21 July 2020

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Dear Sir/Madam

Attached are the comments that the New Zealand Food & Grocery Council wishes to present on the *Call for submissions – Application A1195: Alpha-amylase from GM* Trichoderma reesei *as a PA (enzyme).*

Yours sincerely

Katherine Rich
Chief Executive

Call for submissions: Application A1195: Alpha-amylase from GM Trichoderma reesei *as a PA (enzyme)*

Submission by the New Zealand Food & Grocery Council

21 July 2020

NEW ZEALAND FOOD & GROCERY COUNCIL

1. The New Zealand Food & Grocery Council ("NZFGC") welcomes the opportunity to comment on the *Call for submissions – Application A1195: Alpha-amylase from GM* Trichoderma reesei *as a PA (enzyme).*

2. NZFGC represents the major manufacturers and suppliers of food, beverage and grocery products in New Zealand. This sector generates over $40 billion in the New Zealand domestic retail food, beverage and grocery products market, and over $34 billion in export revenue from exports to 195 countries – representing 65% of total good and services exports. Food and beverage manufacturing is the largest manufacturing sector in New Zealand, representing 45% of total manufacturing income. Our members directly or indirectly employ more than 493,000 people – one in five of the workforce.

COMMENTS

3. This Application, from Danisco New Zealand Ltd, reflects a continuation of applications from a range of companies for enzymatic processing aids over recent years derived from *Trichoderma reesei* (*T. reesei*) in some form. All have been assessed as safe and included in the Australia New Zealand Food Standards Code.

4. Alpha-amylase facilitates brewing and the production of potable alcohol. According to the Danisco, in brewing, alpha-amylase is typically added in the cereal cooker or in the mashing step and is thus denatured already in the consecutive lautering or mash filtration step. In the potable alcohol production industry, the Alpha-amylase is added in the pre-treatment, liquefaction and/or pre-saccharification step. In both cases Alpha-amylase increases the extraction and saccharification of starch maximising the conversion of starchy substrate to fermentable carbohydrates.

5. FSANZ addressed health and safety concerns of Alpha-amylase produced using *T. reesei* in its risk assessment noting that:
   - Alpha-amylase produced using *T. reesei* has a history of safe use in many countries and this particular product was assessed by the European Food Safety Authority in 2018. Currently the EU has no list of authorised food enzymes although FSANZ indicates one is expected in 2020-2021. As a result, individual member legislation is relied on and only Denmark and France require enzymes used as processing aid to be approved. This processing aid is approved in both countries and the USA
   - The production strain, *T. reesei*, is non-toxigenic and non-pathogenic and has been shown to be non-genotxic
   - The final enzyme product is purified so that *T. reesei* is no longer present
   - In any case, *T. reesei* is a commonly used production strain for enzymes which are, as noted at the outset of this submission, already approved for use in the Food Standards Code. Alpha-amylase from other sources is commonly used in food production
   - Wheat glucose syrup may be used on occasion in the fermentation process but for potable alcohol that has undergone a distillation process, wheat protein would not be present in the final product.

6. In light of the risk assessment, and noting that another alpha-amylase on the market provides industry with choice, NZFGC supports amendment to the Food Standards Code as proposed by FSANZ to permit alpha-amylase from GM *T. reesei* to be used in the Australian and New Zealand food supply.