

## Women in Leadership Positions in Canadian Aquaculture

### DR. LAURA HALFYARD | MUSSEL FARMING [ST. JOHN'S, NEWFOUNDLAND & Labrador]

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Since 2012, Dr. Laura Halfyard has managed her family's organic mussel farming operation near Robert's Arm and Hermitage, Newfoundland.

The operation includes Sunrise Fish Farms Inc. and Connaigre Fish Farms Inc. Both farms are owned and operated by Laura, her parents, and several other family members.

Together, her family has pioneered the suspended long-line mussel farming system in Newfoundland & Labrador, and their farms were among the first North American mussel farms to be certified against the Canadian Organic Aquaculture Standard by SAI Global/Global Trust. This certification was achieved through sustainable environmental practices, enhanced employment opportunities, stimulating local service sectors, and meeting financial obligations for investment shareholders.

Farming mussels is labour intensive, and the long growth cycle requires close attention and careful planning. Mussels take the same time to grow as salmon or beef, but rely on the ocean's plankton as their food source.

"Aquaculture is like animal husbandry," said Laura. "Mussels grow on a three-year cycle. The first year you are nurturing the spat and collecting seed. The second year is stripping and thinning their density so they have space to grow in years two and three. You are socking them with continuous looping, like wrapping garland around a Christmas tree."

Laura works hard year-round. She manages as many as 25 people during harvesting and other intensive periods, and during the winter months, Laura oversees a smaller workforce that keeps a number of mussel sites open and breaks the ice to keep waters open for harvests, maintenance and monitoring.

She must also be able to navigate complex regulatory requirements in order to keep operations running smoothly.

"There are lots of things to consider," Laura explained. "We have to lease the crown land and ocean bottom through provincial Crown Lands leases. We have to lease the water column above the ocean bottom through Transport Canada, and they regulate the markers and suspended gear. We also have to work with the provincial Department of Fisheries and Land Resources. They look after the annual licensing and inspections as well as Crown Lands."

While Laura is relatively new to the day-to-day operation of the farms, she has been involved in the Canadian aquaculture industry for more than 30 years. She taught aquaculture education and R&D at the Fisheries and Marine Institute of Memorial University of Newfoundland as well as participating in research and development projects in Canada, Asia and Africa.

Laura is past president and current director for [Women in Science and Engineering Newfoundland and Labrador](#) (WISE NL). She is also the president of the [Newfoundland Aquaculture Industry Association](#) (NAIA), and is particularly proud of a labour study that the organization is conducting on trends and future labour needs for the province's aquaculture industry.

Through her board appointments, Laura has an opportunity to see first hand the growing role that women have to play aquaculture, including recent changes at NAIA that have created a greater gender balance, with three women and five men currently sitting on the board.

"There are some great things happening," Laura added. "For example, WISE NL takes 40 Grade 11 girls each year and places them in jobs related to STEM (science, technology, engineering, mathematics) careers. Another program offered by WISE NL is a professional mentorship program. This program is for university graduates. We have 15 mentorship partnerships featuring women and also special projects for Indigenous youth with a focus, again, on STEM careers."

However, she acknowledges that women in agriculture still face challenges.

"I am seeing more women in salmon aquaculture—still not many in mussel farming. It's a battle every day. Men think women can't lift as much or that we aren't strong enough, but with our older population, outmigration, and a declining population overall, women are needed to fill that gap."

Laura believes that changing the mindset around women's abilities is critical to aquaculture's ability to thrive.

"For the aquaculture industry, three things will drive women's leadership," she said. "Those are: education, demand, and opportunities. As the industry needs more women, it needs to create or enable opportunities to advance them through the industry. If the industry is to expand, it needs to create an influx of new workers, with inclusion and automation needed to advance."

As the industry becomes more technical, Laura sees opportunities for women continuing to grow.

"Salmon farming is very high tech these days, much like dairy milking systems or automated feeding systems," said Laura. "The mussel industry is becoming more mechanized as well. We are seeing more hydraulic lifts and automated systems being used. I am also seeing more women specializing in fish health, veterinarian medicine. It will take another generation to notice the shift, I think."