

Comments from the Victorian Department of Health and the Victorian Department of Jobs, Precincts and Regions.

Due date of submission – 1 July 2022

The Victorian Departments of Health and Jobs, Precincts and Regions welcome the opportunity to respond to this application to amend the Australia New Zealand Food Standards Code (the Code).

Application A1241 – *Pectinesterase from GM Aspergillus oryzae as a processing aid* seeks to permit the use of the enzyme pectinesterase derived from a genetically modified (GM) strain of *A. oryzae*.

Based on the report from the Food Standards Australia New Zealand (FSANZ) Assessment report it is understood that:

- Pectinesterase is a pectinolytic enzyme that breaks down pectin during the manufacture and processing of fruit and vegetable products, production of coffee, flavouring substances and wine. It is used during processing but not in the final food for sale. Furthermore, it meets the requirements of a processing aid under the Code.
- The proposed pectinesterase is derived from a genetically modified strain of *A. oryzae* (strain AR-962) containing the pectinesterase gene from *Aspergillus tubingensis*. To achieve complete pectin degradation, pectinesterase is used synergistically in combination with polygalacturonase.
- Pectinesterase serves the technological function of degrading pectin which would otherwise cause technical difficulties due to its high viscosity and gelling properties during the processing of raw materials containing pectin.
- Pectinesterase is considered safe to use and the accompanying processing aid, polygalacturonase, has also been assessed as safe.
- The risk assessment conducted by FSANZ concluded that the enzyme is non-toxicogenic, non-mutagenic and complies with the recommended purity specifications for food grade enzymes. The GM host strain is also neither pathogenic nor toxigenic, and the genetic modification process involving gene insertion is stable with no public health and safety concerns.
- Foods for sale that contain pectinesterase derived from GM *A. oryzae* as an ingredient will be subject to the GM labelling requirements under the Code. However, GM labelling requirements will not apply if the food containing the enzyme is not a food for sale itself (for example, if the enzyme is present in fruit juice that is used as an ingredient in a beverage product).
- The draft variation prepared by FSANZ proposes to list pectinesterase sourced from *A. oryzae* containing the pectinesterase gene from *A. tubingensis* as a permitted processing aid in Schedule 18. For the manufacture and/or processing of fruit and vegetable juices/products; and in the production of coffee, flavouring substances and wine, subject to the condition that the maximum permitted level of the enzyme is the amount consistent with Good Manufacturing Practice (GMP).
- The approval of the enzyme as a processing aid will enhance the competitiveness of Australia / New Zealand manufacturers of fruit, vegetable, and wine products in the international market, especially in Southeast Asia and the Middle East.

Based on the above information and FSANZ's conclusion that there are no public health and safety concerns associated with pectinesterase derived from GM *A. oryzae*, the departments support the progression of Application A1241.