

CASCADIA SEAWEED

This is part of a series of case studies about the transformational work happening in Canada's agriculture and food sectors and is designed to inform investment in the space. A closer look at Cascadia Seaweed, provides insights into the opportunities and roadblocks in using seaweed to produce biostimulants for use in agriculture.



AT A GLANCE

Company Name: Cascadia Seaweed

Location: HQ in Sidney, British Columbia

Operation Type: Seaweed cultivation and processing

Products: Liquid biostimulants for crops and dried feed additives for livestock

Size of Operation (Revenue): CAD\$1.037 million (USD\$765k)

Founded In: 2019

Regenerative Practices Used: Ocean cultivation of kelp promotes ecosystem health (including improved biodiversity and uptake of excessive nutrients) while consuming no land, freshwater or fertilizer.

Regenerative Practices Supported: Crop biostimulants made from cultivated seaweed improve yields and abiotic stress tolerance while reducing the need for nitrogen-based chemical fertilizers.

FINANCE SNAPSHOT

The uniqueness of their business model has called for a blended capital approach from diverse investors and granters.

Project Funding: Raised CAD\$18 million in equity and grants. Currently seeking to close the Series A round of CAD\$7 million. CAD\$4 million has been funded to date.

Future investment needed: CAD\$3 million to close Series A.

PROBLEM: ENVIRONMENTAL DEGRADATION FROM CROP INPUTS

The production and use of synthetic fertilizers and agrichemicals that many farmers rely on can negatively impact the environment and on-farm economics.

Farmers are facing growing pressure to produce more food to feed a growing population while reducing their carbon footprint and use of synthetic fertilizers. For decades, the answer to increasing crop yields relied, in large part, on the use of synthetic fertilizers and agrichemicals. However, these chemicals contribute to soil degradation, eutrophication, loss of biodiversity, and pest and weed resistance. Furthermore, reliance on synthetic fertilizers leaves producers at risk of supply and price disruption, as experienced in 2022 when the prices of many crop inputs skyrocketed.

Fertilizer production and use also contributes to global greenhouse gas (GHG) emissions and governments globally are mandating for reductions in these emissions. Crop farmers are also having to adapt to climate change which is increasing the prevalence of droughts and other abiotic stresses.



Source: ResearchGate

THE NEED

- High quality fertilizer that offers an alternative to agrichemicals and synthetic fertilizers and its associated near- and long-term disadvantages
- A cost-competitive product with a lower environmental footprint: on-farm economics pressure farmers to increasingly reduce both operational costs and on-farm emissions.

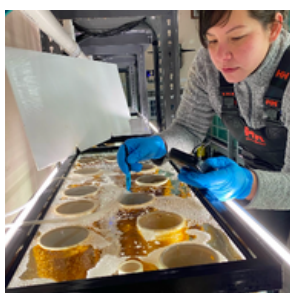
THE SOLUTION

Cascadia Seaweed, founded in 2019, is an agtech company addressing climate change and food security by cultivating kelp on low-impact ocean farms and producing high-quality agricultural products that help terrestrial farmers increase yields and reduce emissions.

Its regenerative seaweed biomass is grown in partnership with Indigenous communities without the use of arable land, freshwater, or synthetic inputs. While growing, the seaweed improves local ecosystems by producing oxygen, providing habitat, and capturing carbon.

Each spring, the seaweed is harvested and processed using chemical-free technology into cost-effective liquid biostimulants. These products boost crop yields, improve resilience against abiotic stressors, reduce reliance on chemical fertilizers, improve soil, and lower agricultural emissions intensity. The remaining biomass is further processed into dried feed additives for livestock, ensuring full utilization of the harvest.

Cascadia's operations deliver social, economic, and environmental benefits, providing a meaningful solution to rising input costs and agricultural emissions while addressing food security challenges across North America and beyond.



Source: Cascadia Seaweed

CASCADIA BIOSTIMULANT PRODUCTS

- ✓ Increase crop resilience to abiotic stresses
- ✓ Increase yields of specialty & row crops by up to 15%
- ✓ High customer ROI of 5x - 15x
- ✓ Reduce need for chemical fertilizers by up to 30%
- ✓ Provide opportunities for farmers to get carbon credits
- ✓ Cultivated supply protecting wild populations
- ✓ Proprietary green processing technology

OUTCOMES AIMED FOR ON REGENERATIVE JOURNEY

Through research and development (R&D) and trials conducted in collaboration with university labs, Cascadia Seaweed has identified and measured the following positive impacts of its production, supply system, and on-farm applications:

- Emission reduction in land-based agriculture when Cascadia's products are used to decrease the amount of nitrogen-based fertilizers
- Increase crop yield (one study noted a 21% increase in yield on soybeans)
- Reduction of Bovine methane emissions with Cascadia's agrifeeds products (small sample size)
- Improving biodiversity by restoring natural kelp populations (Green Gravel)
- Measuring biodiversity in kelp farm sites vs control sites (BC SRIF project)
- Increased economic activity for coastal First Nations (tenure rental income, contracted vessels and labour)

There is significant opportunity to scale and expand on these impacts, and Cascadia's current primary commercial focus is on biostimulant product and distribution, while bovine feed additives will follow.

With a target of servicing 2 million crop hectares and assuming a 15% reduction in fertilizer use, farmers could avoid approximately 0.3 megatons of CO₂e annually and prevent the application of over 40 MT of chemical fertilizer each year by 2050.

Achieving this would require producing about 30,000 tons of seaweed, cultivated on approximately 1,000 hectares. This scale of industry could support 50–100 seaweed farms (typically 10–20 hectares each) and provide significant economic benefits for coastal and First Nations communities through farm ownership and operation.

Importantly, seaweed farming is a net benefit to coastal ecosystems—or, at minimum, does no harm. It requires no land, freshwater, or external inputs while contributing to healthier marine environments.

“Seaweed cultivation provides a unique opportunity to take real, measurable steps toward reconciliation with Indigenous communities. As an emergent industry, it is imperative that growth is led by Indigenous knowledge, values, and stewardship of the marine environment.”

Michael Williamson

CEO - Cascadia Seaweed



IMPACT BEYOND FARMS AND ECOSYSTEMS: LOCAL FIRST NATION COMMUNITIES

Cascadia Seaweed recognizes and appreciates that they operate on the traditional territories of the coastal First Nations of British Columbia. Each of its farms is owned by a First Nation, with benefits, such as income generated from seaweed harvest, income from related services such as boating and equipment, flowing to those local communities. Participation by coastal First Nations is critical to the long-term success of the seaweed industry in Canada due to their stewardship of the ocean and skills to develop and work in the industry. Cascadia’s goal is to empower additional First Nations ownership of the activities along the seaweed value chain. Here’s how they achieve that:

- Strong commitment to partners to offer contract labor and employment opportunities to First Nations members first, and procure supplies and equipment from First Nations owned service providers wherever possible.
- First Nation partners have oversight and input into Cascadia operations, from site selection to scale.
- Cascadia provides support for tenure application processes.
- Create new revenue streams and employment opportunities as the number of seaweed farmers grows. Not only directly from seaweed sales, but also activities related to the supply chain, i.e. boating, farming supplies, and transporting goods.

THE BUSINESS APPROACH AND PATH TO FUTURE SUCCESS

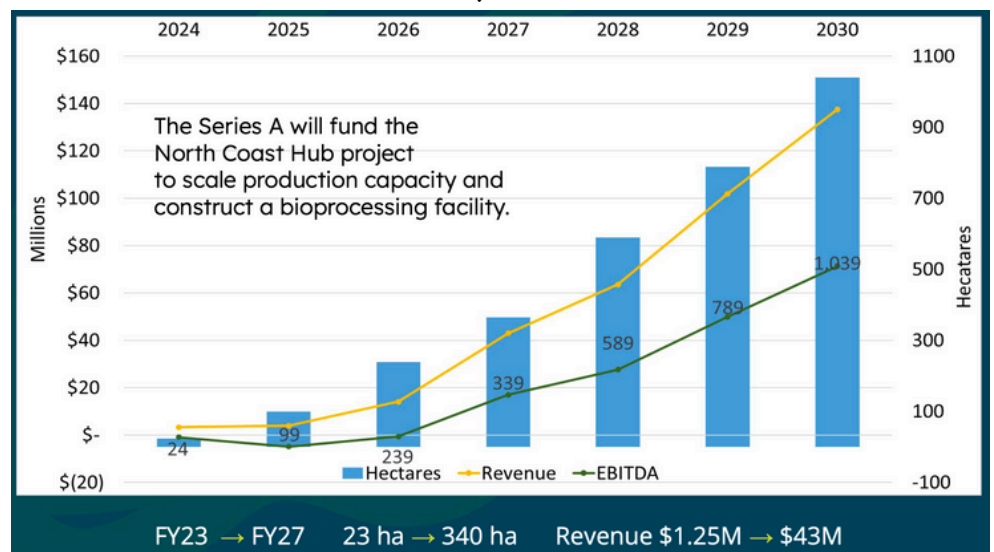
Biological solutions are transforming agriculture, and seaweeds are a major category and growing fast. While competitive, the biostimulant market has historically relied on a single seaweed species harvested from wild stocks. Fixed quotas, rising demand, and the species' limited applications have capped supply and driven up prices.

Cascadia Seaweed's approach of cultivating multiple native species and leveraging scientific expertise positions it strongly in this competitive space, especially given the current market's reliance on a single, heavily harvested species. This focus allows for innovation and scalability in response to rising demand and price pressures.

The demand for seaweed-based products continues to grow by 14% a year. Cascadia is targeting 2 million crop hectares by 2030 and to reduce chemical fertilizers on those hectares by 10%. Cascadia has a roadmap demonstrating a pathway to 1000 hectares of cultivation, which is an estimated 48,000 wet tons by 2030.

(Right)
Source: Cascadia Seaweed

Cascadia Seaweed Growth Plan, 2023-2027



FUNDING JOURNEY

Cascadia has raised CAD\$12 million in equity to date and been awarded CAD\$6 million in grants (CAD\$1.8 million received to date and CAD\$4.4 million to be received in the next 2 years). They have also generated revenues of CAD\$3.1 million and have contracts for another CAD\$1.5 million. In November 2024, Cascadia announced the successful first close of its Series A Funding Round, raising CAD\$4 million of its CAD\$7 million target. This first close provided capital to propel Cascadia Seaweed forward, but additional investment room remains for qualified investors. Investors to date include World Wildlife Fund Impact, as well as family offices and others.

Interested investors are encouraged to contact CFO Rob Napoli to learn more about how they can be part of this transformative journey. (see below)

KEY CHALLENGES



Helping a variety of stakeholders understand the unique business model:

As a company with marine-based operations and land-based applications, the team at Cascadia often find themselves outside traditional regulatory and investment frameworks.

Finding the right fit in capital providers and work with them to secure funding



Cascadia found that traditional Venture Capitalists look to invest in high-tech or hard-tech. They therefore had to seek funding from other sources, such as Family Offices, Impact Funds and Foundations. In addition to analyzing return on investment, these investors also reviewed Cascadia's environmental and/or social impacts. This additional level of detail added time to the due diligence process, however, it aligned with Cascadia's vision and goals and they were happy to progress their impact measurement framework.

LESSONS LEARNED

- Financing an impact company in primary production or manufacturing, with larger capital requirements, is challenging. Cascadia learned to target their investor search to those who are interested in their specific impacts, rather than those looking at just financial risk adjusted returns. This has resulted in a great group of investors that are aligned with Cascadia's core vision.
- Formalizing how Cascadia measures impacts helped them secure investments from non-traditional sources of capital (family offices, angel investors and charitable organizations). As this was beyond the scope and capacity of their current team, they worked with a local university to begin building a framework for measuring their emissions. This collaboration provided value to both Cascadia and the students.
- Focus early on the customers' needs and work back from there. Cascadia had a tendency "to build it and they will come" at the start, which had some utility in forging their position, but they did learn the hard way that customer validation and sales really does drive business growth.

FURTHER READING & RESOURCES

- [Cascadia Website](#)
- [First Close Announcement on RFSI Website](#)
- [Cascadia Harvest Video](#)

CONTACT INFORMATION

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