Australian Government
Department of Agriculture, Water and the Environment

RISK BACKGROUND

Apium graveolens seeds for sowing

Overview

Figure 1. *Apium graveolens* seed [1]

Apium graveolens (celery) seeds that are imported for sowing require an import permit and must be:

- labelled with the full botanical name
- packed in clean, new packaging
- compliant with Australia's seed purity requirements to minimise contaminant risks
- inspected on arrival
- treated or tested for '*Candidatus* Liberibacter solanacearum' using polymerase chain reaction (PCR).

Importers and department staff must ensure that all BICON conditions are met and that goods are free from biosecurity risks, as well as the key risks described below.

Key risks

Seeds of *Apium graveolens* (celery) can harbour seed-borne pathogens of biosecurity concern, as well as a range of biosecurity risk material.

'Candidatus Liberibacter solanacearum'

'Candidatus Liberibacter solanacearum' is not known to occur in Australia and is an economically important pest of apiaceous crops. In plant hosts like celery, '*Ca.* L. solanacearum' causes a range of symptoms including curling of stems, yellowing and abnormal shoots[2]. More information on this pathogen can be found at department's Final pest risk analysis for 'Candidatus Liberibacter solanacearum' associated with apiaceous crops.

Australia manages the biosecurity risks posed by '*Ca.* L. solanacearum' by requiring imported host seeds to be hot water treated or tested and found free of the bacteria prior to release from biosecurity control.

Other pathway risks

Imported seeds may harbour a range of other biosecurity risk material, including insects (e.g. Khapra beetle), disease symptoms, and contaminants such as soil, weed seeds, hitchhiker pests and trash. These biosecurity risks are managed through standard seed import conditions, including on-arrival inspection of all consignments and purity testing as required under import conditions.

Document information

Version	Date	Details of amendment
1.0	30 March 2021	First publication of document.

[1] Welbaum, A (2005), Vegetable Seed Production: Celery, Department of Horticulture, Virginia Tech, accessed 24 February 2021.

[2] Teresani, GR, Bertolini, E, Alfaro-Fernandez, A, Martínez, C, Tanaka, FA, Kitajima, E, Rosello, M, Sanjuan, S, Ferrandiz, JC, López, MM, Cambra, M & Font-San-Ambrosio, MI 2014, 'Association of *Candidatus* liberibacter solanacearum with a vegetative disorder of celery in Spain and development of a real-time PCR method for its detection', *Phytopathology*, vol. 104, pp. 804–11.