Working together to keep nasties out of NZ

NZGSTA
New Zealand Grain & Seed Trade Association Inc.

Agenda

- Introducing NZ's seed sector
- NZ's import requirements for seed
- What is done - border & post border
- Non-commercial vs commercial seed
- What you can do to keep nasties out
- Upcoming projects of interest

NZGSTA

Grain & Seed Voice

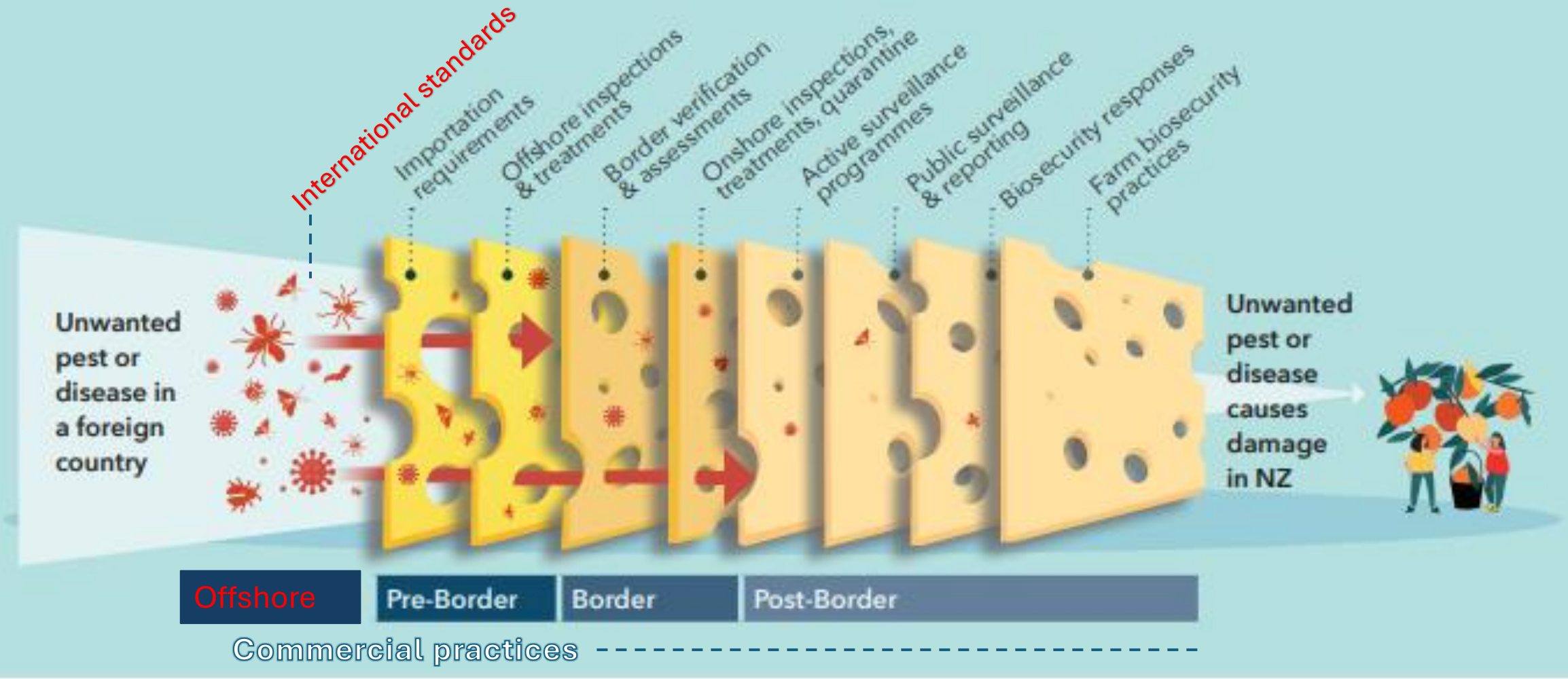
- Created 1918 (106 years)
- 87 members

Main roles:

- Supporting industry to achieve excellence in seed production
- Liaison with Govt, other sectors, agencies & seed users

A Swiss Cheese Model of NZ's Biosecurity System

All layers of the system are required to provide maximum protection



Each layer of the system has imperfections or vulnerabilities (holes). If each layer is functioning well, it is harder for multiple holes to line-up
Credits: Original source – James Reason, adapted from Ian Mackay's interpretation

NZ's import health standards supported by risk assessment

2.77 *Solanum lycopersicum*

The following requirements only apply to species in the Plants Biosecurity Index listed under Import Specifications for Seed as "see 155.02.05 under *Solanum lycopersicum*".

Approved countries: All countries

Quarantine pests: *Columnea latent viroid, Pepino mosaic virus, Potato spindle tuber viroid, Tomato chlorotic dwarf viroid, Tomato brown rugose fruit virus, Tomato apical stunt viroid, Tomato planta macho viroid, Tomato mottle mosaic virus*

Import permit: Not required

PEQ: Not required

Approved treatment: Not required

Phytosanitary certificate: Required

2.77.1 Phytosanitary certificate - Additional declarations

(1) If satisfied that the preshipment activities have been undertaken, the exporting country NPPO must confirm this by providing the certifying statement as per Part 1.5.2 of this import health standard and also the following additional declarations to the phytosanitary certificate:

a) "The *Solanum lycopersicum* seeds have been prepared to industry standards with thorough cleaning to remove all traces of flesh from the seeds."

AND

b) "The *Solanum lycopersicum* seeds have been:

i) produced in a 'pest-free area' free from *Pepino mosaic virus*.

OR

ii) produced in a 'pest-free place of production' free from *Pepino mosaic virus*.

OR

iii) officially tested, on a representative sample of a minimum of 3,000 seeds officially drawn according to the ISTA or AOSA sampling methodology, using an NPPO-approved ELISA or NPPO-approved PCR testing method, and found to be free from *Pepino mosaic virus*.

OR

iv) **For seed lots with less than 15,000 seeds:** produced from parent plants that were officially sampled according to an NPPO-approved methodology during the active growing period and tested according to an NPPO-approved methodology and found free from *Pepino mosaic virus*.

AND

c) " The *Solanum lycopersicum* seeds have been:

i) produced in a 'pest-free area' free from *Columnea latent viroid, Potato spindle tuber viroid, Tomato apical stunt viroid, Tomato chlorotic dwarf viroid*, and *Tomato planta macho viroid*.

OR

ii) produced in a 'pest-free place of production' free from *Columnea latent viroid, Potato spindle tuber viroid, Tomato apical stunt viroid, Tomato chlorotic dwarf viroid*, and *Tomato planta macho viroid*.

OR

iii) produced in a 'pest-free place of production' where parent plants have been tested according to an NPPO-approved methodology and found free from *Columnea latent viroid, Potato spindle tuber viroid, Tomato apical stunt viroid, Tomato chlorotic dwarf viroid*, and *Tomato planta macho viroid*.

OR

iv) officially tested, on a representative sample of a minimum of 3,000 seeds officially drawn according to the ISTA or AOSA sampling methodology, using an NPPO-approved PCR testing method, and found to be free from *Columnea latent viroid, Potato spindle tuber viroid, Tomato apical stunt viroid, Tomato chlorotic dwarf viroid*, and *Tomato planta macho viroid*."

OR

v) **For seed lots with less than 15,000 seeds:** produced from parent plants that were officially sampled according to an NPPO-approved methodology during the active growing period and tested according to an NPPO-approved methodology and found free from *Columnea latent viroid, Potato spindle tuber viroid, Tomato apical stunt viroid, Tomato chlorotic dwarf viroid*, and *Tomato planta macho viroid*.

AND

d) "The *Solanum lycopersicum* seeds have been:

i) produced in a 'pest-free area', free from *Tomato brown rugose fruit virus*

OR

ii) produced in a 'pest-free place of production' free from *Tomato brown rugose fruit virus*.

OR

iii) officially tested, on a representative sample of a minimum of 3,000 seeds officially drawn according to the ISTA or AOSA sampling methodology, using an NPPO-approved PCR testing method, and found free from *Tomato brown rugose fruit virus*."

OR

iv) **For seed lots with less than 15,000 seeds:** produced from parent plants that were officially sampled according to an NPPO-approved methodology during the active growing period and tested according to an NPPO-approved methodology and found free from *Tomato brown rugose fruit virus*.

AND

e) "The *Solanum lycopersicum* seeds have been:

i) produced in a 'pest-free area', free from *Tomato mottle mosaic virus*

OR

ii) produced in a 'pest-free place of production' free from *Tomato mottle mosaic virus*.

OR

iii) officially tested, on a representative sample of a minimum of 3,000 seeds officially drawn according to the ISTA or AOSA sampling methodology, using an NPPO-approved ELISA or NPPO-approved PCR testing method, and found free from *Tomato mottle mosaic virus*."

OR

iv) **For seed lots with less than 15,000 seeds:** produced from parent plants that were officially sampled according to an NPPO-approved methodology during the active growing period and tested according to an NPPO-approved methodology and found free from *Tomato mottle mosaic virus*.

2.77.2 Testing requirements

(1) Testing is required to be completed offshore prior to export, or on arrival in New Zealand.

(2) Pre-export testing for each seed lot must be endorsed by the NPPO on the phytosanitary certificate or, if tested on arrival in New Zealand, must be completed by an MPI-approved testing laboratory.

(3) Testing onshore will be performed using an MPI-approved testing method.

(4) **For seed lots of 15,000 or more seeds:**

a) A representative sample of a minimum of 3,000 seeds, officially drawn according to ISTA or AOSA methodology is required from each seed lot and tested as specified in the schedule.

(5) **For seed lots with less than 15,000 seeds:**

a) A composite sample of a minimum of 3,000 seeds must be officially drawn across all seed lots of the same seed species in a consignment, which must have been produced at the same place of production or production site.

(6) To achieve a composite sample, proportionate sampling must be carried out across all lots imported. A sample of seeds must be drawn from each imported lot within a consignment, adding up to 3,000 seeds. The size of the sample from each lot must be proportionate to the size of the imported lot within the consignment.

(7) All importers who test a composite sample on arrival in New Zealand must make a declaration to identify the place of production or production site of the lots that form the composite sample.

Guidance

- The sample size from each lot to form the composite sample should be calculated as follows:
  - The proportion of each lot in the total consignment (seed number) is calculated using the following equation:

    $$Proportion\ of\ total\ consignment\ size = \frac{No.\ of\ seeds\ in\ each\ lot}{Total\ number\ of\ seeds\ in\ consignment}$$

  - Calculate the sample size for each lot (number of seeds) using a total composite sample size of 3,000 seeds:

    $$Sample\ size\ of\ each\ line = 3{,}000\ seeds \times proportion\ of\ total\ consignment\ size$$

  - Take the sum of the sample size for each lot to check that the total composite sample for the consignment is at least 3,000 seeds.
- The local lesion bioassay for *Tomato brown rugose fruit virus* and *Tomato mottle mosaic virus* is not accepted as a valid test by MPI.
- The use of a bioassay to detect the presence of *Pepino mosaic virus* on seed samples is not accepted as a valid test by MPI.
- Additional declarations on phytosanitary certificates to meet the offshore testing requirements for *Tomato brown rugose fruit virus* in import health standard 155.02.05: *Seeds for Sowing* should be based only on a negative result obtained in an NPPO-approved PCR test and not on results from a bioassay.
- Additional declarations on phytosanitary certificates to meet the offshore testing requirements for *Pepino mosaic virus* and *Tomato mottle mosaic virus* in import health standard 155.02.05: *Seeds for Sowing* should be based only on a negative result obtained in an NPPO-approved ELISA or NPPO-approved PCR test and not on results from a bioassay.
- For tomato seed lots tested for quarantine pests onshore in New Zealand at an MPI-approved testing laboratory, additional declarations by the exporting NPPO are not required to be endorsed on the phytosanitary certificate.

Requirements for Pest Free Areas/Places of Production

DESCRIPTION AREA

ESTABLISHMENT AND MAINTENANCE

BIOLOGY OF THE PEST

SYSTEMS OR INFORMATION TO ESTABLISH AREA

QUARANTINE MEASURES TO MAINTAIN STATUS

FOLLOW-UP INSPECTION AND VERIFICATION

MEASURES IN PLACE IN EVENT OF DETECTION

Import testing requirements

- ISTA or AOSA methodology
- Offshore or on arrival
- Testing – certified as AD
- Lots of ≥15,000 - 3,000 seeds sampled
- Lots ≤15,000 – homogenous composite 3,000 seeds sampled
- 3,000 seed sample 0.1% with 95% confidence

Border

- Inspections - x5 or x2 ISTA rate
- Options if something detected
- Pathway profiling
- Approved transitional facilities
- Detector dogs – mail and passenger pathways
- Compliance assessments

Post-border

YOU - grower

Surveillance and incursion investigation – active and passive

GIA readiness and response activities

Production site biosecurity practices

Pathway specific readiness activities

A summary of how ‘we’ manage the risk?

System is not a single point of defense – many slices

No one area is perfect – 0% risk unachievable

Layers reduce risk – international obligations, importation requirements, commercial best practice, border inspections, surveillance, on-site biosecurity practices.

Best practice - use accredited seed

Non-commercial pathway

- Non-commercial pathway
  - e-commerce
  - mail/fast freight
  - illegal imports
  - smuggling

- Seed brushing scam – 2020
- Bypassing the biosecurity system

Sowing doubt: people around world receive mystery seed parcels

Packages marked as 'earrings' spark biosecurity concerns and global investigations into origins

Fine for seeds in trousers

A Rotorua bus driver was fined $4,500 last month for attempting to smuggle seeds through Auckland Airport.

Man caught trying to bring in plant seeds

Non-commercial space – what is being done

MPI

- New Xray ability in Auckland
- E-commerce outreach – WISH, TEMU, EBAY, AMAZON
- Ongoing work needed

NZGSTA

- Upcoming project – ecommerce/fast freight and mail pathway
- Upcoming ISF ecommerce project

What can you do?

- **<u>Buy accredited commercially produced seed from a trusted source</u>**
- Non-commercial seed is the biggest risk factor for importing unwanted organisms
- If you see something report it – 0800 80 99 66
- Follow production site biosecurity advice

The seeds Jan Goward received were marked as 'ear studs' and were ostensibly shipped Singapore. Photograph: Jan Goward

Upcoming work

- Tomato, capsicum and *Brassica* seed - MPI's work programme for review.

NZGSTA

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Thank you!

- Continue to work together.