



Commercial seaweed aquaculture to reduce agricultural methane emissions



Snapshot

Project length: One year

Start date: 25 October 2019

Estimated completion date:
16 October 2020

Industry funding: \$150,000

MPI funding: \$100,000

Cawthron Institute aims to substantially reduce agricultural greenhouse gas emissions through a seaweed-based cattle feed supplement.

The opportunity

Asparagopsis armata is a native red seaweed that grows abundantly throughout New Zealand waters. Research in Australia has shown that the seaweed, once harvested and dried, can be used as supplementary feed for dairy cows, cattle, sheep and goats. This particular seaweed contains organic compounds that have been found to reduce the microbes in the cows' stomachs that cause them to burp when they eat grass. The research estimates that if just 10 percent of global ruminant producers adopted *Asparagopsis* as an additive to feed their livestock, it would have the same impact for the climate as removing 50 million cars from the world's roads.

The solution

The project will undertake research into the effect of *Asparagopsis* on greenhouse gas emissions and trial the production systems needed to grow the feed supplement at pilot-scale.

The benefits

If successful, this project will benefit New Zealand by:

- introducing a new high-value industry;
- creating new jobs for harvesting and processing of seaweed;
- developing a new product for export;
- reducing methane emissions from dairy cows and livestock by up to 80 per cent;
- on-farm economic benefits, including potential price premiums for milk and meat;
- contributing to New Zealand's reputation for innovative aquaculture and agriculture.