

Global food security, self-sufficiency and the cost of bread to Aotearoa

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Across the course of life, malnutrition, which includes overweight, underweight, obese or experiencing hidden hunger is associated with non-communicable diseases, impaired immunity and food insecurity. Agriculture is the main driver of food and nutrition security, yet few governments and trade agreements have cohesive policies that link national food guidelines based on evidence for prevention of disease and promotion of health and immunity to agricultural and economic policies.¹ The global impacts of climate change, COVID-19 and now the Russian invasion of Ukraine on global food security and supply, and subsequently the cost-of-living, are reverberating around the world. The trade of wheat—the main ingredient of the food-energy staple bread—is one indicator of food security. For example, in 2020 the Russian Federation, United States, Canada, France, the Ukraine and Australia together exported by weight 70% of the world's total export wheat.² Egypt, Indonesia, Turkey, China and Italy imported 25% of the total wheat exported. Clearly, wheat self-sufficiency is not possible in every country; the minimisation of post-harvest losses and costs of transport must be considered.

Previously we have argued that geographically-isolated Aotearoa, a net food exporting country, should be self-sufficient in food staples and feed local people first and well.^{3,4} Most (95%) citizens consume bread products daily,⁵ and the main ingredient of this bread is wheat imported from Australia.⁴

Food guidelines, including the New Zealand Eating and Activity guidelines,⁶ recommend people eat a variety of nutritious foods every day, including grain foods: mostly wholegrain and those high in fibre. Wholegrain bread is recommended.⁶ There are, however, no health-related agricultural or economic policies in place to support the local production and availability of bread and other diverse wholesome foods so that all New Zealand people can meet their dietary guidelines sustainably.

According to the last national adult nutrition survey,⁵ undertaken in 2008, bread contributed 11% of the energy, 11% of the protein, 17% of the

carbohydrates and 17% of the fibre to the average New Zealander's dietary intake. Wholegrain bread (heavy and light) was reported as eaten by slightly more than 60% of the population. In addition, Māori and Pacific ethnic groups, males, younger people and those living in socio-economically deprived areas were more likely to report consuming a greater quantity of lower quality bread than NZ European and other, older people and the less deprived. It is forecast that bread consumption will continue to increase in Aotearoa⁷ and globally⁸ over the next five years.

The latest household food price index survey by Statistics NZ has shown that the cost of food items in a representative food basket in New Zealand is increasing; from July 2021 to April 2022 by 6%.⁹ One of the key items of the basket examined is bread. The cost of white bread has increased between December 2019, pre-COVID, and January 2022 by 18%, from \$1.30 to \$1.52 per 600g loaf. Wholegrain (\$3.60 per 700g) and wheatmeal bread (\$2.94 per 700g), both forms of wholegrain bread and nutritionally superior, did not change in price.

In 2018, we imported 410,000 tonnes of wheat grain and flour.⁴ The value of the imported wheat was 146 million NZ dollars. Each year we produce only 0.1 million tonnes of milling wheat (for human consumption) and 0.3 million tonnes of feed wheat (for animal consumption).¹⁰ Wheat grown in Aotearoa is often prioritised to feed animals in the dairy, poultry and livestock industries. This low ratio of milling to feed wheat is because growers are paid more for growing feed wheat and corn than milling wheat. 30% of the arable land in Aotearoa is used to grow cereals and 9% of that 30% is used to grow wheat (8%) and oats (1%). The rest of the arable land (91%) used for cereals is farmed for animal feed and silage (mainly corn) and a small amount for malting (barley for spirits).¹⁰

The quantity of bread and refined flour imported and consumed is one marker of the current burden of food insecurity, malnutrition and the cost-of-living in New Zealand. At the same time, the nutritional quality of the diet of New Zealanders continues to decline as shown

by a continual fall in vegetable and fruit intake.¹¹ Now is the time to reorientate the food system of New Zealand and sustainably produce the diverse range of vegetables, fruits, pulses, wholegrains and animal products required for health of the planet and the people of Aotearoa. It is time to

prioritise feeding all our people over animals and generating export dollars, and spending money on imported food energy. We urgently need healthy public policy in the food production area to address the wicked problem of food security¹² and the associated costs to the health system.

COMPETING INTERESTS

Nil.

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