



## FEMAS Sector Note No. 5 – Fish Meal and Crude Fish Oil

These Sector Notes apply to businesses producing Fish Meal and Crude Fish Oil for use in animal feed.

These Notes are not exhaustive, and are intended to assist in the application of the corresponding requirements of the FEMAS Standard and are not to be considered in isolation.

**Section 1** of these Sector Notes includes definitions of specific relevance to this sector.

**Section 2** of these Sector Notes includes those additional requirements of the FEMAS Scheme specific to this sector and with which Participants **must** comply in order to achieve certification under the FEMAS Scheme.

**Section 3** of these Sector Notes includes additional guidance (shown in italics) specific to this sector, which will assist Participants in interpreting the FEMAS Standard for their sector.

**NOTE: Revisions introduced in this edition of the Sector Notes are highlighted in Bold Blue**

### 1 Definitions

<b>Fish Meal</b>	Obtained by processing whole or parts of fish from which part of the oil may have been removed and to which fish solubles may have been re-added, including products of a similar nature obtained by processing non-mammalian aquatic animals such as aquatic molluscs and crustaceans.
<b>Crude Fish Oil</b>	Unrefined oil obtained from fish or parts of fish and including products of a similar nature obtained from non-mammalian aquatic animals such as aquatic molluscs and crustaceans.
<b>Aquaculture</b>	The farming of fish and other non-mammalian aquatic species for human consumption.
<b>Commingling</b>	The combining of different lots of the same type of Feed Material, produced under similar conditions, by identified sources and meeting the same specification.
<b>Standardising</b>	The process by which different parcels of Fish Meal may be mixed to achieve target levels of protein or other nutrients.
<b>Trimming</b>	By-products of the processing of fish for human consumption.

## 2 Additional Sector-Specific Requirements

C 1.1	Raw Material Suppliers	Participants must carry out effective physical audits of all sites producing trimmings prior to first supply unless these sites are already certified in their own right to a scheme recognised by AIC and with a scope including the raw materials.
C 1.1	Raw Material Suppliers	<p>For all suppliers of trimmings, Participants must have in place contracts which specify, as a minimum, the following feed safety criteria:</p> <ul style="list-style-type: none"> <li>• A statement indicating the intended use as animal feed</li> <li>• A specification listing the types of trimmings included in the contract and, as appropriate, those that must be excluded</li> <li>• The requirement for all businesses in the supply chain (including hauliers) to be appropriately approved for handling fish products under applicable national and local regulations.</li> </ul>
C 2.2	Selection and Approval of Raw Materials	<p>Trimmings utilised to produce Fish Meal or Crude Fish Oil must be sourced from suppliers only processing animal by-products from aquatic animals (excluding aquatic mammals) for human consumption.</p> <p>Farmed fish and farmed marine invertebrates may only be used to produce Fish Meal or Crude Fish Oil if they meet the following criteria:</p> <ul style="list-style-type: none"> <li>• They must show no clinical signs of disease on the day of loading</li> <li>• They must not have been slaughtered under a scheme for the eradication of a disease</li> <li>• They must not come from a farm which is subject to a prohibition for animal health reasons and must not have been in contact with animals from such a farm</li> </ul> <p>All raw materials sourced from farmed fish must be clearly identified and segregated to prevent their inclusion in Fish Meal destined for feeding to the same species</p>
F 3.1	Labelling	<p>During transport and storage, labels must be attached to the packaging, container or vehicle in compliance with relevant national and local legislation.</p> <p>Full details on labelling requirements for all feed materials placed on the market in the UK and EU can</p>

		<p>be found on the AIC Website (<a href="https://www.agindustries.org.uk/sectors/animal-feed/resources/feed-legislation-and-guidance.html">https://www.agindustries.org.uk/sectors/animal-feed/resources/feed-legislation-and-guidance.html</a>).</p> <p>Regulation (EU) No. 142/2011 (as amended) contains additional requirements for labelling fishmeal and fish oil:</p> <ul style="list-style-type: none"> <li>- Clearly indicate the category (as defined by EU Regulation 1069/2009 as amended) of the animal by-products or of the derived products</li> <li>- Bear the following words visibly and legibly displayed on the packaging, container or vehicle, as applicable: <ul style="list-style-type: none"> <li>- in the case of Category 3 material, 'not for human consumption'</li> <li>- in the case of fish and derived products from fish intended for feed for fish,... the name and address of the feed manufacturing establishment of origin, marked clearly and legibly, and</li> </ul> </li> <li>- In the case of fishmeal from wild fish, bearing the words 'contains fishmeal from wild fish only – may be used for the feeding of farmed fish of all species';</li> <li>- In the case of fishmeal from farmed fish, bearing the words 'contains fishmeal from farmed fish of the [...] species only – may only be used for the feeding of farmed fish of other fish species';</li> <li>- In the case of fishmeal from a combination of wild fish and from farmed fish, bearing the words 'contains fishmeal from wild fish and farmed fish of the [...] species – may only be used for the feeding of farmed fish of other fish species';</li> </ul> <p>Regulation (EU) 999/2001 (as amended) requires that for fishmeal placed on the market in the UK or EU:</p> <p>The words 'fishmeal – shall not be used in feed for ruminants except unweaned ruminants' shall be clearly indicated on the accompanying commercial</p>
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		<b>document or health certificate as well as the label of fishmeal.</b>
<b>G 1.1</b>	<b>Premises</b>	Areas where raw fish and partially processed fish are located (unclean areas) and areas where Fish Meal and Crude Fish Oil are packed or stored (clean areas) must be designated, and appropriate controls implemented to prevent contamination.
<b>G 1.7</b>	<b>Premises</b>	<p>Procedures must be in place to control the movements of equipment between the unclean areas and clean areas and prescribe the cleaning and disinfecting of equipment where necessary.</p> <p>Personnel moving between the unclean areas and clean areas of the process must not do so without changing or disinfecting their footwear.</p>
<b>G 7.4</b>	<b>Handling and Processing Equipment</b>	Where terrestrial animal or marine mammal products are stored, produced or available on a site they must not contaminate Fish Meals or Crude Fish Oils.
<b>H 8</b>	<b>Operational Control</b>	<p><b>Regulation (EU) No. 142/2011 (as amended) requires that for fishmeal and fish oil placed on the market in the UK or EU:</b></p> <p><b>Fishmeal must have been submitted to:</b></p> <ul style="list-style-type: none"> <li>- any of the processing methods set out in Chapter III of Annex IV; or</li> <li>- another method which ensures that the product complies with the microbiological standards for derived products set in Chapter I of Annex X.</li> </ul>

I 5.1	Analysis	<p>Regulation (EU) No. 183/2005 (as amended) requires that for fish oil placed on the market in the UK or EU:</p> <p>Dioxin Monitoring for oils, fats and derived products</p> <p>100% of the batches of fish oil shall be analysed if it is produced from:</p> <ul style="list-style-type: none"> <li>- Products derived from crude fish oil other than refined fish oil.</li> <li>- Fisheries with no monitoring history, of unspecified origin or from the Baltic Sea.</li> <li>- Fish by-products from establishments processing fish for human consumption that are not EU approved.</li> <li>- Blue whiting or menhaden.</li> </ul> <p>100% of the outgoing batches of products derived from crude fish oil, other than refined fish oil, shall be analysed.</p> <p>A batch may comprise at the maximum 1,000 tonnes of these products.</p> <p>One representative analysis per 2,000 tonnes shall be carried out in the case of refined fish oil.</p> <p>If it can be demonstrated that a homogenous consignment is bigger than the maximum batch size and that it has been sampled in a representative way, then the results of the analysis of the appropriately drawn and sealed sample will be considered acceptable.</p> <p>Fish oil decontaminated by an officially approved treatment shall be analysed according to HACCP principles.</p>
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K 1.1	General Traceability	<p>Regulation (EU) No. 142/2011 requires that for fishmeal and fish oil placed on the market in the UK or EU:</p> <p>Processing plants producing fishmeal or other feed originating from aquatic animals shall keep records of the following:</p> <ul style="list-style-type: none"> <li>- The quantities produced each day;</li> <li>- The species of origin, including an indication of whether the aquatic animals were caught in the wild or produced in aquaculture;</li> <li>- In the case of fishmeal from farmed fish which is intended for feeding to farmed fish of another species, the scientific name of the species of origin.</li> </ul>
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### 3 Sector-Specific Guidance

<b>B 1.7</b>	<b>HACCP and Feed Safety Risk Assessment</b>	<p><i>Sector-specific potential hazards include but are not limited to:</i></p> <ul style="list-style-type: none"> <li>• Contamination of seawater used in processing (e.g. from waste discharge, pollution, plastic, wood and other waste items)</li> <li>• The presence of fish hooks in fish being processed (whether or not line caught)</li> <li>• The presence of stones collected by fish</li> <li>• The presence of residual packaging, knives and personal items in bulk Fish Meal tipped from bags</li> <li>• The presence of non-protein nitrogen products</li> <li>• Bioaccumulated contaminants that may be present in fish and concentrated in Fish Meal or Crude Fish Oil (e.g. Mercury, Dioxins). Participants should also consider the variation in contaminants due to factors such as geography, species, life stage of fish, migration and feeding patterns</li> </ul>
<b>C 1.1</b>	<b>Raw Material Suppliers</b>	<p><i>Where the Participant receives trimmings/by-products from plants processing fish for human consumption, (whether directly or via a 3<sup>rd</sup> party) the Certification Body reserves the right to include a sample of processor and/ or collector sites in the audit programme to validate any controls upon which the Participant may rely to ensure feed safety.</i></p>
<b>F 1</b>	<b>Feed Specifications</b>	<p><i>Standardising of Fish Meal may be undertaken to meet customer specifications for nutrients (e.g. protein or salt).</i></p> <p><i>The blending of Fish Meal in order to reduce levels of undesirable substances to an acceptable level is illegal under UK and EU Law.</i></p>
<b>G 5.2</b>	<b>Water</b>	<p><i>Seawater may be used in handling systems prior to processing or drying, as long as any potential hazards that may arise from this practice are considered and controlled and any analytical data provided to buyers considers the effect of seawater (notably in the levels of salt in finished products), which may result from this practice.</i></p>
<b>H 6</b>	<b>Packaged Storage Operations</b>	<p><i>In countries where the climate is suitable, Fish Meal may be stored outside in bags (including big bags) as long as they are protected from ingress by pests and</i></p>



		<i>stored under secure conditions, with access restricted only to authorised persons.</i>
<b>H 7.2</b>	<b>Stock Management</b>	<i>Due to the nature of the raw materials, particular attention should be given to the avoidance of fermentation and the formation of biogenic amines, caused by the degradation of proteins due to spoilage.</i>
<b>K 1.1</b>	<b>General Traceability</b>	<p><i>Raw materials sourced from wild caught fish, whether whole fish or trimmings, should be traceable to named vessels, the time of catching and the catching area. Records of the weight and species of fish caught should also be available.</i></p> <p><i>Where, for logistical reasons, the products of more than one Fish Meal or Crude Fish Oil production site are commingled into a common bulk, loss of segregation will result in the loss of FEMAS approved status, unless <b>ALL</b> the criteria below are met:</i></p> <ul style="list-style-type: none"> <li><i>• All parcels commingled meet the parameters of the same specification</i></li> <li><i>• All products commingled are from FEMAS certificated factories</i></li> <li><i>• Buyers are made fully aware and accept that the products of more than one factory are included in the same bulk. This should be confirmed in writing</i></li> <li><i>• Full traceability back to the raw materials is available for each component parcel of Fish Meal or Crude Fish Oil forming part of the common bulk</i></li> </ul>