in distribution of <i>S. dorsalis</i> in Mexico does not represent a risk to New Zealand biosecurity on the nursery stock and fresh produce pathways because the measures against insects on the nursery stock and fresh produce IHSs would prevent entry of the thrips.	
10100	New country post border detection/incursion: New findings of the oriental fruit fly <i>Bactrocera</i> <i>dorsalis</i> in southern Italy.	Bactrocera dorsalis is not present in New Zealand and causes significant economic impact on a wide range of plant hosts such as apple, grape and stone fruit. Kiwifruit (a poor host of <i>B. dorsalis</i> ) may be imported from Italy on the fresh produce pathway.	Risk assessment determined that the new country detection of <i>B. dorsalis</i> in Italy does not represent a risk to New Zealand biosecurity on the fresh produce pathway because <i>B. dorsalis</i> is a transient pest under eradication that is present only in one area of Italy. The alert has been passed on to risk managers for their information.	
10102	Change in distribution: The leafhopper <i>Graphocephala versuta</i> was found for the first time in Algeria.	<i>Graphocephala versuta</i> is a sharpshooter insect which feeds on sap and fluids from plants. It is a vector for the pathogenic bacterium <i>Xylella fastidiosa</i> which is not present in New Zealand and causes Pierce's disease in grapevine. Potential hosts for the sharpshooter (okra) can be imported from Algeria on the nursery stock pathway.	Risk assessment determined that the new distribution of <i>G. versuta</i> in Algeria does not represent a risk to New Zealand biosecurity on the nursery stock pathway. The time required in level 2 PEQ will contain the life span of the insect. It is unlikely a specimen will go undetected in L2 PEQ facility.	*

Alert ID	Alert details	Significance	Summary	Field of alert
10106	New country post border detection/incursion: First report of the bacterium <i>Ralstonia</i> <i>pseudosolanacearum</i> in Italy.	<i>Ralstonia pseudosolanacearum</i> is not present in New Zealand and causes bacterial wilt disease in a large range of host plants. Multiple hosts may be imported from Italy on the nursery stock and seeds for sowing pathways.	Risk assessment determined that the change in distribution of <i>R. pseudosolanacearum</i> in Italy does not represent a risk to New Zealand biosecurity on the nursery stock pathway because hosts are likely to show symptoms during the post- entry quarantine period. The bacterium is unlikely to be a risk on the seeds for sowing pathway because it is only known to naturally infect peanut seeds and there is already a specific measure for the bacterium in the peanut seeds for sowing pathway. The alert was sent to risk managers for their information.	
10107	Change in distribution: <i>Cotton leaf curl Gezira virus</i> (CLCuGV) has been reported for the first time in Belgium from <i>Lavatera</i> sp. (tree mallow).	Cotton leaf curl Gezira virus (CLCuGV) is not present in New Zealand and causes leaf curl on its hosts, which include Gossypium hirsutum (cotton), Lavatera spp. (tree mallows), and Solanum lycopersicum (tomato). Some hosts may be imported from Belgium on the nursery stock pathway.	Risk assessment determined that the change in distribution of CLCuGV to Belgium does not represent an increase in risk to New Zealand biosecurity because, at the time this alert was assessed, CLCuGV was still under eradication in Belgium. As of May 2023, EPPO now records this virus as eradicated in Belgium.	
10114	New country post border detection/incursion: APHIS establishes a domestic quarantine for the bacterium <i>Xanthomonas citri</i> subsp. <i>citri</i> (causal agent of citrus canker) in Baldwin County, Alabama, USA.	<i>Xanthomonas citri</i> subsp. <i>citri</i> is not present in New Zealand. <i>Citrus</i> spp. may be imported from the USA on the seeds for sowing, nursery stock and fresh produce pathways.	Risk assessment determined that the detection of <i>X. citri</i> subsp. <i>citri</i> in Alabama does not represent an increase in biosecurity risk to New Zealand because the pathogen is known to occur in the USA and there are specific measures for the bacterium in the nursery stock and seeds for sowing pathways. Basic pre-export measures are likely sufficient to mitigate the risk of entry. The alert was forwarded to risk managers for their information.	
10115	New country post border detection/incursion: APHIS establishes a quarantine area for <i>Anastrepha ludens</i> (Mexican fruit fly) in Valley Center, San Diego County, California, USA.	Anastrepha ludens is not present in New Zealand. It causes damage by feeding and laying eggs in the fruit of hosts such as citrus, apple and pear. These hosts and several others may be imported from the USA on the fresh produce pathway.	Risk assessment determined that the detection of Anastrepha ludens in California does not represent a risk to New Zealand biosecurity because the pest is under official control in California and the pathway is generally managed for fruit flies. This information will be passed on to risk managers for their awareness.	

Alert ID	Alert details	Significance	Summary	Field of alert
10116	New country post border detection/incursion: APHIS establishes a quarantine area for <i>Bactrocera dorsalis</i> (Oriental fruit fly) in Fountain Valley, Orange County, California, USA.	Bactrocera dorsalis is not present in New Zealand and causes significant economic impact on a wide range of plant hosts such as apple, grape and stone fruit. Multiple hosts (including apples and grapes) may be imported from the USA on the fresh produce pathway.	Risk assessment determined that the detection of <i>Bactrocera dorsalis</i> in California does not represent a risk to New Zealand biosecurity on the fresh produce pathway because <i>Bactrocera dorsalis</i> is a transient pest under eradication that is present only in one area in California. The alert was forwarded to risk managers for their information.	
10120	Newly described organism: Arabidopsis latent virus 1 (ArLV1) has been found in <i>Arabidopsis thaliana</i> (thale cress) in the Netherlands.	Arabidopsis latent virus 1 (ArLV1) is not known to be present in New Zealand and has been found infecting <i>Arabidopsis thaliana</i> (thale cress) without causing symptoms. <i>Arabidopsis</i> <i>thaliana</i> may be imported on the seeds for sowing pathway.	Risk assessment determined that the newly described organism Arabidopsis latent virus 1 on its host <i>Arabidopsis</i> <i>thaliana</i> (thale cress) does not represent an increased risk to New Zealand biosecurity because <i>A. thaliana</i> is the only known natural host and the virus does not appear to cause symptoms on this host.	
10126	Change in distribution: Brown marmorated stink bug (BMSB), <i>Halyomorpha halys</i> is reported from Armenia for the first time.	BMSB is not present in New Zealand and causes damage to multiple host species. BMSB has the potential to enter New Zealand via the inanimates and passenger pathways.	Risk assessment determined that the new change in distribution of BMSB to Armenia does represent a potential risk to New Zealand biosecurity on the passenger and inanimates pathways. The possibility of BMSB entering New Zealand cannot be ruled out, although the overall likelihood of being introduced from Armenia is very low. Because this is not a significant change in distribution the alert was sent to risk managers as an FYI and may require situational awareness at the border.	***
10143	New host association: The <i>Sri Lankan cassava</i> <i>mosaic virus</i> (SLCMV) has been detected in <i>Cnidoscolus chayamansa</i> (tree spinach), <i>Jatropha curcas</i> (physic nut) and <i>Jatropha</i> <i>multifida</i> (coral plant).	Sri Lankan cassava mosaic virus is not present in New Zealand. It is one of the agents which causes cassava mosaic disease, one of the most important crop diseases in the world. The new host plants Jatropha curcas and Jatropha multifida may be imported from Thailand on the nursery stock pathway.	Risk assessment determined that the new host association for <i>Sri Lankan cassava mosaic virus</i> does not represent a risk to New Zealand biosecurity because there have never been imports of the risk commodities from Thailand and there are very few hosts in New Zealand. Also, the impacts following the introduction of the virus are likely to be negligible.	

Alert ID	Alert details	Significance	Summary	Field of alert
10155	Change in distribution: The Guava root-knot nematode ( <i>Meloidogyne enterolobii</i> ) detected at four properties in Northern Territory, Australia in several horticultural crops.	<i>M. enterolobii</i> is not present in New Zealand and causes wilting, yellowing, stunted growth and galls in the roots of multiple host plants. There are multiple potential hosts which may be imported from Australia on the nursery stock pathway.	Risk assessment determined that the change in distribution of <i>M. enterolobii</i> in the Northern Territory does not represent a risk to New Zealand biosecurity on the nursery stock pathway because all whole plants and cuttings must be grown in soilless media or treated with nematicide before export. Also, symptoms of infestation are likely to be detected during the mandatory PEQ period.	*
10157	New host association: First report of the fungus <i>Fusarium curvatum</i> (part of the <i>Fusarium oxysporum</i> species complex) infecting the orchid <i>Dendrobium officinale</i> (synonym <i>Dendrobium stricklandianum</i> ) in China.	<i>Fusarium curvatum</i> has never been reported in New Zealand. It causes necrosis and dieback on some ornamental plant host species. <i>Dendrobium officinale</i> orchids may be imported on the nursery stock pathway.	Risk assessment determined that the new host association between <i>Fusarium curvatum</i> and <i>Dendrobium officinale</i> does not represent a risk to New Zealand biosecurity on the nursery stock pathway because the likelihood of entry is very low and the consequences are also likely to be very low. Risk managers have been informed about the alert.	
10186	Change in distribution: <i>Banana bunchy top virus</i> (BBTV) has been detected on banana ( <i>Musa</i> sp.) in Laos.	BBTV is not present in New Zealand and causes bunching, wilting, and stunted growth in <i>Heliconia</i> spp. (several species of flowering tropical plants) and banana ( <i>Musa spp.</i> ) plants. <i>Heliconia</i> spp may be imported from Laos on the nursery stock pathway.	Risk assessment determined that the change in distribution of BBTV to Laos does not represent a change in risk to New Zealand biosecurity. BBTV is known to be transmitted via tissue culture, tubers, and bulbs but is highly unlikely to move via this method into banana plantations. The vector, aphid <i>Pentalonia nigronervosa</i> is not present in New Zealand.	
10196	Change in distribution: Nodavirus (Nervous necrosis virus) found in euryhaline fish species of coastal New South Wales.	Nervous necrosis virus (NNV) is a significant aquaculture pathogen that has a broad host range (marine and freshwater fishes) and can cause mass mortalities that result in substantial commercial losses. <i>Mugil cephalus</i> (flathead grey mullet) is a common host in Australia which can be imported for bait on the aquatic animal products pathway.	Risk assessment determined that the new information on the geographic distribution of NNV does not represent a risk to New Zealand biosecurity on the fish bait and fish for further processing pathways. The aquatic animal products IHS prevents the importation of whole fish from the coastal waters of the Australian fisheries zone, where the disease is most likely to be present.	-

Alert ID	Alert details	Significance	Summary	Field of alert
10218	Change in distribution/new host association: First report of the fungus <i>Phaeobotryon</i> <i>negundinis</i> associated with twig and branch dieback of apple trees ( <i>Malus domestica</i> ) in southern Ontario, Canada and worldwide	<i>Phaeobotryon negundinis</i> is not present in New Zealand and causes twig and branch dieback in maple, privet, easter trees and now apple. Some host species may be imported from Canada on the nursery stock pathway.	Risk assessment determined that the new host association and distribution between the fungus <i>Phaeobotryon</i> <i>negundinis</i> and apple ( <i>Malus domestica</i> ) in Canada does not represent a risk to New Zealand biosecurity on the nursery stock pathway. The evidence available suggests that the pathogen is managed with the current nursery stock IHS.	*
10273	New research/new awareness: Seed and pollen transmission of <i>Tomato leaf curl Taiwan virus</i> (ToLCTV) in tomatoes ( <i>Solanum lycopersicum</i> ).	ToLCTV is not present in New Zealand and causes leaf curl and yellowing as well as reduced production of fruit in tomato plants. Tomatoes can be imported from all countries on the seeds for sowing pathway.	Risk assessment determined that the claim of ToLCTV being transmitted by tomato seeds was based on experimental data and no evidence was provided demonstrating transmission in a field environment. For this reason, the alert is not considered to represent an increase in risk to New Zealand biosecurity. The alert has been passed to risk managers for their information.	
10285	New country post border detection/incursion: News story confirming that five cases of vesicular disease in pigs reported on farms in England in 2022 were Senecavirus A vesicular disease.	Senecavirus A (SVA) is not present in New Zealand. It causes Senecavirus A vesicular disease in pigs, which looks like foot and mouth disease. Pig commodities may be imported from the UK on the pig meat and pig semen pathways.	Risk assessment determined that the detection of SVA in pigs in the UK does not represent a risk to New Zealand biosecurity on the pig meat and pig semen pathway because there is no evidence that semen and meat can transmit SVA to pigs.	<b>F</b>
10302	New research/new awareness: Seed transmission of <i>Apple stem grooving virus</i> (ASGV) in two pear rootstock species <i>Pyrus betulifolia</i> and <i>P. calleryana</i> .	Apple and nandina strains of <i>Apple stem</i> grooving virus are present in New Zealand, but not <i>Actinidia</i> (kiwifruit) and citrus strains. ASGV causes deformations of leaves, flowers, branches and fruit which can lead to the death of its host tree. <i>Pyrus</i> spp. may be imported from many countries on the seeds for sowing pathway.	Risk assessment determined that the new awareness of ASGV being transmitted in <i>Pyrus</i> seed does not represent a risk to New Zealand biosecurity because it is most likely that the strain affecting the pear seeds is the same that is already affecting apple and pear trees in New Zealand. Risk managers have been informed about the alert	

Alert ID	Alert details	Significance	Summary	Field of alert
10314	Change in distribution: First record of the brown marmorated stink bug (BMSB, <i>Halyomorpha halys</i> ) from apple ( <i>Malus</i> sp.), apricot ( <i>Prunus armeniaca</i> ) and other fruit trees in Uzbekistan.	BMSB is not present in New Zealand and causes damage to multiple host species. BMSB has the potential to enter New Zealand via the inanimate and passenger pathways.	Risk assessment determined that the new change in distribution of BMSB does represent a potential risk to New Zealand biosecurity on the passenger or inanimate pathways. The possibility of BMSB to enter New Zealand cannot be ruled out, although the overall likelihood of being introduced from Uzbekistan is low. Because this is not a significant change in distribution the alert was sent to risk managers for their information.	
10351	New research/awareness: A host list for the New World guava fruit fly ( <i>Anastrepha striata</i> ) has been published by the USDA.	The guava fruit fly does not occur in New Zealand. It infests a variety of fruit species including guava, mango and orange. Some of the hosts listed by the USDA may be imported through the fresh produce pathway.	Risk assessment determined that the new awareness regarding the updated host list of the guava fruit fly does not represent a risk to New Zealand biosecurity because there is no import health standard to allow import of the fly's hosts from countries where the pest occurs. In addition, there are adequate measures to mitigate the risk of the insect's entry through host species that already have import health standards. The alert was sent to risk managers for their information	
10355	New research/awareness: A host list for the West Indian fruit fly, <i>Anastrepha obliqua</i> , has been published by the USDA.	The West Indian fruit fly is not present in New Zealand and causes damage to mango ( <i>Mangifera indica</i> ) and other fruit. Mango can be imported from several countries where the fruit fly is present on the fresh produce pathway.	Risk assessment determined that the information in the USDA pest list does not represent a risk to New Zealand biosecurity. The only host that could be imported as fresh produce from relevant countries is mango. The risk from the pathway is managed by the conditions on the IHS or a Bilateral Quarantine Agreement which states that <i>Anastrepha obliqua</i> is present in Mexico and managed by pest free areas.	
10356	New research/new awareness: A host list for the white striped fruit fly ( <i>Bactrocera albistrigata</i> ) has been published by the USDA.	The white striped fruit fly <i>Bactrocera</i> <i>albistrigata</i> is not present in New Zealand. It infests a variety of fruit species including mango and guava. One of its hosts (mango) may be imported on the fresh produce pathway from countries where the fruit fly is present.	Risk assessment determined that the new awareness regarding the updated host list of the white striped fruit fly does not represent a risk to New Zealand biosecurity because the current measures against fruit flies on the mango pathway are likely sufficient to mitigate the risk of entry. Also, the insect is highly unlikely to establish or cause a significant impact in New Zealand.	

Alert ID	Alert details	Significance	Summary	Field of alert
10358	New host association: The fungus <i>Pseudophaeomoniella globosa</i> has been found in association with wood streaking in <i>Olea europaea</i> (olive).	Pseudophaeomoniella globosa is not present in New Zealand and causes trunk necrosis in Olea europaea. Olea europaea can be imported from all countries on the nursery stock pathway.	Risk assessment determined that the new host association between <i>Pseudophaeomoniella globosa</i> and <i>Olea europaea</i> does not represent a risk to New Zealand biosecurity on the nursery stock pathway because all <i>Olea</i> nursery stock is required to spend 12 months in level 3B PEQ and symptoms of infection will likely be detected in this time.	
10363	New research/ new awareness: A USDA Pest risk assessment for sweet orange ( <i>Citrus</i> <i>sinensis</i> ) and Mandarin ( <i>C. reticulata</i> ) fruit for consumption from Egypt identifies the Christmas berry webworm ( <i>Cryptoblabes</i> <i>gnidiella</i> ) as a potential risk on the pathway.	<i>Cryptoblabes gnidiella</i> is not present in New Zealand and causes fruit damage and premature fruit drop in citrus. Other hosts include maize and grapevine where larvae can leave silk and cause damage to leaves. Oranges can currently be imported as fresh produce from Australia, Egypt, and the USA, and mandarins as fresh produce from Australia, Egypt, Japan, South Korea, and the USA.	Risk assessment determined that the information presented in the USDA citrus risk assessment for <i>Cryptoblabes</i> <i>gnidiella</i> does not represent a risk to New Zealand biosecurity on the citrus fresh produce pathway because citrus fruit require brushing and washing at the packhouse (which is likely to remove external larvae/pupae) and inspection at the New Zealand border where damage caused by internal larvae is likely to be detected.	
10368	Change in distribution: First report of an established outdoor nesting population of <i>Wasmannia auropunctata</i> (little fire ant) in Mainland China	The little fire ant is a significant environmental, economic and social pest in its invaded range. It is a known hitchhiker species that is likely to be associated with inanimates including personal effects, vehicles and machinery.	Risk assessment determined that the change in distribution of the little fire ant to China does not represent an increased risk to New Zealand. These pathways are well managed, but it is worth passing on this alert to risk managers for their information.	*
10382	Change in distribution and new host association: The fungus <i>Neofusicoccum</i> <i>stellenboschiana</i> has been identified as a cause of branch and twig dieback disease in olive trees ( <i>Olea europaea</i> ) in Italy.	<i>Neofusicoccum stellenboschiana</i> is pathogenic to some commercially important crops including grapevine and avocado. The taxonomy of the fungus is unresolved	Risk assessment determined that <i>N. stellenboschiana</i> does not represent an increased risk to New Zealand. The Plant Health and Environmental Laboratory (PHEL) confirmed that this organism is already present in New Zealand.	
10402	New host association: First detection of chrysanthemum stem necrosis orthotospovirus in cyclamens ( <i>Cyclamen persicum</i> ), cinerarias ( <i>Pericallis cruenta</i> syn. <i>Senecio cruentus</i> ), tuberous begonias ( <i>Begonia tuberhybrida</i> ), zinnias ( <i>Zinnia elegans</i> ) and globe amaranths ( <i>Gomphrena globosa</i> ) in Japan.	Chrysanthemum stem necrosis orthotospovirus is not present in New Zealand. It causes necrotic and chlorotic leaf disease on several ornamental plants. Four of the five new hosts may be imported on the seeds for sowing or nursery stock pathways.	Risk assessment determined that the new host association of CSNV with the five new ornamental plants does not represent a risk to New Zealand biosecurity because the pathogen is likely to be detected during post-entry quarantine. There is no evidence that CSNV is associated with seeds, thus not considered a risk on the seeds for sowing pathway.	

Alert ID	Alert details	Significance	Summary	Field of alert
10423	Change in distribution: First report of the Crinivirus lettuce chlorosis virus isolated from <i>Calopogonium mucunoides</i> (calopo) in Australia.	Lettuce chlorosis virus is not present in New Zealand. It causes yellowing, stunting and brittleness on the leaves of lettuce, passionfruit and other hosts. Some of the known hosts may be imported from Australia on the seeds for sowing, nursery stock, and fresh produce pathways.	Risk assessment determined that the change in distribution of lettuce chlorosis virus in Australia does not represent a risk to New Zealand biosecurity because the virus is likely to be detected during post-entry quarantine of nursery stock. In addition, there is no evidence that it is associated with seeds, thus not considered a risk on the seeds for sowing pathway. Lettuce is the only host of this virus imported as fresh produce, but the virus is unlikely to enter as symptoms are usually fully expressed before the plant matures, and affected lettuces would not be suitable for export.	*
10443	Newly described organism: A new potyvirus, Hedge mustard mosaic virus, isolated from <i>Sisymbrium officinale</i> (hedge mustard) and <i>Raphanus raphanistrum</i> (wild radish) in France.	Hedge mustard mosaic virus (HMMV) is a newly described virus that is not known to be present in New Zealand. It causes mosaic, leaf deformation and drying in hedge mustard and wild radish. Experimental results suggest it is capable of infecting other brassicas including cabbage and cauliflower. Hedge mustard and wild radish may be imported from France on the seeds for sowing pathway.	Risk assessment determined that the new organism description of HMMV does not represent a risk to New Zealand biosecurity because current evidence indicates that the virus is not seed-borne or seed- transmitted.	
10469	Change in distribution: First report of <i>Sweet potato chlorotic stunt virus</i> in Greece, found on sweet potato ( <i>Ipomoea batatas</i> ). The virus was detected via high-throughput sequencing.	Sweet potato chlorotic stunt virus is not known to be present in New Zealand. It causes leaf chlorosis and necrosis of kūmara ( <i>Ipomoea</i> <i>batatas</i> ). Hosts may be imported from Greece on the seed for sowing and nursery stock pathways.	Risk assessment determined that the new distribution of <i>Sweet potato chlorotic stunt virus</i> (SPCSV) in Greece does not represent a risk to New Zealand biosecurity because there is already a planned amendment of the nursery stock IHS to mitigate the risk of SPCSV on kūmara. The seeds for sowing pathway is not considered a risk because there is no evidence that the virus is associated with seeds. The alert has been sent to risk managers for their information.	
10470	Change in distribution: First report of <i>Sweet potato virus C</i> (SPVC) in Greece found infecting <i>Ipomoea batatas</i> (sweet potato). The virus was detected via high-throughput sequencing.	Sweet potato virus C is not known to be present in New Zealand. It causes sweet potato virus disease in kūmara ( <i>Ipomoea</i> <i>batatas</i> ). Kūmara may be imported from Greece on the seeds for sowing and nursery stock pathways.	Risk assessment determined that the new distribution of <i>Sweet potato virus C</i> in Greece does not represent a risk to New Zealand biosecurity because infected plants are likely to be detected during PEQ of nursery stock. The seeds for sowing pathway is not considered a risk because there is no evidence that the virus is associated with seeds. The alert has been sent to risk managers for their information.	

Alert ID	Alert details	Significance	Summary	Field of alert
10471	Change in distribution: First report of <i>Sweet</i> potato leaf curl virus in Greece infecting <i>Ipomoea batatas</i> (sweet potato). The virus was detected via high-throughput sequencing.	Sweet potato leaf curl virus is not present in New Zealand. It causes leaf curl disease in kūmara ( <i>Ipomoea batatas</i> ) which may be imported from Greece on the seeds for sowing and nursery stock pathways.	Risk assessment determined that the change in distribution of <i>Sweet potato leaf curl virus</i> in Greece represents a potential risk to New Zealand biosecurity. However, risk management of <i>Ipomoea batatas</i> nursery stock is currently being reviewed following an earlier ERS Alert. The information from this alert was passed on to risk managers for their consideration in the review.	
10497	Change in distribution: First report of the oomycete <i>Phytophthora amnicola</i> causing decline in <i>Alnus glutinosa</i> (European alder) in Portugal.	The occurrence of <i>Phytophthora amnicola</i> in New Zealand is uncertain. This oomycete causes wilting and dieback in European alder and is associated with other hosts. It may be associated with kauri ( <i>Agathis australis</i> ). Hosts of <i>Phytophthora amnicola</i> may be imported from Portugal on the seeds for sowing and nursery stock pathways.	Risk assessment determined that the new distribution of <i>P. amnicola</i> in Portugal does not represent a risk to New Zealand biosecurity because there is no evidence that the oomycete is seed borne. Nursery stock of alders and oaks cannot be imported from Portugal because of the measures to manage the entry of oomycete <i>Phytophthora ramorum</i> . The alert has been sent to risk managers for their information.	
10506	New host association: First report of Potato yellow dwarf virus (PYDV) infecting great blue lobelia ( <i>Lobelia siphilitica</i> ) in the USA.	Potato yellow dwarf virus (PYDV) is not present in New Zealand. It causes yellowing and necrosis on potato leaves and reduced production. <i>Lobelia siphilitica</i> may be imported from the USA and other countries on the seeds for sowing and nursery stock pathways.	Risk assessment determined that the new host association between PYDV and blue lobelia does not represent a risk to New Zealand biosecurity because infected plants are likely to be detected during post-entry quarantine of nursery stock. The seeds for sowing pathway is not a risk because there is no evidence that the virus is associated with seeds.	A B C
10509	New research/awareness: The pasture mealybug <i>Heliococcus summervillei</i> has been identified as the cause of pasture dieback in Queensland and New South Wales, Australia.	Heliococcus summervillei is not present in New Zealand. It infests a variety of grass species including buffel grass, signal grass and ryegrass, and has been associated with pasture dieback. Some of its hosts may be imported through the seeds for sowing pathway while only one ( <i>Cenchrus ciliaris</i> – buffel grass) may be imported from Australia on the nursery stock pathway.	Risk assessment determined that the new awareness of <i>Heliococcus summervillei</i> causing pasture dieback in Queensland does not represent a risk to New Zealand biosecurity because the mealybug is not known to associate with seeds for sowing, thus not considered as a risk on that pathway. In addition, the pre-export and post-entry quarantine requirements for the <i>C. ciliaris</i> nursery stock pathway are sufficient to manage the mealybug. The alert was sent to risk managers for their information because of the potential significance of the pest to the pastoral industry.	

Alert ID	Alert details	Significance	Summary	Field of alert
10514	New research/new awareness: First report of <i>Dolichos yellow mosaic virus</i> (DoYMV) infecting plant and seed of field grown Hyacinth bean ( <i>Lablab purpureus</i> ) in India.	<i>Dolichos yellow mosaic virus</i> (DoYMV) is not present in New Zealand. It causes yellow mosaic disease in Hyacinth bean. Hyacinth bean may be imported on the seeds for sowing pathway.	Risk assessment determined that the new research awareness of DoYMV being seed-borne on Hyacinth bean seed does not represent a risk to New Zealand biosecurity because the virus is highly unlikely to be exposed to the New Zealand environment. Additionally, the impact associated with DoYMV was estimated to be negligible as Hyacinth bean is the only known host.	

# Table 5: Actively monitoring risks

Risk analysts and managers have determined that these alerts do not represent and increase to biosecurity risk at this time but should be monitored for change in risk during the reporting period. We actively monitor these causative agents (through internet and literature searches) in addition to passively monitoring through the ERS.

Alert ID	Alert details	Significance	Summary	Field of Alert
5465	New research/new awareness: Previously undescribed viruses (arenavirus, nidovirus, reovirus) found in wild and farmed Canadian salmon.	It is unknown whether these viruses are present in New Zealand or cause disease in salmon or other fish. Salmon can be imported from Canada on the aquatic animal products pathway.	Risk assessment determined that the new viruses in salmon do not represent a risk to New Zealand biosecurity because salmon imported from Canada is processed to remove head, guts and gills. This is likely to sufficiently reduce quantities of virus to prevent establishment after import. The ERS team will actively monitor for new information on these viruses.	*
5914	New research/new awareness: Bivalve transmissible neoplasia (transmissible cancer) identified in two new species of mussels ( <i>Mytilus chilensis</i> and <i>M. edulis</i> ) in South America and Europe.	Bivalve transmissible neoplasia (BTN) is caused by cancer cells acting as infectious agent. These cause cancer in distant individuals leading to death. The newly affected species are related to New Zealand blue mussels. BTN-infected shellfish may be transported over wide distances and possibly establish disease in related species.	Risk assessment determined that there is insufficient information on BTN in mussels to assess the risk to New Zealand. The ERS team will actively monitor for new information on this condition. The information in this alert has been passed on for inclusion in an import risk analysis on molluscs that is currently being drafted.	*
9733	New host association: Isolation of the fungus <i>Lasiodiplodia pseudotheobromae</i> from symptomatic <i>Actinidia</i> sp. (kiwifruit) twigs and leaves in China.	Lasiodiplodia pseudotheobromae is not known to be present in New Zealand. It causes gummosis, branch and stem canker and dieback, leaf blight, and post-harvest fruit rot in its hosts. Kiwifruit may be imported as nursery stock from all countries and as fresh produce from the USA and Italy.	Risk assessment determined that the new host association between <i>Lasiodiplodia pseudotheobromae</i> and <i>Actinidia</i> does not represent a risk to New Zealand biosecurity on the nursery stock or fresh produce pathways. This is because symptoms are likely to be detected on nursery stock within the PEQ period. The fungus has never been reported from the USA or Italy so there is no pathway from fresh produce. The ERS team will monitor the literature for new information.	
9734	New host association: The fungus <i>Monilinia fructigena</i> (syn. <i>Monilia fructigena</i> ) has been found on fresh produce of kiwifruit ( <i>Actinidia chinensis</i> ) in China.	Monilinia fructigena is not present in New Zealand and is associated with blossom blight and brown rot in kiwifruit (Actinidia chinensis) as well as disease in apple, rose, tomato and blueberry. Kiwifruit may be imported as fresh produce from countries where the fungus occurs.	Risk assessment determined that the new host association between <i>Monilinia fructigena</i> and <i>Actinidia chinensis</i> does not represent a risk to New Zealand biosecurity on the fresh produce pathway because visual inspection is likely to detect fruit rot and damage. However, due to the limited information available regarding the association between these two organisms, the ERS will actively monitor the literature.	

Alert ID	Alert details	Significance	Summary	Field of Alert
9749	New host association: The fungus <i>Pestalotiopsis vismiae</i> was isolated from symptomatic tissue of <i>Actinidia</i> sp. (kiwifruit) in China.	<i>Pestalotiopsis vismiae</i> is not known to be present in New Zealand. It causes cause leaf, twig and trunk diseases in some tree hosts, and now may possibly cause soft rot and grey spot in fruits. Kiwifruit may be imported on the fresh produce pathway (from USA and Italy) and on nursery stock pathway (from all countries).	Risk assessment determined that <i>Pestalotiopsis vismiae</i> on <i>Actinidia</i> in China does not represent an increase in biosecurity risk because there is currently no IHS for import of fresh kiwifruit from countries where <i>P. vismiae</i> is known to be present. Also, the alert source did not state whether the fungus was isolated from plant parts that may be eligible for import as nursery stock. The ERS team will actively monitor the literature for evidence of disease causation by <i>P. vismiae</i> in kiwifruit.	
9763	New host association: The fungus <i>Xylaria bambusicola</i> found on <i>Actinidia</i> sp. (kiwifruit) in China.	<i>X. bambusicola</i> is not present in New Zealand. It associates with bamboo and other hosts but is not known to be pathogenic to these hosts. It has now been isolated from unspecified parts of symptomatic kiwifruit plants. Kiwifruit may be imported on the nursery stock and fresh produce pathways.	Risk assessment determined that the record of <i>X. bambusicola</i> on kiwifruit does not represent a risk to New Zealand biosecurity because there is no evidence that <i>X. bambusicola</i> causes disease on kiwifruit or any of its hosts through a pathogenicity test. The ERS team will actively monitor the literature for evidence of disease causation by <i>X. bambusicola</i> in kiwifruit.	A D K
9843	Change in distribution: The fungus <i>Cylindrocladiella peruviana</i> infecting grapes ( <i>Vitis</i> spp.) in Turkey.	<i>Cylindrocladiella peruviana</i> is not present in New Zealand. It causes black foot in grapes and crown rot in avocado. Grapes, avocado and other hosts may be imported on the nursery stock pathway.	Risk assessment determined that the change in distribution of <i>Cylindrocladiella peruviana</i> in Turkey does not represent a risk to New Zealand biosecurity because the fungus predominantly affects roots and only dormant, rootless cuttings of grapevines and avocado are allowed for imports. Also, there have never been imports of hosts from Turkey. The ERS team will actively monitor the literature for new information because there is gap in knowledge of symptoms on some of the host plants.	
9859	New host association: The bacterium <i>Pseudomonas poae</i> was isolated from <i>Spinacia oleracea</i> (spinach) seed lots.	<i>Pseudomonas poae</i> is not known to be present in New Zealand. It often has protective effects on its hosts but other species in the genus Pseudomonas are associated with disease suggesting this required further investigation. Spinach may be imported on the fresh produce and seeds for sowing pathways.	Risk assessment determined that the new host association between <i>Pseudomonas poae</i> and spinach does not represent a risk to New Zealand biosecurity on the fresh produce or seeds for sowing pathways because there is no evidence that this bacterium is pathogenic on any of its hosts and therefore there is negligible potential to cause impacts in New Zealand. As other members of the genus <i>Pseudomonas</i> are plant pathogens, the ERS team will monitor the literature for relevant information.	NO K

Alert ID	Alert details	Significance	Summary	Field of Alert
9919	Change in distribution: The fungus <i>Fusarium odoratissimum</i> infecting banana in Queensland, Australia.	<i>Fusarium odoratissimum</i> is not present in New Zealand. It causes disease to <i>Musa</i> spp. (bananas and plantains). <i>Musa</i> and possible host <i>Euphorbia</i> ( <i>spurge</i> ), may be imported from Australia on the cut flowers & foliage and nursery stock pathways.	Risk assessment determined that <i>Fusarium odoratissimum</i> in <i>Musa</i> does not represent a risk to New Zealand biosecurity because the <i>Musa</i> pathways already regulate for <i>F. odoratissimum</i> , and the fungus has been in Australia for a substantial period. The fungus is unlikely to be present in commercial production areas for <i>Euphorbia</i> . The ERS team will actively monitor the literature for relevant evidence of alternative host associations, and to raise awareness of taxonomic revisions.	***
9935	New host association: First report of the fungus Lasiodiplodia brasiliensis infecting Citrullus lanatus (watermelon) in Brazil.	Lasiodiplodia brasiliensis is a regulated pest in New Zealand. It causes decline and root rot on watermelon. Several host species may be imported from all countries on the nursery stock and seeds for sowing pathways. Watermelon can currently only be imported as seeds for sowing.	Risk assessment determined that the new host association between <i>Lasiodiplodia brasiliensis</i> and watermelon does not represent a risk to New Zealand biosecurity on the seeds for sowing pathway as there is currently no evidence to suggest that this fungus is associated with watermelon seed. However, as some <i>Lasiodiplodia</i> are seed transmitted, the ERS team will actively monitor the literature for relevant information.	
9960	New host association: Yellow tailflower mild mottle virus (YTMMV) infecting cape gooseberry ( <i>Physalis peruviana</i> ) and black nightshade ( <i>Solanum nigrum</i> ) in Australia	YTMMV is not present in New Zealand and causes necrotic spots and distortion of leaves and fruit in cape gooseberry and several species in the family Solanaceae including capsicum and tomato. Cape gooseberry may be imported on the seeds for sowing pathway.	Risk assessment determined that the new host association between YTMMV and <i>Physalis peruviana</i> does not represent a risk to New Zealand biosecurity because there is no evidence of association between the virus and <i>Physalis</i> <i>peruviana</i> seeds. However, due to the limited information the ERS team will actively monitor the literature for any evidence of seed association	**

Alert ID	Alert details	Significance	Summary	Field of Alert
9987	Change in distribution and new host association: Monitoring for change found records of the fungus <i>Lasiodiplodia brasiliensis</i> affecting new hosts and records of isolation from plants in China and Thailand.	Lasiodiplodia brasiliensis is not present in New Zealand and causes various diseases (dieback, stem-end rot, fruit rot, leaf blight, corky bark, etc) in numerous host species. Some of the new hosts ( <i>Nicotiana tabacum</i> (tobacco); <i>Annona squamosa</i> (custard apple); <i>Manilkara zapota</i> (sapodilla); <i>Dracaena</i> <i>trifasciata</i> (snake plant); <i>Tectona grandis</i> (teak); <i>Nephelium lappaceum</i> (rambutan); <i>Spondias purpurea</i> (Spanish plum)) may be imported on the nursery stock pathway.	Risk assessment determined that the new host associations and distribution (Thailand) of <i>Lasiodiplodia brasiliensis</i> do not represent a risk to New Zealand biosecurity on the nursery stock pathway as these commodities do not have high consumer demand and, based on experimental evidence, disease symptoms are likely to be detected during the PEQ period. The ERS team will continue to actively monitor for new information on <i>Lasiodiplodia brasiliensis</i> .	
9990	New host association: First report of the fungus <i>Neopestalotiopsis protearum</i> causing seed rot on <i>Camellia oleifera</i> (tea-oil camellia) in China.	<i>N. protearum</i> is not present in New Zealand and causes seed rot in tea-oil camellia as well as leaf spots and dieback in eucalyptus. Tea-oil camellia may be imported from all countries as seeds for sowing. Of the countries where the fungus is known to occur, tea-oil camellia may only be imported as nursery stock from Australia.	Risk assessment determined that the new host association between <i>N. protearum</i> and <i>Camellia oleifera</i> does not represent a risk to New Zealand biosecurity. On the seed for sowing pathway, infected seeds would likely be detected by visual inspection before or on arrival. For the nursery stock pathway there is no evidence that <i>N. protearum</i> infects stems or leaves. The ERS team is already actively monitoring <i>N. protearum</i> for change in scientific information.	
10008	Change in distribution and new host association: First report of the bacterium <i>Dickeya solani</i> on <i>Cyclamen persicum</i> (Florist's cyclamen) in Colombia.	<i>Dickeya solani</i> is not present in New Zealand. It causes root rot in florist's cyclamen and black leg disease in potato. Cyclamen and potato may be imported on the seeds for sowing and nursery stock pathways.	Risk assessment determined that the record of <i>Dickeya</i> solani on florist's cyclamen in Colombia does not represent a risk to New Zealand biosecurity because the post-entry quarantine requirement for nursery stock of hosts will likely allow detection of the pathogen. The PEQ requirement on the potato seeds for sowing pathway is also sufficient to allow detection. The ERS team will actively monitor the literature for relevant evidence of seed transmission in other hosts.	

Alert ID	Alert details	Significance	Summary	Field of Alert
10047	New research/new awareness: Queensland grazing industry is concerned with ground pearl insects, <i>Margarodes</i> spp. potentially causing pasture dieback.	<i>Margarodes</i> spp. are not present in New Zealand. They cause dieback in grass species (including those used for pasture) and sugarcane. Although there are no importations of the known recorded host (sugarcane), the possibility of importation on soil associated with nursery stock was investigated.	Risk assessment concluded that <i>M. australis</i> does not represent a risk of immediate concern to New Zealand biosecurity because there is insufficient evidence to demonstrate that ground pearls are the cause of Queensland pasture decline. Pasture species may only be imported into New Zealand as seeds for sowing, which <i>M. australis</i> is not likely to be associated with. Also, basic measures for whole plants are likely to manage ground pearls on the nursery stock pathway. The ERS team will actively monitor for new information about the impacts of ground pearls on pasture and any new host associations.	
10051	New country post border detection/incursion: An industry news article reporting cases of Senecavirus A vesicular disease in pigs after transmission of <i>Senecavirus A</i> (SVA) via feed ingredients across country borders. The affected country is not known.	SVA is not present in New Zealand. It causes vesicular disease in pigs that looks like foot and mouth disease. SVA can be present in animal feed, which may be imported as processed animal feeds of plant origin, grains and seeds for consumption, feed and processing and seeds for sowing.	Risk assessment determined that the detection of SVA in pigs following imports of contaminated feed does not represent a risk to New Zealand biosecurity. The current report does not provide sufficient new information to change the conclusions of the February 2022 risk assessment (the likelihood of entry of SVA is negligible following the application of the risk management measures in the relevant IHS). The ERS team will actively monitor the literature for relevant evidence because further details from this case study are needed to make recommendations relating to the likelihood of SVA transmission in feed.	
10067	New host association: The fungus <i>Diplocarpon coronariae</i> has been reported to infect <i>Malus</i> spp. (apple) in Europe.	<i>Diplocarpon coronariae</i> is not present in New Zealand and causes apple leaf blotch disease in apples. <i>Malus</i> spp. may be imported on both the nursery stock and fresh produce pathways.	Risk assessment determined the association of <i>Diplocarpon</i> <i>coronariae</i> with <i>Malus</i> spp. does not represent a risk to New Zealand biosecurity because current evidence suggests that infected fruit can be recognised by the obvious brownish black spots. In addition, the measures on the apple nursery stock pathway are sufficient to allow detection of the fungus during post-entry quarantine as there is a specific measure for the fungus on that pathway. Risk managers have been informed about the alert. The ERS team will actively monitor the literature for evidence of asymptomatic or visually inconspicuous spots on infected fruits.	

Alert ID	Alert details	Significance	Summary	Field of Alert
10092	New country post border detection/incursion: The oomycete <i>Phytophthora lateralis</i> has been isolated from forest soils in Patagonia, Argentina.	<i>Phytophthora lateralis</i> is not present in New Zealand and causes Port-Orford-cedar root disease and wilting in Lawsons cypress ( <i>Chamaecyparis lawsoniana</i> ). Lawsons cypress may be imported from Argentina on the seeds for sowing and nursery stock pathways.	Risk assessment determined that the detection of <i>Phytophthora lateralis</i> in Argentina is not likely to present an increase in biosecurity risk to New Zealand because nursery stock is required to be soil free and infected plants will likely be detected during PEQ. There is no evidence that the pathogen is seed-associated. The ERS team will monitor this pathogen for any evidence of asymptomatic infection in its hosts.	A BAS
10137	New research/new awareness: The fungus <i>Curvularia eragrostidis</i> has been reported to cause post-harvest rot on <i>Ananas comosus</i> (pineapple).	<i>Curvularia eragrostidis</i> is not present in New Zealand. It is a common leaf pathogen of several species including grasses, grains and legumes. Pineapple are imported via the fresh produce pathway.	Risk assessment determined that the new awareness of <i>C. eragrostidis</i> effects on pineapple does not represent a risk to New Zealand biosecurity on the fresh produce pathway because there is not enough evidence to suggest the pathogen will survive and reproduce in temperate regions. There is no evidence that it will cause economic or environmental impacts to hosts in New Zealand. The ERS team will actively monitor the literature for evidence that would change the level of risk.	
10144	New host association: The fungus <i>Fusarium</i> <i>luffae</i> has been reported to infect <i>Zea mays</i> (maize), <i>Cucumis melo</i> (melon), <i>Actinidia</i> <i>eriantha</i> (white kiwifruit) and <i>Prunus avium</i> (sweet cherry).	<i>Fusarium luffae</i> causes flower blight in white kiwifruit, leaf rot in sweet cherry and fruit rot in musk melon in China. The fungus also causes pokkah boeng disease in maize plants in India. The new hosts may be imported on the seeds for sowing, nursery stock or fresh produce pathways.	Risk assessment determined that the new host associations for <i>Fusarium luffae</i> do not represent a risk to New Zealand biosecurity because infected nursery stock will likely be detected during post-entry quarantine. We found no evidence that the fungus is seed-borne. The only open pathway for fresh produce from the affected countries is cherry from the USA. We found no evidence that the fungus can occur in the fruits of cherry. The ERS team will monitor the literature for evidence relating to change in impact or asymptomatic infections.	A B C

Alert ID	Alert details	Significance	Summary	Field of Alert
10167	New host association: Identification of <i>Candidatus</i> Phytoplasma asteris' related strains associated with noni ( <i>Morinda citrifolia</i> ), Indian snakeroot ( <i>Rauvolfia serpentina</i> ) and water hemp ( <i>Ayapana triplinervis</i> ), three medicinal plants in India.	<i>Candidatus</i> Phytoplasma asteris' is not present in New Zealand. It causes a variety of symptoms such as abnormal, stunted or bunchy growth in multiple host species. Of the new hosts, noni may be imported on the nursery stock pathway and water hemp may be imported as seeds for sowing.	Risk assessment determined that the new host association of ' <i>Candidatus</i> Phytoplasma asteris' and <i>M. citrifolia</i> or <i>A. triplinervis</i> do not represent a risk to New Zealand biosecurity. There is no evidence that this phytoplasma is seed transmitted in water hemp or any other host. For noni nursery stock, symptoms will likely be detected during PEQ. There is however very little information to be confident of this, therefore the ERS team will actively monitor the literature for relevant information.	
10199	New host association: Bianchetto truffles ( <i>Tuber borchii</i> ) for propagation imported from Australia were found to be contaminated with a fungus in the genus <i>Dactylonectria</i> during molecular tests on arrival in New Zealand.	Dactylonectria are soilborne fungi which cause or are associated with damping off (seed or seedling rot) or root rots often known as black foot disease. It infects many important horticultural hosts including avocado, grapevines, strawberries, raspberries and kiwifruit. Some <i>Dactylonectria</i> species are already reported on these hosts in New Zealand. <i>Tuber borchii</i> can be imported on the truffles for propagation pathway	Risk assessment determined that the new host association between <i>Dactylonectria</i> and <i>Tuber borchii</i> does not represent a potential biosecurity risk to New Zealand on the truffles for propagation pathway. At this time, there is no evidence that the <i>Dactylonectria</i> contaminant detected on truffles from Australia was new to New Zealand or viable. Risk managers have been informed about the alert. The ERS team will monitor for new information about whether harmful <i>Dactylonectria</i> species can be associated with the truffle for propagation pathway.	N Start
10200	New host association: Bianchetto truffles ( <i>Tuber borchii</i> ) for propagation imported from Australia were found to be contaminated with a fungus in the genus <i>Fusarium</i> during molecular tests on arrival in New Zealand.	<i>Fusarium</i> are fungi which cause or are associated with disease including damping off (seed or seedling rot), vascular wilts, fruit rots and/or root rots in many important horticultural hosts. Many Fusarium species are already reported in New Zealand. <i>Tuber borchii</i> can be imported on the truffles for propagation pathway.	Risk assessment determined that the new host association between <i>Fusarium</i> and <i>Tuber borchii</i> does not represent a potential biosecurity risk to New Zealand on the truffles for propagation pathway. Although <i>Fusarium</i> species have sometimes been reported from truffles, these fungi are widespread in the soil and the association with truffles is likely to be opportunistic rather than specific. Risk managers have been informed about the alert. The ERS team will monitor for new information about whether harmful <i>Fusarium</i> species can be associated with the truffle for propagation pathway.	

Alert ID	Alert details	Significance	Summary	Field of Alert
10201	New host association: Bianchetto truffles ( <i>Tuber borchii</i> ) for propagation imported from Australia were found to be contaminated with a fungus in the genus <i>Ilyonectria</i> during molecular tests on arrival in New Zealand.	<i>Ilyonectria</i> are soilborne fungi which cause or are associated with damping off or root rots, sometimes known as black foot disease, in many important horticultural hosts including grapevine and kiwifruit. Some <i>Ilyonectria</i> species are already reported on these hosts in New Zealand. <i>Tuber borchii</i> can be imported on the truffles for propagation pathway.	Risk assessment determined that the new host association between <i>Ilyonectria</i> and <i>Tuber borchii</i> does not represent a potential biosecurity risk to New Zealand on the truffles for propagation pathway. There is no evidence that the <i>Ilyonectria</i> contaminant detected on truffles was new to New Zealand or viable. Risk managers have been informed about the alert. The ERS team will monitor for new information about whether harmful <i>Ilyonectria</i> species can be associated with the truffle for propagation pathway.	* <b>*</b>
10202	New host association: Bianchetto truffles ( <i>Tuber borchii</i> ) for propagation imported from Australia were found to be contaminated with a fungus in the genus <i>Mortierella</i> during molecular tests on arrival in New Zealand.	<i>Mortierella</i> are among the most common soil fungi and are usually reported as saprophytic (living on plant debris in the soil), but occasionally as pathogens of plants, animals or fungi. Several <i>Mortierella</i> species are already present in New Zealand. <i>Tuber borchii</i> can be imported on the truffles for propagation pathway	Risk assessment determined that the new host association between <i>Mortierella</i> and <i>Tuber borchii</i> does not represent a potential biosecurity risk to New Zealand on the truffles for propagation pathway. There is no evidence that the <i>Mortierella</i> contaminant detected on truffles was new to New Zealand or viable. Risk managers have been informed about the alert. The ERS team will monitor for new information about whether harmful <i>Mortierella</i> species can be associated with the truffle for propagation pathway.	
10219	Change in distribution: First report of Watermelon crinkle leaf-associated virus 1 (WCLaV-1) in watermelon ( <i>Citrullus lanatus</i> ) in Australia.	WCLaV-1 is not present in New Zealand and causes mottling, lesions, leaf curling, and leaf puckering on watermelon plants and fruit. watermelon can be imported as fresh produce from Australia.	Risk assessment determined that the change in distribution of WCLaV-1 to Australia does not represent a risk to New Zealand biosecurity because the impacts of the virus in New Zealand are likely to be very low. Because this is a newly described organism, the ERS team will actively monitor the literature for new information on the biology of this virus and whether it can be seed transmitted.	
10280	New host association and change in distribution: First report of the fungus <i>Nigrospora vesicularifera</i> causing foot rot on sweet potato ( <i>Ipomoea batatas</i> ) in Brazil.	<i>Nigrospora vesicularifera</i> causes foot rot in sweet potato. The fungus has previously been identified as a leaf pathogen of sugarcane and can infect its other hosts such as cassava without causing symptoms. Sweet potato may be imported from countries where the fungus occurs on the nursery stock pathway.	Risk assessment concluded that the new host association between <i>N. vesicularifera</i> and sweet potato does not represent an increase in risk to New Zealand biosecurity. Sweet potato nursery stock is subject to a minimum of six months post-entry quarantine which should be sufficient for symptoms to become apparent. However, as the fungus can infect other hosts without causing symptoms, the ERS team will monitor for information around asymptomatic infection of sweet potato.	

Alert ID	Alert details	Significance	Summary	Field of Alert
10326	New research/new awareness: A recent molecular taxonomic study suggests that tar spot diseases of maize ( <i>Zea mays</i> ) and other <i>Poaceae</i> (grasses) is caused by a complex of several species that are closely related to the fungus <i>Phyllachora maydis</i> . The paper also provides a list of hosts for the species complex.	The <i>Phyllachora maydis</i> species complex is not present in New Zealand. It causes tar spot disease in maize and several grass species. Several hosts may be imported as seeds for sowing, but the pathogen is not seed transmitted. Of importance to this alert, host <i>Euphorbia</i> sp. may be imported on the nursery stock pathway.	Risk assessment determined that the new research awareness that <i>P. maydis</i> can infect <i>Euphorbia</i> sp. does not represent a risk to New Zealand biosecurity because it will likely be detected in post-entry quarantine of nursery stock. The alert has been sent to risk managers for their information and the ERS team will actively monitor the literature for evidence of symptom expression in <i>Euphorbia</i> sp.	
10335	Change in distribution: <i>Squash leaf curl virus</i> (SLCV) was detected for the first time in Indonesia on <i>Cucurbita moschata</i> (pumpkin) in 2020.	Squash leaf curl virus is not present in New Zealand and causes yellowing and leaf vein clearing in <i>Cucurbitaceae. Malva</i> (mallow) and <i>Opuntia</i> (prickly pear cactus) species have also been recorded as hosts and may be imported from Indonesia on the nursery stock pathway.	Risk assessment determined that the change in distribution of SLCV into Indonesia does not represent a risk to New Zealand biosecurity on the <i>Malva</i> and <i>Opuntia</i> nursery stock pathway because symptoms would likely be detected in L2 PEQ. However, as the literature has very few details regarding symptom expression, the ERS team will monitor the literature for new information.	
10394	Change in distribution and new host association: First report of the bacterium <i>Xanthomonas prunicola</i> in Argentina, causing leaf streaking in <i>Triticum aestivum</i> (wheat) plants.	Xanthomonas prunicola is not present in New Zealand. It causes leaf spot disease on nectarines. Nectarines may be imported from Argentina on the nursery stock pathways, and wheat may be imported on the seeds for sowing pathway.	Risk assessment determined that the change in distribution and new host association of <i>Xanthomonas prunicola</i> on wheat in Argentina does not represent a risk to New Zealand biosecurity because there is a specific measure in the nursery stock IHS for the nectarine hosts. There is no evidence that <i>X. prunicola</i> is associated with wheat seeds. The ERS team will monitor the literature for any evidence of association of the bacterium with wheat seed.	
10440	Newly described organism: The oomycete <i>Peronosclerospora neglecta</i> described causing downy mildew on <i>Zea mays</i> (maize) in Indonesia.	Peronosclerospora neglecta is a newly described organism that is not known to be present in New Zealand. It causes chlorotic leaf lesions in maize. Maize may be imported from Indonesia and Thailand on the grains for food and processing pathway.	Risk assessment determined that the new organism description of <i>Peronosclerospora neglecta</i> does not represent a risk to New Zealand biosecurity because there is no evidence that the oomycete is seed-borne. The ERS team will actively monitor for new information about this organism.	

Alert ID	Alert details	Significance	Summary	Field of Alert
10448	New host association: First report of the fungus <i>Neofusicoccum mediterraneum</i> causing pine ghost canker on <i>Pinus</i> spp. (pine trees) in Southern California, USA.	<i>Neofusicoccum mediterraneum</i> is not present in New Zealand. It causes canker and dieback in various economically important plants such grapevine, avocado and now pines. <i>Pinus</i> spp. may be imported from several countries where the fungus is present on the seeds for sowing and sawn timber pathways.	Risk assessment determined that the new host association between <i>Neofusicoccum mediterraneum</i> and <i>Pinus</i> spp. does not represent a risk to New Zealand biosecurity on the seeds for sowing or sawn timber pathways. The fungus is currently only known to affect 30 trees in a single 40 hectare forest block in Southern California. The fungus is not known to affect seed and sawn timber is treated at 56°C, which is likely to manage the fungus. This alert has been passed to risk managers for their information. The ERS team will actively monitor for new information on changes in distribution and heat tolerance of this fungus in <i>Pinus</i> spp.	
10464	Change in distribution: First report of the omnivorous leaf roller moth <i>Platynota stultana</i> caught in a light trap in Italy.	<i>Platynota stultana</i> is not present in New Zealand. The insect is a pest of multiple plants including maize, pears, apples, citrus, kiwifruit and grapes. Kiwifruit and grapes may be imported from Italy on the fresh produce pathway.	Risk assessment determined that the new distribution of <i>Platynota stultana</i> in Italy does not represent a risk to New Zealand biosecurity on the fresh produce pathway because there is insufficient evidence that there is an established population of this pest in Italy. The ERS team will actively monitor for new information regarding the status of this pest in Italy.	
10513	New research/new awareness: Mung bean yellow mosaic virus has been found to be seed borne in black gram ( <i>Vigna mungo</i> ).	Mung bean yellow mosaic virus (MYMV) is not present in New Zealand. It causes yellow mosaic disease in a few bean species which include cow pea ( <i>Vigna unguiculata</i> ), black gram ( <i>Vigna mungo</i> ) and soybean ( <i>Glycine</i> <i>max</i> ). Black gram can be imported on the seeds for sowing pathway.	Risk assessment determined that the new research findings of MYMV being seed-borne on black gram does not represent a risk to New Zealand biosecurity because the virus is highly unlikely to be exposed to the New Zealand environment. Black gram is not commercially grown in New Zealand and it is uncertain whether plants germinating from MYMV-infected black gram seeds can produce viable MYMV virus. The ERS team will actively monitor for evidence of viable MYMV in plants growing from MYMV- infected seed.	A CONTRACTOR

### Table 6: Alerts shared with border staff

Where the existing measures on a pathway already manage risks identified in ERS, information may still be passed to border staff for their awareness particularly where pests might be arriving form new locations or in higher abundance.

Alert ID	Alert details	Significance	Summary	Field of Alert
10064	Change in distribution: The spotted lanternfly ( <i>Lycorma</i> delicatula) is reported to be established in New York, USA.	The spotted lanternfly causes significant damage to a wide range of host plants when it feeds on them. <i>L. delicatula</i> eggs are sometimes laid on inanimate objects and may potentially enter through inanimate pathways.	Risk assessment determined that the information on spotted lanternfly in New York does not represent an increase in risk to New Zealand biosecurity on the inanimates pathway. A previous assessment determined the likelihood of adults or nymphs arriving as very low and of eggs as low. However, because the pest is currently abundant in New York and there are direct flights from New York to Auckland, The ERS team reported this alert to the border teams for their awareness.	
10246	New or change in pathway/commodity type: Unseasonal rain boosts mosquito breeding and raises concerns about mosquito-borne diseases in New South Wales, Australia.	NSW has mosquito species that are not present in New Zealand and are unwanted as they can vector harmful diseases affecting humans and animals. Many mosquito-borne diseases are also not present in New Zealand.	Risk assessment determined that the mosquito outbreak in New South Wales and concomitant diseases represent a potential risk to New Zealand biosecurity on the inanimate pathway. The alert will be sent to the border team for situational awareness.	

# Table 7: Alerts pending risk management evaluation

Risk assessment determined that the new information may represent a risk to New Zealand biosecurity on one or several pathways. The below alerts were passed on to risk managers and are pending risk management evaluation.

Alert ID	Alert details	Significance	Summary	Field of Alert
9821	Change in distribution: QX disease ( <i>Marteilia sydneyi</i> ) parasite found in Port Stephens (NSW) Sydney rock oyster ( <i>Saccostrea glomerata</i> ) farms.	<i>Marteilia sydneyi</i> is not present in New Zealand and can cause high cumulative mortalities of up to 100% in Sydney rock oysters. Sydney rock oysters may be imported from Australia on the aquatic animal products pathway.	Risk assessment determined that <i>Marteilia sydneyi</i> represents a potential risk to New Zealand biosecurity on the aquatic animal product pathway. The alert was sent to risk managers for risk management evaluation.	
9931	New awareness: The citrus fruit midge, <i>Resseliella citrifrugis</i> is listed among quarantine pests which need be inspected and treated for before export of citrus from China to the USA.	The citrus fruit midge has only been reported from China where it damages citrus fruits. Citrus fruits may be imported from China on the fresh produce pathway.	Risk assessment determined that the association of the citrus fruit midge with citrus fruits from China represents a potential risk to New Zealand biosecurity on the fresh produce pathway. The alert was sent to risk managers for risk management evaluation.	
10193	New host association: First report of bacterial leaf blight of <i>Fragaria</i> × <i>ananassa</i> (strawberry) caused by <i>Pantoea ananatis</i> in Egypt.	Pantoea ananatis is not present in New Zealand. It causes rot symptoms in a wide range of hosts including onion, maize, potato, tomato, stonefruit, grapevine and eucalyptus. The new host strawberry has multiple entry pathways.	Risk assessment determined that the new host association between strawberry and <i>Pantoea ananatis</i> represents a potential risk to New Zealand biosecurity on the nursery stock pathway. The alert has been sent to risk managers for risk management evaluation.	*
10236	New country post border detection/incursion: First report of the bacterium <i>Ralstonia</i> <i>pseudosolanacearum</i> in Hungary (in water). The pest status in Hungary is officially declared as present.	<i>R. pseudosolanacearum</i> is not present in New Zealand and causes bacterial wilt disease in a large range of host plants. Multiple hosts may be imported from Hungary on the nursery stock pathway.	Risk assessment determined that the new change in distribution of <i>R. pseudosolanacearum</i> in Hungary represents a potential risk to New Zealand biosecurity on the nursery stock pathway. The alert was sent to risk managers for risk management evaluation.	
10272	New research/new awareness: Seed and pollen transmission of <i>Tomato leaf curl New Delhi virus</i> (ToLCNDV) in cucumbers ( <i>Cucumis sativus</i> ) and tomatoes ( <i>Solanum lycopersicum</i> ).	Tomato leaf curl New Delhi virus is not known to be present in New Zealand. It causes stunting and yellowing of its hosts' leaves, which in turn affects plant health and productivity in tomato, capsicum and cucumber. Its hosts may be imported on the seeds for sowing pathway.	Risk assessment determined that the new information concerning the association of <i>Tomato leaf curl New Delhi</i> <i>virus</i> with cucumber seed represents a potential risk to New Zealand biosecurity. The alert has been sent to risk managers for risk management evaluation.	*

Alert ID	Alert details	Significance	Summary	Field of Alert
10274	New research/new awareness: Seed and pollen transmission of <i>Tomato yellow leaf curl</i> <i>Thailand virus</i> (TYLCTHV) in tomatoes (Solanum lycopersicum).	<i>Tomato yellow leaf curl Thailand virus</i> is not present in New Zealand. It causes mosaic and leaf curling disease in tomato. It can also infect peppers. Tomato and pepper seeds may be imported on the seeds for sowing pathway.	Risk assessment determined that the new research/new awareness of TYLCTHV being borne on tomato seeds represents a potential risk to New Zealand biosecurity. The alert has been sent to risk managers for risk management evaluation.	
10298	Change in distribution/new host association: The oomycete <i>Phytopythium helicoides</i> (syn. <i>Pythium helicoides</i> ) was isolated from diseased roots and soil of <i>Acacia mangium</i> (brown salwood) and <i>Acacia</i> hybrids in Vietnam.	<i>Phytopythium helicoides</i> is not known to occur in New Zealand. It can infect a wide range of economically important hosts including kiwifruit, grapes, and corn. Observed symptoms include root, crown and stem rot, chlorosis, wilt and leaf necrosis. While neither acacia species from this alert may be imported, several other hosts may be imported from Vietnam on the nursery stock pathway.	Risk assessment determined that the change in distribution of <i>Phytopythium helicoides</i> to Vietnam represents a potential risk to New Zealand biosecurity on the nursery stock pathway. The alert was sent to risk managers for risk management evaluation	
10325	New or change in pathway/commodity type: The bacterium <i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> ( <i>Cff</i> ) has been reported causing bacterial wilt symptoms in sunflower ( <i>Helianthus annuus</i> ) and tan spot symptoms in soybean ( <i>Glycine max</i> ) in Russia.	<i>Cff</i> is not present in New Zealand. It causes bacterial wilt in several bean species, ornamentals, and maize. Of the reported hosts, only <i>Glycine max</i> (soybean) can be imported from Russia as seeds for consumption, feed or processing, or on the seeds for sowing pathway.	Risk assessment determined that the detection of <i>Cff</i> associated with soybean in Russia represents a potential risk to New Zealand biosecurity on the seeds for consumption, feed or processing pathway. The bacterium was logged for consideration in the next review of the seeds for sowing pathway following a previous ERS alert. The current alert was sent to risk managers for risk management evaluation.	
10344	Newly described organism: The fruit fly Bactrocera ruiliensis (Ruili fruit fly) was found infesting Citrus reticulata (mandarin) in China.	The Ruili fruit fly does not occur in New Zealand. Mandarins may be imported through the fresh produce pathway.	Risk assessment determined that the newly described Ruili fruit fly as a pest of mandarin represents a potential risk to New Zealand biosecurity. The alert has been sent to risk managers for risk management evaluation as the mandarin fresh produce pathway from China may open soon.	
10352	New research/awareness: A host list for the serpentine fruit fly ( <i>Anastrepha serpentina</i> ) has been published by the USDA.	The serpentine fruit fly does not occur in New Zealand. It infests a variety of fruit species including avocado, mango, orange and peach. Several hosts listed by the USDA can be imported through the fresh produce pathway.	Risk assessment determined that the new awareness regarding the updated host list of the serpentine fruit fly represents a potential risk to New Zealand biosecurity. The alert was sent to risk managers for risk management evaluation.	

Alert ID	Alert details	Significance	Summary	Field of Alert
10354	New research/new awareness: A host list for the mango fruit fly ( <i>Bactrocera frauenfeldi</i> ) has been published by the USDA.	<i>Bactrocera frauenfeldi</i> is not present in New Zealand and causes feeding damage and rot in the fruit of its hosts. Citrus, avocado, mango, banana, papaya, capsicum and mangosteen are hosts which may be imported as fresh produce from countries where this pest is present.	Risk assessment determined that the information provided by the USDA regarding hosts of <i>Bactrocera frauenfeldi</i> does not represent a risk to New Zealand biosecurity on the citrus, avocado, mango, banana, papaya and capsicum fresh produce pathways because there are specific measures for this fruit fly in these schedules from countries where the fly is present. However, there is potential risk on the mangosteen pathway. This alert was sent to risk managers for risk management evaluation.	****
10362	New research/new awareness: A USDA pest risk assessment for sweet orange ( <i>Citrus</i> <i>sinensis</i> ) and mandarin ( <i>C. reticulata</i> ) fruit for consumption from Egypt identifies the Ethiopian fruit fly ( <i>Dacus ciliatus</i> ) as a risk on the pathway.	The Ethiopian fruit fly is not present in New Zealand and causes damage to cucurbits and numerous other species of horticultural importance. Of the countries where the fly is known to occur, citrus fresh produce may only be imported from Egypt.	Risk assessment determined that the new information concerning the Ethiopian fruit fly's association with sweet orange and mandarin represents a potential risk to New Zealand biosecurity on the fresh produce pathway. The alert has been sent to risk managers for risk management evaluation.	
10556	New research/new awareness: Species of the bacterial genus <i>Dickeya</i> are no longer considered to be present in New Zealand and are now regulated pests in ONZPR.	Dickeya spp. are no longer considered to be present in New Zealand. The bacteria cause soft rot symptoms on a wide range of hosts including potato (Solanum tuberosum), kumara (Ipomoea batatas), Dahlia and carnations (Dianthus). Many hosts may be imported on the nursery stock pathway.	Risk assessment determined that this new awareness represents a potential risk to New Zealand biosecurity on the nursery stock pathway. The alert was sent to risk managers for risk management evaluation.	