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Senate Inquiry - Definitions of meat and other animal products

Dear Senators,

I respectfully tender my submission to the Senate Inquiry on ‘Definitions of meat and other animal products’ (the Inquiry). In this submission, I address the Inquiry’s Terms of Reference with consideration to published peer-reviewed literature, grey literature (e.g., articles, reports etc.) and my views as an Australian consumer and animal health professional with experience working on farms producing food and fibre.

1. (a) The potential impairment of Australian meat category brand investment from the appropriation of product labelling by manufactured plant-based or synthetic protein brands, including:

- i. the use of manufactured plant-based or synthetic protein descriptors containing reference to animal flesh or products made predominately from animal flesh, including but not limited to “meat”, “beef”, “lamb”, and “goat”; and***
- ii. the use of livestock images on manufactured plant-based or synthetic protein packaging or marketing materials.***

‘***Potential impairment***’ implies the tangible capacity for the packaged vegan food industry (vegan industry) to have a negative impact on the animal-derived meat industry. However, given huge disparities in market clout, there is little potential for the packaged vegan food product industry to impair the “***meat category brand investment***” which is supported by the behemoth of Australian animal agriculture. Meat and Livestock Australia’s (MLA) State of the Industry Report 2020 cited a 7% increase in Australia’s red meat and livestock industry turnover 2018-2019 to \$72.5 billion¹. The total value of packaged vegan products in Australia pales in comparison. The value of packaged vegan products was reported to be \$184.3 million in 2018² with expected growth to \$215 million by 2020³.

Market data indicates both the vegan industry and animal-derived meat industry are growing, that is to say that even with percentage growth in the vegan industry, the animal-derived meat industry is not being impaired.

Given the significant disparity between market valuations, it is curious as to why the Australian animal-derived meat industry feels so threatened by the vegan industry. Given the political sway the animal-derived meat industry has had in instigating this Inquiry, it is clear who has the potential (and intent) to impair ‘brand investment’ and it is not the manufacturers or distributors of vegan products.

I now move to address the claim of ‘*appropriation of product labelling*’. Appropriation implies ‘the act of taking something that belongs to someone else without permission’⁴. Therefore, for the term ‘appropriation’ to apply in this context, the animal-derived meat industry would need to be seen as ‘owning’ particular words and the vegan industry would need to be seen to have ‘taken’ those words without permission. Neither of these yardsticks can be met.

Use of “*descriptors containing reference to animal flesh*” and words such as “*meat*”, “*beef*”, “*lamb*” and “*goat*” pre-date both the Australian animal-derived meat industry and vegan industry. These terms clearly do not belong to any entity or entities. These terms are common-use vernacular in the English language. The animal-derived meat industries do not own these terms. These terms are routinely used to describe flavours, aromas and tastes in the labelling and marketing of a wide variety of foodstuffs. For example, despite not containing any ‘flesh-meat’, snack-foods, packet mixes and condiments commonly use flavour descriptors such as ‘BBQ beef’ to describe products but they do not need to seek permission from the Australian meat industries to use these descriptors. Likewise, there is no foundation for the claim that the vegan industry needs to seek permission from the Australian animal-derived meat industry to use these terms.

In discussions of ‘appropriation’ of terms, it is worthy to briefly note etymology. In the original language of the New Testament, there is no mention of the word ‘meat’ to mean the ‘flesh of animals eaten as food’⁵. Later even with the development of terms such as ‘flesh-meat’, vegetables in Middle English could still be referred to as ‘grene-mete’⁶. Thus, the use of ‘meat-related’ terms to refer to plant-based foods has a long history in the English language.

As above, “*the use of livestock images on plant-based or synthetic protein packaging or marketing materials*” cannot be seen as ‘appropriation’ because the animal-derived meat industry clearly does not own all images of livestock. Therefore, the use of livestock images on food labelling or packaging is not the sole domain of the animal-derived meat industry. For example, though the products do not contain ‘flesh-meat’ per se, the manufacturers of other foodstuffs such as snack-foods, packet mixes and condiments commonly use images of livestock on their packaging and marketing materials.

Approaching this issue from another perspective, it would be ludicrous to claim that the manufacturers of vegan food products own all images of plants and that any animal-derived meat product using images of plants on their labels or marketing were ‘appropriating’ those images.

b. The health implications of consuming heavily manufactured protein products which are currently being retailed with red meat descriptors or livestock images, including:

- i. consideration of unnatural additives used in the manufacturing process; and***
- ii. consideration of chemicals used in the production of these manufactured protein products.***

Given the potential influence of dietary factors on rates of disease in the population, this Inquiry raises important public health questions about the consumption of ‘***heavily manufactured protein products.***’ The World Health Organisation (WHO) recognises processed meat as a Group 1 carcinogen, meaning “*there is convincing evidence that the agent causes cancer*” specifically “*that eating meat causes colorectal cancer*”. Other Group 1 carcinogens include tobacco and asbestos meaning the strength of evidence about these agents being causes of cancer is in the same category as processed meat⁷. The Australian Cancer Council acknowledges these risks, stating that “*experts concluded that over the long term, consuming a 50g portion of processed meat consumed daily (that’s two slices of bacon) increased the risk of bowel cancer by 18%*”⁸. Therefore, this Inquiry should take into account the evidence-based health concerns surrounding the consumption of heavily manufactured animal-derived protein products and consider this evidence alongside any claims made about equivalent vegan products.

At present there appears to be little published peer-reviewed literature comparing the health implications of processed vegan versus processed animal-derived protein products. However, there is ample peer-reviewed literature (including several comprehensive reviews) discussing the health risks of diets high in animal-derived foods and the health benefits of diets high in plant-based foods^{9–13}. For example, there is ample evidence linking processed animal-derived meat intake and risk of cardiovascular disease, type 2 diabetes and some cancers⁹. A prospective population based cohort study of over 536, 000 participants found increased risk of all-cause mortality due to nine different causes associated with red meat intake¹⁴. Therefore, this Inquiry should take into account the evidence-based health concerns surrounding the consumption of animal-derived meat and consider this evidence alongside any claims made about vegan products.

As I have some first-hand experience of working with poultry, pigs and dairy cattle, I would like to address ‘***consideration of chemicals used in production***’. Undoubtedly consumers would welcome greater transparency around the ‘chemicals’ and ‘additives’ used in the production of all foods, whether they be animal-derived or plant-based. In-feed agents such as anti-coccidial agents in poultry and anti-bacterial agents in pig feed are routinely used. Reproductive hormones are routinely

administered to sync breeding and lactation in dairy cows. I acknowledge there are regulatory systems in place to monitor chemical residues in animal-derived products. However, ‘*consideration of chemicals used in production*’ implies knowledge of all chemicals used in the production process regardless of whether traces of those chemicals can be found in the end product or not. Therefore, this Inquiry should take into account the ‘chemicals’ routinely used in the production of animal-derived products alongside any claims made about ‘chemicals’ used in the production of vegan products.

In terms of food safety overall, it is my understanding that food available for sale in Australia and New Zealand, whether it comprises animal and/or plant-based ingredients, comes under Food Standards Australia New Zealand (FSANZ). Therefore, both animal-derived meat and vegan products have consideration of unnatural additives and chemicals used in manufacturing.

- (c) *The immediate and long-term social and economic impacts of the appropriation of Australian meat category branding on businesses, livestock producers and individuals across regional, rural and remote Australia, including:*
- i. *the reliance upon imported ingredients;*
 - ii. *the support of regional employment; and*
 - iii. *the state and commonwealth taxation contribution from the Australian red meat and livestock sector.*

Similarly, to products containing animal-derived ingredients, some vegan products are imported and some are made in Australia from predominantly Australian ingredients. For example, Veggie Delights Veggie Sausages available at Woolworths are “*Made in Australia from at least 72% Australian ingredients*” and Coles Nature’s Kitchen Sweet Potato and Black Bean Burgers are also “*Made in Australia from at least 70% Australian ingredients*”. Concerns about “*reliance upon imported ingredients*” are not concerns that are particular to the vegan industry or vegan products.

Consideration of “*economic impact*” should not be biased or narrow in focus. Considering only geographic areas or sectors that support the animal-derived meat industry creates a biased assessment of economic impact. In addition, it is not a meaningful nor fair exercise to compare the employment and tax contributions of industries worth billions of dollars versus a fledgling industry worth an estimated two hundred million. Fledgling industries cannot compete with the employment and tax contributions of behemoths like the animal agriculture industry but this does not mean that fledgling industries should be curtailed or limited. Indeed, there is economic security in diversification and innovation. Consideration should be given to the economic benefits of diversification and innovation. For example, a number of vegan and vegan-friendly Australian food brands have emerged over recent years, creating jobs and realising as yet unharnessed business opportunities. Indeed, the Australian government has demonstrated support for these innovations. For example, in 2018, v2food was formed by CSIRO’s Innovation Fund, a part of the Australian Government’s National Innovation and Science Agenda (NISA)¹⁵.

Economic appraisals must also take into account externalities. For example, comprehensive reviews have concluded that food systems that are predominantly animal derived require more energy, land and water resources compared to predominantly plant predominant food systems^{16,17}. This Inquiry should take into account these costs associated with the production of animal-derived products alongside any claims made about the supposed economic impact of vegan products.

d) The implications for other Australian animal products impaired from the appropriation of product labelling by manufactured plant-based or synthetic proteins.

Given available data, it seems highly improbable that other Australian animal products will be “***impaired***” by “***product labelling by manufactured plant-based or synthetic proteins***”. Take dairy and plant-based milk products for example. The per capita consumption of dairy milk in Australia is reported to be 20 times more than that of soy milk¹⁸. IBIS World “*does not project that the dairy industry will suffer from large declines in their market share to the milk alternatives industry in the short to medium term simply because the majority of Australians still drink traditional milk*”¹⁸. In 2019, even the largest product sector for packaged vegan products (i.e., dairy-style products) were reported to be worth just \$83.7 million¹⁹ compared to \$4.8 billion in dairy farmgate value alone²⁰.

(e) Any related matters.

In closing my submission, I would like to highlight the importance of diversity and inclusivity. There are many examples in Australian and world history where a powerful majority has sought to control language in order to silence minorities. In 2021, we understand that attempts to control language are not acceptable. Rather, we recognise the importance of diversity and inclusivity. We acknowledge the benefits of ensuring that different groups of people including minorities are afforded equal opportunity. In the context of the food production landscape, businesses that produce vegan friendly food products are in the minority. The vegan industry should be permitted equal opportunity to use language as freely as the animal-derived meat industry.

Finally, even though I have taken the time to make a submission, I do not believe that this Inquiry represents a sound use of public funds. The Terms of Reference for this Inquiry reads like a list of ‘bug bears’ from the animal agriculture industry rather than legitimate, evidence-based concerns. It is my belief that Senators have far more profound issues to consider than these and I would urge the Government not to waste further resources on these issues in the future.

References

1. MLA. *State of the Industry Report 2020*. <https://www.mla.com.au/news-and-events/industry-news/state-of-the-industry-report-2020-released/> (2020).
2. Crawford, L. Plant-based products boom in Australia. *What's New in Healthy Products* <https://wnihp.com.au/plant-based-products-growth/> (2019).
3. Cormack, L. Australia is the third-fastest growing vegan market in the world. *The Sydney Morning Herald* (2016).
4. Cambridge Dictionary. appropriation. <https://dictionary.cambridge.org/dictionary/english/appropriation>.
5. Gospel Herald. The use of 'meat' in the Bible. http://gospel-herald.com/1_timothy_4.htm.
6. Online Etymology Dictionary. meat (n.). <https://www.etymonline.com/word/meat> (2021).
7. WHO. Cancer: Carcinogenicity of the consumption of red meat and processed meat. *World Health Organisation* <https://www.who.int/news-room/q-a-detail/cancer-carcinogenicity-of-the-consumption-of-red-meat-and-processed-meat> (2015).
8. Cancer Council. Meat and cancer risk. <https://www.cancer.org.au/cancer-information/causes-and-prevention/diet-and-exercise/meat-and-cancer-risk> (2021).
9. McEvoy, C. T., Temple, N. & Woodside, J. V. Vegetarian diets, low-meat diets and health: a review. *Public health nutrition* **15**, 2287–2294 (2012).
10. Walker, P., Rhubart-Berg, P., McKenzie, S., Kelling, K. & Lawrence, R. S. Public health implications of meat production and consumption. *Public health nutrition* **8**, 348–356 (2005).
11. Tusso, P., Stoll, S. R. & Li, W. W. A Plant-Based Diet, Atherogenesis, and Coronary Artery Disease Prevention. *Perm J* **19**, 62–67 (2015).
12. Kahleova, H., Levin, S. & Barnard, N. Cardio-Metabolic Benefits of Plant-Based Diets. *Nutrients* **9**, 848 (2017).
13. Campbell, T. A plant-based diet and stroke. *J Geriatr Cardiol* **14**, 321–326 (2017).
14. Etemadi, A. *et al.* Mortality from different causes associated with meat, heme iron, nitrates, and nitrites in the NIH-AARP Diet and Health Study: population based cohort study. *bmj* **357**, (2017).
15. 9News. Hungry Jacks founder starts plant-based meat company. (2019).
16. Pimentel, D. & Pimentel, M. Sustainability of meat-based and plant-based diets and the environment. *The American journal of clinical nutrition* **78**, 660S–663S (2003).
17. Chai, B. C. *et al.* Which Diet Has the Least Environmental Impact on Our Planet? A Systematic Review of Vegan, Vegetarian and Omnivorous Diets. *Sustainability* **11**, 4110 (2019).
18. McCarthy, M. Nut Milk. *Landline* (2016).
19. Murray-Ragg, N. Australia is the 3rd Fastest Growing Vegan Market in the World. *LIVEKINDLY* <https://www.livekindly.co/australia-vegan-market-growth/> (2019).
20. Dairy Australia. *Australian Dairy Industry In Focus 2020*. <https://www.dairyaustralia.com.au/industry-statistics/industry-reports/australian-dairy-industry-in-focus> (2020).

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