



# Importing tomato seeds for sowing

## Key outcomes:

- Department's role in seed imports
- Key biosecurity risks for tomato seed
- How to locate import conditions
- Specific import requirements for tomato seed and import process



## Presented by:

**Jana Hatzis**

Plant Import Operations, Biosecurity Plant Division  
Department of Agriculture, Water and the Environment

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# The role of the department in seed import

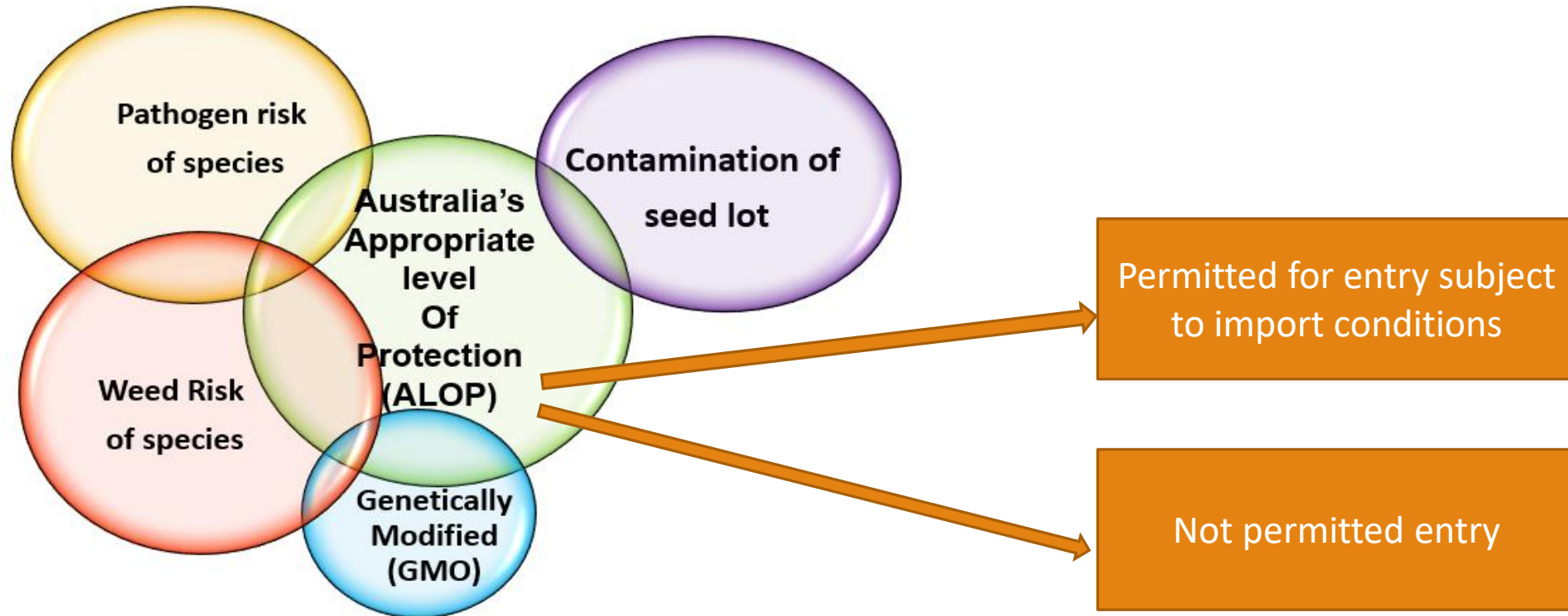
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- Develop import conditions and supporting policy that:
  - reduce the biosecurity risk associated with imported seed to an acceptably low level;
  - are in accordance with the *Biosecurity Act 2015* (Cth), other relevant legislation and international obligations; and
  - are practical and fit-for-purpose.
- Ensure compliance with import conditions.
- Perform biosecurity activities (e.g. inspections) and direct importers or biosecurity industry participants to perform biosecurity activities (e.g. seed testing or treatment).
- Monitor for emerging risks associated with seed and take action when necessary.



# General seed risks

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# Key risks for tomato seed

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Pathogenic risk (virus and viroids)	Contaminant risk
<ul style="list-style-type: none"><li>• <i>Tomato mottle mosaic virus</i></li><li>• <i>Tomato brown rugose fruit virus</i></li><li>• <i>Pepino mosaic virus</i></li><li>• Pospiviroids:<ul style="list-style-type: none"><li>• <i>Columnnea latent viroid</i></li><li>• <i>Pepper chat fruit viroid</i></li><li>• <i>Tomato apical stunt viroid</i></li><li>• <i>Tomato chlorotic dwarf viroid</i></li><li>• <i>Potato spindle tuber viroid</i></li></ul></li></ul>	<ul style="list-style-type: none"><li>• Infestation with Khapra beetle (and other <i>Trogoderma</i> species of concern)</li><li>• Weed risk of contaminants</li></ul>

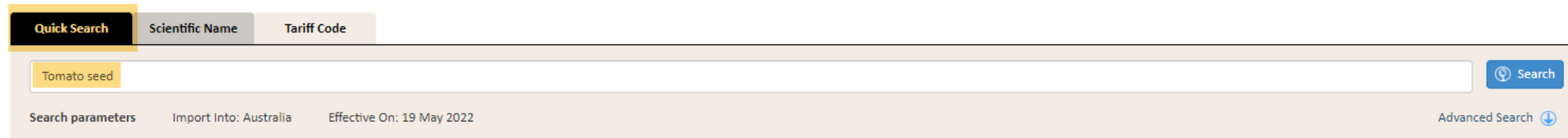


# Finding import conditions

- All biosecurity import conditions are held in the department's [Biosecurity Import Conditions \(BICON\) system](#)
- To access BICON, open a web browser and type "BICON" in the search engine.
- Find the tomato seed conditions by:
  - Searching 'Tomato seed' in the **Quick Search**, or

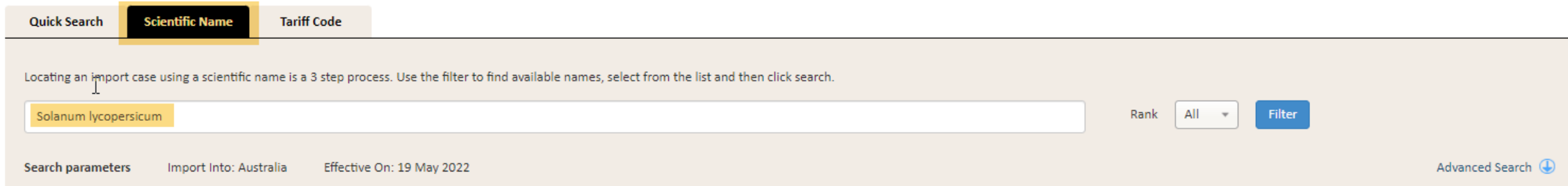
## Search for Import Item

Search for the commodity you want to import. You can also search for your import by scientific name or tariff code. Refer to the [BICON Help](#) page for tips on searching.



The screenshot shows the 'Quick Search' tab selected. The search input field contains 'Tomato seed'. Below the input field, there are search parameters: 'Import Into: Australia' and 'Effective On: 19 May 2022'. A 'Search' button is located to the right of the input field. At the bottom right, there is an 'Advanced Search' link with a downward arrow icon.

- Searching the species, for e.g. *Solanum lycopersicum* in the **Scientific Name Search**



The screenshot shows the 'Scientific Name' tab selected. The search input field contains 'Solanum lycopersicum'. Below the input field, there are search parameters: 'Import Into: Australia' and 'Effective On: 19 May 2022'. To the right of the input field, there is a 'Rank' dropdown menu set to 'All' and a 'Filter' button. At the bottom right, there is an 'Advanced Search' link with a downward arrow icon.



# Pathogen testing for tomato seed

- 2 Tests types: ELISA and PCR
- Approved protocols
- 2 approved labs onshore (NSW & VIC)
- TIP: Use the Checklists for reviewing Laboratory reports

Pathogen	Test type	Sample size <sup>1</sup>	Max sub-sample size
Tomato mottle mosaic virus	PCR Using only department approved PCR primers and protocols, as listed <a href="#">here</a>	20,000	400
Tomato brown rugose fruit virus	PCR Using only department approved PCR primers and protocols, as listed <a href="#">here</a>	20,000	400
Pepino mosaic virus	ELISA	20,000	250
	PCR	20,000	400
Columnnea latent viroid	PCR	20,000	400
Pepper chat fruit viroid			
Tomato apical stunt viroid			
Tomato chlorotic dwarf viroid			
Potato spindle tuber viroid			
Tomato planta macho viroid	No testing required - no longer regulated as a quarantine pest		

<sup>1</sup>The sample sizes listed throughout are applicable to large seed lots only. For small seed lots, sample 20 percent of the small seed lot.



# Why use a sample size of 20,000 seeds for large seed lots?

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- Seed sample size affects the effectiveness of the test
- The fraction of virus infected seeds in commercially prepared and traded seed lots is often very small
- Provides a level of confidence of 99% of detecting the presence of contamination at a rate at or above 0.02% (i.e. 2 seeds in 10,000)



# Khapra beetle



- Khapra beetle (*Trogoderma granarium*) is Australia's number two National Priority Plant Pest
- Stored product pest, feeds directly on dried plant products and can survive as a hitchhiker pest in shipping containers for years
- Not present in Australia and poses major threat to Australia's grains industry
- From 28 April 2022, all consignments of seed for sowing from all countries must be accompanied by a phytosanitary certificate to declare that:
  - *"Representative samples were inspected and found free from evidence of any species of Trogoderma (whether live, dead or exuviae) in [Australia's list of Trogoderma species of biosecurity concern](#)".*





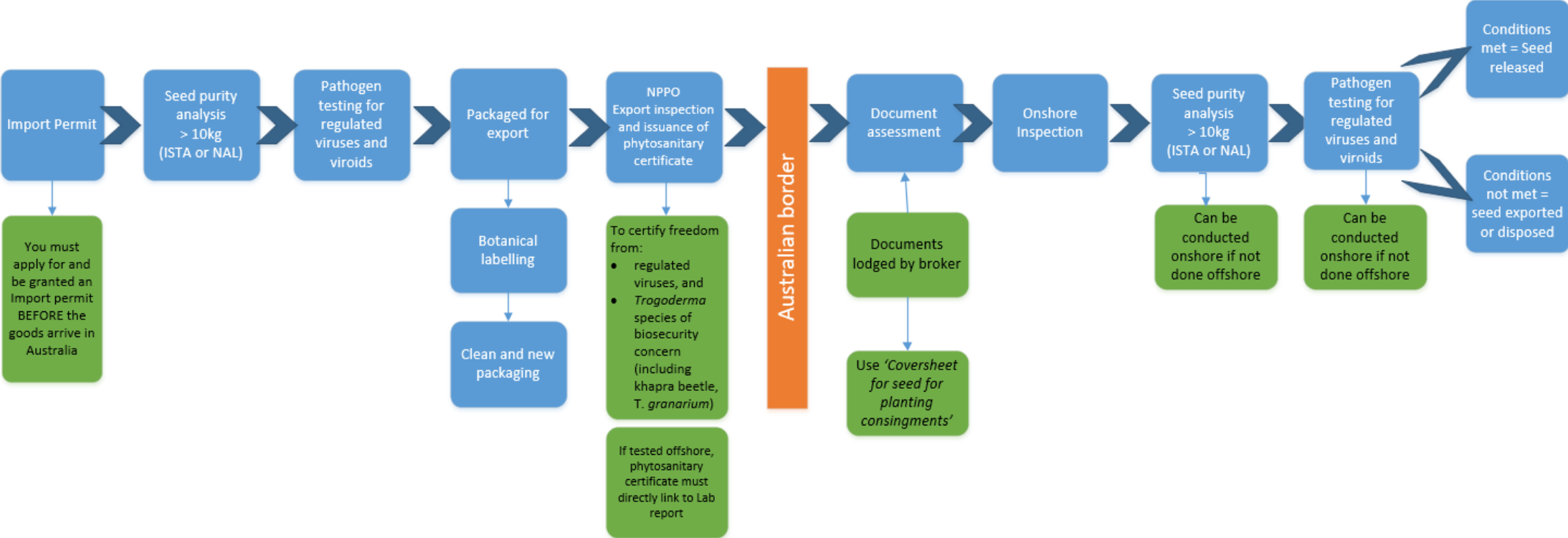
# Seed purity testing

- Required to detect insects, weed seeds, and other biosecurity risk material such as soil and faecal matter.
- Mandatory for seed lots greater than 10 kg in weight AND containing seed less than 8 mm in diameter
- Must be performed by a department approved laboratory, either:
  - ISTA (International Seed Testing Authority)
  - NAL (Naktuinbouw Authorised Laboratories)

	Approved laboratories for purity testing
<b>Offshore</b>	<ul style="list-style-type: none"><li>▪ 32 department approved ISTA laboratories offshore.</li><li>▪ 4 NAL laboratories in the Netherlands</li><li>▪ List available at: <a href="https://www.agriculture.gov.au/bicon/annex">BICON - Annex (agriculture.gov.au)</a></li></ul>
<b>Onshore</b>	<ul style="list-style-type: none"><li>▪ 5 department approved ISTA laboratories onshore (QLD, VIC, WA, TAS, SA)</li><li>▪ The biosecurity officer will advise of the closest laboratories to your port of entry</li><li>▪ List available at: <a href="https://www.agriculture.gov.au/bicon/annex">BICON - Annex (agriculture.gov.au)</a></li></ul>



# Import requirements and process



NOTE: Tomato seed import conditions are set at an international level. The department has issued tomato seed permits from various countries, including: Brazil, Chile, China, Costa Rica, Czechia (Czech Republic), France, Germany, India, Israel, Italy, Japan, Malaysia, the Netherlands, New Zealand, Poland, Republic of Korea, South Africa, Spain, Taiwan, Thailand, Turkey, United Kingdom of Great Britain and Northern Ireland, United States of America and Viet Nam





Thank you !

For further questions contact [imports@agriculture.gov.au](mailto:imports@agriculture.gov.au)

