

20 December 2023

Project Manager

Food Standards Australia New Zealand

PO Box 5423

KINGSTON ACT 2604

AUSTRALIA

**RE: Submission – A1247 – D-allulose as a novel food [269-23]**

Following are the comments that AIFST wishes to present on the Application.

Thank you for the opportunity to provide input to the Call for Submissions for A1247.

If you require any further information, please do not hesitate to contact me.

Sincerely

Fiona Fleming

*B. App Sc (Food Tech); MNutr Mgt; FAIFST*

**Chief Executive Officer**



## **Call for submissions – A1247 – D-allulose as a novel food [269-23]**

**Submission by:**

**Australian Institute of Food Science & Technology  
Limited (AIFST)**

*20 December 2023*

## The Australian Institute of Food Science and Technology Limited (AIFST)

The Australian Institute of Food Science and Technology Limited (AIFST) is a not-for-profit organisation representing food industry professionals working in all facets of the food industry including food science, food technology, engineering, sensory, new product development, innovation, regulatory, QA, nutrition, microbiology, and food safety, as well as those in leadership positions within the academic, industry and private sectors.

AIFST's mission is to advance and inspire all food sector professionals through education, collaboration, and recognition, to champion a robust, innovative, science-based Australian agri-food industry to meet future food needs.

Food science is at the heart of what we do, and we aim to champion food science and food scientists.

### Position

AIFST has reviewed FSANZ's assessment and **supports** approval of D-allulose a novel food.

### Overall Comments

AIFST has reviewed the Call for submissions document including the supporting Technical and Risk assessment material provided.

AIFST notes the following:

- the application is to amend the Australia New Zealand Food Standards Code (the Code) to permit the sale of D-allulose as a novel food in Australia and New Zealand.
- D-allulose is intended to be added to foods as a low-energy substitute for conventional sugar ingredients, particularly sucrose.
- the Applicant's request for amendment of the Code's requirements for nutrition content claims about sugar(s) for foods containing added D-allulose.
- the requirement for approval of the main production enzyme as a processing aid.

AIFST **supports** approval of D-allulose as a novel food as it presents an opportunity for Australian and New Zealand food manufacturers to foster innovation leading to products better able to protect and promote improved health outcomes for consumers.

## Specific Comments

### Risk Assessment

AIFST notes FSANZ concluded:

- there is no toxicological risk to public health and safety from consumption of D-allulose in food, or from the use of D-psicose 3-epimerase in the production of D-allulose.
- there is no public health or safety concerns identified in the microbiological safety assessment of D-allulose and healthy adults.
- there is no public health and safety risks identified to be associated with the use of *M. foliorum* in the production of D-psicose 3-epimerase.
- there is no toxicological risk to public health and safety from the intake of D-allulose from food based on the proposed maximum use levels from the application.
- based on the dietary intake assessment, in some instances, there was a risk of a laxative effect at the proposed levels for some food classes. This potential occurred where the intake of D-allulose would be above the threshold for laxation of 0.4 g/kg/bw (28g for a 70 kg adult).

AIFST **supports** the conclusions **EXCEPT** the conclusion of the dietary intake assessment.

### Dietary intake assessment

AIFST notes the food consumption data used for the dietary intake assessments were:

- 2011-12 Australian National Nutrition and Physical Activity Survey (2011-12 NNPAS), one 24-hour food recall survey of 12,153 Australians aged 2 years and above, with a second 24-hour recall undertaken for 64% of respondents (ABS, 2015).
- 2002 New Zealand National Children's Nutrition Survey (2002 NZ CNS), one 24-hour food recall covering 3,275 New Zealand school children aged 5-14 years, with 25% of respondents also completing a second 24-hour recall (Ministry of Health 2005).
- 2008-09 New Zealand Adult Nutrition Survey (2008 NZ ANS): a 24-hour recall of 4,721 New Zealanders aged 15 years and above, with a second 24-hour recall undertaken for 25% of respondents. (Ministry of Health 2011a; Ministry of Health 2011b).

AIFST notes that FSANZ proposes lower maximum use levels for those foods/food classes than the maximum use levels originally proposed by the applicant (as given in Table 1 of the CFS).

AIFST notes the significant regulatory burden faced by industry when the maximum permitted levels vary from those in other jurisdictions.

For example, in the USA, the Generally Recognized as Safe (GRAS) use limit for beverages for allulose (including juice drinks) is 3.5-5% whereas the maximum level proposed by FSANZ is 1.5%.

The United States Food and Drug Administration (FDA) considers that D-allulose intake of less than 0.5-0.6 g/kg bw/day as safe which closely aligns with FSANZ's assessment of 0.4 g/kg bw/day. However, as



AIFST understands, this difference in the maximum levels may be attributed to the dietary intake assessment methodology and notes the food consumption data used is up to 20 years old.

### Risk Management

#### Proposed Conditions of use

AIFST notes the adjustments to food class names and maximum permitted levels of D-allulose from those requested in the application. With respect to Table 1 in the CFS – it would have been helpful if the category number had been included and not just the description.

AIFST further notes the significantly reduced maximum permitted use levels for some product categories:

- Fruit filling for confectionery containing not less than 200g/kg of fruit
- Bakery products (including bread)
- Sugar confectionery
- Bubble gum and chewing gum.

#### AIFST requests:

- FSANZ considers further interrogation and explanation of the dietary modelling to justify any discrepancy from international permitted levels.
- FSANZ consider harmonisation of domestic levels with those internationally as much as possible.

#### Energy Value for D-allulose

AIFST **supports** the proposed energy value for D-allulose of 2kJ/g.

AIFST **supports** the exclusion of D-allulose from the amount of carbohydrate and sugars in the NIP.

Under existing Code provisions, if one or more components listed in subsection S11—2(3) (other than organic acids) is present in a food, singly or in combination, in an amount of no less than 5 g/100 g and if carbohydrate content is determined using the *available carbohydrate by difference* calculation, then the amount of the component must be listed in the NIP. The amount of D-allulose would therefore need to be listed in the NIP if present in a food at a concentration of 5 g/100 g or more. This information will enable consumers to make informed food choices.

#### Nutrition content and health claims

AIFST **supports** the permission for foods containing D-allulose to make nutrition content claims about sugars (as listed above) provided other claim conditions for sugars are met.

#### Specification

AIFST **supports** the proposal not to set an individual specification for D-allulose, relying on Food Chemicals Codex and the Merck Index.

#### Exclusivity

AIFST notes the proposal to grant exclusive use permission on the basis that the applicant has invested significantly in the technology development and safety studies.

Given that D-allulose is already permitted for use in other jurisdictions as set out in the CFS, this is likely to result in barriers to trade for products already on the market outside of Australia and New Zealand. Companies in ANZ who wish to take up the opportunity to incorporate D-allulose in their existing or new products will have only one supply option which will potentially reduce the number of new products available if companies are nervous about continuity of supply from a single company.

#### Regulatory approval for D-psicose 3-epimerase enzyme

AIFST **supports** regulatory approval for D-psicose 3-epimerase enzyme.

#### FSANZ Act assessment requirements

##### Consideration of costs and benefits - Industry

FSANZ note that Industry would have an extra option for a low-energy substitute for sugar as an ingredient in foods and drinks if this application is approved.

FSANZ has not considered the cost impact on industry resulting from the exclusive permission granted to the applicant – this may limit the opportunity for companies who are unable to secure supply from the applicant due to price or continuity of supply.

This will also limit products manufactured overseas to be marketed in ANZ if the D-allulose ingredient is not supplied by the applicant.

AIFST also question how this exclusivity would be enforced at the border since the source (supplier) of D-allulose in a product would not be obvious at the point of entry.

#### Draft variation to the ANZ Food Standards Code

AIFST **request** that the proposed amendment to Section S25-2 (table) include a reference to description heading number in Schedule 15, for example:

- (i) bakery products (including bread) **(S15 – 7)** (limit: 5% (w/w))

This will make it MUCH easier to relate this list to Schedule 15 which contains other permissions.