



Animal Welfare NGOs Coalition Statement on Global G.A.P. Aquaculture Standards v6

We represent a coalition of animal welfare NGOs looking into how to best ensure aquatic animal well-being (i.e. welfare).

We believe there should be a clear distinction drawn between “seafood” and “aquatic animals.” The standards used for plant life (e.g. seaweed) should not be used for aquatic animals too. Language should refer to “aquatic animals” and not “seafood” so as to recognize the welfare considerations of animals who are not used directly as food; this includes cleaner fish, feeder animals, broodstock, those used in fish stripping, and others who are not directly used for human consumption. Global G.A.P. provides certification for several, but not all, species of cleaner fish. It is problematic that Global G.A.P. does not require certification of cleaner fish when they are used for certified salmonid production. Consumers concerned about fish welfare would expect the certification on a product to mean that all animals involved in the production have been provided with good welfare, and this is not the case for cleaner fish. It is also problematic that cleaner fish are only certified during the hatchery stage, and thus receive no protection during the most hazardous stage: when being kept in sea cages together with salmonids. It is well known that cleaner fish suffer and die from predation by salmonids, diseases, injuries, and hunger. Cleaner fish mortality rates often reach 100% during the sea stage.

Within the aquaculture industry, the term “welfare” has historically been used to refer to animals’ physiological health and producers’ husbandry practices. However, the scientific animal welfare community has long known that welfare also encompasses psychological well-being and the ability to choose to engage in natural behaviors. We believe welfare standards should not only prevent the most harmful practices but also provide a positive environment where healthy aquatic animals can express their species-specific behavioral needs and preferences, and experience positive affect.

We believe that, to measurably improve welfare, aquatic animal welfare standards must be species- and life stage-specific.

We believe Global G.A.P. should prioritize timely updating of standards in response to new research on species- and life stage-specific welfare.

We believe that Global G.A.P. should enforce these standards with thorough record-keeping of implementation and quantification of all welfare standards, including consequent producer response and alterations to protocol when standards are not satisfied.



Here is a list of items that should be incorporated into the Global G.A.P. standards. This list is not exhaustive; it only represents certain minimum requirements and will be expanded in the future. Numbers represent the item position in the v6 draft.

- 7.1.1 Should be categorized as a “major must”.
- 7.2.3 Lethal predator control techniques should not be used on any species, not only on endangered species. Harmful or lethal measures to control predators should be banned and the use of preventative measures like double netting to ensure wild animals cannot get into the farms should be promoted. Therefore, shooting predators, such as seals, and the use of Acoustic Deterrent Devices (ADD) should be prohibited.
- 18.1.4 No surgical mutilations or invasive marking: Fin clipping and other mutilations must not be allowed.
- 18.3.1. Fish must be anaesthetized or killed with effective stunning before stripping and sperm collection.
- 20. Aquatic animals shall have the opportunity to express their behavioral needs and preferences in captivity (e.g. water currents and opportunities to hide, where they do not increase territoriality or competition).
- 20. Species- and life stage-specific environmental enrichment shall be provided at all stages of life and production and the forms of enrichment shall be updated in response to new research. These selected forms of environmental enrichment must not result in increased territoriality and competition. Environmental enrichment can reduce stress levels, which can lead to improved resistance to infections and lowered metabolism, as well as lowered aggression levels, and thus reduced incidence of fin damage. In addition, environmental enrichment affects the development of the brain and improves the ability to learn in salmon (Näslund et al. 2013, Rosengren et al. 2017, Karvonen et al. 2016, Millidine et al. 2006, Arndt et al. 2001, Salvanes et al. 2013, Kihlslinger et al. 2006).
- 20.2 The number of animals killed throughout each stage of the supply chain should be kept to a minimum, including a reduction in the use of wild-caught and farmed aquatic animals for fishmeal and fish oil (FMFO) as farmed aquatic animal feed and use of other animal-derived ingredients, including ingredients derived from insects. This should be done by (1) prohibiting the use of FMFO in the feed of herbivorous aquatic species/life stages, (2) using the lowest amount of FMFO possible in feeds for carnivorous and omnivorous aquatic animals while still ensuring good health (based on scientific evidence), (3) by maximising the use of trimmings and alternative feed ingredients such as algal oils, while still ensuring good health (based on scientific evidence). Efforts to minimize should be quantified and reported. The average number of animals killed to feed each aquatic animal should be quantified and reported.



- 20.2.1 Consistent with RSPCA standards: Vaccination shall be done with minimal distress and with the animal anesthetized, and only by certified veterinarians or aquatic animal health professionals.
- 20.2.1 The Aquaculture Health Plan shall include frequency and methods of welfare assessment. Welfare indicators shall be assessed weekly during regular production and more often before, during, and after procedures involving stress, disturbance, and/or handling for all species kept, including cleaner fish. Where possible, continual assessment should be used. Welfare indicators shall be specific to species and life-stage. There should be a distinction between mere health indicators and welfare indicators, with the latter also assessing the psychological health of the animal.
 - Examples of methods for assessing aquatic animal health (additional methods should be incorporated to create a full welfare assessment that includes psychological aspects of welfare):
 - Welfare indicators for Atlantic Salmon
 - Welfare indicators for Rainbow Trout
 - Welfare indicators for Lumpfish
 - Welfare indicators for Ballan Wrasse
- On-farm protocols also evaluating the psychological aspects of welfare must be required as soon as they become available through scientific validation.
- Underwater cameras should be installed on-farm to allow for accurate and comprehensive welfare assessment.
- 20.2.2 This control point and compliance criterion should be categorized as a “major must”.
- 20.2.6 The parameters set to assess health and welfare should not be set by the farmer individually, but must follow objective and well documented criteria. In addition, these parameters must be included in the pre-transport evaluation. Stressed, diseased, or injured animals who are unlikely to survive transport must not be transported and must either be effectively stunned and killed or transported at a later time after improvement to their condition.
- 20.2.8 Welfare indicators should also be included in the registration system.
- 20.2.12 This control point and compliance criterion should be categorized as a “major must”.
- 20.2.13 Administration of feed needs to avoid competition and aggression. Feeding operators need to ensure that all aquatic animals obtain equal amounts of feed.
- 20.2.15 Any animal welfare risk assessment shall also be coupled with an action plan once poor welfare is detected (e.g. treat animals immediately and alleviate the risk). This control point and compliance criterion should be categorized as a “major must”.
- 20.2.18 Water quality should be assessed at least once a day and additional assessments through water samples should be taken at least twice a week. The water quality risk assessment must be coupled with an action plan once poor water quality is detected.
- 20.2.19 Hatchery records must include welfare assessments.
- 20.2.20 This control point and compliance criterion should be categorized as a “major must”.



- 20.2.21 Fasting shall not exceed 72 hours. Records need to be kept about why, when, and for how long aquatic animals were fasted. 72 hours is an absolute maximum and should be adjusted down per species. Fasting should only be allowed for animal welfare purposes, and not due to e.g. logistical concerns or off-flavor issues.
 - There is no scientific evidence that for example fasting salmon longer than 72 hours has any additional benefits ([Robb 2008](#); [Lines & Spence 2012](#)).
- 20.9.4 Farms should have a contingency plan ready in case of technical failure, including alarms to alert available, trained personnel outside of regular working hours.
- 20.9.5 Oxygen levels should be monitored and adjusted to species-specific optimal levels. This control point and compliance criterion should be categorized as a “major must”.
- 23. Parasite management including sea lice:
 - Ensure adequate monitoring and preventative measures to limit sea lice and the subsequent use of parasite management methods that are harmful to the aquatic animal or to the cleaner fish.
 - The use of cleaner fish shall be banned, given the welfare considerations of the cleaner fish themselves. The use of cleaner fish has not been found to be an efficient method of removing sea lice ([Barrett et al 2020](#)), and cleaner fish face poor welfare, high disease rates, deformities, predation by salmon, and very high mortality rates ([Fjelldal et al 2020](#), [Hjeltnes et al 2019](#)). Until a ban on cleaner fish is implemented, there must be appropriate enrichment, shelters, and feed for the cleaner fish, and the cleaner fish must be effectively stunned immediately prior to slaughter.
 - Methods used for removal of parasites, such as sea lice, must provide rigorous, scientific documentation and reduce the adverse effects on the welfare of the fish; until the ban on cleaner fish is implemented, this must also apply to any cleaner fish present. Any adverse effects caused by delicing methods or other parasite management must be reported, as must steps taken to keep these adverse effects to a minimum.
 - For new facilities, the farming location shall be chosen so as to minimize parasite (such as sea lice) presence and spread.
- 24. Handling and transport shall be performed only by personnel trained in aquatic animal welfare. Training must be repeated annually. Stocking density should also be monitored and limited during transport based on species-specific welfare criteria. Water quality must be continuously monitored during transport and measures to ensure acceptable water quality such as addition of oxygen must be in place where necessary.
- 24.1 Handling: Animals must not be out of water for more than 15 seconds if conscious and not anesthetized (consistent with RSPCA standard).
- 24. Where possible: Slaughter shall be performed directly at the rearing facility to prevent additional handling and transport. New facilities will be required to have on-site slaughtering with effective stunning.



- 25.1.1 Training shall be required for farmworkers at all stages, not just at slaughter. Workers need to be able to identify indicators of poor health and welfare including but not limited to: diseases, parasites, physical damage, behavioral abnormalities, morphological abnormalities, and altered production parameters. Workers should be trained upon hire and re-trained annually, and also after any and all updates to applicable Global G.A.P. standards.
- 25.2.2 This control point and compliance criterion should be categorized as a “major must”.
- 25.2.3 This control point and compliance criterion should be categorized as a “major must”.
- 26.1 Effective stunning prior to slaughter is required. The method used for stunning shall render the aquatic animal immediately and fully unconscious (i.e. within one second by a scientifically validated method), and not just immobilize the animal. Death must be induced without consciousness recovery, and ideally onsite. In particular, the use of ice slurry without prior stunning is not an acceptable form of slaughter because it has been shown that animals remain conscious for 15-20 minutes after immersion in ice slurries ([Giuffrida et al. 2007](#)). Literature shows that there are no significant quality differences between percussive/electrically stunned animals and animals killed in ice slurries (e.g. [Özogul & Özogul 2004](#); [Tejada & Huidobro 2002](#)). Unconsciousness must persist up to the point of death. (For further information on assessing unconsciousness, see p.157-159 of [Lines & Spence 2011](#)).
- 26.1 Casualty slaughter: Animals shall be effectively stunned and killed to limit their suffering.
 - For example animals accidentally dropped shall not be left in the air to die.
 - Sick and injured animals need to be effectively stunned and killed without delay.

Signatories:

Animal Equality

Aquatic Animals Alliance

Compassion in World Farming

Dyrevernalliansen: The Norwegian Animal Protection Alliance

Fish Welfare Initiative

Mercy For Animals

The Aquatic Life Institute

The Humane League



Supporting literature:

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