8 October 2019

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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 A1176 – Enzymatic production of steviol glycosides.*

Yours sincerely

Call for submissions – Application A1176 – Enzymatic production of steviol glycosides.

Submission by the New Zealand Food & Grocery Council

8 October 2019

NEW ZEALAND FOOD & GROCERY COUNCIL

1. The New Zealand Food & Grocery Council ("NZFGC") welcomes the opportunity to comment on the ***Call for submissions – Application A1176 – Enzymatic production of steviol glycosides.***

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.

THE APPLICATION

3. PureCircle Limited (PureCircle) has applied to FSANZ for an amendment to be made to the Australia New Zealand Food Standards Code (the Food Standards Code) for a new method to produce steviol glycoside preparations. The method is an enzymatic conversion process that uses three enzymes derived from GM strains of E-coli which produce three different steviol glycoside preparations Rebaudioside (Reb) M and/or D and Reb AM. There are existing permissions in the Food Standards Code for Reb MD (submitted on by NZFGC in May 2019) but the source of the enzymes for the PureCircle steviol glycosides are different.

COMMENTS

4. NZFGC supports the application for amendment to the Food Standards Code to add the enzymatic conversion method for the production of Reb M and/or D and Reb AM. The method proposed uses three enzymes derived from GM strains of E-coli which produce the three different steviol glycoside preparations noted above, Reb M and/or D and Reb AM. Specifications for Reb M are already contained in the Code but not produced by the method proposed by PureCircle. Steviol glycosides are also already permitted in a wide range of foods and beverages as listed in Schedule 15—5 of the Food Standards Code.

5. We also support the enzymes used being listed as processing aids under Schedule 18. The steviol glycosides produced are minor compared to the more abundant steviol glycosides but as sugar alternatives, the preparations that will result have a different and more favourable taste profile.

6. The methods proposed are also more cost-effective than other methods for producing steviol glycosides. This is because the sweetness potency of preparations of steviol glycosides with a high Reb AM content is around 150 times sweeter than sucrose. This is not the highest (some are up to 300 times sweeter) but it is substantially sweeter.

7. As sugar alternatives, steviol glycosides play an important role in reducing the energy content of foods they are used in which may contribute to an overall energy consumption by consumers.

8. The technology assessment conducted by FSANZ considered the identity and purity properties, physical and chemical properties, the purpose, justification for use, manufacturing process detection methods and product stability and, for each of the enzymes, several similar aspects. FSANZ referenced in all these areas the assessment by JECFA, the WHO/FAO Joint Expert Committee on Food Additives which was reported in 2017 and noted that Reb MD met all requirements, including chemical and

microbiological specification parameters, expected in such a food additive. The conclusion was that the PureCircle preparations met the purity specifications in Schedule 3 of the Food Standards Code, and the steviol glycosides produced were chemically the same as steviol glycosides produced by hot water extraction of the stevia leaf.

9. The safety assessment conducted by FSANZ considered history of use, characteristics of GM and the safety of novel proteins. FSANZ concluded that the host strain in the method, *E. coli* K-12, was non-pathogenic and not toxigenic and has a long history of safe use for the production of food enzymes and in food preparations. The production strains were genetically stable and the hazard analysis together with the safety assessment led to the conclusion that there was no public health or safety risk in the preparations resulting from the PureCircle method

10. Steviol glycosides from a range of production methods have been approved for use in a wide range of foods including in the EU, Canada, USA, several countries in Asia, several countries in central and South America, India, Africa, Israel, Russia and Switzerland.

11. NZFGC notes that while the INS number allocated will be 960, this classification is currently the subject of review by the Codex Committee on Food Additives. When that review has concluded, the numbering will be revised along the lines of 960a for plant, 960b for fermentation and a category yet to be determined for enzymatic preparations. When a similar issue arose earlier in 2019, NZFGC suggested that there be an administrative limit set after which the Food Standards Code should be amended to reflect the novel production methods available at that time. This would give assurance about future transparency in the food supply.

12. Finally, we support the labelling proposals in the Call for Submission, that the steviol glycoside preparations are not foods produced using gene technology and would not require labelling as ‘genetically modified’.