

**Submission
No 3**

FOOD PRODUCTION AND SUPPLY IN NSW

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FOOD SECURITY

Background: The federal government's official stance on food security in Australia is that the country does not have food security issue at the current time as the country produces more food than the population consumes. Australia imports just over 10% of domestically consumed food and beverages - mostly to meet consumer preferences and variety.

Issue: Australia's (and NSW's) food security is a false one as our food system is dependent on international markets and supply chains for a range of inputs including fertilisers, chemicals (e.g. glyphosate) and packaging. Glyphosate and other chemical inputs are known to have severe impacts on soil health, soil micro-organisms and insects. Our agricultural system is far from sustainable when it relies on these inputs. You cannot have a secure food system when it's reliant on inputs that are destroying the very basis of food production – healthy soil and insects (for pollination)! We need to make our agricultural system resilient and sustainable by building a food system that works with nature, not against it.

Required response: We need to ensure that our agricultural system is more resilient and sustainable by supporting farmers moving to regenerative agricultural systems that work to build soil health, support biodiversity and are not reliant on huge inputs of chemicals.

<https://www.theguardian.com/environment/2019/feb/10/plummeting-insect-numbers-threaten-collapse-of-nature>

FOOD PRODUCTION IMPACTS ON THE ENVIRONMENT (and us)

Background: There is a trend of increasing farm size in Australia. Whilst larger farms tend to be more profitable and generate a higher rate of return than smaller farms, they also tend to be more mechanized, rely heavily on chemical inputs and contribute to greater biodiversity losses.

Soil carbon losses are significant in our current industrialised agricultural system. It's estimated that our agricultural soils have lost almost half the carbon that was there in the first place. It's not just about the carbon – we have also lost a lot of the life that's in our soils. Soils without life are reliant on chemical inputs to keep growing food and are more prone to erosion. Soils devoid of life also can't grow highly nutritious food and numerous studies have shown that our food crops do not contain the same mineral richness that they did in the past. This has important implications for climate change but also for the health of the population.

Australia is among the top seven countries worldwide responsible for 60% of the world's biodiversity loss between 1996 and 2008. A 2017 study of 109 countries ranked

Australia second worst with a biodiversity loss of 5-10%. This is a shocking statistic. The trend of more highly mechanised agricultural farms is partly responsible for this biodiversity loss.

Required response: farmers must be educated and supported to change to regenerative farming practices that emphasise rebuilding soil life, soil carbon and avoiding chemical inputs that kill our soil life. Our food should be nutritious and for this we need to ensure farming is carried out in a manner which builds and protects soil health and biodiversity. We cannot keep pretending that our industrialised agricultural system based on monocultures is sustainable or secure. Farmers must be supported in transitioning to a more sustainable food system (financially and through education) where biodiversity, soil health and working with nature are key drivers.

<https://www.theguardian.com/environment/2021/feb/19/soil-carbon-what-role-can-it-play-in-reducing-australias-emissions>

<https://www.seattlepi.com/lifestyle/health/article/Fruits-vegetables-not-as-nutritious-as-50-years-1197106.php>

BRINGING FOOD TO THE CITIES

Background/issue: Food has often travelled large distances before it ends up on a supermarket shelf. This increases greenhouse gas emissions and also means food is not as fresh as it could be. The fresher food is the more minerals it contains.

Required response: The government needs to support and encourage small scale regenerative urban farms which work in unison with biodiversity and grow food where it is needed. We need to get rid of the idea that 'bigger is better' and grow food in small scale biodiverse farms in more urban areas where it is eaten. This will improve biodiversity (if these farms are properly designed on permaculture principles) and increase the resilience of our agricultural system (especially important in the face of climate change and increasingly unreliable rainfall).

<https://theconversation.com/australia-among-the-worlds-worst-on-biodiversity-conservation-86685#:~:text=Australia%20ranks%20as%20the%20second,will%20lose%20funding%20next%20month.>

IMPROVING FOOD EQUITY

The prevalence of food insecurity in Australia is estimated at 5%. The issue mostly affects unemployed people, single parent households, low income earners, rental households and young people.

If we had a significant move to regenerative small scale urban farms, we could produce the food where it is needed, reduce transport costs and be better able to provide healthy, nutritious food to those sectors of our community that are 'at risk'. Programs such as that run by the 'Food for Change Foundation' are doing that now. Such programs are good for people and the planet and teach people how to grow food – something we should all know how to do.

As climate change impacts are felt more and more, we will need more areas growing food to cope with the weather variabilities. This should include small urban farms and larger biodiverse, regenerative farms.

<https://foodforchange.org.au/grow/our-farms/>

Burns, C. (2004). *A review of the literature describing the link between poverty, food insecurity and obesity with specific reference to Australia*. Melbourne: Victorian Health Promotion Foundation

<https://www.awe.gov.au/abares/products/insights/australian-food-security-and-COVID-19#:~:text=Australia%20is%20one%20of%20the,around%2070%25%20of%20agricultural%20production.>

[https://aifs.gov.au/cfca/publications/food-insecurity-australia-what-it-who-experiences-it-and-how-can-child#:~:text=The%20prevalence%20of%20food%20insecurity,people%20\(Burns%2C%202004\).](https://aifs.gov.au/cfca/publications/food-insecurity-australia-what-it-who-experiences-it-and-how-can-child#:~:text=The%20prevalence%20of%20food%20insecurity,people%20(Burns%2C%202004).)

PRESERVING PRODUCTIVE LAND AND WATER

We must stop the use of pesticides such as glyphosate in agriculture. This and many other chemical inputs used in modern agriculture are extremely damaging. Glyphosate for instance reduces resilience (e.g cold and drought tolerance) in trees, kills beneficial insects, and is toxic to tadpoles and to a lesser extent, frogs. Impacts on insect populations is also very worrying. There have been major declines in insect biomass worldwide and Australia is no exception to this trend. Climate change and intensive agriculture have been associated with this trend.

Glyphosate has also been shown to have both indirect and direct impacts on soil microorganisms. Soil micro-organisms are imperative for decomposing organic matter, cycling nutrients, degrading toxic materials and managing disease. Essentially, you can't have healthy soil without a healthy soil biota and you can't produce healthy food without healthy soil.

<https://permaculture.com.au/glyphosate-toxicity-impacts-on-the-environment-and-non-target-species/>

https://www.cwss.org/uploaded/media_pdf/9640-146_2000.pdf

In addition, the International Agency for Research on Cancer categorises glyphosate as 'a probable carcinogen for humans'. What is the cost of cancer to society and why are we still allowing broad usage of this chemical when many other countries in the world have banned its use or are phasing out its use?

Required response: All of Australia needs to get serious about phasing out the use of glyphosate. It is destroying our soils, having severe impacts on biodiversity and destroying productive lands by killing off soil biota – essentially this, and many other chemicals we are using, create a false perception that our food system is secure – it is far from it. You cannot have a secure food system when it is reliant on inputs that are destroying the very basis of food production – healthy soil and insects! We need to make our agricultural system resilient and sustainable by building a food system that works with nature, not against it. It is possible to have grow food in a manner which does not constitute a war on nature. Farmers should be encouraged and supported to grow wildflowers, and native plants that support insects. We also need to be working harder in our urban areas to grow food and restore insect populations. This trend of lawns and hedges in urban areas is disturbing. If we are to have a healthy agricultural sector we need our pollinators and we need to start now to restore insect numbers. Other countries around the world have made gains e.g. Amsterdam, in this area and we need to be following their lead by growing more native flowering plants in our towns and cities, setting up bee hotels and greenroofs.

<https://revitalization.org/article/amsterdam-shows-the-world-how-to-restore-pollinators-now-its-going-national/>

<https://www.dogonews.com/2019/9/16/dutch-cities-attempt-to-restore-bee-population-with-insect-hotels-and-bee-stops>

<https://www.baumhedlundlaw.com/toxic-tort-law/monsanto-roundup-lawsuit/where-is-glyphosate-banned-/>

<https://www.pnas.org/content/118/2/e2002548117>

<https://www.tabledebates.org/research-library/intensive-agriculture-driving-worldwide-decline->

[insects#:~:text=On%20average%2C%2082%25%20of%20insect,years%20during%20the%20case%20studies.&text=Lead%20author%20Francisco%20S%C3%A1nchez%20DBayo,years%20you%20will%20have%20none.%22](https://www.tabledebates.org/research-library/intensive-agriculture-driving-worldwide-decline-insects#:~:text=On%20average%2C%2082%25%20of%20insect,years%20during%20the%20case%20studies.&text=Lead%20author%20Francisco%20S%C3%A1nchez%20DBayo,years%20you%20will%20have%20none.%22)

LABELLING OF PROCESSED/MANUFACTURED FOODS

Food stuffs must be labelled with full disclosure. Customers have a right to know how their food was produced - on an organic farm, a farm using regenerative agriculture, on a farm using chemical fertilisers and pesticides, or on a farm using genetically modified crops and/or inputs? This information should be freely available so customers can make an informed choice about the type of agriculture they want to support.

REDUCING FOOD WASTE

The sustainability of our food system must include an examination of international trade. Exporting Australian grown rice and then importing other forms of rice that are 'preferred' by customers is bordering on insanity when you examine the food miles involved. This type of craziness goes on with many other products and must be examined and reversed if we are to move to a truly sustainable food system.

Burns, C. (2004). *A review of the literature describing the link between poverty, food insecurity and obesity with specific reference to Australia*. Melbourne: Victorian Health Promotion Foundation

<https://www.awe.gov.au/abares/products/insights/australian-food-security-and-COVID-19#:~:text=Australia%20is%20one%20of%20the,around%2070%25%20of%20agricultural%20production>.