



Coordinated survey of alcohol content and labelling of fermented soft drinks – Summary

August 2019

The survey

Fermented drinks have increased in popularity, with Australia having the second highest number of kombucha product launches globally in 2016 (closely following the United States)¹ and the fermented soft drink industry is reported to be worth between 33 and 200 million dollars in retail sales². The most common products in the fermented drink category in Australia are kombucha, kefir (water, milk or dairy alternative, such as coconut) and ginger beer. Alcohol is formed as a by-product of fermentation.

Through discussions with local manufacturers, local government and after a review of international literature, Australian food regulators wanted to assess the potential for these beverages to contain excess or undeclared alcohol and thus, potentially fail to comply with the Australia New Zealand Food Standards Code (the Code). The presence of undeclared alcohol also raises a range of public health concerns including the potential for consumption by pregnant women and underage consumers, the potential for drivers to inadvertently drive under the influence of alcohol and the potential for alcohol consumed to interfere with other medications.

To investigate the alcohol content of fermented drinks available for sale in Australia, a surveillance program was initiated through the bi-national Implementation Subcommittee for Food Regulation (ISFR) Surveillance, Evidence and Analysis Working Group (SEAWG). The aims of the surveillance program were to:

1. determine whether businesses are adequately controlling alcohol production in their fermented drinks and
2. determine whether labelling of alcohol content of fermented drinks complies with the Code.

The results of this survey were discussed with industry representatives at a roundtable convened by the Commonwealth Department of Health held in Melbourne the 31 May 2019.

The findings

In total, 239 samples were collected across five Australian jurisdictions in 2017 and 2018: Victoria, Queensland, New South Wales, Tasmania and South Australia. The most commonly sampled drink type was kombucha (132 of 239, 55.2%), followed by water-based kefir (43 of 239, 18.0%), and dairy-based kefir (7 of 239, 2.9%). The remaining drinks were classified as “other” (including ginger beer) and made up 23.8% of samples (57 of 239).

All samples were processed by analysts authorized to perform analyses in accordance with the relevant jurisdictional legislation. Measurement of alcohol (ethanol) content was in accordance with standard laboratory methods and conducted in National Association of Testing Authorities, Australia (NATA) accredited laboratories.

The results of analysis indicated that for kombucha samples:

- 35.2% had an alcohol content <0.5% alcohol by volume (ABV)
- 41.9% had an alcohol content ≥ 0.5 to $\leq 1.15\%$ ABV; and
- 22.9% had an alcohol content of $>1.15\%$ ABV.

The results of analysis indicated that for water-based kefir samples:

- 26.7% had an alcohol content <0.5% ABV
- 36.7% had an alcohol content between ≥ 0.5 and $\leq 1.15\%$ ABV; and

¹ Vegan food launches in Australia grew by 92% between 2014 and 2016 <http://www.mintel.com/press-centre/food-and-drink/vegan-food-launches-in-australia-grew-by-92-between-2014-and-2016>

² Kombucha Grows as Beverage Consumers Look for Functionality <https://www.portal.euromonitor.com/portal/analysis/tab#>

- 36.7% had an alcohol content of >1.15% ABV.

All samples of dairy-based kefir demonstrated an alcohol content <0.5% ABV.

The results of the analysis of the 'other beverage' category indicated:

- 68.6% had alcohol levels of <0.5% ABV
- 21.6% demonstrating levels between ≥ 0.5 and $\leq 1.15\%$ ABV; and
- 9.8% >1.15% ABV.

One of the risks for unintentional alcohol production is the opportunity for the level to rise throughout the shelf life of fermented drinks. This survey confirmed that the alcohol content of some water kefir and kombucha samples increased in alcohol content over the shelf life of the product.

Other factors found to influence the alcohol content of these brewed soft drinks included the process used to achieve effervescence; the addition of inclusions and flavours to the product; and the standard process for measurement of alcohol content used by manufacturer. Given the number of these samples found to contain excess or undeclared alcohol, a national approach to addressing the non-compliance is required.

Key messages for manufacturers

- It is the responsibility of manufacturers of fermented beverages to ensure that their products consistently meet the requirements of the Code (see Appendix 1 for more detail) **and** jurisdictional liquor licensing legislation that applies to alcoholic beverages.
- Standard 2.7.1 of the Code deals specifically with the labelling of alcoholic beverages and food containing alcohol. The required labelling varies by alcohol content, such that:
 - a) For foods (including alcoholic beverages) that contain more than 1.15% ABV, the statement of alcohol content must be expressed in one of either: mL/100 g, mL/100 mL or % ABV
 - b) For alcoholic beverages that contain 1.15% or less ABV, the statement of alcohol content must be expressed in words to the effect 'CONTAINS NO MORE THAN X% ALCOHOL BY VOLUME'.
 - c) For beverages that contain between 0.5% and 1.15% ABV, the statement of alcohol content must be expressed in words to the effect 'CONTAINS NO MORE THAN X% ALCOHOL BY VOLUME'.
- The testing procedures and equipment used by manufacturers to assess alcohol content should be validated to ensure that suitable testing methods for alcohol are being used and operators have the skills required.
- The control of alcohol production needs to be managed across the entire shelf life and needs to be taken into consideration when determining the products' shelf life.

Appendix 1 - Requirements regarding alcohol in the Australia New Zealand Food Standards Code

The Code stipulates labelling requirements for food and beverages containing alcohol. Standard 2.7.1 of the Code deals with the labelling of alcoholic beverages and food containing alcohol. The required labelling varies by alcohol content, such that:

- d) For foods (including alcoholic beverages) that contain more than 1.15% ABV³, the statement of alcohol content must be expressed in one of either: mL/100 g, mL/100 mL or % ABV⁴
- e) For alcoholic beverages that contain 1.15% or less ABV⁵, the statement of alcohol content must be expressed in words to the effect 'CONTAINS NO MORE THAN X% ALCOHOL BY VOLUME'.⁶
- f) For beverages that contain between 0.5% and 1.15% ABV,⁷ the statement of alcohol content must be expressed in words to the effect 'CONTAINS NO MORE THAN X% ALCOHOL BY VOLUME'.⁸

In addition, a statement of the approximate number of standard drinks is required for beverages which contain more than 0.5% ABV.⁹ These requirements are summarised below.

Summary of alcohol labelling requirements of Standard 2.7.1.

Statement of alcohol content		
<0.5% ABV	≥0.5% to ≤1.15% ABV	>1.15% ABV
2.7.1-3(1b) (Applies to ' <u>alcoholic beverages</u> ') The statement of alcohol content must be expressed in words to the effect 'CONTAINS NO MORE THAN X% ALCOHOL BY VOLUME'	2.7.1-3(1c) (Applies to ' <u>beverages</u> ') The statement of alcohol content must be expressed in words to the effect 'CONTAINS NO MORE THAN X% ALCOHOL BY VOLUME'	2.7.1-3(1a) (Applies to ' <u>food including alcoholic beverages</u> ') The statement of alcohol content must be expressed in one of either: <ul style="list-style-type: none"> ○ mL/100 g ○ mL/100 mL ○ % ABV
Statement of the number of standard drinks		
	>0.5% 2.7.1-4(1) (Applies to <u>beverages</u>) Must include a statement of the approximate number of standard drinks	

³ Per 2.7.1-3(1)(a)

⁴ Per 2.7.1-3(2)

⁵ Per 2.7.1-3(1)(b)

⁶ Per 2.7.1-3(3)

⁷ Per 2.7.1-3(1)(c)

⁸ Per 2.7.1-3(3)

⁹ Per 2.7.1-4(1)