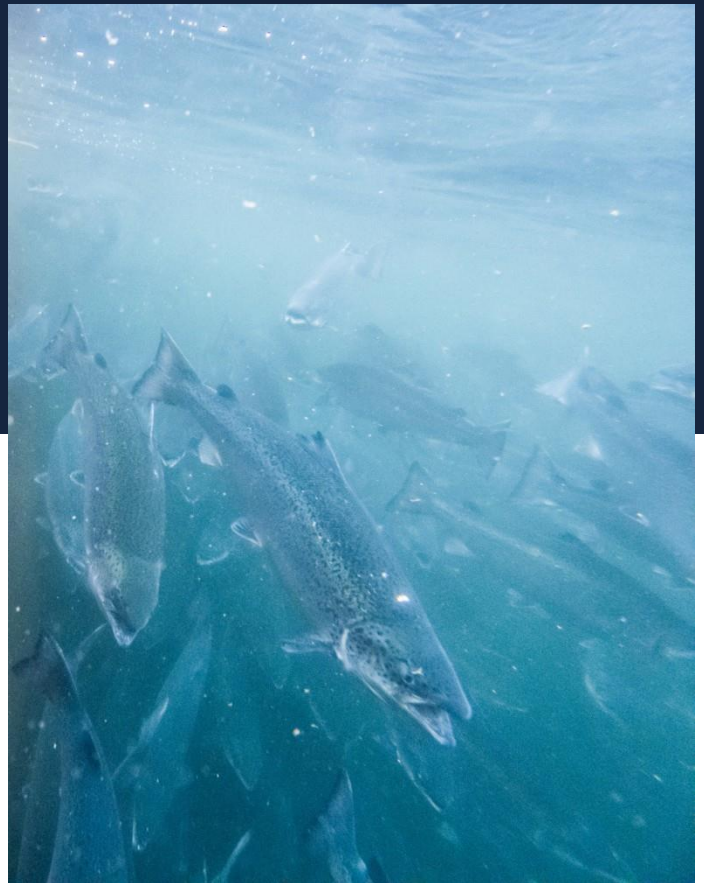


# BLUMAR

## Animal Welfare Policy

June 2022



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## I. OBJECTIVE

The Animal Welfare Policy of Salmenes Blumar S.A. and Salmenes Blumar Magallanes SpA (hereinafter Blumar or the company), aims to establish, communicate and guarantee the responsibilities concerning the welfare of salmon, stating our commitments and initiatives that are carried out to ensure the essential life and development conditions for the animal, and that allow Blumar to fulfill these welfare activities correctly and obtain the most recognized certifications.

## II. SCOPE

Blumar's Animal Welfare Policy covers all farming operations and is complemented by internal standards and position statements on specific welfare-related issues, such as the use of medicines, harvesting methods and genetically modified salmon. This Policy applies to all species produced for human consumption in the company's farming centers.

In addition, our Code of Conduct and Supplier Code of Conduct require our suppliers to adhere to animal welfare practices no less stringent than ours and to take appropriate measures and conduct risk assessments to minimize potential impacts on the welfare from new equipment, products or services.

### III. COMMITMENT

At Blumar, we are committed to protecting the welfare of farmed fish and animal welfare in general. We believe that production can only be healthy and sustainable when a responsible attitude toward animals is upheld. Therefore, Blumar recognizes and adopts the Five Freedoms for animal welfare proposed by the World Organisation for Animal Health (OIE)<sup>1</sup>.

The OIE defines animal welfare as “the physical and mental state of an animal in relation to the conditions in which it lives and dies.” This state is defined in the Five Freedoms:

- a) Freedom from hunger and thirst, by ready access to fresh water and a diet to maintain full health and vigor.
- b) Freedom from physical discomfort, by providing an appropriate environment.
- c) Freedom from pain, injury and disease, by prevention or rapid diagnosis and treatment.
- d) Freedom from fear and distress.
- e) Freedom to express normal patterns of behavior, by providing sufficient space, proper facilities and company of the animal's own kind.

Animal welfare is considered good if the animal is healthy, not suffering physical discomfort, well-fed, safe, and if it can express normal patterns of behavior and does not experience pain, fear or distress.

Regarding the welfare of farmed fish, the OIE recommends using “methods of handling that are appropriate to the biological characteristics of the animal, as well as an environment adapted to its needs.”

Considering these recommendations, we understand that to ensure the welfare of farmed fish it is necessary to maintain this state through disease prevention and veterinary treatment, appropriate space, management, feeding, responsible handling and cruelty-free slaughter.

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<sup>1</sup> <https://www.oie.int/es/que-hacemos/sanidad-y-bienestar-animal/bienestar-animal/>

## IV. MEASURES AND INITIATIVES TO SAFEGUARD ANIMAL WELFARE

To ensure salmon welfare, we have a qualified veterinary team, appropriate processes, high-end technological machinery, defined procedures, active control of welfare impact risks and continuous monitoring systems at the farming centers. The following are the different measures we apply during each stage of the production process, which follow the recommendations of the Pincoy Best Practices Manual.

### FRESHWATER STAGE

#### **a. Genetics and Egg Production:**

- The company is supplied with eggs from a genetic selection program with properties related to body growth, color and texture of the fish, as well as disease resistance.
- We consider the breeding age v/s the stocking period at sea to avoid early maturity. We also try to acquire eggs from the same spawning or minimum amount of spawning dates for each group of fish to standardize their management during the initial farming stages.
- Under no circumstances genetic modification techniques are used.

#### **b. Decrease risk of infection:**

- In order to reduce the risk of pathogen transmission, the company keeps stocking densities in line with current regulations and reduces them even further where possible.

#### **c. Farming environment:**

- The company is committed to providing environmental conditions with the recommended criteria concerning the type of substrate, type of farming unit, water circulation, water temperature, flow rate and photoperiods, as long as these parameters are controllable for each case.
- Blumar is committed to maintaining strict access control to the farming pools, making sure that all defined quality criteria are met.

#### **d. Water quality:**

- The company is committed to maintaining appropriate levels of oxygen, carbon dioxide, ammonia nitrogen, nitrite, pH and salinity in the waters where our salmon species are bred.

#### **f. Production, quality assessment and transport of smolt to farming centers at sea:**

- The company monitors and evaluates fish weight, peripyloric fat, health condition and smoltification through ATPase enzyme levels.

- During transport, we ensure to manage and control fasting, water quality and temperature, oxygen levels<sup>2</sup> and stocking density, thus minimizing stress during this stage and complying with industry best practices.
- Blumar is committed to selecting the proper land and sea transport types, and to implementing best practices in the loading and unloading of fish.
- Finally, the company commits to complying with the minimum requirements to achieve optimal reception and adaptation of fish at sea.

## SEAWATER STAGE

### **a. Diet and feed:**

- At Blumar, we provide our salmon with diets containing all required nutrients for optimal development and health status during the seawater cycle.
- Ingredients used in diets such as soy must come from suppliers with a commitment to sustainable agriculture such as a RTRS certification.
- Blumar's feeding strategy seeks to consider satiety, reasonable rations to minimize food loss and to achieve that all the fish eat, taking into account factors such as the currents, oxygen levels and use of optimal technologies to control farming and feeding during the appropriate periods.
- Blumar develops feeding teams with the experience, training and adequate number to meet the farming objectives.

### **b. Production practices:**

- Blumar is committed to using cages with dimensions that allow optimal density and growth. In addition, the company will responsibly double stocking density and reduce it to normal densities in the respective cases. This method is only used when strictly necessary.
- The company ensures to keep the farming nets resistant, whole and clean, as well as to extract dead fish in a timely, efficient, effective and safe way to prevent the spread of pathogens.
- Blumar does not produce genetically engineered or cloned salmon and fin clipping is not permitted during the production cycle.
- At Blumar, we commit to using traditional production methods at all stages of the salmon life cycle; we do not use genetic modification techniques which result in the intentional release of genetically modified organisms (OGM), nor hormones in the production process. We exclusively use substances approved by the corresponding fishing authority. On the other hand, our fish feed contains products that could be genetically modified in some of its versions. These products are canola oil, vegetable acid oils, soy flour, soy protein concentrate, and corn gluten flour, which vary between 0% - 30% in the formulas associated with

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<sup>2</sup> Recommended levels vary between 90% and 110%. Pincoy Best Practices Manual 2021.

fish size, depending on the feed composition. The Chilean law and the U.S. Food and Drug Administration approve these raw materials.

**c. Environmental conditions:**

- The company commits to maintaining optimal stocking densities<sup>3</sup> to achieve the maximum production and health potential of each farming unit, while also complying with the existing regulations<sup>4</sup> in this matter.
- At Blumar, we consider environmental and oceanographic factors for the location and positioning of our farming centers, such as salinity, temperature, dissolved oxygen, currents and waves, both for optimal growth and to guarantee the safety of the facilities in the case of adverse climate events.

**d. Transport to collection facilities and handling of fish:**

- We try to avoid handling of fish during the days before the transport and apply recommended fasting for their safe transport to the collection facilities.
- Blumar mainly uses wellboats to reduce harvest times and permanently monitors water quality and temperature, oxygen<sup>5</sup>, density and stress management, thus complying with industry best practices.

**e. Disease prevention:**

- We vaccinate our salmon to reduce the risk of disease, such as IPN, SRS, ISA, *Vibrio ordali* and atypical furunculosis for Atlantic Salmon, and IPN and SRS for Coho Salmon.
- In addition, in fresh water, we monitor breeding to evaluate the presence of the viruses IPN, ISA and the bacterium *Renibacterium salmoninarum*.
- Blumar is committed to the implementation of a health surveillance plan executed by veterinary teams to detect diseases early during the cycle, apply control measures and antifungal, antiparasitic and antibiotic treatments as needed.
- The latter should only be used to treat diagnosed diseases and never to promote animal growth or for routine disease prevention.
- We comply with the official control of pharmaceutical products, prohibited substances, unauthorized substances and contaminants for the export of fishing products<sup>6</sup>. Furthermore, we do not use hormones

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<sup>3</sup> Densities may not exceed 17 kg/m<sup>3</sup> for Atlantic Salmon and 12 kg/m<sup>3</sup> for Coho Salmon and Rainbow Trout

<sup>4</sup> In accordance with Article 86 bis of the General Fishing and Aquaculture Law, the Undersecretary of Fisheries and Aquaculture has established stocking densities for different groups of licenses and the farming centers that operate in them by resolution.

<sup>5</sup> Recommended levels vary between 90% and 110%. Pincoy Best Practices Manual. 2021.

<sup>6</sup> According to the Safety and Certification Manual published by the National Service for Fisheries and Aquaculture (Sernapesca).

of any kind during the production process and only use substances approved for aquaculture.

- If a list 1 high-risk disease<sup>7</sup> is detected, the company will report this disease to the National Service for Fisheries and Aquaculture (Sernapesca) and to the OIE, with evidence that the incident has been adequately dealt with.

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<sup>7</sup> Sernapesca, Enfermedades de Alto Riesgo y emergentes de peces y moluscos:  
<http://www.sernapesca.cl/informacion-utilidad/enfermedades-de-alto-riesgo-y-emergentes-de-peces-y-moluscos-fichas-tecnicas?page=1>



## V. INDICATORS

The company has defined relevant indicators for monitoring animal welfare, which are reported annually in the company's Integrated Report, and include the following:

- Mortality rate, which calculates mortality over the previous 12 months as a ratio of the number of fish in the sea during the last month of the year to the total existing fish.
- Use of antibiotics, which shows the percentage ratio between the amount of antibiotics used and the tons of biomass produced (annually) and also as the grams of pure drug (PD) per ton produced in the closed cycle.
- Use of antiparasitics (to control caligus levels), which is calculated as the amount of Active Pharmaceutical Ingredients (API) used per ton of fish produced.
- % of antibiotic-free tons (ABF) harvested to the total annual biomass harvested.

## VI. GOALS

Blumar is committed to minimizing the use of antibiotics for prophylactic purposes in all its animal production operations, trying to apply preventive measures to work towards this goal in all activities within our reach, and likewise, we require our suppliers to have a commitment and public statement in this same line. In addition, Blumar has established targets to ensure compliance with its animal welfare goals:

- In the framework of the Antibiotic Reduction Program with the NGO Monterrey Bay Aquarium, a target was set to halve antibiotic use by 2025, with 2017 as a base year.
- In 2020, the target was updated establishing an additional reduction of 8% by 2027. In 2021, a target was set to reduce the use of chemical treatments in bath against caligus (sea lice) by 2022.

## VII. CERTIFICATIONS

Blumar S.A. has ASC and BAP certifications that cover animal welfare aspects within their requirements. These certifications include periodic audits in all animal production operations by a third party (at least once every three years) and the implementation of a product traceability system. These certifications also require information from suppliers.

## VIII. RESPONSIBLE UNITS, DISSEMINATION AND APPLICATION

This Animal Welfare Policy must be disseminated among all people who interact with Blumar, both internally and externally, by Farming Management, through all respective management and sub-management units. Farming Management will be in charge of supervising the procedures and of implementing trainings that ensure the correct understanding of the content of this Policy by all the employees and collaborators of Blumar Salmones S.A and Blumar Salmones Magallanes SpA.

## IX. APPROVAL AND UPDATE

Blumar's production practices guarantee, through its staff across the entire production chain, from freshwater to harvest operations, that fish welfare is monitored daily throughout the production cycle. The Board of Directors and the CEO are responsible for the Animal Welfare Policy and the application of the welfare criteria. This Policy was approved by the CEO of Blumar S.A. in June 2022.



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