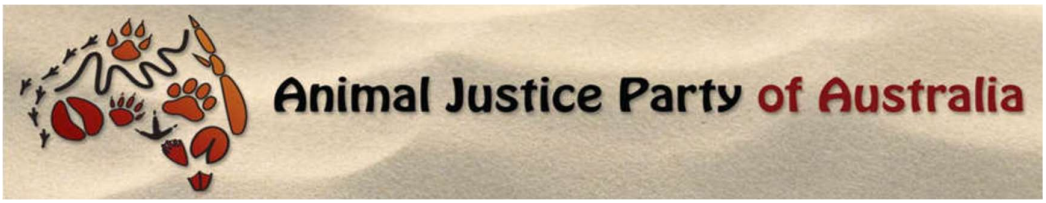

This is the Animal Justice Party's submission to the Australian government's senate committee inquiry into Australia's dairy crisis.

The inquiry's terms of reference include establishing a fair and long-term solution to Australia's dairy crisis with particular reference to milk security.

There are several fundamental reasons why the very focus of the inquiry is significantly flawed. They include:

1. The extreme animal cruelty issues involved in the dairy industry
2. The harmful effects to human health caused by the consumption of dairy
3. The environmental harm caused by the dairy industry and its fundamentally unsustainable nature

People are turning away from dairy in droves largely as a result of the above reasons along with increased awareness.

Considering the facts and science about dairy, as will be reviewed in more detail below, it is clear that the most responsible course of action for the government to take, is to transition away from animal-based milk and dairy, to humane, healthy, and sustainable plant-based milks.

Instead of focussing on trying to rescue an unsustainable industry that is harmful to humans and animals, the government should be turning its attention to innovative transition solutions. Consumers are increasingly embracing plant-based milks and it is the position of the Animal Justice Party that the government should embrace this trend and promote plant-based milks as healthier, more humane and more sustainable industries.

1. Animal Cruelty

Dairy cows have been genetically manipulated through selective breeding to produce around 35-50 litres of milk per day, which is around 10 times more than calves would need if they were allowed to suckle from their mother (Dairy Australia, 2014). The unnaturally increased weight of the cow's udder causes painful stretching or tearing of ligaments, and infections such as mastitis. Since milk production relies on the constant production of dairy calves, the dairy cow is impregnated soon after she has been milked to capacity from her previous calving. She is kept alive as a milking machine for as long as she is able to produce enough milk to make her a "profitable unit". This is about 7 years as opposed to an average of 20 years for non-factory farmed cows (Voiceless, 2015).

In the dairy industry, calves (mostly male calves) are considered a waste product. Cows are mammals, and as such develop a strong maternal bond with their calves within as little as five minutes after they are born (Flower & Weary, 2001). This bond, which exists in all mammals, promotes the survival of offspring. Separation between mother and baby causes

significant separation distress (McDonald & Leary, 2005). Cows will bellow calling for their young for days after they have been taken away. Despite this calves are removed from their mothers soon after birth so that as much milk as possible can be sold for profit (Voiceless, 2015).

2. Harm to Human Health

As is stated on the website of the Australian Society of Clinical Immunology and Allergy: "Cow's milk is a common cause of food allergy in infants. In Australia and New Zealand around 2 per cent (1 in 50) infants are allergic to cow's milk and other dairy products." The extremely high rate of dairy allergy in human children should ring alarm bells to any rational person.

Considering the vast differences in the nutrient constitution of cow versus human milk, it becomes easier to understand why dairy allergy is so prevalent. The nutrients per 100 grams of milk are as follows for human versus cow milk respectively: Protein – 1.1, 4; Carboydrate – 9, 4.9; Sodium – 16, 50; Phosphorus – 18, 97 and Calcium - 33, 118. Importantly, these figures show that there is a great deal more calcium in cow's milk than in human milk. What we know is that humans absorb only 32% of the calcium in a glass of milk. If humans needed to ingest milk with such a high concentration of calcium, doesn't it make sense that human milk would contain it? (Keon, 2010).

The belief that we need to consume another specie's milk for strong bones has been shown in research findings to be seriously flawed. Based on a review of epidemiologic and prospective studies, the efficacy of the use of dairy products for the promotion of bone health was questioned (Barnard, Berkow, & Lanou, 2005). It was concluded that the increased consumption of dairy products has not shown a benefit for either child or young adult bone health.

According to Lanou (2009), despite recommendations that cow's milk is necessary for human growth and for bone health, evidence documented over the past 20 years tells a different story. Rather than promoting bone health, data show that osteoporotic bone fracture rates are highest in countries that consume the most dairy, calcium, and animal protein. Indeed, most studies examining fracture risk have found little or no evidence that milk or other dairy products benefit bone strength (Sonneville, Gordon, Kocher, Pierce, Ramappa, & Field, 2012).

More recent research is showing a more alarming picture. Rather than being health promoting, consuming milk or dairy products may contribute to the risk of prostate (Lu et al., 2016; Mitrou et al., 2007) and ovarian cancers, autoimmune diseases, and certain childhood ailments (Campbell & Campbell, 2006; Keon, 2010). Because milk is not necessary for humans after weaning and the nutrients it contains are readily available in foods without animal protein, saturated fat, and cholesterol, dairy products should not be recommended as part of a healthy diet at any stage during the lifespan (Lanou, 2009; Ludwig & Willett, 2013; Melnick, 2009).

In an 11-year follow-up study of 20,885 men, it was found that a diet high in calcium intake, mainly from dairy products, increased the risk of the men developing prostate cancer (Chan et al., 2001). Others have found supporting results (Park, Mitrou, et al., 2007; Park, Murphy et al., 2007; Song, et al., 2013).

In another prospective study the relationship between dairy intake and risk of Parkinson's disease was examined (Chen et al., 2007). The study involved 57,689 men and 73,175 women from the American Cancer Society's Cancer Prevention Study II Nutrition Cohort. In this sample, 250 men and 138 women were identified as having Parkinson's disease during follow-up (1992–2001). The findings showed that a greater consumption of dairy predicted a greater risk of developing Parkinson's disease.

Others have found that the consumption of dairy is associated with health risks including multiple sclerosis (Malosse, Perron, Sasco, & Seigneurin, 1992) ovarian cancer (Larsson, Orsini, & Wolk, 2006), insulin resistance and metabolic syndrome (Lawlor, Ebrahim, Timpson, & Davey Smith, 2005).

A 2014 study published in the British Medical Journal involving two large cohorts of women (61,433) and men (45,339) found that high milk intake (three or more glasses of milk per day) was associated with higher mortality in both women and men, and with a higher fracture incidence in women (Michaelsson et al., 2014). With each glass of milk, mortality risk increased by 15%.

Although strong, healthy bones require minimum intake of calcium and vitamin D, calcium obtained from animal products is leeched from bones, whilst plant-based calcium does not have this effect. Consumption of dairy and animal proteins promotes an acidic state and since the body prefers an alkaline state, it draws on calcium from the bones to buffer against the acidity (Keon, 2010). Further support for this argument was provided by the 2003 WHO report which states that protein intake from animals but not vegetables outweigh the positive effect of calcium intake on calcium balance.

In the words of highly respected Professor of Nutrition Marion Nestle:

"Dairy milk is a complex product. It is produced by living cows as food for their young and contains hundreds of substances that are terrific for feeding baby calves. …… Cow's milk is indeed high in calcium, but whether a diet high in dairy calcium protects you against osteoporosis or any other disease is a matter of considerable debate. Milk is also high in fat, saturated fat, and cholesterol, substances that are best avoided in large amounts. It contains lactose, a sugar that many people over the age of five cannot easily digest. And it contains proteins to which some people are allergic or sensitive." (Nestle, 2006; p. 68).

If milk consumption is not good for human health, why are we advised to consume it? Importantly, as is highlighted by Campbell and Campbell (2006), an enormous amount is known about the relationship between nutrition and health but the public remains somewhat confused or mistaken about the facts. This is because "the real science is buried beneath a clutter of irrelevant or even harmful information – junk science, fad diets and food industry propaganda." (p. 1). Several other authors provide detailed evidence of the powerful and misleading role played by industry food giants in propagating what science is now showing to be myths about the nutritional benefits of animals foods, including dairy. See for example, information provided by the Physicians Committee for Responsible Medicine and others (Barnard, 2014; Esselstyn, 2007; Keon, 2010; McDougall, 1985; McDougall & McDougall, 2012; Nestle, 2002; 2006; Robbins, 1987). Recently, Lisa Bero, Chair Professor at the University of Sydney wrote on how food companies can sneak bias into scientific research.

3. Harm to the Environment

Over 10 years ago, in its 2003 report, the World Health Organisation acknowledged that the growing demand for animal products forecast an undesirable impact on the environment. According to the report, meat and dairy products are the main culprits. They respectively account for 70% of global freshwater consumption, 38% of the total land-use and 19% of the world's greenhouse gas emissions.

Three years later in 2006, the Food and Agriculture Organization (FAO) of the United Nations released a report called Livestock's Long Shadow (Food and Agriculture Organization, 2006). The report provided an assessment of the full impact of the livestock sector on global environmental problems. The contribution to environmental problems by livestock production is on a massive scale, so massive in fact that it needs to be addressed with "urgency." The environmental problems associated with the livestock sector relate to extensive grazing, land degradation, atmosphere and climate, water usage requirements, and biodiversity loss.

Consistent with multiple publications and reports (Chiu & Lin, 2009; Leitzmann, 2003; McMichael, Powles, Butler, & Uauy, 2007; Ornish, 2012; Sabate & Soret, 2014; Scarbarough et al., 2014) a 2014 Chatham Report relating to the livestock sector concluded that shifting consumption of meat and dairy products is of significant global importance to avoid dangerous climate change (Chatham House, 2014).

Producing milk is a costly business. Dairy farming is a thirsty industry requiring 500 litres of fresh water to produce just one litre of milk. In Victoria, the industry is responsible for the consumption of 54% of the state's agricultural water and uses 53% of the state's irrigated land." (Khan, Abbas, Rana, & Carroll, 2010). Other environmental costs include the methane and nitrous oxide produced by the cows' digestive systems contributing 3% to global greenhouse gas emissions." (Sevenster & deJong, 2008).

In 2015, the Australian Climate Council reported that since the mid-1990s, Australia's South East has experienced between 15 and 25 percent declines in rainfall and more frequent and severe droughts. In coming years, southern Australia is predicted to be hit the hardest by droughts of increasing severity and duration. It is this part of Australia that is also the heart of dairy country with Victoria comprising 71% of the Australian dairy industry and NSW being the second largest producer." (Khan et al., 2010).

Although the dairy industry is considered to be an important part of the Australian economy, its drain on water is also costly to the economy. In fact, by mid-2010 the Australian government had paid $4.4 billion in direct drought assistance to farmers (Australian Climate Council, 2015).

In conclusion, given the evidence that the consumption of dairy is unhealthy both for the human species as well as for the planet, the Animal Justice Party submits that the government should be looking at promoting innovative and sustainable alternatives. As the world looks at Australia's poor performance in reducing carbon emissions, this is the perfect time to transition away from a harmful industry.

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