

# ANIMAL WELFARE POLICY



The animal welfare policy is part of the sustainability program at Salmones Camanchaca and is framed within the guidelines described by the WOA (World Organization for Animal Health) regarding the welfare of animals in production conditions. In this context, Salmones Camanchaca adheres to the animal welfare recommendations for farmed fish as defined by the WOA in its Aquatic Animal Health Code, which states that “To ensure the welfare of farmed fish, it is necessary, basically, to use handling methods that are appropriate to the biological characteristics of the animal, as well as an environment adapted to their needs.” Salmones Camanchaca has an animal welfare policy that is framed within the recognition of the five domains.

The five domains of animal welfare were proposed by Dr. David Mellor and Dr. Cam Reid in 1994. These domains provide a framework for evaluating animal welfare, considering not only the physical state of the animals but also their mental state. The five domains are:

1. **Nutrition:** Quality and quantity of food and water.
2. **Environment:** Physical conditions in which the animals live, such as habitat and climate control.
3. **Health:** Prevention, diagnosis, and treatment of diseases and injuries.
4. **Behavior:** Opportunities to express natural behaviors.
5. **Mental State:** Subjective experiences such as pain, fear, pleasure, and satisfaction.

This model expands on the traditional approach of the five freedoms of animal welfare by adding a psychological dimension for a more comprehensive assessment of animal welfare.

## Governance

To comply with the five domains, Salmones Camanchaca has procedures carried out by professionals that consider Atlantic salmon and Coho Salmon in each phase of production. This policy is designed with scientific guidelines and professional experience for the care and management of the fish under high standards, ensuring that the fish are treated with respect and dignity throughout their lives. Practically, the welfare policy is based on the following three pillars:

1. **Animal Welfare Indicator Monitoring Program** throughout the production cycle, specifying which indicators should be captured, how, and when.
2. **Detailed Management Protocols** for each production system at critical points to improve the health and welfare of the fish.
3. **Training for Personnel** who have contact with the fish in the production and health areas, including assistants, site managers, and veterinarians, covering topics within the five domains.

The Company has a Deputy Health and Animal Welfare Manager and a team of veterinarians who visit the salmon farms at least once every 15 days.

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## Scope of the policy

This policy covers the two species cultivated by Salmones Camanchaca, Atlantic salmon (*Salmo salar*) and Coho salmon (*Oncorhynchus Kisutch*). It applies to all company facilities, including freshwater, grow-out, and processing plants. This policy also extends to our suppliers who perform operations within our facilities. It is complemented by specific internal procedures related to animal welfare, such as the company's animal welfare guide, handling procedures, feeding and treatment protocols, transportation, harvesting and slaughtering methods, and contingency plans.

## Measures to Ensure Compliance with the Five Domains

### Nutrition

#### 1. Feeding

All fish are provided with diets that supply the necessary nutrients to meet the basic requirements of the species, ensuring good health. This includes functional diets to enhance immune response.

Food delivery is controlled through monitors and underwater cameras to observe fish behavior and appetite, adjusting feeding rates to achieve satiety and prevent food waste.

Fasting is only applied on certain occasions, such as during treatments and handling, where fish are fasted for 24 to 48 hours depending on the procedure. Pre-transfer and pre-harvest fasting ranges from 48 to 72 hours. Fasting due to low oxygen conditions or other environmental contingencies is based on agreements between the production and health departments.

Fasting days and reasons are recorded and monitored in all our salmon farms

### Mental State

#### 2. Predator Management

Salmones Camanchaca aims to minimize the interaction of farmed fish with wildlife. To achieve this, all our salmon farms are equipped with nets to reduce the potential entry of predators into the facilities as birds and sealions.

Additionally, there are specific contingency procedures and training on this topic for all personnel in the facilities

#### 3. Slaughter Methods

Salmones Camanchaca employs mechanical stunning as a means of slaughter in the company's processing plants, followed by gill cutting and subsequent bleeding.

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In the case of sanitary control slaughter at grow-out and hatchery farms, euthanasia is carried out by means of an overdose of anesthesia.

## 4. Handling

As a company, we have procedures in place to ensure the proper handling of fish, aimed at minimizing stress. Maximum handling times, crowding, and grading vary according to the procedure being performed.

- Antiparasitics bath treatments last between 30 to 120 minutes.
- Biological sampling handling lasts 60 minutes.
- Caligus sampling takes 15 minutes.
- Mesh change handling lasts 6 hours.

\*All activities ensure that the fish is out of the water for no more than 30 seconds while anesthetized.

Crowding situations occur only during certain handling procedures, such as antiparasitics treatments and harvesting, with a maximum crowding time of 2 hours. Additionally, criteria for progression of operations and oxygen saturation measurements are used.

The use of anesthetics for handling is carried out in therapeutic doses specified by the manufacturer to ensure the well-being of the fish, always under veterinary supervision.

## 5. Transport

For the transport process, 100% of the fish are transported from seawater to the processing plants in wellboats. During the journey, parameters such as oxygen, salinity, temperature, and CO<sub>2</sub> are monitored. For Salmones Camanchaca, the maximum transfer time in wellboats for harvested live fish is 20 hours.

The transfer of smolts is carried out in specialized live fish transport trucks where parameters like oxygen and temperature are constantly monitored. They are then transferred to wellboats for transport to sea centers.

The maximum transport density for smolts ranges between 55-60 kg/m<sup>3</sup>, while oxygen levels during transport must be maintained between 90% and 110% saturation, controlled by automatic oxygenation equipment.

In addition to abiotic parameters, smolt transfers involve counting all transported fish.

The maximum transfer time for smolts is 24 hours.

## Environment

### 6. Monitoring of Abiotic Parameters

As part of our animal welfare policy, we conduct monitoring of environmental parameters to ensure optimal conditions for the fish. Monitoring is carried out both in freshwater systems (open flow systems, RAS, and lake farms) and in marine water at grow-out farms, where the following parameters are monitored:

- **Freshwater:**

-Oxygen, density, temperature, carbon dioxide, free ammonia, pH, suspended solids, salinity, nitrite, nitrate, water velocity, and turbidity.

- **Sea Water:**

- Oxygen, microalgae, temperature, density, visibility, salinity, and others.

- **Transport:**

- Oxygen, carbon dioxide, temperature, density, pH.

- **Harvest and Sacrifice:**

- Oxygen saturation, density, temperature, stunner calibrator, and others.

All marine grow-out farms continuously measure oxygen, temperature, and salinity every 5 minutes at depths of 5, 10, and 15 meters.

All cages at marine grow-out farms and land facilities are designed to prevent injury to the fish and comply with national regulations.

There are microalgae monitoring programs and training for all marine center staff to quickly respond to environmental emergencies.

Mitigation systems, such as upwelling and oxygen injection systems, are utilized.

### 7. Culture Densities

Fish stocking in sea water is conducted at densities specified by Chilean national regulations. Records and monitoring of densities are maintained throughout the production cycles. Cultivation density is always kept between the limits set by national regulations, which stipulate that the maximum legal density should be between 4 to 17 kg/m<sup>3</sup> for Atlantic salmon and 3 to 12 kg/m<sup>3</sup> for Coho salmon.

## Health

### 8. Medicinal Treatments

The company has a health plan, designed by the health department, which outlines how to record and report medicinal treatments, including antibiotics and antiparasitics, as well as the quantities and methods of treatment. This plan is reviewed annually.

The company does not use antibiotics prophylactically or as growth promoters; antibiotics are prescribed by a veterinarian and their application is supervised by the same. Critical antibiotics identified by the WHO are not used. Antibiotic use is reported to the health authority according to current national regulations.

Salmones Camanchaca has an antibiotic reduction plans and is collaborating with technology development programs to minimize their use. This includes partnerships with both Chilean and international initiatives such as Pincoy, GSI and Yelcho. All grow-out farms are subscribed to the PROA for salmon initiative, a voluntary program for optimizing antimicrobial use, led by Sernapesca.

The company has a freshwater vaccination program where 100% of smolts entering grow-out farms are vaccinated in compliance with national regulations.

Cleaner fish are not used.

The company does not use hormones, growth promoters, genetically modified, cloned, or triploid fish.

Mortality is collected daily and disposed appropriately. All mortalities are recorded and classified based on the cause of death and reported to the health authority weekly according to national regulations.

Anesthetics for handling are used in therapeutic doses specified by the manufacturer to ensure fish welfare and always under veterinary prescription.

None of our fish undergo of routinary mutilations either in our facilities or those of our suppliers.

### 9. Caligus Management

Regarding the management of Caligus, it is monitored weekly at all sea water farms and reported to the authorities according to current regulations. The maximum limit of ovigerous females allowed by Chilean authorities is 3.

The company has an integrated pest management plan available on its website, accessible to the public.

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The antiparasitics treatments used by the company include medicinal treatments, either oral or bath treatments, hydrogen peroxide baths, and non-medicinal treatments such as the use of natural compounds.

## Behavior

### 10. Animal Welfare Monitoring Program

To ensure the welfare of fish throughout their production cycle, Salmenes Camanchaca has launched the Animal Welfare Monitoring Program. This program is based on the principles of the most relevant sector standards, including the Fishwell handbook, Pincoy Good Practices handbook, and RSPCA Farm Atlantic Salmon Standards. These guidelines provide a solid framework to ensure the proper care and management of salmon, from their juvenile stage to harvest, focusing on promoting practices that respect their overall welfare.

To effectively monitor the Fish Welfare, the following actions have been implemented:

- Data Collection: Covering the sea water phases.
- Definition of Concrete Metrics: Aiming to constantly ensure and evaluate animal welfare throughout the sea water phase.

This is achieved through the use of three types of indicators: group indicators, which refer to the observation of populations; individual indicators, focusing on the assessment of specific fish; and environmental indicators, which evaluate the conditions of the environment where the fish are raised.

The indicators being monitored are as follows:

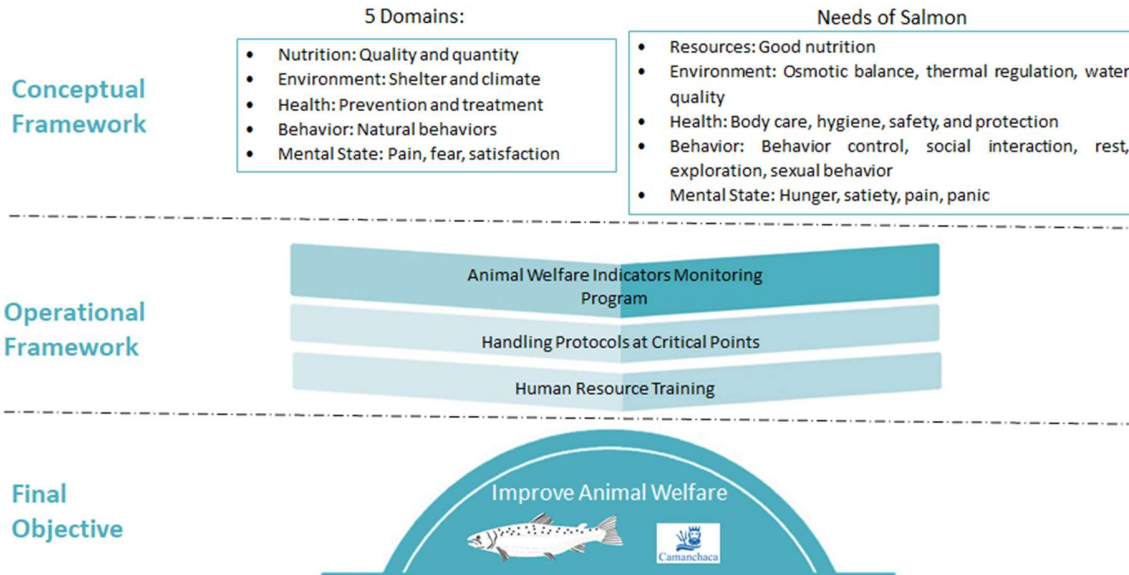
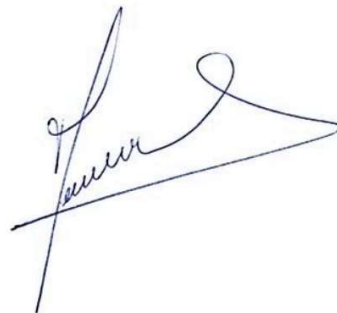
Group	Indicators
Environmental	Oxygen
	Temperature
	Visibility
Group	Caligidosis
	Mortality
Individual	Color change
	Cataract
	Column deformity
	Jaw deformity
	Fin damage
	Gill damage
	Skin shedding
	Hemorrhage
Wounds	

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	Short operculum
	Petechiae
	Backward/underadapted
	Ulcers

Finally, Salmenes Camanchaca is aware that animal welfare guidelines for fish are continually evolving and being updated as new scientific evidence is published. Therefore, significant efforts are dedicated to ongoing review and improvement to maintain the highest animal welfare standards. The ultimate goal of this policy is to enhance the welfare and health of fish throughout the company's production cycle. Figure 1 summarizes the conceptual framework, operational framework, and ultimate goal of the animal welfare policy.

## Summary of the animal animal welfare policy at Salmenes Camanchaca

FRANCISCO VALLEJOS W.  
 DEPUTY HEALTH AND ANIMAL WELFARE MANAGER  
 SALMONES CAMANCHACA S.A

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