



# A1149 Addition of Steviol glycosides to fruit drink

## November 2018

The Dietitians Association of Australia (DAA) is the national association of the dietetic profession with over 6000 members, and branches in each state and territory. DAA is a leader in nutrition and advocates for food and nutrition for healthier people and healthier nations. DAA appreciates the opportunity to provide feedback on the proposal A1149 Addition of Steviol glycosides to fruit drink by Food Standards Australia New Zealand.

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## **DAA interest in this consultation**

DAA is the peak professional body for dietitians in Australia and responsible for the Accredited Practising Dietitian (APD) program as the basis for self-regulation of the profession.

DAA advocates for a safe and nutritious food supply in which the community has confidence and which meets the nutritional needs of all Australians, including groups with special needs.

As experts in nutrition, APDs assist the general population and groups with special dietary needs to meet their nutritional needs. APDs also assist with the translation of food labels and nutrition content claims.

DAA understands this application is to permit the use of steviol glycosides, an additive to perform the technological purpose of an intense sweetener in fruit drinks.

## **Recommendations**

DAA supports the FSANZ draft variation to the Code which permits the use of steviol glycosides as a food additive to perform the technological purpose of an intense sweetener for the following reasons:

- FSANZ have identified no public health and safety issues when Steviol glycosides are used as an intense sweetener.
- Generic labelling requirements would apply to provide consumers with information on the presence of steviol glycosides in food to enable informed choice.
- The proposed amendments will enable greater choice for consumers for artificially sweetened lower kilojoule fruit drinks.

DAA recommend FSANZ continue to review the evidence on the long-term safety of artificial sweeteners in order to ensure the consumption of these is not causing any potential long-term harm to the health of consumers. DAA also recommends an ongoing public awareness campaign and education on the effects of sweeteners to ensure consumers can make informed choices.

## Discussion

DAA recognises that FSANZ undertakes a comprehensive safety assessment of all food additives, including sweeteners, before they are approved for use in food.

DAA understands that many artificial sweeteners are safe from a toxicological point of view, however is aware of a growing body of evidence that artificial sweeteners may have unwanted metabolic effects.

DAA acknowledge that much of the evidence at this stage is based on lower quality evidence from both animal and observational studies, and that there are a number of further limitations within the studies themselves (including methodology quality, and funding bias). A list of studies assessing the impact of artificial sweeteners is included below for reference. DAA acknowledge that research is continuously being undertaken in this area and bodies of evidence continue to expand. As such, it is imperative FSANZ continue to review the evidence to ensure the food supply remains safe for the public and continue to provide public access to this information

## References

1. Imamura F, O'Connor L, Ye Z, et al. Consumption of sugar sweetened beverages, artificially sweetened beverages, and fruit juice and incidence of type 2 diabetes: systematic review, meta-analysis, and estimation of population attributable fraction. *BMJ* [internet]. 2015 Jul [cited 2018 Aug 22];351:h3576. doi: 10.1136/bmj.h3576. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/26199070>
2. Fagherazzi G, Gusto G, Affret A, et al. Chronic Consumption of Artificial Sweetener in Packets or Tablets and Type 2 Diabetes Risk: Evidence from the E3N-European Prospective Investigation into Cancer and Nutrition Study. *Ann Nutr Metab* [internet]. 2017 [cited 2018 Aug 22];70(1):51-58. doi: 10.1159/000458769. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28214853>
3. Sakurai M, Nakamura K, Miura K, et al. Sugar-sweetened beverage and diet soda consumption and the 7-year risk for type 2 diabetes mellitus in middle-aged Japanese men. *Eur J Nutr* [internet]. 2014 Feb [cited 2018 Aug 22];53(1):251-8. doi: 10.1007/s00394-013-0523-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/23575771>
4. O'Connor L, Imamura F, Lenties M et al. Prospective associations and population impact of sweet beverage intake and type 2 diabetes, and effects of substitutions with alternative beverages. *Diabetologia* [internet]. 2015 [cited 2018 Aug 22];58(7): 1474–1483. doi: 10.1007/s00125-015-3572-1 Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4473082/>

5. Huang M, Quddus A, Stinson L et al. Artificially sweetened beverages, sugar-sweetened beverages, plain water, and incident diabetes mellitus in postmenopausal women: the prospective Women's Health Initiative observational study. *Am J Clin Nutr* [internet]. 2017 Aug [cited 2018 Aug 22];106(2):614-622. doi: 10.3945/ajcn.116.145391. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28659294>
6. Sylvetsky Meni AC, Swithers SE, and Rother KI et al. Positive association between artificially sweetened beverage consumption and incidence of diabetes. *Diabetologia* [internet]. 2015 Oct [cited 2018 Aug 22];58(10): 2455–2456. doi: 10.1007/s00125-015-3694-5. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4575240/#R1>
7. Suez J, Korem T, Zeevi D, et al. Artificial sweeteners induce glucose intolerance by altering the gut microbiota. *Nature* [internet]. 2014 Oct [cited 2018 Aug 22];514(7521):181-6. doi: 10.1038/nature13793. Available from: <https://www.nature.com/articles/nature13793>
8. Romo-Romo A, Aguilar-Salinas CA, Brito-Córdova GX, et al. Effects of the Non-Nutritive Sweeteners on Glucose Metabolism and Appetite Regulating Hormones: Systematic Review of Observational Prospective Studies and Clinical Trials. *PLoS One* [internet]. 2016 [cited 2018 Aug 22]; 11(8): e0161264. doi: 10.1371/journal.pone.0161264. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4990242>
9. Azad MB, Sharma AK, de Souza RJ et al. Canadian Healthy Infant Longitudinal Development Study Investigators. Association Between Artificially Sweetened Beverage Consumption During Pregnancy and Infant Body Mass Index. *JAMA Pediatr* [internet]. 2016 Jul [cited 2018 Aug 22];170(7):662-70. doi: 10.1001/jamapediatrics.2016.0301. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/27159792>
10. [Zhu Y, Olsen SF, Mendola P, et al. Maternal consumption of artificially sweetened beverages during pregnancy, and offspring growth through 7 years of age: a prospective cohort study. \*Int J Epidemiol\* \[internet\]. 2017 Oct \[cited 2018 Aug 22\];46\(5\):1499-1508. doi: 10.1093/ije/dyx095. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28586472>.](#)
11. Ruanpeng D, Thongprayoon C, Cheungpasitporn W, Harindhanavudhi T. Sugar and artificially sweetened beverages linked to obesity: a systematic review and meta-analysis. *QJM* [internet]. 2017 Aug [cited 2018 Aug 22];110(8):513-520. doi: 10.1093/qjmed/hcx068. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28402535>
12. Rogers PJ, Hogenkamp PS, de Graaf C et al. Does low-energy sweetener consumption affect energy intake and body weight? A systematic review, including meta-analyses, of the evidence from human and animal studies. *Int J Obes (Lond)* [internet]. 2016 Mar [cited 2018 Aug 22]; 40(3): 381–394. doi: 10.1038/ijo.2015.177. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4786736>

13. Mandrioli D, Kearns CE, and Bero LA. Relationship between Research Outcomes and Risk of Bias, Study Sponsorship, and Author Financial Conflicts of Interest in Reviews of the Effects of Artificially Sweetened Beverages on Weight Outcomes: A Systematic Review of Reviews. PLoS One [internet]. 2016 [cited 2018 Aug 22]; 11(9): e0162198 doi: 10.1371/journal.pone.0162198. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5015869/>