

## Policy on salmon welfare

### **Mowi's definition of fish welfare**

Mowi recognizes the accepted Five Freedoms for animal welfare and adopts the World Organization for Animal Health (OIE) definition of animal welfare: Animal welfare means how an animal is coping with the conditions in which it lives and refers to the state of the animal. A good state of welfare is if it is healthy, comfortable, well nourished, safe, able to express innate behaviour and it is not suffering from unpleasant states such as pain, fear and distress. Good welfare requires disease prevention and veterinary treatment, appropriate shelter, management, nutrition, humane handling and humane slaughter.

### **Governance**

Mowi's strict production practices and standards, matched by our dedicated fish health professionals and trained staff, ensure the welfare of our fish is monitored and secured on a daily basis, throughout the entire production cycle. Our Managing Directors and Group Management Team have responsibility for our fish welfare policy and implementation of welfare criteria.

### **Policy scope**

Mowi's policy on salmon welfare applies to all our farming operations and is complemented by internal standards and position statements on specific welfare related topics, such as medicine use, harvesting methods and genetically modified salmon. In addition, our Code of Conduct requires that our suppliers adhere to animal welfare practices no less stringent than our own and to undertake appropriate measures and risk assessments to minimize potential welfare impacts from new equipment, products or services.

### **Mowi safeguards salmon welfare through:**

#### **1. Employee training**

Our staff are dedicated to the well-being of our fish and our fish health professionals continuously exercise their duty of care and attention to our fish. Our site staff regularly attend fish welfare courses (internally and externally), which focus on optimizing welfare and minimizing stress throughout production. Mowi has a global internal training on fishwelfare covering all aspects of our welfare policy, ensuring a common understanding of, and focus toward, fish welfare in our farming operations.

#### **2. Farming under optimal environmental conditions**

Our sites are located in areas where the environmental conditions are optimal for fishwelfare. This ensures our salmon grow in areas where water quality (such as oxygen and temperature) matches their needs and allows them to thrive. If natural weather conditions may threaten oxygen levels, we have systems in place to provide additional water flow and aeration to our fish.

#### **3. Securing optimal health and, when needed, responsible medicinal treatment**

The application of good husbandry and management practices, biosecurity programmes and veterinary health plans, all under the supervision of our fish health professionals, contribute to the optimisation of fish welfare.

We stock our salmon at densities that safeguard their welfare and enhance performance. Our maximum stocking densities at sea (25 kg/m<sup>3</sup>) ensure fish have ample space to swim, as our net pens contain minimum 97.5% water and only 2.5% fish at maximum (i.e., at the end of the farming cycle).

We vaccinate 100% of our fish to reduce the risk of disease and compromised welfare. We minimise stress during handling operations by using anesthesia. In addition, our breeding programme focuses on improving survival and disease resistance. At Mowi, we do not produce or sell transgenic salmon.

In cases of disease outbreaks and the need of medicinal treatment to safeguard fish welfare, we treat the fish with approved veterinary medicines. All treatments are prescribed by certified veterinarians/fish health professionals and are strictly controlled by the authorities. Antibiotics are



never used for prophylactic or growth purposes and hormones are never used during production.

We only use licensed antibiotic medicines when fish health and welfare are at risk from bacterial infection and to avoid unnecessary suffering. To not use antibiotics under such circumstances would be unacceptable from a welfare perspective. Whenever possible, a sensitivity test is performed before any antibiotic treatment to avoid further antibiotic resistance. Furthermore, if antibiotics are used the withdrawal periods are always respected prior to harvest to ensure no antibiotic residues are found in final products.

#### **4. Securing optimal feed and feeding practices**

We ensure that our fish obtain the necessary nutrients for good health and welfare throughout their lives.

#### **5. Observing fish behaviour**

Most of our sea sites have underwater cameras that allow us to monitor fish behaviour, including appetite and swimming activity. We aim to equip all our sea sites with under-water cameras. Where cleanerfish are used, we deploy artificial kelp forests in the pens to allow both cleanerfish and salmon to shelter and express natural behaviour.

#### **6. Handling and transport**

We minimize the need for handling. If we handle our fish, this is done as gently as possible to minimize stress, and anaesthetics are used where necessary. During transport, we ensure transport tanks have good water exchange and/or circulation to minimize stress. In addition, water quality is monitored continuously (including temperature, O<sub>2</sub> and CO<sub>2</sub>). Stocking densities during transport are set by the authorities.

#### **7. Humane stunning and slaughter methods**

We focus on handling our fish carefully during harvesting and using both percussive and electrical stunning to ensure fish are effectively and humanely stunned and killed.

#### **8. Internal and global standards on fish welfare**

We implement standards that meet and exceed regulatory requirements and industry guidelines on fish welfare. We have developed and implemented internal standards to assess fish welfare during mechanical sea lice treatments.

We are committed to certify our farms with standards, namely GLOBALG.A.P., ASC and BAP that cover several welfare aspects, including those related to feed and water quality, health management, transport, harvest and slaughter. Our Scottish operations are 100% certified against the RSPCA (Royal Society for the Prevention of Cruelty to Animals) standard and our Irish operations are 100% organic certified, with freshwater sites being RSPCA certified as well.

#### **9. Our suppliers and fish welfare**

Suppliers of equipment, products and services are required to follow fish welfare standards no less stringent than our own. Our Code of Conduct defines what suppliers are required to do with regards to safeguarding fish welfare.

#### **10. Monitoring and reporting operational welfare indicators**

Fish welfare is monitored on a routine basis. Our operational welfare indicators are based on scientifically validated indicators, such as those proposed by NOFIMA (Fishwell, Handbook on Welfare Indicators for Atlantic Salmon) and include environmental, individual and group-based welfare indicators.

At present, we report publicly our fish health and welfare strategy, our targets (on survival, medicine use, meeting global standards) and performance. We are working towards a global and standardised system for welfare data capture and reporting.

#### **11. Continuous improvement through R&D**

We continuously search for new farming solutions that advance fish welfare. Our R&D portfolio includes, but is not limited to, research on infectious diseases, nutrition, production related disorders and harvesting methods.

