World's first land-based-farm sockeye salmon ready for harvest in B.C.

Langley operation expects to ramp up to production of 500 kilograms of fish every week

BY RANDY SHORE, VANCOUVER SUN MARCH 27, 2013





Willowfield Fish Farm in Langley is producing the world's first commercially produced land-based farm sockeye. **Photograph by:** Jenelle Schneider, Vancouver Sun

B.C. seafood firm Willowfield Enterprises will begin harvesting next week the world's first commercial supply of sockeye salmon raised on a land-based farm.

The Langley fish farm expects to produce up to 500 kilograms of sockeye a week under the West Creek brand for wholesaler Albion Fisheries, according to company president Don Read. It will be sold at Choices Markets.

Initially, the harvest will be considerably smaller. Sockeye take about three years to achieve a harvest weight of two to three kilograms. Fish coming to market next week are between 1.1 and 1.5 kilograms.

"We have plans to double our capacity, but we want to take time to grow the market," said Read, who is taking a conservative approach to growing his business. "We have been farming trout for 20 years, but we have only been profitable for three years."

West Creek sockeye will carry the Vancouver Aquarium's Ocean Wise sustainability certification.

"Getting Ocean Wise certification (for West Creek trout) brought a lot of awareness and really helped our business," Read said. "It allowed us to raise our prices 20 per cent."

Read and partner biologist Larry Albright experimented with sockeye for more than 15 years before developing a system to raise a commercially viable product.

Willowfield's farm is based on a flow-through model, rather than recirculation common in land-based salmon farms. Water is drawn from a spring into above-ground sockeye tanks, then it flows into a series of in-ground trout ponds and finally into a holding pond before flowing into a local creek.

"In the natural trout ponds, fish waste and ammonia is absorbed into the native plants," said Read. "So it's actually biofiltered."

Sediment that from the bottom of the trout ponds and the holding pond is dredged out and dried for use as fertilizer by a local farmer.

"Our water has been tested by the Ministry of Environment and certified as non-polluting," Read said.

While land-based salmon farming is generating headlines and optimism from sustainability certifiers and ocean-based farming opponents such as David Suzuki, closed-containment fin fish aquaculture remains a niche business supplying only about three per cent of farm-grown fish.

B.C. produces about 70,000 tonnes of Atlantic salmon each year from net pens in the ocean.

The largest land-based Atlantic salmon farm in B.C. — run by the Namgis First Nation on northern Vancouver Island — is projected to produce up to 450 tonnes a year when it begins to harvest fish next year.

Willowfield will produce about 25 tonnes a year of sockeye and trout combined this year, while Agassiz's Swift Aquaculture produces about 10 tonnes of coho a year.

A new steelhead farm near Nanaimo is taking in 50,000 smolts this month and projects harvest of about 100 tonnes a year or 2,000 kilograms a week. Taste of BC Aquafarm will employ a recirculation system that recaptures more than 99 per cent of the water used by the system. Atkinson plans to release effluent from the farm to an on-site wetland and an aquaponic-growing operation.

"I'm absolutely confident of the technology for raising steelhead," said owner Steve Atkinson.

Atkinson raised about half of the \$1.2-million capital cost of his farm from the Department of Fisheries and Oceans' aquaculture innovation and market access program and B.C.'s agriculture innovation fund.

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