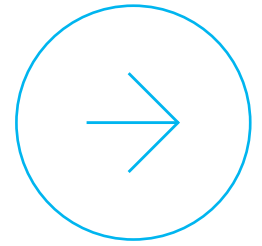


Identifying new revenue opportunities for the seaweed (*Asparagopsis*) industry



A priority in AgriFutures Australia's *Research and Innovation Strategic Plan 2022-2027* is to identify new revenue streams. This industry snapshot has been developed to help seaweed (*Asparagopsis*) industry stakeholders understand potential new revenue opportunities that complement their core operations.

Project summary

The primary objective of the *Identifying revenue opportunities for AgriFutures Australia's rural industries* project was to identify potential new and alternate revenue sources within 28 of AgriFutures Australia's levied and emerging industries, and for Australian agriculture generally. Through a combination of stakeholder consultations and literature reviews, additional, new and alternate revenue sources were identified. These revenue sources range from completely new and novel opportunities to those previously explored but that could benefit from further investment. Similarly, what may be 'old' in one industry may well be new and untried in others.

New revenue opportunities may contribute to industry profitability and sustainability in four ways. Firstly, they provide diversification, reducing reliance on existing sources of income and thereby enhancing resilience against economic fluctuations and environmental uncertainties, such as drought or market downturn. Secondly, they can promote sustainable practices and innovation, encouraging industries to adopt environmentally friendly and technologically advanced approaches, which in turn supports long-term viability. Thirdly, they can foster economic growth and job creation in rural areas, helping to counter urbanisation trends and maintain vibrant rural communities. Finally, they can strengthen Australia's position in the global market by tapping into emerging trends and consumer demands, ensuring the continued competitiveness of its rural industries on a global scale.

The seaweed (*Asparagopsis*) industry

Asparagopsis spp., a group of red seaweed native to Australia and New Zealand, has gained significant attention due to its potential to reduce methane emissions from ruminant livestock. Adding *Asparagopsis* spp. to animal feed can reduce methane emissions and has shown potential in enhancing feed efficiency and live weight gain.

The emerging *Asparagopsis* industry is highly fragmented, with each participant at varying stages of research and development, employing distinct cultivation, processing and formulation techniques. Pioneering companies are understandably cautious about disclosing commercially sensitive information, and many are still in the early stages of research and commercialisation. As such, most intellectual property related to *Asparagopsis* production is privately held, and knowledge about commercial production is primarily based on a limited number of research-scale trials. Scaling up production and bringing down costs are key to unlocking its potential.



Learn more
www.agrifutures.com.au/seaweed

Industry-specific challenges

Specific insights relating to the Australian seaweed (*Asparagopsis*) industry include:

1. As a nascent industry with significant global potential, scaling production with cost-effective solutions is the primary challenge for most stakeholders throughout the supply chain.
2. The ability of *Asparagopsis* spp. to reduce methane in livestock has been found to be variable. In the longest feeding trial reported to date (Cowley *et al.*, 2023), methane emissions from Wagyu steers were reduced by 28% compared to the control when fed an *Asparagopsis* sp. extract in a canola carrier oil – significantly less than the 90-98% reduction observed in previous trials.
3. Regulatory barriers in different markets, such as those imposed by the US Food and Drug Administration, must be overcome.

Industry-specific opportunities

Specific opportunities relating to the Australian seaweed (*Asparagopsis*) industry include:

1. Accelerating R&D investment – there has been significant research investment over the years, but the proprietary nature of this information often results in hesitance to disseminate findings. An independent body with the capacity to access confidential intellectual property could facilitate the development of an industry strategic roadmap and focus the distribution of funds.
2. Creating differentiated products catering to the high-end luxury market and socially conscious consumers, leveraging seaweed's methane-mitigating effects. Examples include Gucci's premium hide products from low-carbon sources and the 'Gamechanger' burger from Grill'd. Initially, these products lead to market differentiation through being premium and sustainably sourced. But over time, their production is expected to become standard business practice.
3. Carbon sequestration and biodiversity markets – research indicates *Asparagopsis* spp. are capable of capturing carbon from the atmosphere through photosynthesis, which constitutes 40% of its biomass (Sea Forest, 2023). Validation of these claims can ensure the industry's credibility and trustworthiness as a carbon-mitigating tool.

Common revenue opportunity themes across Australian agriculture

The study highlighted promising new and alternate cross-sector revenue opportunities. These opportunities are organised around six common themes as drivers or enablers:

1. Consumer expectations
2. Value-add, export and niche markets
3. Collaborating along and across value chains
4. Carbon, biodiversity and natural capital markets
5. Genetics
6. Agtech

Actions and next steps

This snapshot presents new revenue opportunities for the seaweed (*Asparagopsis*) industry to explore. The results of this study will inform AgriFutures Australia in its approach to assisting the industry. Further analysis, research and trials will be required to determine the viability and suitability of the opportunities identified, and the skills required for their implementation.

In addition to this snapshot, a consolidated report was developed highlighting key themes for investment and research into new revenue opportunities across the 28 industries assessed. This report will guide the strategic themes and future work efforts within Priority 8 of AgriFutures Australia's *Research and Innovation Strategic Plan 2022-2027*, namely *Identifying new revenue streams*.

More information

This industry snapshot is based on the results of the larger *Identifying revenue opportunities for AgriFutures Australia's rural industries* project. For more detail of these opportunities, read the [full report](#).



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