ASC Salmon Standard

Second Draft of PTI Revision Proposals

PTI-Related indicators and Appendices

Replacement of indicators 5.2.5 and 5.2.6

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Criterion 5.2 Therapeutic treatments

INDICATOR	REQUIREMENT
5.2.1 On-farm documentation that includes, at a minimum, detailed information on all medicinal products[103] and therapeutants used during the most recent production cycle, the amounts used (including grams per tonne of fish produced), the dates used, which group of fish were treated and against which diseases, proof of proper dosing, and all disease and pathogens detected on the site	Yes
5.2.2 Allowance for use of therapeutic treatments that include antibiotics or medicinal products that are banned[104] in any of the primary salmon producing or importing countries[105]	None
5.2.3 Percentage of medication events that are prescribed by a veterinarian	100%
5.2.4 Compliance with all withdrawal periods after treatments	Yes
5.2.5 Weighted Number of Medicinal Treatments (WNMT) determined and publicly reported as per Appendix VI transparency requirements for each production cycle (see Appendix VII)	To be at or below the Entry Gate (EG) value for the country (see Appendix VII) or at or below the Global Target (GT).
5.2.6 For farms with a WNMT meeting the Entry Gate (EG) but not meeting the Global Target (GT) evidence of reduction in WNMT until the GT is met	A reduction of at least 25% in the WNMT within 6 years from the initial certification date
5.2.7 Implementation of an Integrated Pest Management (IPM) strategy is required by farms as detailed in Appendix VII	Yes
5.2.8 Evidence of environmental monitoring[106] of the concentrations of parasiticide residues in waters outside the AZE or cumulatively in the benthic sediment outside the AZE[107]	Yes
5.2.9 Record parasiticide load for each agent[108] over the production cycle and publicly report in accordance with Appendix VI transparency requirements.	Yes

Comment [U1]: Indicators 5.2.5, 5.2.6, 5.2.7, 5.2.8, 5.2.9 added to replace the old PTI indicators

5.2.10 Allowance for prophylactic use of antimicrobial treatments[109]	None
5.2.11 Allowance for use of antibiotics listed as critically important for human medicine by the World Health Organization (WHO[110])	None[111]
5.2.12 Number of treatments[112] of antibiotics over the most recent production cycle	≤ 3
5.2.13 If more than one antibiotic treatment is used in the most recent production cycle, demonstration that the antibiotic load[113] is at least 15% less that of the average of the two previous production cycles	Yes,[114]
5.2.14 Presence of documents demonstrating that the farm has provided buyers[114] of its salmon with a list of all therapeutants used in production	Yes

Rationale- When disease outbreaks occur on salmon farms, farmers often opt to treat using medicinal therapeutants as a means of protecting on-farm fish and the health of wild populations near the farm. With any chemical introduction into the environment, there is a need to ensure that non-target organisms are not being significantly negatively impacted by the use of that chemical. Accurate and detailed documentation of all treatments is the first step to ensuring effective dosing and safe use of therapeutants. The data collected from this requirement will also help the ASC set more measurable requirements in the future.

Comment [U2]: Rationale updated to reflect new indicators

To minimize the risk of treatments posing a risk to the environment, farms shall not use treatments that have been banned by any of the regulatory bodies in the world's largest salmon-producing or importing countries. The medicinal product must have been proactively prohibited or banned, versus not being approved. Part of a farm's responsibility to operate within the law involves taking appropriate measures to ensure that its product complies with the import laws of the countries where the salmon is eventually sold. Requirement 5.2.14 above ensures that buyers and importers have the information they need to verify that the product complies with import regulations.

Prophylactic use of antimicrobial treatments, and treatments that aren't prescribed by a licensed professional, are unacceptable under the requirement because they open the door to overuse and abuse of therapeutants.

Stakeholders share a common goal of reducing the use of parasiticides and reducing the risk of such treatments as are required, to the environment. The ultimate goal would be that farms could meet the ASC Salmon Standard without using therapeutants or without the risk of those therapeutants significantly negatively impacting the environment. Simultaneously, the ASC Salmon Standard is focused on protecting wild stocks of salmonids and thus sets low thresholds (requirement 3.1.7) for allowable lice on farmed fish in areas with wild salmonids. Taking into account current technology and knowledge, and balancing between the objectives of minimizing impact on wild stocks and at the

same time addressing threats to the environment related to unrestricted use of therapeutants, the Standard is allowing restricted use of parasiticides to treat sea lice under the requirement.

The purpose of the requirement of 5.2.5 is to place a limit on the number of treatments using parasiticides, while taking into account regional differences in ecosystems and epidemiology, including differences in lice species, wild host reservoirs and susceptibility to lice attack, together with differences in mandatory regulatory requirements in the different countries. The standard seeks to use a progressive indicator which encourages reductions in medicinal product use and the associated risks of resistance from overuse whilst incentivizing an increasing shift to non-medicinal means of control through expansion of integrated pest management (IPM) strategies. To promote this, the entry to the process is relatively inclusive in order to promote the progressive changes sought. For this purpose, after the first audit, the farm should show improvement in management against a progress ladder based on the principles of Integrated Pest Management (IPM) against a time bound plan (Appendix VII) and a shift towards low to zero medicinal product usage (Indicator 5.2.7).

Indicator 5.2.5 addresses the number of medicinal treatments used on certified farms. The total amount of active ingredient used for medicinal treatments will be provided by the parasiticide load, Indicator 5.2.9. In addition, some more direct assessment of the fate of the various agents in the environment, both in the sediment and the water, is to be encouraged (Indicator 5.2.8) by requiring some monitoring of the concentration of the various agents in water and sediments at the edge and outside the Allowable Zone of Effects (AZE) either by using tools such as direct assay or models that have been scientifically validated (e.g. by peer review and documented testing) and which are approved by national regulatory bodies[111].

In order to monitor effective progress in reduction of medicinal treatments, Indicator 5.2.6 requires that at the end of the second certification cycle following the introduction of the new requirements, that is after 6 years, and of every subsequent cycle, the WMNT can be audited over the preceding 6 years for an overall downward trend indicative of a reduction in medicinal treatment frequency. By this means there should be at least 4 or 5 data points upon which to base judgment. Reductions can be demonstrated at the individual farm or Area Based Management (ABM) level.

These requirements are consistent with industry efforts to reduce both frequency and amount of parasiticide used, as well as with initiatives to develop treatment methods that do not release parasiticides into the environment. To encourage thinking about cumulative use across a broader area, tracking of total use of parasiticides is required under the ABM.

With regards to the use of antibiotics, there is a global effort led by the WHO to ensure that antibiotics important for human medicine are used in a way that doesn't jeopardize their effectiveness in treating human diseases. These requirements seek to be in line with that effort. The requirements set a cap on the maximum allowable number of antibiotic treatments on certified farms, and are intended to set a limit on the levels that might reasonably be required for a well-managed farm, thereby excluding any farms that fail to follow industry guidelines for prudent use of antibiotics. Through 5.2.10, the ASC Salmon Standard addresses environmental risk from cumulative load of antibiotics entering the environment from certified farms. The requirement requires a reduction, within five years, of the actual load of antibiotics released from farms that use more than one treatment of antibiotics. This is in line with industry goals to continue reduction of total antibiotic use and with trends in industry to use precise pen-by-pen treatments when appropriate.

Additionally, the SAD's technical working group on chemical inputs recommended that antibiotics important for human health only be used with extreme reluctance. These requirements are also intended to further raise awareness within the aquatic veterinary community concerning the use of medically important antimicrobial drugs in food-animal production, and the public health risks associated with antibiotic resistance. This issue is addressed in the standard and through a

coordination requirement within the ABM related to the use of antibiotics classified by the WHO as "highly important" for human health.

Parasiticide Load is measured to take into account all active ingredients included in the parasiticide. This is to ensure that the toxicity and impact on the marine environment are properly captured. The standard will not include a toxicity calculation and rather focus on including the formulation that is being used.

For example, take two formulations of deltamethrin (Decis and Alphamax). The formulation Decis is indicated as having 50g deltamethrin per litre which is 5% active ingredient. The formulation Alphamax is indicated as having 10g deltamethrin per litre which is 1% active ingredient. But in toxicity tests with aquatic organisms, Alphamax is as much as 3 times more toxic than Decis, to wit: "Chronic exposure of sand shrimp for 14 days had LC50 values from 15.1 (Decis) to 23.8 ng/L (AlphaMax), with EC50 (inhibition of growth) from 10.4 (Decis) to >32 ng/L (AlphaMax). (Fairchild et. al., 2010). This suggests that actual formulations of pesticides may be more toxic than the active ingredients themselves.

[102] See Appendix VI for transparency requirements for 5.2.1, 5.2.5, 5.2.6, 5.2.8, 5.2.9 and 5.2.12.
[103] Medicinal products used for the treatment of fish.
[104] "Banned" means proactively prohibited by a government entity because of concerns around the substance. A substance banned in any of the primary salmon-producing or importing countries, as defined here, cannot be used in any salmon farm certified under the SAD, regardless of country of production or destination of the product. The SAD recommends that ASC maintain a list of the banned therapeutants.
[105] For purposes of this standard, those countries are Norway, the UK, Canada, Chile, the United States, Japan and France.
[106] Using tools and models that have been scientifically validated (e.g. by peer review and documented testing) and which are approved by national regulatory bodies
[107] Must use fully validated direct monitoring and modelling methods and publish the results. For example the Scottish Environmental Protection Agency requires the use of a development of AUTODEPOMOD: https://www.sepa.org.uk/regulations/water/aquaculture/fish-farm-manual/
[108] Parasiticide load = the sum of the total amount of each of the active ingredients of parasiticides used (kg) per metric tonne of fish per production cycle. Producers must also report the name and total amount (in kg if a dry mixture or litres if liquid) of the actual formulations used over the same period.
[109] The designated veterinarian must certify that a pathogen or disease is present before prescribing medication.
[110] The third edition of the WHO list of critically and highly important antimicrobials was released in 2009 and is available at: http://www.who.int/foodborne_disease/resistance/CIA_3.pdf.
[111] If the antibiotic treatment is applied to only a portion of the pens on a farm site, fish from pens that did not receive treatment are still eligible for certification.
[112] A treatment is a single course of medication given to address a specific disease issue and that may last a number of days.
[113] Antibiotic load = the sum of the total amount of active ingredient of antibiotics used (kg).
[114] Reduction in load required, regardless of whether production increases on the site. Farms that consolidate production across multiple sites within an ABM can calculate reduction based on the combined antibiotic load of the consolidated sites.
[115] Buyer: The company or entity to which the farm or the producing company is directly selling its product.

Comment [U3]: Footnotes updated

Criterion 5.3 Resistance of parasites, viruses and bacteria to medicinal treatments

INDICATOR	REQUIREMENT
5.3.1 Bio-assay analysis to determine resistance when two applications of a treatment have not produced the expected effect	Yes
5.3.2 When bio-assay tests determine resistance is forming, use of an alternative, permitted treatment, or an immediate harvest of all fish on the site	Yes
5.3.3 Specific rotation, providing that the farm has >1 effective medicinal treatment product available, every third treatment must belong to a different family of drugs.	Yes

Comment [U4]: Indicator 5.3.3 has been added as an addition to ASC requirements to prevent resistance

Rationale- One of the more serious risks of overusing medicinal treatments is the development of parasite drug resistance, which lowers the overall effectiveness of treatments. In some salmon-growing regions, resistance to a number of drugs has become a growing problem, increasing the challenge for salmon farmers to control sea lice on farmed and wild fish.

Efforts to prevent and monitor resistance are made most effectively through an area-based approach. Timely, accurate sea lice counts on the farm can detect when sea lice treatment is no longer effective. Bioassays are important to confirm if resistance is developing and a limit has been set on the number of repeat treatments of the same family of drugs that can be applied. A single treatment is considered to have taken place when the majority of a site (more than half of all cages) is treated. No more than two such treatments should use the same family of drugs; that is, at least every third treatment should be with a drug of a different class.

Appendix VI: Transparency of Farm-Level Performance Data

Comment [U5]: Data requirements added for new indicators

The farm must provide evidence that it has submitted to ASC in the requested format the following information about its environmental and social performance.

Information pertaining to biomass and or stocking from which production volumes, timing and financial information can be extracted or inferred should be considered confidential in order to not put certified companies at a competitive disadvantage. Information related to production volumes or harvest timing may be made public with a time delay (*e.g.*, if released post-harvest and sale).

Item	Option	Relevant Requirement	Measurement	Units	Measurement Frequency	Calculations and Sampling Methodologies, Additional Notes
1			Species in production	species		
2	a	2.1.1	Redox potential	mV	production cycle	Appendix I-1
	b		Sulfide levels	microMoles/l	production cycle	Appendix I-1
3	a	2.1.2	AZTI Marine Biotic Index (AMBI)	AMBI score	production cycle	Appendix I-1
	b		Shannon-Wiener Index	S-WI score	production cycle	Appendix I-1
	c		Benthic Quality Index (BQI)	BQI score	production cycle	Appendix I-1
	d		Infaunal Trophic Index (ITI)	ITI score	production cycle	Appendix I-1
4		2.1.3	# of microfaunal taxa	#	production cycle	Appendix I-1
5		2.2.1	Average % DO saturation	%	weekly	Appendix I-4
6		2.2.2	Max % samples under 1.85 mg/l DO	%	weekly	Appendix I-4
7		2.2.4	Nitrogen monitoring	Mg N/ltr	quarterly	Appendix I-5
8		2.2.4	Phosphorous monitoring	Mg P/ltr	quarterly	Appendix I-5
9		2.2.5	Calculated BOD		production cycle	Footnote in 2.2.5
10		2.5.2	# days ADDs/AHDs	#	ongoing[1],	

[1] Ongoing: Logged as needed or as occurs. Data shall be logged such that it can be analyzed on both an annual and a production cycle basis. This definition of “ongoing” applies throughout Appendix VI.

Item	Option	Relevant Requirement	Measurement	Units	Measurement Frequency	Calculations and Sampling Methodologies, Additional Notes
11		2.5.5 and 2.5.6	Lethal incidents of marine mammals and birds	#, species and cause per episode	ongoing	To be made publicly available (*e.g.,* on web) by farming company shortly after incident
12		3.1.1	Fallowing period	dates		
13		3.1.3	Maximum sea lice load set for the ABM	number	annual	Appendix II and III
14		3.1.4 and 3.1.7	Weekly, on-farm sea lice levels		weekly	To be made directly publicly available by farming company within a week
15		3.1.6	In areas of wild salmonids, monitoring of sea lice on out-migrating salmon juveniles or coastal sea trout			Appendix III, to be made publicly available within eight weeks of completion of monitoring
16		3.4.1-3.4.2	Escapes data	# episodes	production cycle	
				date of episode	ongoing	
				cause of episode	ongoing	
				# escapees per episode	ongoing	
				# total escapees	production cycle	
17		3.4.2	Counting technology accuracy	%	production cycle	Footnote 58
		3.4.3	Estimated unexplained loss	#	production cycle	Footnote 59

Item	Option	Relevant Requirement	Measurement	Units	Measurement Frequency	Calculations and Sampling Methodologies, Additional Notes
18		4.2.1	FFDR fishmeal (during grow-out)	FFDRm	production cycle	Appendix IV
19	a	4.2.2	FFDR fish oil (during grow-out)	FFDRo	production cycle	Appendix IV
	b		Max amount EPA and DHA	g/kg feed	production cycle	Appendix IV
20		4.4.3	Transgenic feed ingredients	Y/N	production cycle	
21		4.6.1	Energy use	kJ/mT fish	production cycle	Appendix V-1
22		4.6.2	GHG emissions on farm		annual	Appendix V-1
23		4.6.3	GHG emissions of feed		production cycle (not immediately applicable)	Appendix V-2
24		4.7.1	Copper-based antifoulants	Y/N	production cycle	
25		4.7.3 and 4.7.4	Results of copper sampling (outside AZE and at reference sites), if required	mg Cu/kg sediment	production cycle	Appendix I-1
26		5.1.5	Total mortality of farmed fish	%	ongoing	
27		5.1.4	Cause of mortalities (*post-mortem* analysis)	# morts per cause or disease	ongoing	
28		5.1.6	Maximum unexplained mortalities	% of total mortality	production cycle	
29		5.2.1	Amount of each medicinal product / therapeutant used for each (antibiotics, parasiticides, *etc*.)	product name	ongoing	Also 5.2.9
				chemical name	ongoing	
				reason for use	ongoing	
				date	ongoing	
				kg	ongoing	
				mT fish treated	ongoing	
				dosage	ongoing	
				# of	ongoing	

Item	Option	Relevant Requirement	Measurement	Units	Measurement Frequency	Calculations and Sampling Methodologies, Additional Notes
				treatments		
				WHO classification (antibiotics only)	ongoing	
31		5.2.5	Weighted Number of Medicinal Treatments (WNMT)	No.	production cycle	Appendix VII
32		5.2.6	Reduction in WNMT	%	6-year cycle	Appendix VII
33		5.2.8	Results of environmental monitoring			Public disclosure of results within 30 days of findings
34		5.2.9	Parasiticide load for each agent	kg if a dry mixture or litres if liquid	production cycle	Appendix VII
35		5.2.10	Antibiotic load compared to two previous production cycles, if required	kg	production cycle	Appendix VII
36		5.4.2	Unidentifiable transmissible agent	Date(s) concern raised, disease detected from monitoring (if applicable)	ongoing	Public disclosure of results of surveillance within 30 days of findings
37		5.4.4	OIE-notifiable disease detected on farm	Disease(s), exotic or endemic, and detection date(s)	ongoing	Public disclosure of detection and results of surveillance within 30 days of findings
38		Section 8	Type of smolt production system	Open, semi or closed	production cycle	
39		8.32 and 8.33	Monitoring results from water quality analyses	See Appendix VIII-2		

Appendix VII: Parasiticide Treatment Methodology

Comment [U6]: Proposed replacement Appendix to give guidance for auditing Parasiticide treatments

Weighted number of medicinal treatment thresholds

The weighted treatment frequency is the total number of occasions a medicinal parasiticide was used over the grow-out production cycle.[2] It is therefore referred to as the weighted number of medicinal treatments (WNMT). Partial treatments should be counted as a proportion of the cages treated, e.g. 1 treated out of 10 scores 0.1.

For example, on a 10-pen site, treating 1 cage x 10 is the same as treating 10 pens x 1, meaning the quantity of medicine used is the same. It is expected that treating 1 pen x 10 would typically not happen in practice. The purpose of treating individual pens is to reduce infection pressure on site and of course lice build up in that pen again. Treating individual pens that are approaching national thresholds, rather than basing interventions on site average lice levels, reduces infection pressure and treatment frequency. Reducing WNMT then of course means the risk of resistance development is also reduced as is the discharge of medicinal products into the environment. As an additional measure to prevent resistance, indicator 5.3.3 has been added to the standard.

The indicator sets an acceptable frequency or Entry Gate (EG) that allows entry into the certification process (similar to the antibiotic metric in the ASC standard).

The indicator defines a maximum frequency “EG”, which is region-specific and after which progressive improvements are required to progress towards a lower fixed Global Target (GT) below which further improvement is unrealistic.

- Sites >EG would not be certified
- Sites >GT and ≤EG would be certified but need to show gradual improvement against an IPM progress ladder (see below)
- Sites with ≤GT would be certified with no frequency improvement conditions

Country[3]	Number of Observations	Mean WNMT	Median WNMT 50 percentile	66 percentile WNMT	Proposed WNMT Entry Gate (EG)[4]
Atlantic Canada[5]			8	8	8
Pacific Canada	61	1.2	1	2	GT
Chile	80	10	9	12	11
Faeroes	35	5.8	6	8	8
Ireland	13	6.2	3	7	7
Norway	312	5.0	5	6	6
Scotland	84	9.2	9	11	9

Table 1. WNMT per country, per cycle

[2] Medicinal parasiticide includes hydrogen peroxide.
[3] All other country Entry Gate values are proposed to be set at the Global Target (GT)
[4] Weighted number of medicinal treatments per cycle above which certification cannot be considered.
[5] The rationale for separating North America into two regions rests on the fact that there are two sub-species of lice with very different biology and non-overlapping distributions hence no resistance transfer.

The proposed values for EG given in the table above take into account the ecosystem and regulatory differences amongst the countries. They are based on the statistical median frequencies found in those countries (Table 1). These are levels that a site must reach or get below in order to be eligible for ASC certification. The GT represents the level roughly achievable (according to the best available data) by the top 20 percent of farms globally at the time when the standard is set. This level was seen by the group as in line with other metrics in the standard.

To generate the values in Table 1, the data from all sites in each region were considered in turn. Within each country all site-years in the available data were ranked from the lowest to the highest number of treatments per production cycle. The treatment usage observed at the site-year closest to the median (50th percentile) and 66th percentile within that region were then taken from these ranked list and noted in Table 1.

The EG values can be set at a level that will best achieve the ASC's mission of transforming global aquaculture. The TWG proposal was to set EG values at the 66th percentile and this is generally where the proposed EG values have been set. However, the estimate for Ireland in Table 1 is based only on 13 records and therefore in arriving at a more representative recommendation, further data from Marine Board of Ireland was consulted. The value for Chile was slightly reduced because the Chilean data was regarded as lacking representative data from Area XII in the extreme south where lice incidence was lower. Regarding Scotland, the number of 11 was considered excessively high when compared to the rest of the North Atlantic regions and was also much higher than has been reported in a number of historical studies (e.g. Revie et al 2010 , Murray 2016). Consequently, in the light of this historic data, the number was reduced by 2 so that it was more in line with the other surveys (Table 1). (See updated PTI report). The median frequency levels (50th percentile) based on this data have also been included in the table for reference.

The Global Target (GT), below which no progressive improvement is required has been proposed to be a fixed value of 4[6]. The GT threshold ensures the same level of minimal environmental risk for all certified farms allowing for unpredictable fluctuations. This is essential since salmon are sold into the same markets from multiple regions. Meeting the GT is a condition of ASC certification and the farms must demonstrate that they are continually improving towards this value. Farms at the GT level are not permitted to rise above it, for instance if farms in a region meet their GT level, then they must stay below this value.

The mean number of treatments in the data set analysed was 5.9 per cycle. The average number of treatments for all certified farms should be no higher than 4 (the GT) and as such would represent at least a 50% reduction in the frequency of treatment compared to the overall situation reflected in the data used in the current analyses.

Farm management of sea lice must be consistent with the principles of IPM (Indicators 5.2.6 and 5.2.9) and in particular rotation of medicinal treatments is a requirement within a production cycle. Continued certification will depend upon demonstrable progress on the progress ladder for IPM against a time bound plan.

Progress ladder for Integrated Pest Management (IPM)

[6] A number of the bath treatments require two applications of the medicinal treatment at around 6-8 weeks apart to be fully efficacious. Assuming that two different bath treatments of this sort were used within a production cycle, this would result in a minimum of four weighted treatments (WNMT).

Integrated Pest Management (IPM) has long been recognized as being critical to effective and robust sea lice management. IPM is based upon the implementation of a number of proven techniques and approaches developed for pest management in terrestrial agriculture systems, often with the central aim of slowing the development of drug resistance in pest species.

The strategy of IPM generally involves coordinated application and integrated use of all available management practices, with surveillance, communication and cooperation between operators within a defined area. Approaches should give consideration to the interests and influences on producers, farmed fish health, society and the environment. This approach seeks in particular to reduce reliance upon medicinal treatments, thus reducing scope for development of drug resistance and is therefore a process that ASC intends to promote, hence the certification requirement to progress in IPM.

Implementation of the following elements of IPM can enable farms to deliver improvements in sea lice management, reduce the need for medicinal treatments and reduce the risk of resistance development.

IPM Measures (*e.g*. Torrissen et al 2013) required for initial certification (reference to existing ASC indicators in parenthesis)[7]

- Adherence to relevant thresholds/limits on sea lice levels and required action (3.1.4)
- Regular counting and reported of sea lice levels (3.1.7)
- Maintenance of treatment records (Appendix VI)
- Single year-class stocking (5.4.1)
- Fallowing between cycles (3.1.1)
- Health management / veterinary health plan (5.1.1)
- Cleaning of nets to increase water flow
- Routine removal of moribund fish (5.1.3)
- Monitoring of fish state (*e.g*. behavior)
- Monitoring and control of other fish diseases (5.1.1)
- Strategic use of medicines *i.e.* the appropriate medicine used for the targeted stage/s of lice
- Medicine rotation, where possible (5.3)
- Medicine resistance surveillance (site or area) (5.3)
- Monitoring of treatment efficacy (5.3)
- Plan for integration of preventative tools
- Plan for integration of non-medicinal treatment tools
- Area coordinated planning and management (3.1.3)

IMP progress requirements by first audit

- Use of preventative and/or biological control tools
- Use of non-medicinal treatment tools
- Optimizing treatments and promoting effectiveness of treatment tools

Time-bound IPM progress plan

All farms achieving the Entry Gate (EG) must also demonstrate that a strategic IPM plan is in place that includes all the measures required for initial certification. The plan must be being implemented and include at least the additional requirements listed by the time of the first surveillance audit. Farms that meet the GT must continue to implement an IPM strategy and minimize use of medicinal

[7] https://books.google.co.uk/books?hl=en&lr=&id=wj32BwAAQBAJ&oi=fnd&pg=PA1&dq=sea+lice+and+integrated+pest+management&ots=sy8CqHHyLA&sig=WcZvLOGGIHsCp34V4USO7VKpSNQ&redir_esc=y#v=onepage&q&f=false

treatments. Exceptional events such as a need to avoid fish welfare issues can be excluded from the calculation if sufficient justification is provided.

The ASC recognizes the challenges involved in farms reducing the use of medicinal treatments. It will involve investment and innovation and this is why the proposal seeks to drive reductions over a reasonable period.

The implementation of the IPM plan must result in a demonstrable reduction in medicinal treatment frequency over time. At the end of the second certification cycle and of every subsequent cycle, the WNMT can be checked over the preceding 6 years for downward trends. A reduction of 25% WNMT must be demonstrated by the farm within 6 years of the initial date of entry into the certification process. Then by the next certification (within 3 years) the farm must reduce by another 25% their WNMT. Farms not meeting these progress requirements will lose their ASC certification.