

# Fish Welfare Policy

## Background

Cermaq wants its fish to thrive, grow and be healthy. A fish with good welfare is healthier, performs better and ultimately has better quality, which is essential for the productivity and sustainability of Cermaq's farming operations.

Fish welfare depends on a range of biological and environmental factors. Cermaq continually strives to meet the needs of the fish, and constant improvement, research and innovation are a part of the company culture. Cermaq actively works to make sure that the fish in its care are treated well and has hence established a set of Fish Welfare Principles for its operations.

## Cermaq's Fish Welfare Principles

This policy is based on the universally recognized "Five Freedoms" as described by the World Organization for Animal Health's (OIE) guiding principles on animal welfare.\* Cermaq aims to be an industry leader in fish welfare through application of best available scientific and operational knowledge that goes above and beyond legal requirements. Improving fish welfare is a central objective for Cermaq's operations, research and technological development.

Based on the Fish Welfare Principles below, Cermaq assesses the welfare of the fish through welfare indicators to ensure that each fish is treated well, progress is achieved, and that consistent standards are applied throughout the operations. Cermaq is dedicated to monitoring and improving the welfare status of the fish and publishes fish health and welfare performance data on [www.cermaq.com](http://www.cermaq.com) on a regular basis.

### 1. *Proper Nutrition*

#### Cermaq commits to:

- Provide the fish with nutritious feed to ensure healthy growth, adequate amounts to reduce stress and competition for food, and actively optimize diets
- Contribute to the development of feed products on the basis of strong scientific knowledge gained through Research and Development (R&D) and collaboration with feed suppliers, and be transparent on which feed suppliers it uses
- Carefully assess sufficient fasting time for fish before handling and harvest to ensure that fish welfare is not at risk when adhering to customer requirements

### 2. *Fish Health Care*

#### Cermaq commits to:

- Take a preventative approach to fish health by prioritizing the development and use of appropriate vaccines, genetic breeding, farming technology and practices to reduce handling, stress and the need for medical treatment
- Practice husbandry and bio-security procedures which enhance disease control, and when needed, administer appropriate medical treatment to avoid suffering, or if necessary, humane culling of fish

\* The "Five Freedoms" are: Freedom from hunger, malnutrition and thirst; Freedom from pain, injury and disease; Freedom from fear and distress; Freedom to express normal patterns of behavior; and Freedom from physical and thermal discomfort.

- Have fish health management plans in place for all sites with procedures describing disease monitoring, diagnostics and eventual treatment options
- Assess disease risks throughout the entire life cycle of the fish and develop solutions to any critical welfare risks identified in all stages, from freshwater to seawater until harvest

### 3. *Stress Management*

#### Cermaq commits to:

- Protect the fish from environmental and physical stressors, including predation, through the means of prevention, careful monitoring and the implementation of stress mitigation measures based on good practice
- Conduct stress assessments as an integrated part of the fish welfare work and incorporate these assessments into best practice procedures
- Use stress monitoring to identify and minimize stress during harvest, handling and transport

### 4. *Optimize Fish Environment*

#### Cermaq commits to:

- Design its installations in a way that allows for response to changing ocean conditions, optimal movement and minimal handling of the fish to avoid discomfort, injuries and escapes in both normal and adverse weather conditions
- Maintain stocking densities in sea pens and tank facilities within scientifically recognized limits
- Implement comprehensive water quality plans at all facilities to ensure good water quality and environmental conditions, including monitoring and management of parameters such as oxygen levels, salinity and temperature, as well as monitoring of environmental risk factors such as algae blooms
- Research and trialing of innovative technologies to optimize fish welfare
- Gentle handling, transport and harvest of the fish

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