



8 December 2020

Project Manager
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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 A1204: Beta-amylase from soybean (Glycine max) as a processing aid (enzyme)*.

Yours sincerely

Katherine Rich
Chief Executive



***Call for submissions – Application A1204:
Beta-amylase from soybean (Glycine max)
as a processing aid (enzyme).***

**Submission by the New Zealand Food & Grocery
Council**

9 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 A1204: Beta-amylase from soybean (Glycine max) as a processing aid (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.

THE APPLICATION

3. Du Pont has made application to FSANZ (through its subsidiary, Danisco NZ Ltd), for an amendment to the Australia New Zealand Food Standards Code (the Food Standards Code). This is to add a new source of an already permitted enzyme, beta-amylase for use as a processing aid in starch processing for the production of maltose syrup. The source is conventional soybeans (not genetically modified).

COMMENTS

Assessment by FSANZ

4. **Food Technology assessment** – FSANZ assesses the identity and purity of all additives and processing aids intended for use in the food supply. In this case, the substance is beta-amylase. FSANZ verified its identity with the International Union of Biochemistry and Molecular Biology (IUBMB). FSANZ also considers technological purpose and justification for any enzymes. The technological purpose is to aid the process of hydrolising to generate higher maltose content during maltose syrup production.
5. FSANZ’s conclusion was that the enzyme: does aid the conversion of liquified starch into a maltose rich solution; is a more specific reaction with less formation of side products compared to acid catalysed hydrolysis; and there are energy savings in production and less wastewater as a result. FGC considers this is important for sustainability reasons.
6. **Safety Assessment** – Beta-amylase is produced from the edible parts of soybeans. Soy products have a long history of safe use over generations. Soybean is, however, known to be one of the most common foods that can cause allergic reactions in Australia and New Zealand, and internationally. In its assessment, FSANZ considered a bioinformatic analysis which identified a degree of amino acid sequence homology between beta-amylase from soybean and an allergenic protein from wheat. FSANZ concluded beta-amylase not to be of allergenic concern in wheat allergic individuals given the likely very low exposure and that the enzyme was likely to be digested in the stomach like other dietary proteins.
7. Based on the available evidence, FSANZ’s overall conclusion was that there were no safety concerns from the proposed uses of beta-amylase from soy as a processing aid.

International approvals

8. FSANZ reports that currently, there is no EU list of authorised food enzymes. Such a list is anticipated for release in 2020- 2021 but in the meantime, EU Member States’ legislation applies. Nonetheless, beta-amylase from soybean has been evaluated by the EFSA Panel

on Food Contact Materials, Enzymes and Processing Aids (EFSA 2017). FSANZ reports that the Panel did not identify any safety issues with beta-amylase produced from soybean.

9. Beta-amylase has been approved for use in Japan (1996) and China (2017).

Conclusion

10. NZFGC supports the draft amendment to Schedule 18 of the Food Standards Code as provided by FSANZ and considers that the product will provide manufacturers with another alternative source of beta-amylase as a processing aid in starch processing to produce maltose syrup.