

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

Due date of submission – 8 July 2022

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

Application A1248 – *Glucoamylase from GM Aspergillus niger* seeks to permit the use of the enzyme glucoamylase derived from a genetically modified (GM) strain of *A. niger*.

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

- The glucoamylase or amyloglucosidase enzyme, is used as a processing aid in distilled alcohol production and starch processing for glucose syrups production and other starch hydrolysates. It does not perform a function in the final food for sale and meets the requirements of a processing aid under the Code.
- The enzyme performs the technological function of degrading gelatinized starch and dextrans into glucose and other fermentable sugars to produce higher yields of alcohol and glucose for manufacturing syrups.
- The proposed glucoamylase is derived from a genetically modified strain of *A. niger* containing a protein engineered variant of the glucoamylase gene from *Gloeophyllum trabeum*.
- Glucoamylase has a history of safe use and is already listed as a permitted processing aid in the Code from several microbial sources, including *A. niger*.
- The risk assessment conducted by FSANZ determined that the GM host strain has a long history of safe use as production strain for food grade enzyme preparations, is known not to produce any toxic metabolites, the genetic modifications are well-characterised with the recombinant DNA stably integrated and does not pose a safety concern.
- The oral intake of the glucoamylase does not pose food allergenic or toxic concern and there was no evidence of genotoxic potential of the enzyme preparation.
- Foods for sale that contain glucoamylase derived from GM *A. niger* 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 a glucose syrup that is used as an ingredient in a confectionary product). Additionally, if the enzyme was used to produce alcohol and novel DNA is removed as part of the distillation process, GM labelling would not apply.
- The approval of the proposed enzyme as a processing aid will not cause barriers to international trade.
- The draft variation prepared by FSANZ proposes to list glucoamylase sourced from *A. niger* containing the glucoamylase gene from *G. trabeum* as a permitted processing aid in Schedule 18 for use in starch processing and the production of alcohol.

On the basis of the information above and FSANZ's conclusion that there are no public health and safety issues associated with glucoamylase derived from GM *A. niger*, the departments support the progression of Application A1248.