

11 February 2013

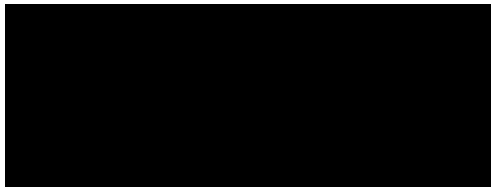
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Dear Sir/Madam

Attached are the comments that the New Zealand Food & Grocery Council wishes to present on the Call for Submissions for **Application A1055** *Short Chain Fructo-oligosaccharides*.

Yours sincerely



Katherine Rich
Chief Executive

Food Standards Australia New Zealand
APPLICATION A1055 SHORT CHAIN
FRUCTO-OLIGOSACCHARIDES
Call for Submissions
11 February 2013

The New Zealand Food & Grocery Council (the “NZFGC”) welcomes the opportunity to make a submission on *Application A1055 Short Chain Fructo-oligosaccharides*.

New Zealand Food & Grocery Council

The NZFGC represents the major manufacturers and suppliers of food, beverage and grocery products in New Zealand. Collectively this sector generates \$28.7 billion in the New Zealand domestic retail food, beverage and grocery products market and \$26.3 billion in export revenue from exports to 183 countries. Food and beverage manufacturing is the largest manufacturing sector in New Zealand representing 46% of total manufacturing income and 34% of all manufacturing salaries and wages.

Food and beverage manufacturing and wholesaling in New Zealand directly employs 104,160 people (5% total employment) and, when taking the wider food and beverage value chain (including farming and food retailing/foodservice) into account, employment soars to 344,820 in 85,252 enterprises. This represents around one in five people employed in our country.

No matter how you look at it, the New Zealand food, beverage and grocery sector makes a substantial contribution to the New Zealand domestic economy, to our exports and to the general economic well-being of the country.

Application A1055

The NZFGC understands that the application covers two elements

- permission to voluntarily add short-chain fructo-oligosaccharides produced from sucrose (short chain FOS_{sucrose}) to infant formula products and foods for infants and young children (as reflected in Standards 2.9.1, 2.9.2 and 2.9.3 of the *Australia New Zealand Food Standards Code* (the Food Standards Code)) in the same quantity but as an alternative to the already permitted addition of ‘inulin-derived substances’
- permission to use (as a processing aid in the production of short chain FOS_{sucrose}) the processing aid, invertase (EC 3.2.1.26) enzyme from a new source – a strain of fungus *Aspergillus niger* (currently the only permitted source of invertase is *Saccharomyces cerevisiae*).

Comments

The NZFGC supports innovation in the food supply including technological developments that have a positive and beneficial impact for the consumer. NZFGC also supports consumer choice. A1055 delivers on both these outcomes whilst maintaining the safety of the food supply.

Voluntary use of short-chain fructo-oligosaccharides produced from sucrose (short chain FOS_{sucrose})

Short chain fructo-oligosaccharides (short chain FOS), which are identical to the currently approved 'inulin derived substances', are added to foods to produce softer stools. In infant formula, the softer stools produced by formula fed infants where the formula contains short chain FOS, are closer to the soft stools produced by breast fed infants.

Short chain FOS is already permitted for use within the Food Standards Code but only that derived from inulin (FOS_{inulin}). At the time FOS_{inulin} was approved for voluntary addition to infant formula/products/food, FSANZ determined that there were no technical reasons to restrict the addition of short chain FOS to infant formula/products/food but even so explicitly excluded short chain FOS derived from sucrose.

Sucrose is an alternative source for short chain FOS. As the FSANZ risk assessment and the associated literature identifies, there are significant positive impacts from short chain FOS in the diet irrespective of source:

- soft stools
- mineral absorption such as of calcium
- mucosal functions
- production of gastrointestinal endocrine peptides
- immunity and resistance to infections and
- no difference in health outcomes compared to other formula fed infants.

All these impacts and toxicity and carcinogenicity of short chain FOS were assessed by FSANZ and, where they had been previously assessed, FSANZ summarised its previous work. Studies confirm the benefits and do not identify any negative impacts.

On this basis, FSANZ has concluded that short chain FOS sourced from sucrose (FOS_{sucrose}) is:

“technologically justified and is as safe as IDS [inulin derived substances] already permitted to be added to foods generally and infant formula products, infant foods and FSFYC [Formulated Supplementary Foods for Young Children] alone or in combination with IDS and/or GOS [galacto-oligosaccharides] up to the currently permitted maximum concentrations.”¹

NZFGC supports the addition of short chain FOS sourced from sucrose (FOS_{sucrose}) to infant formula products and foods for infants and young children (as reflected in Standards 2.9.1, 2.9.2 and 2.9.3 of the Food Standards Code) in the same quantity but as an alternative to the already permitted addition of 'inulin-derived substances'.

¹ p46 Supporting Document 1: Risk and technical assessment report – Application A 1055: Short Chain Fructo-oligosaccharides, FSANZ [2012]

Use of invertase derived from *Aspergillus niger* to produce short chain FOS_{sucrose}

The role of the invertase enzyme in the production of short chain FOS_{sucrose} is fully described in the FSANZ risk assessment. FSANZ agreed that invertase produced from *Aspergillus niger* met international specifications for enzyme preparation, and has had a history of use in a number of countries. It noted in particular that *A. niger* has had a long history of safe use in the production of enzymes used as food processing aids.

NZFGC supports the use of invertase produced from *Aspergillus niger* in the production of short chain FOS_{sucrose} for addition to infant formula products and foods for infants and young children (as reflected in Standards 2.9.1, 2.9.2 and 2.9.3 of the Food Standards Code).

International comparisons

Short-chain fructo-oligosaccharides

Short chain FOS may be added to infant formula/products/food in the USA, the EU, Japan, China, the Customs Union (Belarus, Kazakhstan and Russia), Malaysia, Indonesia and the Republic of Korea.

Invertase derived from *Aspergillus niger*

Enzymes produced from *A. niger* have a long history of international review, acceptance and use. They have been reviewed by FAO/WHO expert panels as well as country/region-specific authorities (such as within the EU and in the US) and found to be safe.

Questions

Ques 1: Are there any other cost or benefits that should be considered in the impact analysis?

NZFGC is not aware of any other costs or benefits although there are benefits for consumers from both locally produced and imported products containing short chain FOS_{sucrose} (imported products are not explicitly mentioned).

Ques 2: Are there any other parties you think the proposed variation to the relevant Standards may affect?

NZFGC is not aware of any other parties that may be affected by the proposed variations.

Ques 3: Does the proposed terminology and definition provide appropriate clarity and consistency?

NZFGC considers the proposed terminology and definition is not clear. NZFGC supports the Infant Nutrition Council's suggested amendments to the definition. NZFGC notes that the term 'inulin derived substances' is technically incorrect to describe short chain FOS_{sucrose} since short chain FOS_{sucrose} is not derived from inulin.

While there may be issues with the introduction of a new definition using the term 'inulin type fructan', so long as the term makes direct reference to fructo-oligosaccharides, this would be acceptable. We understand that the term 'inulin type fructans' has been used in some academic papers but we are also aware that the use of the term 'fructo-oligosaccharides' is widely used by other regulatory and international agencies (such as the EU, FAO/WHO and IUPAC/IUB) and by industry world wide. In our view, the term 'inulin type fructan' must incorporate reference to FOS. We therefore recommend that the definition be amended to read:

'Inulin type fructan'(ITF), also known as 'fructo-oligosaccharide' or 'FOS', refers to a mixture of saccharide chains that have predominantly $\beta(2-1)$ fructosyl-fructose linkages with or without a terminal glucose.

Using this definition will minimise confusion as to the nature of the ingredient both domestically and also in the international context for trade purposes when reference is made to Australian or New Zealand law.

We suggest that FSANZ might include a definition of ‘fructo-oligosaccharides or FOS’ that simply refers to the definition of ‘inulin type fructan’ so that those looking for FOS will be directed to the less common term. We would expect that wherever the term ‘inulin type substances’ is used in the Food Standards Code, this would be replaced with “‘inulin type fructans’ also known as ‘fructo- oligosaccharides’ or ‘FOS’”.

The term ‘inulin type fructan’ is an appropriate academic term but it is not recognised by other regulatory/international agencies or by consumers. It is therefore not the term industry could use on labels that would have any recognition or resonance in the market place. This is also the case with the term ‘inulin derived substances’ which is not used on labels. Other more widely accepted terms are used on labels instead, such as FOS.

Conclusion

In the absence of safety concerns and in light of widespread use and beneficial impacts of short chain FOS_{sucrose}, and in light of similar considerations in relation to the use of invertase enzyme produced from *Aspergillus niger* in the production of short chain FOS_{sucrose}, the NZFGC supports Option 1 of the two regulatory options presented by FSANZ but does not support support the proposed defiinition.

Option 1 would result in amendments to Standards 2.9.1, 2.9.1 and 2.9.3 to permit the optional addition of short chain FOS_{sucrose}, to infant formula products, infant foods and formulated supplementary foods for young children respectively, up to the same maximum amounts currently permitted for inulin derived substances and galacto-oligosaccharides. This option would generate the need for a revised definition in Standard 1.1.1 that covers both short chain FOS_{sucrose} and inulin derived substances.

NZFGC supports the use of the term ‘inulin type fructan’ but strongly recommends that the definition be amended to read:

‘Inulin type fructan’(ITF), also known as ‘fructo-oligosaccharide’ or ‘FOS’, refers to a mixture of saccharide chains that have predominantly $\beta(2-1)$ fructosyl-fructose linkages with or without a terminal glucose.

NZFGC supports amendments to the Food Standards Code that would permit invertase from *A. Niger* as a processing aid.

NZFGC notes that short chain FOS_{sucrose} would be available for use in general foods and supports this use.