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# Aquaculture tech firm to trial novel fish welfare technology with Mowi Canada West

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By Responsible Seafood Advocate

## **‘Ecosystem-supporting’ tech may improve fish welfare and reduce interactions between wild and farm-raised fish**

A Vancouver Island-based technology firm has teamed up with the world’s largest salmon aquaculture company to launch innovative “ecosystem-supporting” technology for salmon.

Poseidon Ocean Systems and Mowi Canada West have joined forces to install and test novel technologies at its Monday Rock salmon farm off Vancouver Island to improve fish welfare and performance and reduce interactions between wild and farm-raised fish.

As part of ongoing innovation to reduce interactions with the surrounding environment, Mowi’s salmon farm is now equipped with 15-meter-deep barrier shields, perimeter air bubble curtains, oxygen systems and real-time environmental monitoring technology to ensure optimal growing conditions are maintained continuously. The physical and bubble barriers, along with Poseidon’s cutting-edge oxygen systems will help to avoid naturally occurring oceanic threats such as plankton blooms, hypoxia and sea lice.



Novel “ecosystem-supporting” technology may improve fish welfare and performance, and reduce interactions between wild and farm-raised fish. Image courtesy of Poseidon Ocean Systems.

“Three-quarters of the farm’s enclosure is physically separated from the surrounding environment to a depth of 15 meters, so this technology developed by Poseidon is critical to allow us to create healthy living conditions within the space where we raise our salmon,” said Rodrigo Cristi, Mowi’s technical manager. “The salmon have been growing in the system for six months now and fish condition, which includes size and health, are looking very promising so far.”



(<http://www.expalsa.com/>).

Poseidon’s bespoke aquaculture technologies help sustain a life-supporting ecosystem inside a space largely separated from the surrounding environment. Typically, this sort of intervention comes with matching environmental costs due to higher energy use. However, the Poseidon-developed Flowpressor and Oxypressor systems produce a high rate of oxygen flow at the right pressure for maximum efficiency, allowing the farmer to produce oxygen as required while saving energy and reducing

emissions. Further to this, Poseidon's patent-pending Depth Charge system then fully dissolves supplied oxygen into the water, ensuring that oxygen is available for the fish to consume while eliminating wasted oxygen.

"Our company has been focused on developing our integrated technology platform which gives farmers more control over the farm environment; allowing for better control of the conditions within the net pens, so that the farmers can more actively and positively affect the welfare of the fish they grow," said Matt Clarke, co-founder and CTO at Poseidon. "Since our company was founded in 2015, Poseidon has been focused on bringing a science-based, aquaculture-specific approach to this challenge and the system now installed at Mowi's farm site was developed by our engineers for this application."

The salmon raised at Monday Rocks are expected to be ready for market in the second quarter of 2024.

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