

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's training on animal welfare is made available for relevant suppliers. This policy applies to farmed Atlantic salmon, which is the only species that Mowi produces for human consumption. It also applies to all Mowi brand products. All principles stated below in this policy apply to 100 % of farmed Atlantic salmon produced by Mowi.

Mowi safeguards salmon welfare through:

1. Employee training and awareness

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 fish welfare covering all aspects of our welfare policy, ensuring a common understanding of, and focus toward, fish welfare in our farming operations. As a minimum, training is undertaken annually, and new site personnel also complete the training as part of their on-boarding. Health personnel receive additional training on animal welfare. Mowi also engages with consumers to raise awareness on fish welfare. Mowi is proactively communicating with its stakeholders and the public about its efforts to secure best possible welfare for the livestock, such as on its websites and through social media¹.

2. Farming under optimal environmental conditions

Our sites are located in areas where the environmental conditions are optimal for fish welfare. 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/m³), ensuring 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, where necessary. In addition, our breeding program focuses on improving survival and disease resistance. At Mowi, we do not produce or sell transgenic, triploid or cloned salmon. The practice of fin-clipping during production is not permitted.

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. Mowi uses environmental enrichment; where cleanerfish are used, we deploy artificial kelp forests, or hides, in the pens to allow both cleanerfish and salmon to shelter and express natural behaviour. Hides provide protection, a resting place and access to good water quality. Hides are designed to be stable, easily cleaned and provide the least possible risk of escapes, and ensure cleanerfish efficiency. The number, size and positioning of hides is adjusted to cleanerfish needs.

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, O₂ and CO₂). Stocking densities during transport are set by the authorities. Mowi's maximum transport time for smolts is 40hr but is generally much lower. For live harvest fish, in wellboats, maximum transport time is 28hr and again is, generally, much lower.

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. 100 % of Mowi's farms are either Global G.A.P., ASC or BAP certified. 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 and other initiatives

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. We also engage with stakeholders (for example ASC, Dutch Society for the Protection of Animals) on the development of operational welfare indicators for farmed raised salmon.

03th August 2020

1. Examples of external communication in 2020:

- <https://www.facebook.com/106419980800273/posts/239708357471434>
- https://www.facebook.com/106419980800273/posts/258027852306151?dco_ad_id=23845063374140219
- [https://www.linkedin.com/feed/update/urn:li:sponsoredContentV2:\(urn:li:ugcPost:6670699297186623488,urn:li:sponsoredCreative:103356143\)/?actorCompanyId=13004747&viewContext=REVIEWER](https://www.linkedin.com/feed/update/urn:li:sponsoredContentV2:(urn:li:ugcPost:6670699297186623488,urn:li:sponsoredCreative:103356143)/?actorCompanyId=13004747&viewContext=REVIEWER)
- [https://www.linkedin.com/feed/update/urn:li:sponsoredContentV2:\(urn:li:ugcPost:6678692151263559680,urn:li:sponsoredCreative:105061653\)/?actorCompanyId=13004747&viewContext=REVIEWER](https://www.linkedin.com/feed/update/urn:li:sponsoredContentV2:(urn:li:ugcPost:6678692151263559680,urn:li:sponsoredCreative:105061653)/?actorCompanyId=13004747&viewContext=REVIEWER)
- [https://www.linkedin.com/feed/update/urn:li:sponsoredContentV2:\(urn:li:ugcPost:6678691657019338753,urn:li:sponsoredCreative:105061003\)/?actorCompanyId=13004747&viewContext=REVIEWER](https://www.linkedin.com/feed/update/urn:li:sponsoredContentV2:(urn:li:ugcPost:6678691657019338753,urn:li:sponsoredCreative:105061003)/?actorCompanyId=13004747&viewContext=REVIEWER)

