

**Supporting Aussie
farmers as they pave
the way towards a more
*sustainable & ethical food system***



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We are working with farmers to create a kinder and more sustainable future for farmers and their families, consumers, animals, and the planet.

Farm Transitions Australia is a registered charity and the first of its kind in Australia. It was established to give free assistance, tools, resources and business support services to animal-based farmers wanting to embrace new opportunities in plant-focused agriculture and transition their farms.

Our vision is to create a sustainable and ethical plant-focused food system for Australia. A food system that is economically, environmentally and socially aware. A food system that respects farmers, climate, ecological boundaries, and animals, promotes biodiversity, uses less land and demonstrates how values and business interests can work together to create a food system that benefits all.




The farming industry is changing, putting unprecedented pressure on farmers like you to adapt.

Many farmers face an increasing uncertainty regarding the future of their farms. Rising operational costs, climate change pressures, abnormal weather patterns, labour shortages, changing consumer demands and the rise of alternative proteins, including synthetic technology, continue to impact dairy and animal-based farmers.

It is the farmers seizing opportunities in plant-focused farming, selling carbon through revegetation, restoring ecosystems or diversifying into other non-farming sustainable and ethical businesses who will thrive long-term. The global plant-based food market is expected to reach a total value of US\$162 billion by 2030. Plant-focused food producers will need a reliable source of ingredients such as greens, beans, oats, peas and mushrooms. Demand for versatile plant crops such as hemp, which can be used for food, textile fibre and medicine, continues to grow. This creates significant opportunity for forward-thinking farmers — *farmers like you*.

We believe many farmers are open to change, seeking a business that is future-focused, financially secure and less stressful. Farm Transitions Australia works to support farmers like you through the process with free business support, access to experts and knowledge, supply chain contacts and assistance accessing grants and funding, to help you towards your goals.



“It’s not the strongest of the species that survives, nor the most intelligent, but the one most adaptable to change.”

Why transition?

As the impact of climate change environmental regulation increases, these reasons to transition will become even more significant. The farmers on the front foot of change won't be left behind. Farm Transitions Australia exists to stand beside farmers, supporting you as you explore your options and seize new opportunities.

Combat both industry & financial uncertainty

Many farmers face an increasing uncertainty regarding the future of their farm. As well as battling uncertain weather, depleting capital, labour shortages and rising operating costs, farmers are also faced with significant risk, both business and financial.

One approach to mitigating such risks is to diversify your farm or transition to a future-focused, more profitable venture such as plant-focused farming. Plant-focused farming uses less natural resources like land and water to produce crops than animal farms require, making them less expensive to operate. **Animal-based agriculture incurs 13% more expenses than plant-focused agriculture.** As with any business venture, both animal and plant-focused agriculture can incur losses, however, the plant-focused industry is twice as profitable as the animal-based industry.

Farmer livelihoods & well-being

We understand that operating a dairy or animal-based farm can be a stressful undertaking. Relentless financial pressures, labour shortages, changing consumer demand, a highly competitive market and the nature of the job with its long hours and low hourly rate make farming a tough gig.

Dairy farmers, in particular, face isolating challenges — despite the recent increase in milk prices, operational costs have skyrocketed, resulting in tight profit margins.

On top of that, you may be experiencing narrow processing contracts and regulations, climate change pressures, and low consumer demand.

Farming is chronically stressful, with two-thirds of farmers reporting mental health struggles.

Your chronic stress may be due to:

- the pressures of running a farming business
- natural disasters like draught, floods and bushfires
- changing legislation
- changing market conditions
- difficulty finding and keeping good workers
- isolation
- family problems

The average suicide rate of farmers is almost 60% higher than non-farmers, with one farmer committing suicide every 10 days. These confronting statistics come from the National Rural Health Alliance, based on 10 years of coronial data.

Greenhouse gas emissions

About one-third of all human-caused greenhouse gas emissions can be linked to our food. Animal agriculture in particular produces large volumes of greenhouse gases. In Australia, direct livestock emissions account for about 70% of greenhouse gas emissions by the agricultural sector and 11% of total national greenhouse gas emissions. This makes Australia's livestock the third largest source of greenhouse gas emissions after the energy and transport sectors. Livestock are the dominant source of methane (CH₄) and nitrous oxide (N₂O), accounting for 56% and 73%, respectively, of Australia's emissions.

Reduce environmental impact

Farming puts significant pressure on Australia's environment, which in recent years has put increasing pressure on farmers like you. Plant-based food such as fruits, vegetables, grains, beans, peas, nuts and lentils generally use less energy, land and water to farm and produce far less greenhouse gas emissions than animal agriculture.

Deforestation & land clearing

Research shows that animal agriculture is a driving force behind land clearing in Australia, resulting in habitat fragmentation and threatening precious ecosystems. Animal agriculture occupies a staggering 770 million hectares, which is more than half of mainland Australia. In Queensland alone, 93% of cleared land is used for farming.

The average suicide rate of farmers is almost 60% higher than non-farmers.



Plant-focused farming opportunities

Plant-based boom & changing consumer demands

Changing consumer habits are impacting primary producers, with a rise in consumers choosing local, organic, and plant-based food products to reduce their environmental footprint, as well as health, social justice, and animal welfare concerns.

A study by Food Frontier found the reasons Australians are increasingly opting for plant-based alternatives are, in order:

1. Health
2. Environment
3. Animal welfare
4. Cost
5. Variety of plant-based options available

Globally, the plant-based food industry is expected to reach a total value of US\$162 billion by 2030. According to the Australian Australian Bureau of Statistics, the amount of dairy and meat substitutes purchased from Australian supermarkets increased by another 14% in 2020-21, on top of the 14% increase observed during 2018-19 and 2019-20.

Fast facts: a growing appetite for plant-based alternatives

The rise of plant-based alternatives is encouraging changing consumer demands, and in turn changing consumer demands are encouraging the advancement of plant-based alternatives. This has resulted in significant change to Australian diets and rapid growth in the meat and dairy substitute markets.

Source: Statista Research Department, Plant-based food in Australia – statistics and facts 2022.

\$550 million

In 2021, the revenue from milk substitutes in Australia increased by almost AU\$30 million to AU\$327 million dollars. The Statista Consumer Market Outlook estimates this will continue to increase and by 2026, the Australian milk substitute market will generate revenue of around AU\$550 million.

\$98 million

In 2021, the meat substitute market in Australia generated a revenue of AU\$64 million. The Statista Consumer Market Outlook estimates that by 2026 the meat substitute market will achieve revenue of AU\$98 million.

\$3 billion

Australia's plant-based meat sector alone is expected to grow to almost \$3 billion in consumer expenditure by 2030.

42% of Aussies

In Australia 42% of people are eating less meat or none at all (2019 statistics). Among them, 10% of the people identified themselves as vegan or vegetarian, 12% as meat reducer, and 20% as flexitarian.

Top climate, environment & food facts

This information was taken from the Plant Based Data database and is considered the most credible figures and statistics based on the entire body of evidence around plant-based agriculture.

Source: <https://www.plantbaseddata.org/>

Global food production is the single largest human pressure on Earth, threatening local ecosystems, driving a sixth mass extinction of species, and impacting the stability of the entire Earth system.

Source: <https://eatforum.org/knowledge/diets-for-a-better-future/>

Meat and dairy provide just 18% of calories and 37% of protein, despite using the vast majority — 83% — of farmland and producing 60% of agriculture's direct greenhouse gas emissions. Half of the world's ice-and-desert-free land is used for agriculture. Shifting away from animal agriculture completely would free up more than 3 billion hectares of land, equivalent to the size of Africa. Transport typically accounts for less than 1% of beef's GHG emissions (less than 10% for most other foods): choosing to eat local food has very minimal effects on its total footprint.

Source: <https://www.science.org/doi/10.1126/science.aag0216>

Scientist and Project Drawdown's leader Dr Jonathan Foley states that "nothing else we do has come close to how food, agriculture, and land use are causing global environmental harm. Without major changes, our food system will continue to push Earth well beyond its planetary boundaries."

Only under very specific conditions can [grazing] help sequester carbon. This sequestering of carbon is even then small, time-limited, reversible and substantially outweighed by the GHG emissions these grazing animals generate.

The maximum global potential (of carbon sequestered in these soils), in the most optimistic conditions and using the most generous of assumptions, would offset only 20-60% of emissions from grazing cows, 4-11% of total livestock emissions, and 0.6-1.6% of total annual greenhouse gas emissions.

Source: https://www.oxfordmartin.ox.ac.uk/downloads/reports/fcrn_gnc_report.pdf and <https://grazingfacts.com/>

Animal agriculture is the most significant driver of habitat loss on the planet (Machovina, Feeley, & Ripple, 2015) and one of the biggest drivers of global biodiversity loss (FAO, Steinfeld et al, 2006).

Source: <https://pubmed.ncbi.nlm.nih.gov/26231772/>

Nearly 60% of the world's agricultural land is used for beef production, yet beef accounts for less than 2% of the world's calories.

Source: <https://www.ucsusa.org/resources/grade-choice#:~:text=Nearly%2060%20percent%20of%20the,kilometers%20>

Significant shifts to plant-based diets by 2050 could lead to sequestration of 332-547 Gt CO₂. That's equivalent to 9-16 years of global fossil fuel CO₂ emissions! It's not an either/or situation, we need to do *both*. But this solution can't be ignored.

Source: <https://www.nature.com/articles/s41893-020-00603-4>

Shifting to grass fed beef:

- Methane would increase by 43% (per unit)
- More land would be used (+25%)
- Not scalable (27% of current US beef could be produced)

Source: <https://iopscience.iop.org/article/10.1088/1748-9326/aa6cd5/meta>

Shifting away from animal agriculture completely would free up more than 3 billion hectares of land, equivalent to the size of Africa.

Source: <https://www.science.org/doi/10.1126/science.aag0216>



Precision fermentation disruption

Precision fermentation is using synthetic milk to produce dairy alternatives cheaper, faster and with fewer inputs than conventional dairy. What does this mean for dairy farmers?

In 2021, Eden Brew, an Australian start-up company launched their mission to take precision-fermented dairy to consumers. Their product is being advertised as “a ground-breaking new way to enjoy dairy products sustainably and nutritiously”.

The process of creating dairy products by precision fermentation includes technology to program micro-organisms to produce milk and combine them with yeast in the fermentation process. Researchers at the CSIRO state, “Precision fermentation is an extension of fermentation, which has been pioneered by the dairy industry for many years. Fermentation is how cheese, yoghurt, beer and wine are produced. In this case, the fermentation is more precise. With this process, our researchers can produce the same casein and whey proteins found in cow’s milk.”

Eden Brew is backed by Norco, Australia’s oldest dairy cooperative together with venture capital firm, Main Sequence and CSIRO. This indicates that the Australian dairy industry is already predicting a major disruption due to the uptake of precision-fermented dairy. RethinkX analyst, Catherine Tubb says that the precision-fermentation model is unlikely to rely on consumer uptake, and instead will be driven by food manufacturers purchasing this cheaper product that can be produced faster, and with fewer inputs than conventional dairy.

RethinkX anticipates costs to fall below \$10 per kilogram by 2025, then drop to five times cheaper within five years, and 10 times cheaper by 2035. Ms Tubb predicts that traditional dairy production will be obsolete by 2035.



**RethinkX
anticipates...**

70% decline
Demand for cow products will fall by 70% by 2030.

10x cheaper
Precision fermentation protein will be 10 times cheaper than traditional animal proteins by 2035.





**“We exist to help you at any stage
of farm transition from initial
planning to transition and well
into the future.”**

What we do

Farm Transitions Australia provides a comprehensive range of services and support to Aussie farmers who want to transition away from animal-based farming into more sustainable plant-focused forms of farming or business. We aim to provide a practical pathway forward, removing exit barriers and minimising risks for farmers like you to achieve financial independence, improved well-being and long-term business viability.

We acknowledge it can be overwhelming to be considering a new chapter. We appreciate that, for many farmers, farming is more than just a business but a way of life. We understand that every farm is different, defined by its location, land, resources and climate. We take a personalised, holistic approach to each farm transition, considering your individual situation, your farm's condition and suitability to other forms of farming or business ventures. We work closely with you, collaborating with industry experts such as agronomists, economists, crop specialists, financial business planners and more, to design a plan specific to you, your goals and your farm.

Our services

Our services are tailored to support you every step of the way. We aim to relieve some of the stresses, exit barriers and risks associated with farm transition. Our designated support team will work closely with you, taking it step-by-step and empowering you to make the right decisions for you, your family and your farm.

Free services to eligible farmers looking to transition include:

- A designated support team providing project management and assistance coordinating your farms transition.
- Business and strategy planning
- Resources, accessing research and information
- Mental health resources and support
- Professional grant writing service
- Financial support via fundraising
- Searching for business-to-business opportunities with Australian plant-based food manufacturers
- Lobbying State Government for assistance and grants for animal-based farmers looking to transition their farms
- Animal rehoming or retiring - if relevant
- Project management
- Marketing planning and strategy

We see farmers coming to us in one of two ways:

1. You are already considering transitioning away from animal-based farming and know what you want to do with your farm but you haven't worked out the logistics — how to transition, what to do with your herd, or what grants or support may be available to you. In this scenario, we would meet with you, discuss your situation and collaborate with farming experts to develop a business plan to steer you towards your goal.

2. You want to transition out of animal-based farming but aren't sure what options are available, what grants or financial support could be available, whether other plant-based farming options or venue options (such as carbon farming, homesteading, etc.) would be financially viable. We would meet with you, discuss your situation, assess your farm, equipment and herd, then collaborate with farming and industry experts to determine what options are available to you and which would help you best achieve your new goals. We can help you develop a business plan and get started.


“We reduce risk and barriers that animal-based farmers like you face in transitioning to a more sustainable, future-focused business.”



What next?

If you're an animal-based farmer and would like to transition your farm to plant-focused farming or more sustainable forms of business, you may be eligible for free support from Farm Transitions Australia.

To find out more or to make the first step towards your farm transition please get in touch.

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Farming is still our future, but farming animals is becoming a thing of the past. The world needs farmers now more than ever – we just need them to be farming something else. Something not only more sustainable, but something which will provide the population with the nutritional diversity and resilience needed in today's climate. As a former dairy and beef farmer of 18 years, I can vouch there is a quality of life and freedom away from the cowshed I had forgotten existed. The future is bright and the benefits are limitless, but we can't expect farmers to make everything happen on their own. We can all play a valuable part in helping them transition into the farmers of the future.

– Jackie Norman, ex-dairy/beef farmer



