
AG2030

2022 NYSF PROGRAM



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Plant Based Meats Project (PBMP)

In Australia, and globally, the production and consumption of food is impacting the environment in many harmful ways and is having **detrimental effects**. The processes in the food industry, such as on-farm production, food processing and packaging, distribution, storage and consumption, all contribute to the output of greenhouse gases, waste water, packaging and food waste. When choosing to eat meat, we are choosing to leave an **ecological footprint** that will be present for centuries to come.

Introduction

The PBMP initiative is aimed towards utilising science, technology, engineering and mathematics (STEM) to sustainably and consistently meet the Ag2030 target of **\$100 billion** in production by Australian agricultural communities by 2030. Agriculture currently will be unable to reach this goal with the current lack of many environmental factors such as biodiversity, production-to-consumption ratios and livestock and ecosystem welfare. Plant based meats are an easy, nutritious and affordable alternative to regular meats which are harmfully contributing exponentially greenhouse gas emissions, carbon footprints, biodiversity and sustainability.

“Meat is basically protein, fat, and water. Our game is to find all that in plants and reassemble it against the architecture of meat.”

— **ETHAN BROWN, CEO AND CO-FOUNDER OF BEYOND MEAT¹⁰ (GFI,2022)**. Plant based meats are agriculturally-sourced foods made from alternatives to meat, often substituting regular meats to legumes, lentils or even grains like quinoa, which are scientifically-proven to be excellent for consumer health and agricultural sustainability.



Why we need to implement PBMP

Have you ever been in class when someone has passed wind and the teacher acted like it was the end of the world? Well turns out, maybe these actions are justified. Alright, maybe not in class but in terms of emitting gas. Everyday, ruminant livestock (cattle, sheep and goats) responsible for many valuable resources emit a minimum of **250 litres of methane gas per day**. Considering there are almost 1 billion cattle alone, this leads to gargantuan quantities of methane gas released into the atmosphere. Methane is a **greenhouse gas** trapping approximately **80 times** more heat than carbon dioxide, exacerbating **global warming**. The simple answer is to limit the amount of livestock, right? Yet we cannot simply reduce the number of livestock in the world: we need a better, more sustainable alternative. Enter the PBMP.

The PBMP initiative offers an alternative source of 'meat' for hungry consumers, while eradicating the emission of methane gas and thus pointing us in the right direction to reverse the effects of **climate change**. By cutting the amount of **red meat** we consume, by eating plant-based meats we are actively lowering the risk of developing heart disease. Plant-based meats provide minerals, vitamins and antioxidants which all significantly improve health. Additionally, plant-based meats require **50% less land** than animal agriculture which only provides **17%** of our global food supply. If Australia is to continue being one of the world's predominant agricultural manufacturer, it is imperative that we find new options, and the PBMP is the way to go.

Goals and Targets

The main objective of the Plant Based Meats Project (PBMP) is to encourage Australians to rethink the common meat based diet and move towards a more sustainable plant based diet therefore positively contributing towards the Ag2030 agreement target.

By degrading the meat based diet it is forecasted the need for the vast quantities of cattle, sheep and goats farmed in Australia will lessen, causing a positive effect of less methane gas being emitted into the atmosphere.

The Plan

Without re-inventing the wheel, the PBMP has multiple strategies to encourage its consumers to purchase the product. These are:

1. Promoting the in-difference in taste between the PBMP and meat - by doing so it encourages consumers to switch towards a PBMP
2. Pricing competitively - with the perceived barrier that "Plant-based meats" are way more expensive compared to normal meats, the PBMP will contact wholesale manufacturers to develop a cost-effective way to sell "Plant-based meats" at a much lower price

3. Integrating Plant-Based-Meats into other dishes on the menu - encourages consumers to have a "taste" and change their opinion towards the benefit of Plant-Based-Meats
4. Using Eco-friendly / zero-carbon manufacturing - strengthens the "healthy benefits of Plant-Based-Meats"
5. Investing in promotional material such as - billboards, signs, TV ads, etc.
6. Encouraging consumers to "plant" their own meat from the backyard.

Overall, by implementing these ideas, the PBMP can gain overall success within Australia's consumer base, targeting the \$100 billion in production by Australian agricultural communities by 2030.

Plant Based Meats project will entail research on agricultural solutions. It will require plants management, environment education, and execution of campaigns.

References

Good Food Institute. (2022). Environmental benefits of plant-based meat products | GFI. Retrieved from [gfi.org website: https://gfi.org/resource/environmental-impact-of-meat-vs-plant-based-meat/](https://gfi.org/resource/environmental-impact-of-meat-vs-plant-based-meat/)

Richards, L. (2021). Is plant-based meat healthy? [online] MedicalNewsToday. Available at: <https://www.medicalnewstoday.com/articles/is-plant-based-meat-healthy> [Accessed 20 Jan. 2022].

MeattheIssues. (2022). Meat the Issues - The Enviro + Health Impacts of Our Food System. Retrieved January 21, 2022, from Sustainable Table website: <https://sustainabletable.org.au/all-things-ethical-eating/meat-the-issues>

Woolworths. (2022). Plant-Based Meat Alternatives Range | Discover At Woolworths. Retrieved from [www.woolworths.com.au website: https://www.woolworths.com.au/shop/discover/plant-based/plant-based-meats-spotlight](https://www.woolworths.com.au/shop/discover/plant-based/plant-based-meats-spotlight)

Richards, L. (2021, August 24). Is plant-based meat healthy? Pros and cons. Retrieved from [www.medicalnewstoday.com website: https://www.medicalnewstoday.com/articles/is-plant-based-meat-healthy](https://www.medicalnewstoday.com/articles/is-plant-based-meat-healthy)

Proctor, A. N., Kailey. (2021, March 26). Why plant-based meats are healthier than regular meats, according to dietitians. Retrieved from Insider website: <https://www.insider.com/plant-based-meat>