



20 December 2023

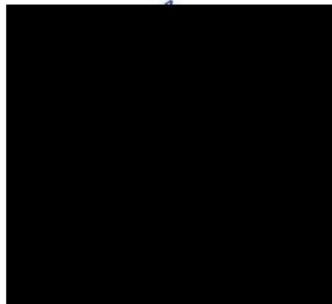
Project Manager  
Food Standards Australia New Zealand  
PO Box 10559  
The Terrace  
Wellington 6143  
NEW ZEALAND

Email: [submissions@foodstandards.gov.au](mailto:submissions@foodstandards.gov.au)

Tēnā koe

Attached are the comments that the New Zealand Food and Grocery Council wishes to present on the *Call for submissions – Application A1247 D-allulose as a novel food*.

Ngā mihi nui





## **Call for submissions – Application A1247 D-allulose as a novel food**

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

**20 December 2023**

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## NEW ZEALAND FOOD AND GROCERY COUNCIL

1. The New Zealand Food and Grocery Council (**NZFGC**) welcomes the opportunity to comment on the *Call for submissions – Application A1247 D-allulose as a novel food (the CFS)*.
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. Samyang Corporation (**Samyang**) has applied for an amendment to the Australia New Zealand Food Standards Code (**the Food Standards Code**) to permit the sale of D-allulose as a novel food.
4. Samyang is a South Korean manufacturer of food ingredients ranging from traditional commodities such as sucrose, flour, starch, starch sweeteners, and edible oil to highly functional specialty ingredients such as allulose, oligosaccharide, dietary fibre, and polyol.

## COMMENTS

5. Consumers are attracted to the novel rare sugar allulose because of its taste, it does not affect blood glucose levels, and because it is calorie-free. It is found in small quantities in figs, kiwifruit, and raisins, but is produced commercially from corn starch, beet sugar or maize using an enzymatic process.
6. Allulose provides an important addition to the sugar replacement toolbox because it behaves like sugar and can provide bulking and sweetness in food and drink products while reducing calories and the need for additional ingredients. Targeting a product at reducing rates of overweight and obesity through the use of a low-energy substitute for sugar provides an innovative alternative to conventionally used sweeteners in the domestic food and beverage industry.

### **Assessment by FSANZ**

7. According to the CFS, Samyang's D-allulose is produced by conversion of fructose by the enzyme, D-allulose-3-epimerase (also known as D-psicose-3-epimerase), which is naturally present in a non-genetically modified organism, *Microbacterium foliorum* (***M. foliorum***). This enzyme is not currently permitted to be used as a processing aid in the Food Standards Code.
8. Food Standards Australia New Zealand (**FSANZ**) addressed a range of health and safety aspects in its risk assessment. No public health or safety concerns were identified in relation to the use of *M. foliorum* in the production of D-psicose-3-epimerase. It is neither pathogenic nor toxigenic and no significant homology was found with any known toxins or allergens.
9. FSANZ reported that D-psicose 3-epimerase had a five-year history of safe use for the production of D-allulose, and Samyang provided analytical evidence that there was

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negligible likelihood of consumer exposure to the production organism, the intact enzyme, or residues from the enzyme.

10. Dietary intake assessments were conducted to estimate dietary intake of the added and naturally occurring D-allulose. Estimated mean and high chronic dietary intakes of added D-allulose based on maximum use levels requested by Samyang ranged between 150 and 730 mg/kg bw/day across the Australian and New Zealand population groups and scenarios. Estimated chronic dietary intakes from naturally occurring sources of D-allulose were very low compared to intakes from added sources ( $\leq 11$  mg/kgbw/day). Dietary intake assessments identified a number of food categories from which the intake at the Samyang proposed maximum use levels would result in around 10% of high consumers exceeding the maximum. D-allulose at high levels causes a laxative effect. To avoid this, based on normal food consumption amounts when consumed as one food containing D-allulose per eating occasion, lower concentration levels could be achieved compared to the maximum use levels proposed in the application for some foods.
11. Although D-psicose-3-epimerase enzyme is used in the D-allulose manufacturing process, analytical results confirmed that the enzyme will not be present in D-allulose. FSANZ therefore did not undertake a dietary exposure assessment for the enzyme, which is consistent with similar international assessments.
12. No evidence was identified by Samyang or FSANZ to indicate that D-allulose consumption would affect the absorption of other nutrients. An Acceptable Daily Intake of “not specified” was determined as appropriate for both D-allulose and D-psicose 3-epimerase.
13. No public health or safety concerns were identified by FSANZ in the microbiological safety assessment of D-allulose. An identified high percentage of absorption of untransformed D-allulose in the small intestine through the kidneys to urine was considered as a possible flag for potential issues with urinary tract infections. FSANZ plans to continue to monitor the emerging literature on any potential microbiological risks associated with D-allulose consumption, a course wholly supported by NZFGC.

#### ***International status***

14. The Samyang product is currently making its way through the Novel Foods process to gain regulatory approval in Europe. It has been approved for use in the USA since 2012 and has regulatory backing in Mexico, Japan, Singapore and South Korea.

#### ***Drafting***

15. On the basis of the foregoing, recognising that support of innovation within the industry will support ongoing benefits to public health in the Australian and New Zealand population, NZFGC fully supports the amendments to the Food Standards Code as drafted by FSANZ.