

Unlocking Australia's potential:

The case for a national plant protein ingredient industry



Global demand for plant protein ingredients is surging, driven by food system innovation, consumer trends and a focus on traceability, sustainability and supply chain security. Yet Australia—despite strong crop production and an existing global footprint in wheat protein ingredients—primarily exports raw commodities, missing out on high-value ingredient manufacturing of our protein-rich crops.

A unified, national strategy can leverage Australia's strengths to become a leader in diverse plant protein ingredients, building a premium, provenance-led industry and enabling our nation to capture its share of a growing global opportunity.

These highlights summarise Food Frontier's 2025 report, *Unlocking Australia's potential: The case for a national plant protein ingredient industry*, which includes new data and insights, including from consulted ingredient manufacturers. Throughout this document you'll see ► **page references**—they'll guide you to detailed analysis in the complete report at ► foodfrontier.org/resources.

What is a plant protein ingredient?

In this report, the scope comprises plant protein ingredients—isolates and concentrates; as well as starches, fibres, flours and oils—derived from Australian-grown crops—including pulses, oilseeds and cereals—that are produced using wet or dry fractionation technologies. ► **Read more in Scope, pg. 6 and Definitions and clarifications, pg. 8.**

Global plant protein ingredient market snapshot

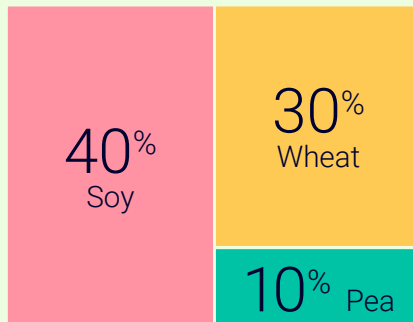
2024 market value

\$24.1B

and it is expected to triple by 2032¹

Driven by expansion across food, beverage and nutrition categories, as well as others like snacking, bakery and pet food

Dominant ingredients



But, demand is diversifying

Faba bean
Mung bean
Lentil
+ others

Due to requirements around nutrition, functionality, allergens, ESG and supply chain pressures

Leading nations are making strategic investments to build sovereign capacity in functional plant protein ingredients:



Canada has invested hundreds of millions of dollars to develop full value-chain ingredient processing capability.



China is integrating plant protein manufacturing into its food security and infrastructure planning.



The EU is advancing a *Protein Diversification Strategy*.

► **Read more in Chapter I. The global market, pg. 9-15.**

Growing demand, domestically and abroad

Domestic manufacturers report clear demand signals. Grains & Legumes Nutrition Council audits from 2022 to mid-2024 showed 12% of 2,900 Australian supermarket products include plant protein ingredients, particularly in plant-based food and beverage products.²

- **Ingredients driving demand:** Soy, wheat and pea
- **With diversification emerging from:** Faba bean, lupin and hemp ingredients

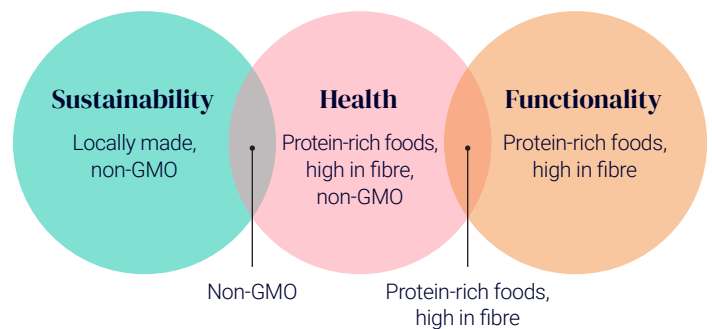
Consumer trends driving demand:

Shifting dietary patterns are fuelling the adoption of plant-based food and beverage products, while a variety of consumer trends are specifically driving demand for plant protein ingredients.

This is echoed across foodservice, including healthcare settings seeking to support nutritional outcomes.

The nutritional qualities and multifunctionality of these ingredients are also resulting in adoption across personal care and industrial product categories, as well as livestock and aquaculture feed.

Australian consumers increasingly seeking:



► Read more in Chapter II. Australia's production advantage, pg. 18-22.

Australia's production advantage

Australia produces roughly 59 million tonnes of protein-rich cereals, pulses and oilseeds annually, including a vast majority of the crops used for plant protein ingredients.

- **Global leader:** Lupin
- **Major producer:** Wheat and canola
- **High growth potential:** Pulses such as faba bean, lentil and chickpea

Despite this advantage, Australia has yet to shift away from bulk exports and translate this advantage into a nationally scaled value-addition opportunity. Doing so would enable greater domestic economic return, support regional resilience and meet growing global demand for quality ingredients.

In one annual example, Australia:

EXPORTED

Approximately

40.9M

tonnes of its protein-rich source crops, unprocessed³

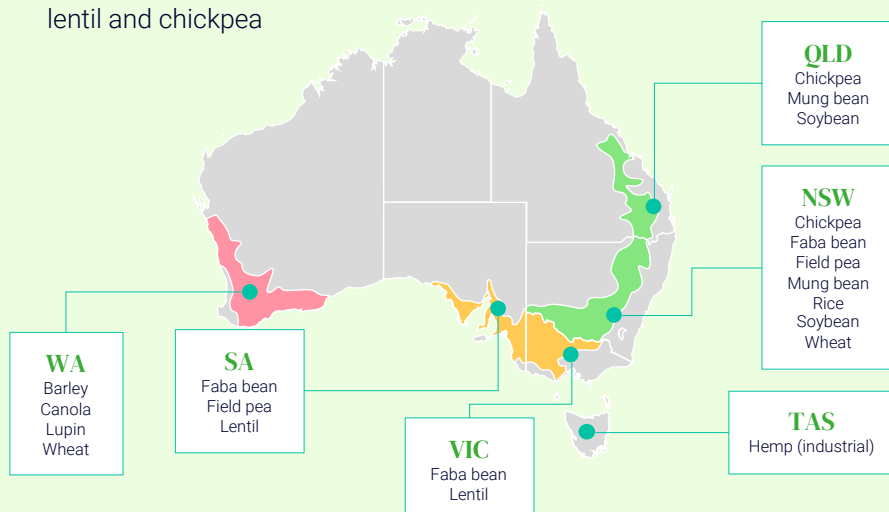
IMPORTED

An estimated

118,000

tonnes of diverse plant protein ingredients⁴ (2023)

Read how Food Frontier reached these estimates in ► Chapter III. Findings: Major opportunities, pg. 33-38.



Australia's growing plant protein ingredient sector

Australia's plant protein ingredient manufacturing sector now includes six manufacturers using wet or dry fractionation across cereals, pulses and oilseeds:



Began protein manufacturing	1966	2023	2022	2020	2022	2024
Manufacturing location	Nowra, NSW Iowa (US)	Smeaton, VIC	Leederville, WA Mecklenburg-Vorpommern (GER)	Horsham, VIC	Red Hills, TAS	Dublin, SA
Plant protein source crop	Wheat	Yellow field pea, faba bean	Lupin	Faba bean, yellow field pea, red and yellow lentils, mung bean	Industrial hemp	Faba bean
Protein products	Concentrates, isolates, flours, starches	Concentrates, flours, starches	Isolates	Isolates	Concentrate, seeds, oil	Concentrate, flour
Scale	Commercial, global	Commercial, domestic	Bench (AU), Commercial (small scale, GER)	Commercial, domestic	Pilot, domestic	Commercial, domestic

► Read more in Chapter II. *Australia's production advantage*, pg. 18-22.

Opportunities

Consulted manufacturers identified five major opportunity areas for Australia's plant protein ingredients sector:



Diversification to meet global demand



Import displacement to strengthen food security



Sustainable value-addition for the agriculture sector



Regional manufacturing to drive circularity



Integration with the bioeconomy

► Read more in Chapter III. *Findings: Major opportunities*, pg. 33-38.

Challenges

Despite growing demand and early success stories, manufacturers face persistent structural barriers:



Building awareness, driving demand and catalysing product development



Scaling up to drive cost competitiveness



Securing investment



Mitigating upstream supply variabilities



Navigating regulatory hurdles (hemp specific)

Without deliberate coordination, Australia risks losing competitive ground to countries with clearer strategies, larger investment pools and integrated value chain development.

► Read more in Chapter IV. *Findings: Major challenges*, pg. 44-51.

The pathway forward: Five priorities for national action

A clear pathway exists to realise Australia's potential, requiring unified leadership and strategic action from government, with engagement from industry and research partners.

Food Frontier has identified five interlocking priorities:

Priority 1

Establish a national taskforce to set a national strategy, coordinate efforts and align cross-jurisdictional policy, infrastructure and investment

Impact: Ensures coordinated effort and consistent delivery across jurisdictions, targeted investments and risk mitigation

Priority 4

Scale manufacturing via strategic investment in regional hubs, shared infrastructure and capital co-investment frameworks

Impact: Overcomes capital intensity barriers, supports sovereign capability and food security, and delivers regional value

Priority 2

Invest in shared R&D platforms for crop breeding, processing optimisation, ingredient functionality and product application, and byproduct valorisation

Impact: Aligns existing capability, accelerates innovation, generates critical technical evidence and reduces the financial burden on individual manufacturers

Priority 5

Build workforce and regional supply chains through targeted training, grower engagement and regional ecosystem development

Impact: Addresses critical skills shortages, aligns supply chains and ensures growers are equipped to meet evolving demand, reinforcing regional economic resilience

Priority 3

Drive demand and reduce adoption barriers through targeted marketing, reformulation incentives, traceability systems, and data on ingredient usage and trade flows

Impact: Builds market confidence, positions Australian ingredients competitively and generates commercial pull signals for industry growth

With coordinated leadership, strategic investment and whole-of-government planning, Australia can transform its protein-rich crops into high-value ingredients, drive resilient regional growth and secure a differentiated position in a rapidly growing global market.

The foundations are in place, and the case is clear—what is required now is leadership, coordination and national action.

► Find detailed recommendations and actionable tactics in Chapter V. *The pathway forward*, pg. 52-57.

About Food Frontier

We are dedicated to advancing new, sustainable and nutritious protein options that create value for farmers, businesses and consumers. Since our founding in 2017, Food Frontier's research, reports, events, and engagements have driven critical dialogue, investment and collaboration in this fast-emerging field.



- 1 Market Data Forecast. Plant-based Protein Market. Market Data Forecast. [Internet] Jun 2024 [Cited 3 Feb 2025]. Available from: <https://www.marketdataforecast.com/market-reports/plant-based-protein-market>.
- 2 Grains and Legumes Nutrition Council. Grains and Legumes Product Audits 2020-2024. GLNC. [Unpublished] 2022-2024 [Cited 20 Jun 2025].
- 3 Australian Bureau of Agriculture and Resource Economics (ABARES). Agricultural Crop Report June 2025. Australian Government. [Internet] June 2025 [Cited 10 Jun 2025]. Available from: <https://www.agriculture.gov.au/abares/research-topics/agricultural-outlook/australian-crop-report/june-2025>.
- 4 Australian Bureau of Agriculture and Resource Economics (ABARES). Australian Crop Report December 2024. Australian Government. [Internet] December 2024 [Cited 29 Apr 2025]. Available from: <https://www.agriculture.gov.au/abares/research-topics/agricultural-outlook/australian-crop-report/december-2024>.