

Aquaculture standards proposals		Rationale
<p>Key: delete words – strike through; new text – <u>underlined</u>; normal text – no change</p>		
Feeding techniques		
30.8.1	<p>You should:</p> <ul style="list-style-type: none"> · [...] <ul style="list-style-type: none"> · <u>Collect, recirculate or re-use uneaten feed</u> 	<p>Techniques and equipment are available to capture and recirculate uneaten food in salmon pens.</p> <p>This proposal recommends these techniques.</p>
30.8.2	<p>When providing feeds you must:</p> <ul style="list-style-type: none"> · [...] · monitor feeding behaviour, and · <u>minimise uneaten feed or feed wastage, and</u> · [.....] 	<p>Advantages: reduced environmental impact; less feed wastage; improved Feed Conversion Ratio (FCR). Disadvantages: equipment cost; more labour; more 'high-tech'.</p>
Solvent extracted ingredients		
30.8.6	<p>You must not use:</p> <p>solvent extracted ingredients materials <u>that have been solvent extracted (except those extracted using ethanol and water)</u></p>	<p>This proposal will bring this standard into line with the equivalent standard in the agricultural feed section (10.13.27)</p>
Sustainable fishmeal clarification		
30.8.6	<p>You must not use:</p> <p>fishmeal <u>or fish oil</u> from <u>dedicated</u> operations that are not independently certified as sustainable [.....]</p>	<p>This (unamended) standard has caused confusion. For example our feeds currently use fishmeal from trimmings (i.e. by-products), but these are not from independently certified fisheries. Therefore in theory, this should not have been permitted under 30.8.6.</p> <p>The proposed changes allow the use of fishmeal or fish oil from trimmings (by-products of fish caught for human consumption).</p>
Crowding		
30.9.9	<p>You may only crowd stock when necessary for harvest, capture or treatment <u>for a maximum of two hours.</u></p>	<p>Our existing standards only limit crowding to two hours for harvest. The proposed standard change will limit crowding to two hours for any reason.</p>
30.9.11	<p>When you crowd stock for harvest, this must not be for more than two hours.</p>	

Malachite Green		
30.10.13	You must not use: malachite green for treating either water or fish	Malachite Green (a treatment for parasites, bacterial or fungal infections in fish) is illegal so we can take reference to it out of the standards.
Emamectin benzoate withdrawal period (Atlantic salmon)		
31.5.10	You must observe a withdrawal period before harvest of 1000 degree days after treating your fish with emamectin benzoate.	Emamectin benzoate (or 'Slice') is an effective treatment for sea lice parasites on salmon. It is administered in feed (the feed being medicated in the feed mill under veterinary prescription). The current 1000 degree-days withdrawal period is far stricter than other aquaculture standards (140 degree-days for other treatments) and Soil Association terrestrial livestock standards.
31.5.10	If you treat your fish with emamectin benzoate you must either: <ul style="list-style-type: none"> observe a withdrawal period before harvest of 600 degree days, or provide us with evidence that residues in the fish are 10ppb or less. 	
Sea lice monitoring (Atlantic salmon)		
New: 31.5.4	<u>You do not need to undertake weekly sea lice monitoring within 140 degree-days of harvest.</u>	For the most commonly used anaesthetic (MS222) the statutory withdrawal period is 70 degree-days. SA withdrawal period is 140 degree-days (30.10.9). We require weekly sea lice monitoring and the small number of fish sampled (and anaesthetised) each week run the theoretical risk of repeat treatment within the withdrawal period.
Bivalves		
34.9.6	You must <u>should</u> remove starfish, crabs and other biofouling organisms by physical methods such as by hand.	The Aquaculture Standards Committee agreed that the use of lime was acceptable for controlling pest species on mussel lines. (The process involves dipping individual lines in a contained solution of 50g hydrated lime per litre of seawater, for one minute. The mussels are treated once at roughly 3 months of age and then grow for another 14-33 months without further treatment. Yield per line can be reduced by up to 50% if they are not treated).
34.9.7	<u>With our permission you may use lime to control starfish or other biofouling organisms on mussel lines. You must provide evidence to show that treatment is necessary - for example, yield data for treated and untreated mussel ropes.</u>	
34.9.78	You must not use: —predator nets, or lime to control starfish or other biofouling organisms	