Misleading descriptions for food Options Paper

Food Regulation Standing Committee (FRSC)

May 2019



Executive summary

The market for plant-based products that mimic animal products has grown in recent years and demand for these products is predicted to increase due to the rise in vegetarianism, 'flexitarians' and veganism.

Concerns have been raised by meat and dairy industries in Australia and New Zealand that the labelling and presentation of plant-based alternatives may be misleading to consumers. Of particular concern is the claim that consumers don't understand the nutritional differences between animal products and their plant-based alternatives, and that the plant-based alternatives may not be an appropriate direct substitute for animal products (unless they are fortified). This raises the question of whether the current food standards adequately differentiate the products and assist consumers to understand the source and nutritional profile of meat, dairy, and their plant-based alternatives, and their place in the context of a healthy balanced diet.

In 2016, the Australia and New Zealand Ministerial Forum on Food Regulation (the Forum) considered a Report on Dairy Substitute Beverages¹. This report explored a number of issues in relation to plant-based dairy substitutes, including naming conventions and the use of the word 'milk'. The report found that dairy substitute beverages are adequately regulated by current permissions in the Australia New Zealand Food Standards Code (the Code), including consideration of naming conventions. This was agreed by the Forum.

In October 2018, the Forum noted stakeholder concerns regarding potentially misleading descriptions of food products and asked the Food Regulation Standing Committee (FRSC) to develop an options paper on how foods standards, including labelling, definitions and other elements, can be used to address misleading descriptions of food.

This options paper provides information about the types of plant-based alternative products that are currently available, current regulations in relation to food labelling, and a summary of international developments. It outlines matters for consideration, and noting a lack of evidence to suggest that consumers are being misled, presents three options:

- 1. maintain status quo and take no further action;
- 2. refer the matter to the Legislative and Governance Forum on Consumer Affairs;
- 3. seek further information to inform the evidence base.

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¹ Food Regulation Standing Committee. (2016). Report on Dairy Substitute Beverages.

1. Purpose

The market for plant-based products as alternatives to animal products (e.g. meat and milk) in the Australian and New Zealand markets has increased over recent years. Many of these products have been developed to mimic animal products and are intended to be consumed in the same manner. It is widely accepted that there is a market for plant-based alternatives to animal products in Australia and New Zealand, but concerns have been raised by meat and dairy industries over the use of naming conventions and the potential for consumers to be misled by the name of these products.

Whilst it is likely that plant-based alternative products will have similar look, smell, taste and mouth-feel of their respective animal products, there are questions as to whether the current food standards adequately differentiate the products and assist consumers to understand the source and nutritional profile of meat, dairy, and their plant-based alternatives.

In October 2018, the Forum noted stakeholder concerns regarding potentially misleading descriptions of food products in the Australian and New Zealand markets. Forum Ministers agreed that the FRSC will develop an options paper on how food standards, including labelling, definitions and other elements, can be used to address misleading descriptions of food.

1.1 Scope of this paper

Concerns about dairy and meat alternatives have predominately been raised in relation to substitutes for milk and alternatives to traditional meat products such as mince, burger patties, etc. This paper focuses largely on these products.

However, it should be noted that there are also many products that are not intended to be a substitute for animal products, but nonetheless use meat or dairy terminology in their names to indicate flavour, such as chicken salt (often contains no chicken), Cheetos Cheese and Bacon Balls (contain no bacon), strawberries and cream lollies (contain no dairy or strawberries), and peanut butter (contains no butter), to name just a few. Furthermore, there are other types of non-dairy and non-meat products that have plant-based substitutes, such as egg and fish. Ministers should consider whether the options outlined in this paper include these products.

2. Types of alternative foods

2.1 Milk alternatives

Milk is defined in the Code as the mammary secretions of milking animals. Alternatives to milk come in a wide range of options, included legume-, cereal-, nut- and seed-based. Dairy alternatives based on soy, oats and rice have been available for some time, with almond and coconut based beverages also common and increasing in popularity. Other dairy milk alternatives based on sesame, sunflower, hemp, macadamia, cashew and hazelnut are also appearing on the market. Some, but not all, are fortified with nutrients such as calcium to make them nutritionally close or equivalent to dairy milk. The protein content in some plant-based milk alternatives is not equivalent to dairy milk.

In addition, a range of other dairy alternatives are available, such as dairy-free yoghurt, butter/margarine and cheese. These products are typically made from ingredients such as dairy-free milk, vegetable oil, nuts, or nutritional yeast, among other ingredients.

Sales of dairy milk alternatives have increased over recent years. In Australia, an audit conducted by the Grains and Legumes Nutrition Council found plant-based milk alternatives in the four major supermarkets grew by 58% between 2016 and 2018². Nielsen scan data saw growth in dairy-free milk of more than 150% in the five years to 2016, with the trend expected to continue³. However, dairy milk consumption in Australia is still high. Dairy Australia data indicates per capita consumption of drinking milk is was estimated at 103 litres in 2017-18 and notes that it remains at high levels compared to other developed countries⁴.

In New Zealand, almond milk sales almost doubled in the two years to January 2017, making it a NZ\$14.4 million market nationally. Soy milk recorded the largest sales in the alternative milk category at NZ\$18.2 million⁵. In New Zealand, despite rising per capita consumption of dairy alternatives, which has grown from 1.3 litres per capita in 2009 to 2.1 litres per capita in 2018, the market is still only a fraction of traditional milk consumption. In 2018, fresh milk consumption in 2018 was 88.4 litres per capita, over 42 times more than milk alternative consumption⁶. Consumptions trend show that there is likely to be some increasing substitution of dairy milk with dairy milk alternatives however most of the reduction of dairy milk is simply a reduction in dairy milk consumption rates in general. This trend is common in many western markets such as the United States.

2.2 Meat alternatives

Plant-based meat alternative products have increased globally in recent years⁷. This is largely due to a growing concern around the sustainability of meat and livestock production into the future and an increase in popularity of vegetarian and vegan diets^{8,9}.

² Grains & Legumes Nutrition Council (2018). *Got Mylk? New audit shines light on the growing milk alternatives category*. [online]. (Last updated 4 October 2018). Available at: www.glnc.org.au/wp-content/uploads/2018/10/GLNC-Plant-Based-Milks-4-10-18.pdf [Accessed 12 March 2019].

³ A&I Convenience and Impulse Retailing (2018). *Milking the moment*. [online]. (Last updated 6 February 2018). Available at: https://cww.c-store.com.au/2018/02/06/milking-the-moment/ [Accessed date: 12 March 2019].

⁴ Dairy Australia. *Consumption summary: Information on per capita consumption of the major dairy products -butter and butter blends, milk, cheese, and yoghurt.* [online]. Available at www.dairyaustralia.com.au/industry/production-and-sales/consumption-summary. [Accessed date: 3 May 2019].

⁵ CPG, FMCG & Retail (2017). *Kiwis are nuts for almond milk*. [online]. (Last updated 13 February 2017). Available at: www.nielsen.com/au/en/insights/news/2017/kiwis-are-nuts-for-almond-milk1.html [Accessed date:12 March 2019].

⁶ Source: Euromonitor (2019). Retrieved from Passport. [Accessed date: 18 March 2019].

⁷ Food Revolution Network (2018). Why the Global Rise in Vegan and Plant-Based Eating Isn't a Fad (6005) Increase in U.S. Vegans + Other Astounding Stats? [Online]. (Last updated 18 January 2018). Available at: https://foodrevolution.org/blog/vegan-statistics-global/ [Accessed date: 12 March 2019].

⁸ The Guardian (2018). *Huge reduction in meat-eating 'essential' to avoid climate breakdown*. [Online]. (last updated 18 October 2018). Available at: https://www.theguardian.com/environment/2018/oct/10/huge-reduction-in-meat-eating-essential-to-avoid-climate-breakdown [Accessed date: 12 March 2019].

⁹ Springmann, M., et al. (2018). *Options for keeping the food system within environmental limits*. Nature 582, 519-525. Available at: https://www.nature.com/articles/s41586-018-0594-0 [Accessed date: 12 March 2019].

Examples of plant-based meat alternatives available in Australia and/or New Zealand include:

- meat-free sausages typically made with some type of soy or pea protein, often with wheat and/or potatoes and oil.
- meat-free mince typically made with beans/lentils, tofu, soy, nuts or fungi.
- meat-free burger patties typically made with chickpeas. More recently, a popular product produced by American company Beyond Meat has come to the market. The Beyond Meat burger is made from yeast extract, coconut oil and peas, and appears to 'bleed' due to the addition of beets.
- meat-free chicken-style products such as: fajita strips made from mycoprotein, a member of the fungi family; schnitzels made from soy; and nuggets made from soy, wheat and oil.
- meat-free bacon ("facon") typically made with wheat, pea and soy protein.

Examples of products and their ingredients are at Appendix 1.

2.3 'Clean' (cultured) meat

Although not yet a product in today's market in Australia and New Zealand, the issue of 'clean meat' is expected to arise in the future. 'Clean meat', which is also referred to as 'cultured meat' or 'cell-based meat', is a new technology that is being developed by companies and universities in several countries, including the United States and the Netherlands.

Rather than obtaining meat from animals that are raised on farms and then slaughtered, clean meat is produced by taking a small sample of animal cells and replicating them in a culture outside of the animal. The resulting product is, for all intents and purposes, real meat, but without the rest of the animal.

Dr. Mark Post of Maastricht University, Netherlands, proved meat could be created this way when he debuted the first cultured meat hamburger in 2013, at a cost of roughly AUD\$400,000. Dr. Post's company, Mosa Meats, plans to have its clean meat hamburgers ready for commercial production by 2021, at a price comparable with conventional meat hamburgers. There are also several companies in the United States developing cultured meat to bring to market.

It is unclear how these products would be captured under the Code, as they may not meet the definition of meat under *Standard 2.2.1 – meat and meat products*, which stipulates that meat is from the carcass of an animal.

2.4 Other products

Plant-based alternatives exist for products other than dairy and meat. For example, there are alternatives to:

- egg such as egg replacer and more recently, a scrambled egg alternative called "JUST Egg", based on a mung bean protein isolate; and
- tuna fishless tuna made from textured soy flour and wheat extract.

3. Current labelling requirements

The generic labelling requirements of the Code apply to all foods. These requirements are intended to provide adequate information to enable informed choice and prevent consumers from being misled. Australian Consumer Law also prohibits a business from making false or misleading representations about goods or services (*Competition and Consumer Act 2010 (Cth)* Schedule 2, s29). In New Zealand, Section 13 of the Fair Trading Act 1986 prohibits false or misleading representations.

3.1 Naming requirements

The Code requires the name of the food to be either a prescribed name, or a name or description that is sufficient to indicate the true nature of the food, and that it be included on the label (Standard 1.2.2, section 2). There are similar requirements in the Code for ingredient labelling, for example most ingredients must be listed by a common, descriptive or generic name if one is specified in Schedule 10-2.

Some foods (e.g. milk, meat, honey) are defined in the Code and can only be sold using a specific name or representation if they meet the definition and compositional requirements in the Code. There are specific standards for a range of dairy foods, such as cream, fermented milk products, cheese, butter, ice cream, and milk. Milk is prescribed under *Standard 2.5.1 – Meat and meat products*.

However, a provision introduced into the Code which came into effect on 1 March 2016, allows the name of the food to be further qualified so the context makes it clear the food is not a food as defined in the Code (Standard 1.1.1, subsection 13(4)). For example, the descriptor 'soy' for soy milk is intended to make it clear to the consumer that the food they are purchasing is not a dairy milk product to which Standard 2.5.1 applies. This principle applies across the Code, and allows the naming of foods such as 'ginger beer', 'peanut butter' or 'soy milk' when these foods do not meet defined terms. In these cases, the additional descriptor provided in conjunction with the respective terms beer, butter or milk, provides consumers with information that the product they are purchasing is not beer, butter, or milk. These provisions are intended to enable consumers to make informed choices as to whether they are purchasing a conventional food or an imitation of a conventional food.

This approach is consistent with advice in the Australian Competition and Consumer Commission (ACCC) guideline *Food and beverage industry - Food descriptors guideline to the Trade Practices Act*¹⁰, in relation to false and deceptive conduct. It states the key issue to consider for the 'do not mislead' principle is the overall impression that a representation will leave in the mind of the consumer.

3.2 Ingredient information requirements

Packaged food for sale must have a statement of ingredients (Standard 1.2.1, subsection (1)(e)). Ingredients must be listed by their common name, a name that describes the true nature of the ingredient, or a generic name (if one is specified in Schedule 10). Consumers are able to consider ingredient information to make informed food choices.

¹⁰ Australian Competition & Consumer Commission (2006). *Food and beverage industry - Food descriptors guideline to the Trade Practices Act.* Available at: https://www.accc.gov.au/system/files/Food%20descriptors%20guidelines.pdf. [Accessed date:13 March 2019]

Schedule S10—2 permits the generic name 'meat' and 'poultry meat'. However, plant-based meat products that use these generic names are still subject to Australian Consumer Law or New Zealand fair trade legislation in that the food must not be represented in a manner that is misleading or deceptive to the consumer. The Code does not permit 'milk' as a generic name. Plant-based milk alternatives typically refer to the protein source (e.g. almond, soy) in the statement of ingredients.

3.3 Nutrition information requirements

The Code requires a nutrition information panel (NIP) to be included on the label of most packaged foods for sale (Standard 1.2.1, subsection 8(1)(i) and Standard 1.2.8, subsection 5(1)). Energy, protein, fat, saturated fat, carbohydrate, sugars and sodium content of the food must be included in the NIP. If a claim requiring nutrition information is made about other nutrients or a biologically active substance, information about these must also be included in the NIP. Consumers can use the NIP to make an informed choice about the nutritional composition of an individual food and compare different foods (e.g. the nutritional ERSEPONACT OF composition of dairy milk versus soy milk).

4. Issues for consideration

4.1 Increasing consumer demand

Consumer demand for plant-based dairy and meat substitutes has risen in recent years. These products offer consumers an alternative when they cannot, or choose not to, consume dairy and/or meat.

Individuals consume dairy and meat alternatives for a variety of reasons. For some, avoidance of these products is necessary due to allergies or intolerances, including sometimes life-threatening allergies to cow's milk proteins or to mammalian meat (alpha-gal allergy). Others choose dairy and meat alternatives for reasons such as religious beliefs, concerns over animal welfare, concerns about sustainability and environmental impact, for health or 'clean eating' reasons, or simply due to taste preferences.

The rise in vegetarianism, 'flexitarians' and veganism is likely to be a key factor driving the increased demand for these products. Euromonitor International, a market research firm, found that Australia was the third fastest growing vegan market in the world and estimates that by 2020, Australia's packaged vegan food market will be worth AU\$215 million¹¹. Woolworths in Australia saw double digit growth in vegan products in 2017 and expects the trend to continue¹². Vegan products are becoming increasingly mainstream, as evidenced by the introduction of vegan items to the menus of several major fast-food chains in Australia, including Dominoes and Hungry Jacks, and in New Zealand, such as Dominoes and Pizza Hut. Similarly, popular ice cream brands such as Magnum and Cornetto have added a vegan

¹¹ McCormack, L. (2016). Australia is the third-fastest growing vegan market in the world [Online]. The Sydney Morning Herald. Available at: www.smh.com.au/business/consumer-affairs/australia-is-the-thirdfastest- growing-vegan-market-in-the-world-20160601-gp972u.html [Accessed date: 13 March 2019].

¹² Brook, B. (2019). Woolworths reckons we'll all be drinking heaps of kefir by the end of the year [Online] News.com.au. Available at: https://www.news.com.au/lifestyle/food/eat/woolworths-reckons-well-all-bedrinking-heaps-of-kefir-by-the-end-of-the-year/news-story/716da27f5184d3a40eb9e16927a7f89a [Accessed date: 13 March 2019].

option to their range in both Australia and New Zealand, and Weis offer several dairy free, vegan options in Australia.

4.2 Nutritional equivalence and potential dietary impacts

Dairy milk is a good source of many nutrients, including calcium, protein, iodine, zinc, vitamin A, vitamin D, riboflavin (vitamin B2) and vitamin B12. Plant-based dairy alternatives are often, but not always, fortified with calcium and/or protein to achieve parity with dairy milk, but do not necessarily contain similar levels of the other nutrients found in dairy milk. Some alternative products are sweetened and therefore contain higher levels of sugar than dairy milk.

The current naming requirements in the Code do not distinguish between milk alternatives based on their nutritional similarity to cows' milk as this is not the purpose of food name requirements. Plant-based milk alternatives (and some lower fat milks) must, however, include a mandatory advisory statement indicating they are not suitable as a complete milk replacement for children under two or five years (subject to protein and fat content). These requirements, which are in Schedule 9–2 of the Code, aim to mitigate the potential risk to children of reduced protein and energy intake from dairy alternatives and skim milk. The combination of the name and advisory statement elements provide information to consumers that plant-based milk alternatives differ from dairy milk beverages.

The Australian Dietary Guidelines (ADGs)¹³ and the Eating and Activity Guidelines for New Zealand Adults¹⁴ (New Zealand guidelines) both recommend the inclusion of dairy as part of a healthy diet, as dairy milk is a good source of many nutrients. The ADGs and New Zealand guidelines allow for alternatives to dairy, but they note that plant-based milk alternatives are not naturally high in nutrients found in cows' milk and recommend choosing alternatives that have been fortified.

Both the ADGs and New Zealand dietary guidelines place meat alternatives such as tofu, nuts and seeds, and legumes/beans in the same category as lean meats, poultry, fish and eggs. In recognition of some of the health risks associated with consuming meat, a maximum limit of 455g of lean meats per week is recommended for Australian adults. Similarly, the New Zealand guidelines not eating more than 500g of cooked meat is linked with a higher risk of colorectal cancer.

The nutrient profile of legumes is noted in the ADGs and it is recommended that Australians consume a minimum of two serves per week. The ADGs also state that intake of nuts and seeds in Australia needs to increase (based on the 1995 National Nutrition Survey)¹⁵. New Zealand guidelines recommend adults eat at least two servings of legumes, nuts or seeds a

¹³ National Health and Medical Research Council (2013). *Australian dietary guidelines*. Australian Government, Canberra. Available at:

https://www.eatforhealth.gov.au/sites/default/files/files/the guidelines/n55 australian dietary guidelines.pdf [Accessed date: 13 March 2019].

¹⁴ Ministry of Health (2015). *Eating and Activity Guidelines for New Zealand Adults*. Ministry of Health, Wellington.

¹⁵ National Health and Medical Research Council (2011). A modelling system to inform the revision of the Australian Guide to Healthy Eating. Australian Government, Canberra. Available at: https://www.eatforhealth.gov.au/sites/default/files/files/public consultation/n55a dietary guidelines food modelling 111216.pdf [Accessed date: 13 March 2019].

day if not eating a serving of fish/seafood, eggs, poultry or red meat a day. Plant-based meat alternatives can potentially assist Australians and New Zealanders to meet these guidelines.

No evidence-based comparison between plant-based products and good quality beef has been identified. However, Vitamin B12 is only available from animal food sources ¹⁶ unless the alternative food has been fortified.

4.3 Are consumers being misled about nutritional equivalence?

A key concern of dairy industry associations centres on claims that the use of the term 'milk' for plant-based alternatives misleads consumers into believing that plant-based beverages are nutritionally equivalent to dairy milk. In the United States, an IPSOS study commissioned by Dairy Management Inc found that 54 per cent of respondents strongly or somewhat agreed that plant-based manufacturers labelled their products "milk" because their nutritional value is similar. Of those buyers who only bought plant-based drinks, 68 per cent strongly or somewhat agreed those drinks have the same nutritional content as dairy milk¹⁷.

Dairy industry associations contend that plant-based alternatives are trading on milk's good name and the nutritional benefits the name implies. It is unclear whether consumers in Australia and New Zealand understand the nutritional differences between milk and its plant-based alternatives. However both types of products are required to include a mandatory NIP on their labels and this information provides a point of reference to help consumers make informed choices.

4.4 Are consumers being misled about the food source? *Terminology*

Concerns have been raised from farming industry associations as to the validity of dairy and meat alternatives being labelled with traditional industry terms, such as "milk", "mince" and "sausage", which they claim are misleading consumers. For instance, the Australian dairy advocacy group 'Dairy Connect' launched an online petition in July 2017 called 'Taking a stand for real milk' 18, calling for truth in labelling for processed plant liquids sold to retail consumers as 'milks'. However, the petition closed after failing to attract the 1000 signatures sought. Dairy Connect has continued to lobby for regulatory change.

In June 2018, the National Farmers' Federation in Australia called for more clarity about the labelling for products related to meat or dairy in response to a Funky Foods product called 'Minced'. The product, available at Woolworths supermarkets in the chilled meat section, is a 100 per cent plant-based meat alternative. The National Farmers' Federation was concerned that consumers may not realise that the product is not a meat product due to its use of a conventional meat term in its name.

Plant-based producers argue that products marketed as alternatives to meat or dairy are aimed at people who are seeking out these foods for health or ethical reasons. They contend that it is

¹⁶ National Health and Medical Research Council. (2013). *Australian dietary guidelines*. Australian Government, Canberra. Available at:

¹⁷ National Milk Producers Federation (2018). *NMPF Calls Out Plant-Based Beverage Industry Misinformation, Citing New Consumer Data*. Available at: http://www.nmpf.org/latest-news/press-releases/oct-2018/oct-30-nmpf-calls-out-plant-based-beverage-industry [Accessed date: 13 March 2019].

¹⁸ Dairy Connect petition available at https://www.change.org/p/taking-a-stand-for-real-milk [Accessed date: 29 March 2019].

in the interest of producers to clearly indicate that the products are dairy or meat free and to advertise the plant-based origin of their products. Products usually carry highly visible claims like "100% plant based", or "meat free". In the non-dairy milks category, products are frequently packaged with the descriptor (for example, "soy" or "almond") shown more prominently than the word 'milk' on the front label, consistent with requirements in the Code.

A survey of 1,554 Australian adults that was commissioned by Sanitarium found 85 per cent of those surveyed understood that there is no cow's milk in plant-based milk alternatives ¹⁹. No definitive research has been identified that confirms whether consumers are misled by labelling of plant-based meat alternatives.

Some of the words and descriptions that stakeholders are concerned about have long had a history of use for in non-dairy and non-meat products. For instance, it may be argued that mince is a term synonymous with the meat industry, however the term actually reflects the processing mechanism, not the product itself, and is used for other foods such as minced garlic. The term mince is defined in the Macquarie Dictionary as *to cut or chop into very small pieces*²⁰. 'Mincemeat' traditionally refers to a mixture of chopped dried fruit, spices, distilled spirits, and suet, butter or vegetable shortening that is commonly used in fruit mince (Christmas) pies, and nowadays usually does not contain meat. It should be noted that *Standard* 2.2.1 – *Meat and meat products* in the Code does not provide a definition of mince.

There are many other instances of traditional products that do not match the terminology in their names. Coconut milk and coconut cream have a long history of use in Asian and Pacific cultures. Soy milk has been produced commercially in Australia and New Zealand since the 1980's. Ginger beer is usually non-alcoholic. Confectionery products such as strawberries and cream or milk bottles do not contain cream or milk (or indeed strawberries). Chocolate fish (confectionary) do not contain fish. Creamed corn, creamed honey, and cream of tartar do not contain cream. Peanut butter (and other nut butters), cacao butter, butter beans and butter lettuce do not contain butter. Easter eggs are not laid by poultry. There is no evidence to suggest that consumers are misled as to the true nature of these products.

Shelf placement

Concerns have also been raised about dairy and meat alternatives occupying the same shelf space in supermarkets as dairy milk and meat. For instance, plant-based milk alternatives are often placed next to dairy milk, and vegetarian sausages may be found in the barbeque meats section. This has led to claims that consumers may purchase these products unintentionally, although there is no available evidence to confirm this. Shelf placement in supermarkets is outside the scope of the food regulation system.

4.5 Where does this issue fall in the Food Labelling Hierarchy?

In 2011, an independent panel undertook a review of food labelling law and policy. The final report, *Labelling Logic: Review of Food Labelling Law and Policy (2011)* (Labelling Logic) contained 61 recommendations regarding food labelling. In considering its response to Labelling Logic, the Forum agreed to a framework to guide decision making on food labelling using a three-tiered hierarchy. The risk-based Food Labelling Hierarchy indicates

¹⁹ The Digital Edge omnibus from 28/11/2018 – 2/12/2018, nationally representative survey of 1,500 Australians. Provided via email from Sanitarium Health and Wellbeing Australia.

²⁰ Macquarie Dictionary Online (2019). *Macquarie Dictionary* [Online]. Available at: https://www.macquariedictionary.com.au/features/word/search/?word=mince&search_word_type=Dictionary

descending order of priority from food safety, preventative health, and consumer values issues (see Figure 1 below).

In accordance with the hierarchy, the standards in the Code are mainly aimed at protecting public health and safety (for example, a standard that requires mandatory declarations for food allergies). Food standards do not include labelling requirements relating to ethical concerns or consumer values, such as vegan labelling. Consumer values issues, at the bottom of the hierarchy, are mainly dealt with via industry initiated actions or consumer protection laws.

The potential for consumers to be misled by the current names for plant-based alternatives to dairy and meat products would not be considered a risk to public health and safety. Rather, it sits towards the bottom of the pyramid as a consumer value issue. Consequently, it could be considered a consumer affairs responsibility.

Risk Dominant Origin Food Labelling management mode of Oversight of action Hierarchy approach intervention MANDATORY HIGHER RISK Government Food FOOD SAFETY intervention Standards Direct, acute, immediate Code threats to health PREVENTATIVE HEALTH Indirect, long-term impacts on health Individual health: Healthy eating Population health Primary, Secondary preventión CONSUMER VALUES ISSUES Reflecting consumer perceptions and ethical views Specific Consumer Industry protection Generalised SELFinitiated LOWER RISK REGULATION

Figure 1: Food Labelling Hierarchy

5. International developments

There has been a considerable amount of recent public debate around plant-based meat and dairy alternatives globally.

Codex

Codex Alimentarius adopted the Codex General Standard on the Use of Dairy Terms (GSUDT)²¹ in 1999 in order to protect consumers from being confused or misled by the use

²¹ Joint FAO/WHO Codex Alimentarius Commission (1999). *Codex General Standard on the Use of Dairy Terms (CODEX STAN 206-1999)*. Available at http://www.codexalimentarius.org/ [Accessed date: 2 May 2019].

of dairy terms on non-dairy products, to ensure the correct use of dairy terms intended for milk and milk products, and to ensure fair practices in the food trade. The GSUDT does provide exceptional permissions for the use of dairy terms on non-dairy foods whose nature is clear from traditional usage or when the term is clearly used to describe a characteristic quality of the non-milk product (e.g. peanut butter, coconut milk, cow peas, cocoa butter). Such use is dependent on avoiding any erroneous impression that the non-milk product is milk, a milk product or a composite milk product.

Europe

Since December 2013, European Union regulations have stated that designations such as 'milk', 'butter', 'cheese', 'cream' and 'yogurt' can only be used for products derived from animal milk²². In June 2017, the European Court of Justice concluded that these terms cannot be legally used to designate a purely plant-based product and that the prohibition applies even with the addition of descriptive or clarifying terms indicating the plant origin of the product²³. However, there is a list of exceptions, including coconut milk, peanut butter, and ice cream. Soya and tofu products are not exempted²⁴.

Following the judgement from the European Court of Justice, France passed an amendment to its agriculture bill in April 2018 that prohibits any product largely based on non-animal ingredients from being labelled like a traditional animal product. Under this legislation, food producers can no longer use meat terms such as "vegetable steak", "soy sausage", or "baconflavoured strips" to describe products that are not partly or wholly made up of meat. The measure will also apply to vegetarian or vegan products marketed as dairy alternatives. The bill is due to take effect in 2019.

Most recently, in April 2019 the European Parliament's Agriculture Committee voted through an amendment in a Common Agriculture Policy reform report that bans producers of plant-based alternative 'meat' products from labelling their product with meat terms. The amendment bans the use of the terms such as steak, sausage, escalope, burger and hamburger to "describe, promote or market food products primarily made up of proteins of vegetable origin". The committee's recommendation is still to be voted on by the full European Parliament, before being put to member states and the European Commission.

United States

In July 2018, after many years of lobbying from the National Milk Producers Federation and two stalled bills in the Senate and the House of Representatives, the U.S. Food and Drug Administration (FDA) signalled it plans to start enforcing regulations that define milk as an

https://eurlex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32010D0791 [Accessed date: 13 March 2019].

²² EUR-Lex Access to European Law (2013). *Regulation (EU) No 1308/2013 of the European Parliament and of the Council of 17 December 2013* [Online]. Available at: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32013R1308 [Accessed date: 13 March 2019].

²³ Court of Justice of the European Union (2017). *Purely plant-based products cannot, in principle, be marketed with designations such as 'milk', 'cream', 'butter', 'cheese' or 'yoghurt', which are reserved by EU law for animal products.* (Online Press Release No 63/17). Available at: https://curia.europa.eu/jcms/upload/docs/application/pdf/2017-06/cp170063en.pdf [Accessed date: 13 March 2019].

²⁴ EUR-Lex Access to European Law (2010). *COMMISSION DECISION of 20 December 2010 listing the products referred to in the second subparagraph of point III(1) of Annex XII to Council Regulation (EC) No 1234/2007* (OJ 2010 L 336, p. 55. Available at:

animal product. The FDA is concerned that the labelling of some plant-based products is leading consumers to believe that those products have the same nutritional attributes as dairy products. The FDA recently concluded public consultation on the matter. It received more than 14,000 comments²⁵ and is currently analysing these. The FDA has yet to release a formal response, however it intends to issue new guidance to industry on the use of dairy product names, such as milk, yogurt, and certain cheeses, that have standards of identity set by regulation.

The state of Missouri, in the United States, passed a new law in August 2018 that expressly prohibits plant-based products and cultured meat from using the word 'meat'. Under the new definition of meat, it can only be used for products that are "derived from harvested production livestock or poultry." Plant-based products must have:

- a prominent statement on the front of the package, immediately before or immediately after the product name, that the product is "plant-based," "veggie," "labgrown," "lab-created," or a comparable qualifier; and
- a prominent statement on the package that the product is "made from plants," "grown in a lab," or a comparable disclosure ²⁶.

A local plant-based company is suing the state over these amendments. Its complaints charge that the law serves the commercial interest of traditional meat companies and that it violates these newer companies' rights. The states of Nebraska, Wyoming, Tennessee and Virginia are also considering state laws similar to Missouri.

The FDA and the Food Safety and Inspection Service (FSIS) have agreed to jointly regulate cultured meats, however these agencies have not agreed how to these products should be labelled.

6. Conclusion

The rise in vegetarianism, 'flexitarians' and veganism in recent years has corresponded with a proliferation of plant-based alternatives to meat and dairy products, along with expressions of concern from meat and dairy industries that the names for these products are misleading consumers.

An industry survey suggests most consumers understand the differences in source (i.e. the product is derived from animal versus plant) between cow's milk and its plant-based substitutes, but no evidence was identified to confirm whether or not consumers are misled about the source for plant-based alternatives to other types of dairy products or for meat products. There is however a long history of non-animal products using of meat or dairy terminology in their names (e.g. nut butters, fruit mincemeat, creamed corn), and no evidence to suggest that consumers fail to understand that these products are not animal based.

Consumers are entitled to choose products that suit their cultural and health requirements, taste preferences, and lifestyle trends. The current labelling requirements in the Code are

²⁵ See https://www.regulations.gov/docket?D=FDA-2018-N-3522.

²⁶ Department of Agriculture State of Missouri (2018). *Meat Inspection Program Missouri's-Meat Advertising Law* [Online Memorandum]. Available at: https://agriculture.mo.gov/animals/pdf/missouri-meat-advertising-guidance.pdf [Accessed date: 13 March 2019].

designed to help consumers make an informed choice. In addition, consumer and fair trading laws require that information on the label cannot be false, misleading or deceptive.

At present there is no available evidence to determine whether Australian and New Zealand consumers are misled about the nutritional differences between animal products and their plant-based alternatives when choosing products. With no evidence to suggest that consumers believe that plant-based alternatives are nutritionally equivalent to dairy (in particular) or meat products, the issue would be considered to sit at the bottom of the Food Labelling Hierarchy as a consumer values issue overseen by consumer protection laws. In the event that evidence was found to show that consumers directly substitute plant-based products as alternatives to meat and dairy, and are consequently missing out on important nutrients, the issue could be considered a preventive health issue and therefore be elevated in the hierarchy.

7. Statement of options

The Forum has noted concerns regarding potentially misleading descriptions of food products in the Australian and New Zealand markets. The problem centres on whether the current food standards adequately differentiate the products and assist consumers to understand the source and nutritional profile of meat, dairy and plant-based alternative products.

The following options are proposed:

Option 1 – Status quo

This option acknowledges that there is no evidence available to indicate that there is a problem of consumers failing to understand the true nature of plant-based products in terms of their source and nutritional differences. It asserts that plant-based alternatives to dairy and meat products are adequately regulated under the current labelling requirements of the Code and consumer and fair trading laws, and that these requirements are sufficient to help consumers understand differences in nutritional composition.

This option would require no further action at this stage and would continue to allow industry discretion for the terms used for products within the existing naming and nutrition information requirements in the Code.

Option 2 – Refer matter to Legislative and Governance Forum on Consumer Affairs

The Forum could refer the matter to the Legislative and Governance Forum on Consumer Affairs (CAF), as the identified problem centres on consumers being misled. The issue is situated at the bottom of the Food Labelling Hierarchy as a consumer values matter, which is best dealt with under consumer protection law.

Option 3 – Seek further information

The Forum could request further information, for instance via a consumer survey or research, to determine whether consumers are being misled about the source and nutritional differences between meat or dairy products and their alternatives.

It could also consider undertaking a stocktake of current labelling of plant-based alternatives, as well as a stocktake of current labelling of any synthetic/analogue food (e.g. 'cultured

meat') in the marketplace, via the Implementation Subcommittee for Food Regulation (ISFR) Surveillance Working Group.

This option would provide data to support a clearer understanding of whether there is a problem, and could provide baseline data should future action be undertaken and evaluated.



Glossary

dairy products foods containing or made from milk, including milk, butter,

cheese, yoghurt, cream, ice cream

flexitarian a person who has a primarily vegetarian diet but occasionally

eats fish or meat

food source where the food is derived - i.e. from an animal or a plant

meat the whole or part of the carcass of an animal, including buffalo,

camel, cattle, deer, goat, hare, pig, poultry, rabbit or sheep

milk the mammary secretions of a milking animal (usually cow, but

can be other animals such as goat)

plant-based alternative A product derived from plants (including nuts, seeds, legumes,

algae, fungi), which can be used as a substitute to dairy or meat products. Often designed to mimic the taste, look, texture and

smell of an animal or dairy product.

vegan a person who does not eat or use animal products, including

meat, fish, dairy, eggs and honey

vegetarian a person who does not eat meat or fish

Appendix 1 – Examples of plant-based meat and dairy alternatives

Product



Ingredients

Funky Fields "Minced"

Rehydrated soy protein/-isolate (58 %), water, coconut oil, soy flour, wheat gluten, almonds, porcini mushrooms, tomato, fermented dextrose, tapioca starch, salt, malt extract (barley), colour (beetroot), natural aroma, maltodextrin, stabilizer (methylcellulose).



Beyond Meat "Beyond Burger"

Water, Pea Protein Isolate, Expeller-Pressed Canola Oil, Refined Coconut Oil, Contains 2% or less of the following: Cellulose from Bamboo, Methylcellulose, Potato Starch, Natural Flavor, Maltodextrin, Yeast Extract, Salt, Sunflower Oil, Vegetable Glycerin, Dried Yeast, Gum Arabic, Citrus Extract (to protect quality), Ascorbic Acid (to maintain color), Beet Juice Extract (for color), Acetic Acid, Succinic Acid, Modified Food Starch, Annatto (for color).



Vegie Delights "Bacon Style Rashers"

Water, Vegetable Protein (30%) (Wheat, Pea, Soy, Wheat Gluten), Canola Oil, Flavour [Salt, Maltodextrin (Maize), Smoke Flavour, Vegetable Oil, Vegetable Protein (Maize, Soy), Fermented Rice, Yeast Extract, Dehydrated Vegetable, Sucrose, Spice], Tapioca Starch, Oats, Sugar, Thickener (Carrageenan Gum), Wheat Fibre, Potassium Chloride, Citrus Fibre, Minerals (Zinc, Iron), Vitamin (B12), Acidity Regulator (Citric Acid).



Quorn "Vegan Schnitzels"

Mycoprotein (52%) *wheat* flour (calcium carbonate water sunflower oil *wheat* starch potato protein pea fibre salt firming agent (calcium chloride) natural flavour *wheat* gluten thickeners (407 401) acidity regulator (calcium acetate) yeast *wheat* semolina garlic powder onion extract onion powder sage sage extract white pepper yeast extract natural colour (paprika extract) raising agent (503).



Loma Linda "Fishless Tuna"

Water, textured soy flour, yeast extract, maltodextrin, natural flavour, contains 2% or less of salt, potassium chloride.



Sanitarium "So Good Regular"

Filtered water, soy protein (3.5%), corn maltodextrin, vegetable oils (sunflower, canola), cane sugar, minerals (calcium, phosphorus, magnesium), acidity regulators (332, 450), antioxidant (ascorbic acid), vitamins (A, B12, D2, B2, B1), natural flavour.



Blue Diamond Almonds "Almond Breeze Original"
Filtered water, raw sugar, ground whole almonds

(2%), calcium carbonate (ground limestone), tapioca starch, sea salt, carrageenan, sunflower lecithin, natural flavour.



Vitasoy "Coconut Milk, unsweetened"

Filtered Water, Coconut Cream (Min 8%), Inulin, Minerals (Calcium Phosphate), Emulsifier (471), Stabilisers (407, 418), Natural Flavour, Sea Salt.



Bio Cheese Dairy Free "Cheddar flavour slices" Water, Coconut Oil (23%) (non-hydrogenated),

Modified Starch (E1404, E1412, E1450), Starch, Sea Salt, Vegan Cheddar Flavours, Olive Extract, Colour: B-Carotene.



Cocobella "Dairy free Coconut Yoghurt"

Coconut Yoghurt (Coconut Milk, Coconut Water, Cornflour, Live Yoghurt Cultures).