

Farmed Atlantic Salmon *Salmo salar*



- Responsible Land-based Farming
- Sustainability
- 100% Traceability
- Green Geothermal Renewable Energy
- Reared in Crystal Clear Water
- Low Carbon Footprint
- Excellent Nutritional Value
- No Genetic Modifications
- No Growth Hormones or Antibiotics
- Superior Quality and Taste

sales: icefresh@icefresh.is

<http://www.icefresh.is>

15.02.2023



Samherji's Aquaculture

Samherji's aquaculture is comprised of most aspects of fish farming, i.e. hatching, juvenile production, the on-growing of marketable fish, production of fish feed, harvesting, packaging and marketing of the products.

The various fish farming operations are situated around Iceland. The farms have been audited and certified by ECOCERT for Whole Foods Market.

Atlantic Salmon commercial story and production

Atlantic Salmon roes are purchased from Benchmark Genetics. This is a company with years of experience and a well established breeding program.

After hatch the alevins are transferred to nurseries where the fish are reared in freshwater up to 60-80 grams before they are transferred to the on-growing site. The Salmon is farmed under the best available conditions in high-quality brackish water, pumped from boreholes located on site. The water from the boreholes has been naturally filtered through Icelandic lava. The production capacity of Samherji's Salmon farm is approximately 3000 tons per year.

Environmental factors such as oxygen levels, salinity, density and temperature are constantly monitored and adjusted to best fit the optimal living conditions of the fish at every stage. Feeding and oxygenation is automatic and computer controlled and thus it can be monitored and controlled from anywhere. Feeding is carefully monitored every day and adjusted accordingly.

Feed from Laxá Feed Mill Ltd. in Iceland (owned by Samherji) is the only feed used in the Salmon production. The fish meal and fish oil that is used in the production of Laxá feed come from sustainably managed fish stocks in Icelandic waters. Marine protein is 50% of the total protein in the feed and it contains both fish- and rapeseed-oil. No other protein sources from the animal kingdom are used and no drugs are ever added to the feed. The only pigment used is the natural substance Panaferd.

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Feed ingredients	
High quality fish meal, fish oil, rapeseed oil, soy meal, mais, wheat, vitamins, minerals and pigment (Panaferd)	
Protein %	35 - 50
Fat % (there of 25% rapeseed oil)	23 - 35
Carbohydrates %	11 - 18
Ash %	6 - 8

Chemotherapeutic treatments are never used in Samherji's salmon farming. Approved vaccines are used strategically as a part of the company's biosecurity plan, so all juveniles are vaccinated before transfer to on-growing. As a part of Samherji's biosecurity plan, all the farms have a contract with a fish veterinarian (Vetaq) who makes regular visits. He is responsible for the overall health management of the fish and also works closely with the Samherji's quality manager and all the farm managers as a consultant.

The harvest size of the fish is 4000-7000grams. The harvesting equipment is located next to the harvesting tanks and the fish are directed straight from the tanks into a stunner. During the whole harvesting process, the welfare of the fish is our main priority. The methods used during the process are focused on preventing discomfort and stress, ensuring maximum quality of the finished products.

All our products are sold through Ice Fresh Seafood, a wholly-owned subsidiary of Samherji. Ice Fresh Seafood was founded on solid foundation and possesses great knowledge and contacts in markets all over the world.



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Responsible Land-based Farming

- Controlled environment ensures optimal living conditions for the fish from hatch to harvest
- Minimal risk to wild stock – double security barriers in our land-based tanks ensure minimal risk of escapes

Sustainability

- Green energy from renewable geothermal energy sources
- Feed from sustainable resources (Icelandic Responsible Fisheries)
- High quality cristal clear rearing water, naturally filtered through Icelandic lava
- Low FFER - Fish in- Fish out ratio



Low Carbon Footprint

- Life Cycle Assessment (done in 2012) shows that our products have very low carbon footprint compared to average figures (2,01 kg CO₂/kg of consumed food)

100% Traceability

- From the hatchery to your plate
- We operate with three systems that can be linked together and enable us to track the fish backwards and forwards:



Fishtalk Control - Data base for all our fishfarms – tracks all fish from hatch to harvest



Harvest production system – registers all harvests, orders and sales



Account system that tracks all sales to our customers

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Excellent Nutritional Value

- Good source of protein and polyunsaturated fatty acids
- In 100g of fresh Salmon : 20,5g protein, 12g fat and zero carbohydrates
- **Rich in Omega-3 fatty acids** - 1,6g of **Omega-3** per 100g

Farmed Atlantic Salmon - Nutritional facts	
Marks: Salmon from Öxarfirdi 28.02.2019	
100 g : kcal 190, KJ 795	
Protein	20.5 g
Total fat	12.0
Saturated fat (% of total fat)	17
Polyunsaturated fatty acids (% of total fat)	25,5
Monosaturated fatty acids (% of total fat)	55,5
Carbohydrates	0 g
Sodium	0.071 g
Ash	1.2 g
Omega 3	1.6 g
*Cholesterol	45.8 mg
Water	66.9 g
Iron	0.37 mg
Potassium	0.497 g
Calcium	0.005g
*Vitamin D3, cholecalciferol	5.06 µg

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Superior Quality and Taste – all natural product



Samherji's Salmon farm i Öxarfjörður on the east coast of Iceland

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