

Salmon Farming Certifications: the need for improvements

“Farmed Responsibly”. “Best Practice”. Eco-labels make farmed salmon appear “green”, i.e. sustainable, which is what consumers want. However, SeaChoice’s analysis of the world’s biggest farmed salmon certifications shows that they are not necessarily delivering on their claims. SeaChoice has identified several improvements to farmed salmon certifications that are necessary if they are to truly contribute to the protection of wild salmon and our oceans.

CERTIFICATION SUPPLY CHAIN



Retailers play an influential role in the supply chain by being an interface between producers, suppliers and consumers. Stocking credible certifications – and advocating for their improvement – are critical for maintaining consumers’ trust in eco-labels.

HOW DO FARMED SALMON CERTIFICATIONS STACK UP?

The three major certification schemes used by the salmon aquaculture industry are: the Aquaculture Stewardship Council (ASC), Best Aquaculture Practices (BAP) and GlobalG.A.P. (GGN). SeaChoice’s investigation into these certifications’ standards shows that all have room for improvement, though **BAP and GGN have the most opportunities for improvement** as they set few or no limits or prohibitions on key environmental impacts. Canadian salmon farms have been certified under all three of these standards despite high fish mortality rates, marine mammal deaths and elevated sea lice loads.¹

STANDARD METRICS TO LIMIT ENVIRONMENTAL IMPACTS	ASC*	BAP	GGN
Limits on mortality from disease?	—	✗	✗
Limits on sea lice present on farms?	—	✗	✗
Limits on chemical use to combat sea lice?	—	✗	✗
Limits on antibiotics?	—**	—	✗
Limits on nutrient effluent (e.g. waste, feces)?	—	✗	✗
Limits on wild fish held and/or killed inside farm?	✗	✗	✗
Limits on wild fish used in feed?	—	✓	✗
Prohibition on farms in areas of high conservation value?	—	✗	—
Prohibition on fish escapes?	—**	✗	✗
Prohibition on harming wildlife (e.g. seal deaths)?	—**	✗	✗

LEGEND:

- ✓ limits/prohibition in place
- some limits/prohibition
- ✗ no limits/prohibition

*ASC does not assess the interim farm stage of the production cycle, which means standards limits (e.g. mortality, antibiotics, wild fish use, etc) are applicable for only some of the cycle time. Therefore, ‘some’ was applied.

**ASC is currently reviewing its aligned Farm Standard (which will be used to assess farmed salmon) and the current draft proposes removing these limits, which would downgrade these rankings.

See Appendix for full analysis.

FARMED SALMON CERTIFICATIONS IN THE CANADIAN MARKET



Salmon farming companies: Cermaq, Grieg, Mowi (Canada)



Imported salmon
(U.K., Chile, Norway)



Salmon farming companies: Cermaq, Grieg, Mowi, Cooke: Kelly Cove & True North (Canada)



Imported salmon
(U.K., Chile, Norway)



Salmon farming companies: No certified Canadian farms



Imported salmon
(U.K., Chile, Norway)

WHAT CAN RETAILERS DO?



Claiming to be “best practice” or “responsible practice” doesn’t cut it when the practices allowed by eco-certifications are largely within industry norms that continue to threaten wild salmon populations and other marine life. Through outreach, retailers can support the following key improvements of the certifications that they support:

- **Higher sustainability bars:** All certifications should live up to their sustainability promises with scientifically robust standards that lead to genuine environmental improvements and protect wild salmon. Standards should not simply certify “business as usual” practices, for example, deferring to sea lice limits set by national regulators instead of more ambitious limits.
- **Performance-based standards:** BAP and GGN should adopt metric limits within their criteria that set minimum performance expectations for certified farms. ASC should work to increase, not decrease, the number of performance metric limits in their standard.
- **Full production cycle impact assessments:** ASC should ensure the full production cycle – from egg to harvest – is assessed against their standard. Exempting some production stages from assessment means environmental impacts are missed and consumers are being misled as to what the ASC label actually represents.
- **Transparency on certified farms performance:** BAP and GGN should publish audit reports to demonstrate a farm’s compliance with their standards. Both should implement a Monitoring and Evaluation program to demonstrate that their certifications result in sustainability improvements.
- **Stakeholder inclusivity:** GGN should include civil society stakeholders on governance and standard-setting roles to ensure multi-stakeholder representation and decision-making. BAP and GGN should require consultation with local stakeholders during farm audits.

CONTACT SEACHOICE FOR MORE INFORMATION ON HOW TO TAKE ACTION TO IMPROVE THE FARMED SALMON CERTIFICATIONS YOU SUPPORT.

APPENDIX

This appendix provides further information on other areas of concern that require improvements by the schemes, an explanation on the various certification benchmarks and the full analysis on how the certifications stack up.

WHAT’S REALLY BEHIND THE LABELS?

SeaChoice’s reviews of these schemes have found concerning loopholes that benefit the industry - not consumers, wild salmon or local stakeholders affected by the industry.

Loophole #1: No guarantee of “farmed responsibly” from egg to harvest
The production cycle of B.C. farmed salmon can include interim sites that are used between the hatchery and the final grow-out stage. ASC allows auditors to exclude these interim sites from audits - meaning up to a year of the production cycle avoids any assessment for environmental impacts.

Loophole #2: Farms exempt from certification criteria
ASC often grants criteria exemptions or departures, known as variances, to farms. As a result, for seven years, B.C. salmon farmers benefited from a variance that exempted them from needing to meet any maximum limit of sea lice on farmed fish. Farms are also exempt from needing to participate in area-based management, as well as some benthic and water quality monitoring criteria.

Loophole #3: Audits behind closed doors
The public won’t find any published audit reports to demonstrate a farm’s compliance with BAP or GGN certifications. All also lack a requirement to consult with local stakeholders, including communities affected by industry and independent scientists, during farm audits.

Loophole #4: A case of the “fox guarding the henhouse”
GGN lacks civil society stakeholder representation on its standard-development and governance bodies. Instead, industry members exclusively hold these positions - and ultimately sign off on the criteria that industry needs to meet to be certified.

Certifications fail to protect wild salmon from disease

Strategic Salmon Health Initiative (SSHI) scientists have identified that farm-origin transmission of a highly infectious bacteria, *Tenacibaculum maritimum*, and virus, Piscine Orthoreovirus (PRV), are of serious concern to some Pacific salmon populations. Both are ubiquitous in B.C. salmon farms and hatcheries. None of the certifications assessed prevent farms with PRV or *T. maritimum* infected fish from being certified. Simply put, these certification standards are not doing nearly enough to eliminate the transmission risk that net-pen operations pose to vulnerable wild salmon.

UNPACKING BENCHMARKS

Benchmarks aim to make it easier for retailers to source seafood that meets their sustainable seafood policies. However, these benchmarking initiatives vary in scope and intent.

Global Sustainable Seafood Initiative (GSSI): GSSI operates the Global Benchmark Tool which assesses the governance, management and standards in place by the respective schemes - as informed by FAO guidelines on certification and ecolabelling. ASC, BAP and GGN are recognized by GSSI. Because GSSI does not rank schemes, this places them all on an even playing field despite their differences.

ISEAL Alliance: ISEAL is a membership organisation that defines Codes of Good Practice and Credibility Principles for sustainability systems, including certifications. The ASC is an ISEAL Code Compliant member. While technically not a benchmark, compliant members undergo independent evaluations against the ISEAL’s Codes of Good Practice in Standards-Setting, Assurance and Impacts. BAP and GGN are not ISEAL members.

Importantly, GSSI and ISEAL do not assess whether the schemes’ standards are “sustainable” or meet a certain level of environmental performance. They also don’t assess whether a schemes’ stakeholder engagement procedures are meaningful in practice.

Seafood Watch: Seafood Watch (SFW) recognizes certification standards that are equivalent to at least their “Good Alternative” yellow rating. The benchmarking process involves a “paper to paper” comparison of the relevant Seafood Watch standard and the respective certification standard. In 2017, the ASC Salmon Standard version 1.1 achieved SFW recognition. SeaChoice disagrees with the recognition as the review looked exclusively at the Salmon Standard as written only; meaning exemptions and departures (i.e., variances) from written criteria were not considered by the SFW benchmark. Also, SFW has not conducted an updated benchmark to the current Salmon Standard version 1.3 - which introduced significant changes to chemical use. BAP and GGN are yet to receive recognition for their farmed salmon standards.

			
	✓	✓	✓
	✓		
	✓		

HOW DO FARMED SALMON CERTIFICATIONS STAKE UP? FULL ANALYSIS

Performance vs Practice-based Certifications

The ASC standard, in its current form, relies on a combination of farm practices and farm performance against defined metric levels. In comparison, BAP and GGN standards are largely practice-based; meaning their standards focus on farm procedures and protocols rather than whether a farm demonstrates a minimum level of “good” performance. However, there is a concern that ASC is moving away from a performance-based standard by either eliminating or weakening metric limits during revisions to their standard. Researchers state performance-based standards are more likely, than practice-based schemes, to actually modify farm practices that can lead to environmental improvements.

	ASC	DETAILS	BAP	DETAILS	GGN	DETAILS
Limits on disease mortalities? <i>Why is it important: High levels of mortality which can be an indicator that outbreaks are not under control. Diseases pose a major risk to wild salmon populations.</i>	⊖	Yes, the ASC has a maximum viral disease-related mortality on farm limit. The most recent production cycle under audit must have ≤ 10% disease-related mortality rate. As the ASC does not assess interim net-pens, the mortality limit is only applicable for some of the time during the production cycle.	✗	No, BAP does not have a limit on disease-related mortality. Outbreaks and farm actions taken must be recorded, but there are no repercussions for high levels of mortality.	✗	No, GGN does not have a limit on disease-related mortality. Plans detailing actions to be taken in the event of a disease outbreak are required, but there are no repercussions for high levels of mortality.
Limits on sea lice present on farm? <i>Why is it important: Lice from farms can transfer to out-migrating juvenile wild salmon with deadly consequences.</i>	⊖	Until recently, B.C. farms were held to no maximum sea lice limit due to an ASC-approved variance that exempted farms from the Salmon Standard's sea lice limit. Now ASC defers to Fisheries and Oceans' 3 motile limit which allows farms 42 days to bring counts back under the limit when breached. However, during this 42-day leeway period no maximum limit is in required - placing migrating juvenile wild salmon at risk of deadly lice infestations. As the ASC does not assess interim net-pens, the 3 motile limit is only applicable for some of the time during the production cycle.	✗	No, BAP does not have maximum limit for sea lice and need only comply with local regulations which are considered inadequate in B.C. Elevated lice levels place migrating juvenile wild salmon at risk of deadly lice infestations.	✗	No, GGN does not have a maximum limit for sea lice. Veterinary Health Plans detailing actions to be taken in the event of an outbreak are required, but there are no repercussions for high sea lice levels. Elevated lice levels place migrating juvenile wild salmon at risk of deadly lice infestations.
Limits on sea lice chemicals? <i>Why is it important: Chemicals can enter the surrounding ecosystem causing potential to harm sensitive species. Overuse can cause drug resistant sea lice.</i>	⊖	The ASC has regional-specific "entry limits" in place. There is concern that these entry limits are far too lenient and are not protective enough for sensitive species such as lobster. Farms are required to work towards lowering their sea lice chemical use over time towards a global level limit. As the ASC does not assess interim net-pens, the sea lice chemical limit is only applicable for some of the time during the production cycle.	✗	No, BAP does not have any limit on the amount of sea lice chemicals used on farm which could accelerate drug resistance and place sensitive species such as lobster at risk.	✗	No, GGN does not have any limit on the amount of sea lice chemicals used on farm which could accelerate drug resistance and place sensitive species such as lobster at risk.
Limits on antibiotics? <i>Why is it important: Antibiotics can enter the surrounding marine environment; high antibiotic use in livestock contributes to the development of antibiotic resistant bacteria.</i>	⊖	Yes, the ASC has limits on the number of times antibiotics can be used at a certified farm, which reduces the chance of antibiotic resistance developing. However, current drafts of the new ASC Farm Standard propose removing these. The ASC prohibits the use of antibiotics that are listed as critically important for human medicine by the World Health Organisation. As the ASC does not assess interim net-pens, the antibiotic limit is only applicable for some of the time during the production cycle.	⊖	No, BAP does not have limits on the number of times antibiotics can be used at a certified farm which could contribute to the development of antibiotic resistance. As of January 2021, BAP has prohibited the use of antibiotics that are listed as critically important for human medicine by the World Health Organisation.	✗	No, GGN does not have limits on the number of times antibiotics can be used at a certified farm which could contribute to the development of antibiotic resistance. GGN discourages using antibiotics that are listed as critically important for human medicine by the World Health Organisation but falls short of prohibiting their use.
Limits on nutrient effluent? <i>Why is it important: Farm waste can lead to declines in oxygen in the water column, an increase in algae blooms and/or decimate the benthic seafloor under farms.</i>	⊖	No, the ASC does not have any limits on the amount of nutrients or waste released from salmon farms. However, the ASC does have requirements for monitoring benthic impact and water quality, but B.C. companies are exempted from needing to demonstrate compliance with a number of these. Farms follow local regulations instead. As the ASC does not assess interim net-pens, the benthic monitoring compliance is only applicable for some of the time during the production cycle.	✗	No, BAP does not have any limits on the amount of nutrients or waste released from salmon farms. Farms simply defer to local authorities for benthic and water quality monitoring requirements.	✗	No, GGN does not have any limits on the amount of nutrients or waste released from salmon farms. Farms are required to have a benthic sampling program but there are no requirements that sampling results are not affecting the surrounding ecosystem.
Limits on wild fish held and/or killed inside farm? <i>Why is it important: Wild fish are attracted to farm lights and food; risk to wild fish include disease and sea lice transfer, or incidental capture/death during harvest operations.</i>	✗	No, the ASC does not consider wild fish held or killed inside the farm.	✗	No, the BAP does not consider wild fish held or killed inside the farm. Wildlife Interaction Plans are required but wildlife are presented as predatory fish, mammals, birds (i.e., not passive fish).	✗	No, the GGN does not consider wild fish held or killed inside the farm. Wildlife and conservation plan, but no specific mention of wild fish held or killed inside farms.
Limits on wild fish in feed? <i>Why is it important: Farmed salmon are carnivores that rely on huge amounts of wild fish for feed, further depleting our oceans.</i>	⊖	Yes, the ASC has fishmeal and fish oil limits. The use of illegal, underregulated and underreported (IUU), endangered and vulnerable species is prohibited. As the ASC does not assess interim net-pens, the fish feed limits are only applicable for some of the time during the production cycle.	✓	Yes, BAP has a maximum limit on wild fish use. The use of endangered species is prohibited.	✗	No, GGN does not have a maximum limit on wild fish use in feed. The use of endangered species is prohibited.
Farms in areas of high conservation value prohibited? <i>Why is it important: Salmon farms can have negative effects on critical or sensitive habitats and species.</i>	⊖	The ASC allows exemptions to their stated "none" allowance for farms sited in protected areas or High Conservation Value Areas so long as the company deems that they don't have a negative impact and are compatible with conservation objectives. Farms located in and near the Clayoquot Sound Biosphere Reserve are certified.	✗	No, BAP does not prohibit farms in protected areas or High Conservation Value Areas.	⊖	GGN farms are prohibited in certain protected areas, however, some exemptions are made for certain types of protected areas and where the management authority consents to the farm's presence. Restrictions for High Conservation Value Areas exist, but these do not apply to salmon farming.
Fish escapes prohibited? <i>Why is it important: Atlantic salmon is a non-native species in B.C. waters. In Atlantic Canada, fish escapes pose a threat to endangered wild Atlantic salmon through interbreeding, disease transfer and competition.</i>	⊖	The ASC has a maximum limit of 300 escapees; however, an exemption can be made where the escape event was not foreseeable and deemed outside of the farm's control. Current drafts of the new ASC Farm standard propose removing the escape limit. As the ASC does not assess interim net-pens, the escape limit is only applicable for some of the time during the production cycle.	✗	No, BAP does not prohibit escapes. Farms should follow a Fish Containment Plan in the event of a suspected or occurred escape event, but requirements fall short of defining any maximum escape limit numbers allowed.	✗	No, GGN does not prohibit escapes. Farms should have a Contingency Plan with procedures in place to prevent and react to escape events, but these requirements fall short of defining any maximum escape limit numbers allowed.
Harming wildlife prohibited? (e.g. sea lion deaths) <i>Why is it important: Marine mammals, including whales and sea lions, as well as birds can become entangled in nets and die. Farmers can apply to shoot nuisance sea lions, seals.</i>	⊖	No, the ASC permits harm to wildlife in some circumstances. However, there are limits to the number of marine mammal and bird deaths allowed. The ASC prohibits endangered or red-listed marine mammals or bird deaths. As the ASC does not assess interim net-pens, the mammal/bird limit is only applicable for some of the time during the production cycle. Current drafts of the new ASC Farm standard propose removing the number of marine mammal/bird deaths allowed.	✗	No, BAP permits farmers to use lethal methods where non-lethal methods to deter wildlife have been ineffective. If deemed necessary for human safety reasons, endangered and red-listed species can be killed. Acoustic deterrent devices are allowed on condition.	✗	No, GGN permits farmers to use lethal methods where non-lethal methods to deter wildlife have been ineffective. The killing of endangered species is not allowed; however, exceptions are made if deemed necessary for human safety or mercy reasons.

Note: ASC does not assess the interim farm stage of the production cycle, which means standards limits (e.g. mortality, antibiotics, wild fish use, etc) are applicable for only some of the cycle time. Therefore, 'some' was applied.