NEW ZEALAND
FOOD&GROCERYCOUNCIL

6 March 2017

Food Standards Australia New Zealand
PO Box 10559
The Terrace
WELLINGTON 6143

Email: standards.management@foodstandards.gov.au

Dear Sir/Madam

Attached are the comments that the New Zealand Food & Grocery Council wishes to present on the ***Call for Submissions – Application A1125: Endo ß(1,4) Xylanase as a Processing Aid (Enzyme)***.

Yours sincerely

[redacted]

Katherine Rich
Chief Executive

Call for Submissions – Application A1125: Endo ß(1,4) Xylanase as a Processing Aid (Enzyme)

Submission by the New Zealand Food & Grocery Council

6 March 2017

NEW ZEALAND FOOD & GROCERY COUNCIL

1. The New Zealand Food & Grocery Council ("NZFGC") welcomes the opportunity to comment on the *Call for Submissions – Application A1125: Endo ß(1,4) Xylanase 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 $34 billion in the New Zealand domestic retail food, beverage and grocery products market, and over $31 billion in export revenue from exports to 195 countries – some 72% of total merchandise exports. Food and beverage manufacturing is the largest manufacturing sector in New Zealand, representing 44% of total manufacturing income. Our members directly or indirectly employ more than 400,000 people – one in five of the workforce.

OVERARCHING COMMENTS

3. NZFGC supports amendment to the Revised Code to add permission for the use of the enzyme *Endo ß(1,4) Xylanase* (the enzyme) sourced from *P. haloplanktis* and produced by GM *B. subtilis* as a processing aid and that no special labelling conditions are necessary. This is on the basis of FSANZ considerations as noted in paragraph 3 and the balance of this submission.

4. Puratos NV sought permission to use the enzyme *Endo ß(1,4) Xylanase* (the enzyme) sourced from *P. haloplanktis* and produced by GM *B. subtilis* as a processing aid. The intention is for the enzyme to be used in the production of certain cereal products (eg breads, biscuits, cakes, pasta etc). The enzyme improves the functional properties in dough handling; dough structure, behaviour and uniformity; and batter viscosity.

5. FSANZ undertook a hazard assessment of the enzyme and determined that there were no public health and safety issues associated with the use of the enzyme as a food processing aid. This determination was made after considering: Toxicity and pathogenicity; Approval and use overseas; Status of any of the enzyme remaining in the food product; Allergenicity; Impacts following use; and Genotoxicity.

SPECIFIC COMMENTS

Use of Endo ß(1,4) Xylanase as a Processing Aid (Enzyme).

6. Puratos NV has sought permission to use the enzyme *Endo ß(1,4) Xylanase* (the enzyme) sourced from *P. haloplanktis* and produced by GM *B. subtilis* as a processing aid. The intention is for the enzyme to be used in the production of certain cereal products (eg breads, biscuits, cakes, pasta etc).

7. The enzyme assists the conversion of particular polysaccharides (arabinoxylans) naturally present in cereals into oligosaccharides to improve the functional properties in dough handling; dough structure, behaviour and uniformity; and reduced batter.

Hazard assessment

8. FSANZ undertook a hazard assessment of the enzyme and determined that there were no public health and safety issues associated with the use of the enzyme as a food processing aid. This determination was made after considering:

    - Toxicity and pathogenicity – the organism from which the enzyme is produced is not toxigenic or pathogenic. Further, FSANZ stated that genetically modified (GM) and non-GM *B. subtilis* have a history of safe use as the production organism for a number of processing aids already permitted in the Food Standards Code and overseas

- Approval and use overseas – *P. haloplanktis*-derived xylanase produced in *B. subtilis* has been approved for food use overseas.
- Status of any of the enzyme remaining in the food product – FSANZ suggested that some residual enzyme is expected to be present in the final food but that it would be inactive and susceptible to digestion like any other dietary protein.
- Allergenicity – analysis indicated that the enzyme has no biologically relevant relationship to known food protein allergens.
- Impacts following use – the enzyme preparation caused no observable effects at the highest tested doses in a 90-day repeated dose toxicity study in rats.
- Genotoxicity – FSANZ determined that the enzyme was not genotoxic or mutagenic in vitro.

9. On this basis FSANZ concluded that an Acceptable Daily Intake (ADI) 'not specified' was appropriate and a dietary exposure assessment was not required.

Labelling considerations

10. As the risk assessment concluded that the use of the enzyme preparation posed no risk to public health and safety, FSANZ determined that the existing labelling requirements in the Code were appropriate for the use of the enzyme in foods.

International approvals

11. This enzyme has been evaluated and authorised for use in:
    - France
    - Brazil
    - Canada and
    - has GRAS status (generally recognised as safe) in the USA.

12. Additionally, xylanase derived from *Pseudoalteromonas* sp. and produced in *B. subtilis* is listed on the updated inventory of substances used as processing aids presented to the Codex Committee on Food Additives 45th session in 2013.

NZFGC Conclusion

13. NZFGC is aware that enzymes used in the processing and manufacture of food are considered processing aids and that these must pre-approved before use. Permitted enzymes of microbial origin that are processing aids are listed in the table to subsection S18—4(5). Currently there are no permissions for the enzyme.

14. In light of the foregoing, NZFGC supports amendment to the Revised Code to add permission for the use of the enzyme *Endo ß(1,4) Xylanase* (the enzyme) sourced from *P. haloplanktis* and produced by GM *B. subtilis* as a processing aid and that no special labelling conditions are necessary.