

# AUSTRALIAN BEVERAGES COUNCIL

## **A1157 Enzymatic production of Rebaudioside M**

28 August 2018



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## About the Australian Beverages Council

The Australian Beverage Council is the leading peak body of the non-alcoholic beverages industry. We represent approximately 90 per cent of the industry's production volume and our member companies are some of Australia's largest drinks manufacturers. We also represent many small and medium-sized companies across the country. Collectively, our Members contribute more than \$7 billion to the Australian economy and nationally our Members employ over 46,000 people.

We strive to advance the industry as a whole, as well as successfully representing the range of beverages produced by our Members. These include carbonated soft drinks, energy drinks, sports and electrolyte drinks, frozen drinks, bottled and packaged waters, juice and fruit drinks, cordials, iced teas, ready-to-drink coffees, flavoured milk products and flavoured plant milks.

The unified voice of the ABCL offers our Members a presence beyond individual representation to promote fairness in the standards, regulations, and policies concerning non-alcoholic beverages. We play a role in educating people on making informed choices encouraging balance, moderation and common sense. We are an advocate on issues such as portion sizes, nutritional labelling, industry marketing and advertising, and canteen guidelines. Our Members listen to consumers and adapt their products accordingly by making positive changes and standing by a commitment to promote greater choice, smaller portions and more products with low or no kilojoules. The ABCL is an important conduit between the non-alcoholic beverages industry and Government, supporting both Australian Government and State/Territory initiatives.

In 2009, the ABCL introduced a dedicated juice division, Juice Australia (formerly Fruit Juice Australia), and in 2011, a dedicated water division followed in the form of the Australasian Bottled Water Institute [ABWI]. Through these, our organisation's relevance and impact continue to grow.

## Background

It is understood that Food Standards Australia New Zealand [FSANZ] has assessed an application to amend the Australia New Zealand Food Standards Code [FSC] to include a new specification for Rebaudioside M (Reb M) produced by an enzymatic conversion method. FSANZ risk assessment concluded neither the Reb M assessed in the application or the enzymes used in the manufacture of it pose a public health and safety risk.

## The Australian Beverages Council's Position and Issues for Consideration

The ABCL, advocating on behalf of the non-alcoholic beverages industry in Australia would like to indicate our strong support for the addition of Reb M produced through enzymatic conversion to the FSC. We wish to make the following points in relation to the application.

### Call to Decrease Sugar in the Food Supply

In Australia and New Zealand, governments, public health bodies, industry representatives and other stakeholders have been proactively working towards addressing the issue of rapidly increasing obesity rates for a number of years. Sugar, alongside various lifestyle choices and a poor dietary profile, have been identified as contributors to obesity. The food and beverage industry recognise its role in reducing the amount of sugar in the Australian diet.

The ABCL and its Members acknowledge the contribution of our industry to the sugar intake in Australia. Our Members who have signed up to the ABCL Sugar Reduction Pledge, have committed to a 20 per cent reduction in sugar across the industry's portfolio by 2025.

The ABCL's Members require the flexibility and opportunity to innovate and provide consumers with a greater choice of high quality low and no sugar beverages. In addition to this, our industry must navigate a variety of public health policy initiatives.

We believe that by allowing a variety of methods for the creation of Reb M, industry will be able to continue to innovate to provide a broader range of low and no sugar products.

### Favourable Sensory Profile of Reb M

In the supporting document provided by FSANZ it states:

*"minor glycosides, such as Reb M, have more favourable sensory characteristics when compared to the major glycosides (e.g. stevioside, Reb A) and have taste profiles that are more reflective of sucrose."*<sup>1</sup>

The ability to create products with positive sensory attributes is imperative. Many Members of the ABCL have provided consumer intelligence to suggest that taste profiles are fundamental in a consumer's decision-making process. Although many consumers wish to reduce their sugar intake, they are not willing to compromise on taste. As such, it is important that exceptional low and no sugar taste profiles be offered to the market in order to truly provide consumers with a myriad of healthier low and no sugar alternatives to sugar-sweetened products.

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<sup>1</sup> FSANZ (2018). Supporting document 1 risk and technical assessment – application A1157 enzymatic production of Rebaudioside M. pp 6.

## Availability of Reb M and Cost-Effective Methods of Production

Low levels of minor glycosides, such as Reb M, are present in the leaves of *S. rebaudiana Bertonii* and therefore its availability is limited via traditional extraction methods. Given the superior palatability of Reb M and the recent sugar reduction initiatives placed on the beverage industry, the current method of producing Reb M could lead to its scarcity on the market. This could have an influence on the cost of this ingredient and, therefore, limit the products in which it can be contained. Alternative methods could allow for more cost-effective ingredients allowing for the extension of the range of use.

## Inclusion of Production Enzymes in Schedule 18

The addition of “*protein engineered enzymes that: contain both UDP-glucosyltransferase (EC 2.4.1.17) and sucrose synthase (EC 2.4.1.13) components; and are sources from Pichia pastoris strain UGT-A, UGT-B1 or UGT-B2*” as a method “*for the conversion of purified stevia leaf extract to produce rebaudioside M*” to Schedule 18 is supported to the ABCL. The recognition of these enzymes as processing aids provides the required clarity to support consistency of enforcement and interpretation over the need to declare the enzymes or not.

## Genetically Modified Status of the Ingredient

The ABCL appreciates clarity regarding the genetically modified status of Reb M produced from the enzymatic conversion method referred to in the application. As stated in the call for submissions paper, we note “*the requirement to label as ‘genetically modified’ would not apply to that food for sale*”<sup>2</sup>.

## Extensive Use of Enzymatically Produced Reb M in Overseas Markets

The approval of alternative methods for producing Reb M will allow our industry in Australia to access an ingredient that is currently used overseas. This also has the potential for our industry to be more competitive commercially with markets overseas. We note the following methods for producing Reb M used in:

- a. USA: enzymatic conversion of purified stevia leaf extract;
- b. Canada: genetically modified yeast.

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<sup>2</sup> FSANZ (2018). Call for submissions – application A1157 enzymatic production of Rebaudioside M. pp 8

## Summary

The ABCL thanks FSANZ for the opportunity to provide this submission in support of the inclusion of a new specification for Rebaudioside M produced by an enzymatic conversation method to the Food Standards Code.

We would like to make these concluding remarks in relation to this important application:

- The non-alcoholic beverages industry is currently implementing a range of changes that will decrease its use of sugar. Consumers expect the industry to take sugar reduction measures seriously and the industry has responded to this by announcing the ABCL Sugar Reduction Pledge. This pledge will reduce sugar by 20 per cent across the industry's portfolio by 2025.
- To meet this, other targets set in sugar reduction and customer expectations, innovation within the category is required with cost effective sugar alternatives.
- As a minor glycoside, Reb M has better sensory attributes than other steviol glycosides, which allows for more palatable products.
- The ABCL supports the draft variation to Schedule 18 - the addition of the enzymes for the conversion of stevia leaf extract to Reb M.
- We appreciate the clarity provided that Reb M manufactured using this method is not considered genetically modified.

## Contact

We thank FSANZ for the opportunity to provide this submission in support of the inclusion of a new specification for Rebaudioside M produced by an enzymatic conversation method to the Food Standards Code.

If you wish to discuss any aspects of this submission, please contact