



10 February 2013

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

**Re: FSANZ Call for submissions on new ingredient for infant formula/young children products. Application A1055**

Thank you for the opportunity to make feedback on this submission.

Dietitians New Zealand (DNZ) is the professional association of registered dietitians and associated nutritional professionals. With a membership of approximately 600, we represent the largest group of fully trained food and nutrition professionals in New Zealand.

The DNZ Paediatric Special Interest group (SIG) members were emailed by the paediatric SIG convenor asking for feedback on this FSANZ submission. This feedback reflects the comments and opinions of the DNZ Paediatric SIG.

Yours sincerely

[Redacted signature]

[Redacted name]  
**Paediatric Special Interest Group Convenor**  
**Dietitians NZ**

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**FSANZ Call for submissions on new ingredient for infant formula/young children products - sucrose-derived short chain fructo-oligosaccharides (scFOS<sub>sucrose</sub>). Application A1055**

Prebiotics are usually in the form of oligosaccharides, which may occur naturally but can also be added to infant formulas and food. These oligosaccharides are indigestible by the human gut, but their presence in the gastrointestinal tract selectively enhances proliferation of some prebiotic (healthy) bacteria in the colon, especially *Bifidobacteria* species. Short chain fructo-oligosaccharides (scFOS) are mixtures of short chain unbranched polymers of  $\leq 9$  fructose monomers. Examples of prebiotic oligosaccharides include fructo-oligosaccharides (FOS), inulin, galacto-oligosaccharides (GOS) and soybean oligosaccharides. Inulin is a composite oligosaccharide that contains some FOS molecules.

Inulin-derived prebiotic (scFOS<sub>inulin</sub>) is currently allowed in infant formulas and supplementary foods (Toddler milk) in New Zealand as per the Food Standards Australia New Zealand. Currently scFOS<sub>sucrose</sub> is not permitted on the basis of its method of manufacture. The applicant is seeking amendment to Standard 1.3.3 - Processing Aids of the Code to permit the use of the enzyme invertase from *Aspergillus niger* as a processing aid in the production of scFOS from sucrose.

It is the responsibility of DNZ to review the current literature when responding to this submission of the use of prebiotic scFOS<sub>sucrose</sub> in infant formula/young children products.

DNZ is unable to comment on the safety and use of the enzyme invertase from *Aspergillus niger* as this is outside our scope of practice, however DNZ is in a position to comment on the use of scFOS whereby scFOS<sub>sucrose</sub> may be a component.

**In support of the addition of scFOS<sub>sucrose</sub>**

- The ESPGHAN<sup>1</sup> committee on Nutrition 2011, reported that supplementation of infant formula with prebiotics does not raise safety concerns with regards to growth and adverse effects
- The American Academy of Pediatrics<sup>2</sup> report that prebiotics may prove to be beneficial in reducing common infections and atopy in the well child, however further research is required
- It is important to note that healthy infants, toddlers and young children eating solids will naturally be consuming scFOS from fruit and vegetable sources

## Cautionary notes

- The ESPGHAN<sup>1</sup> committee on Nutrition 2011 states “At present there is insufficient data to recommend the routine use of probiotic-and/or prebiotic - supplemented formulae.” There is lack of data on long-term effects of formula supplemented with prebiotics
- ESPGHAN<sup>1</sup> committee currently does not recommend the routine use of formula supplemented with prebiotics
- The American Academy of Pediatrics<sup>2</sup> states that cost/benefit studies are required to support the addition of prebiotics in infant formulas and that important questions remain in establishing the clinical applications of prebiotics
- Mugambi<sup>3</sup> systematic review using Cochrane methodology concluded that there is insufficient evidence that supplementation of term infant formula with prebiotics results in an improvement of clinical outcomes in term infants

## Summary

- DNZ is aware that scFOS<sub>inulin</sub> is used in some infant formula/young children products and thus support the inclusion of scFOS<sub>sucrose</sub> to the Australia New Zealand Foods Standards Code, as no public health and safety issues have been identified
- DNZ does not support any claim that prebiotics offer any clinical benefit to infants and toddlers
- Consumers and health professionals need to be aware that plant based prebiotics are not equivalent to prebiotics in breast milk
- DNZ recommends Foods Standards Australia New Zealand advisors monitor international discussion and evidence about inclusion of prebiotics (including scFOS<sub>inulin</sub> and scFOS<sub>sucrose</sub>) to infant formula/young children products. Adjusting the Code as necessary based on current evidence, is important to maintain the well health of our infants and children and to cause no harm

## References

1. ESPGHAN Committee on Nutrition. Supplementation of infant formula with probiotics and/or prebiotics: A systematic review and comment by the ESPGHAN Committee on Nutrition. *J Pediatr Gastroenterol Nutr* 2011;52:238-250

2. Thomas DW, Greer FR and Committee on Nutrition; Section on Gastroenterology, Hepatology and Nutrition. Probiotics and prebiotics in pediatrics. *Pediatrics* 2010;126:1217-1231
3. Mugambi MN, Musekiwa A, Lombard M, Young T and Blaauw R. Synbiotics, probiotics or prebiotics in infant formula for full term infants: a systematic review. *Nutrition Journal* 2012;11;81 <http://www.nutritionj.com/content/11/1/81>