

# Oats Report

Winter 2022

## WHY WE'VE DONE THIS REPORT

This report delves into the feasibility of a profitable Southland oat milk value chain through a study led by Southland farmers and produced by AbacusBio.

The report is part of a suite of tools from Thriving Southland to support farmers with a comprehensive framework if they are considering new crops or alternative land uses.

## THE PURPOSE OF THIS PROJECT

The report explores factors that farmers need to consider when contemplating a move to growing oats for oat milk production in Southland.

The project scoped what production resources are already available, what further infrastructure or investment would be required and looked at different business models for selling the end product that keep a farmer connection. Through feedback from the Southland farmer-led project working group, it was clear that farmers understood the potential environmental impact of oat crops (nitrogen and carbon footprint), but needed further information on how to evaluate the value chain for the end product, linking farmers to the story of how their oats get to the final consumer. Therefore, the focus for the project shifted from on-farm production and environmental practices to value chain assessments and business models.

## LAND USE CHANGES

The farming land area required to develop the Oat milk industry is relatively small at only 1,200 ha to support the proposed 40 million litre per annum plant. At this scale, oat milk is likely to be supplied by the existing arable industry and have only a small impact on the land use change space. However, there are other options for oats, such as supplementary feed, milling, and supplying the health food industry.

**Southland is the main oat growing region in the country, due to its ideal climate and soils.**

**Currently, the total oats grown in New Zealand is estimated to be 12,000T grain oats, and 10,000T of general feed oats (2020 data).**

**A classification of South soils shows that 10,700ha are suitable for oat production however, most of this land is high competition with dairy farming.**

Oats provide an opportunity to reduce environmental impacts by capturing nitrogen. Some research work suggests autumn sown oats gain better environmental results than spring sown oats.



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*Tōnui ana te whenua. Tōnui ana te takata.  
A thriving, prosperous land. A thriving, prosperous people.*



**abacusbio.**

## THE RETURN ON INVESTMENT

The Economic Farm Surplus (EFS) figures offer minimal financial incentive for livestock farmers to integrate oats into their business model, as an example, the return to oat growers is less than other arable methods and substantially less than dairy farming. However, there are non-financial benefits of reduced greenhouse gas emissions and water quality benefits.

While growing the oats can be undertaken through change of land use, the manufacturing component of the value chain is where the big investment will be needed. Currently, most New Zealand oats are processed through the Harraways factory in Dunedin, where all oats are milled and de-husked as a first step to any further processing for oat milk.

Oat supply is only a small part of the oats value chain that farmers represent currently (7 cents out of a retail price of \$4.50), in part due to the large investment required in manufacturing. This highlights the need from a farmer returns perspective to have a larger investment in the value chain rather than remaining a supplier.

## INVESTING IN INFRASTRUCTURE

To ensure the manufacturing of oat milk can happen in Southland, a factory would need to be built. Farmer connections to the factory need to be strong to ensure consistent supply and they would need to be committed to grow oats even when other land use options increase in attractiveness. The factory would have to allow for innovation and the right technologies to handle other plant-based blend ingredients to be added.

## THE MARKET PLACE

A first look at the facts and figures around a New Zealand Oat Milk value chain and its margins highlighted that a generic brand could be expected to operate at a relatively slim gross margin of 10 to 20 percent, depending on the sales channel.

The ability to maintain the price and margin within an increasingly competitive market category would need to be considered.

**The long-term sustainability of the product comes back to access to local, large-scale modern processing facilities to support more cost-effective production at a high quality.**

This may mean that a Direct to Consumer (D2C) model could be considered as an alternative to the supermarket channel. See the Report for business case studies showing a selection of successful methods that local and international companies have used when selling their products online directly to the consumer.

## REGIONAL MANAGEMENT

To involve oat growers in the value chain, scenarios for regional management include an Oat Growers' Club where farmers would have strict entry and exit criteria, with a quality mark expectation placed on them within the club to ensure high quality controls. From this step, a number of options can be considered, including creating a new Southland-based brand of oat milk, or investing in an existing oat milk brand.

## TO SUM UP

Overall, to build an industry of scale in the Southland region would require substantial investment past the farm gate and across the whole value chain, from land-use to manufacturing, to innovation and the creation of a Southland brand story to take to market.

The positive environment impacts may not outweigh the lower financial returns of oat crops and the costs that come with land use change. While improving environmental outcomes is essential for Southland farmers; change or improvements must be done with consideration for sustainability of practice and profitability of business operations.

This project shows that oat crops and subsequent milk production is one option for gradual land use change but is not a quick pathway to significant land use change, especially away from existing dairy farms. If oats are deemed to be a viable option, it's likely that initial growers will be existing arable farmers fitting more oats into their rotations. However, disruptive forces are at play in all agricultural land uses, so changes to Southland land use may need to be made out of necessity relatively soon.