
Compound Feed Standard

Version 1.0



MEL Council
2026

Introduction

This document, based on the standard and certification scheme established by the Marine Eco-Label Japan Council (hereinafter referred to as the "Council"), sets out the necessary requirements as a standard for the purpose of promoting the spread of responsible and sustainable production activities for compound fish feeds, which play an important role in supporting responsible and sustainable aquaculture production that has earned the trust of consumers, including the protection of natural resources, conservation of the environment, animal health and welfare, and food safety. In order to obtain compound feed certification issued by the Council, it is necessary to satisfy the requirements set out in this standard.

This standard and certification scheme are based on the FAO (Food and Agriculture Organization of the United Nations) Code of Conduct for Responsible Fisheries (adopted in 1995), Requirements for Technical Guidelines for Aquaculture Certification (adopted in 2011, hereafter referred to as the "Aquaculture Certification Guidelines"), and Technical Guidelines for Responsible Fisheries - Aquaculture Development 1-10 (issued from 2001 to 2025) , and comply with the Feed Safety Act and other feed-related laws and regulations. It also reflects the requirements for producing safe feed in accordance with GMP (Good Manufacturing Practices for Feeds, etc.), as well as the history of research and development into compound fish feed in Japan, and the characteristics of the production system.

The certification scheme is transparent, objective and reliable, adhering to the basic principles set out in Article 17 of the FAO Aquaculture Certification Guidelines.

The basic requirements of this standard shall be governed by the following principles 1 to 4.

Principle 1. Social responsibility in fish feed production activities

Principle 2. Ensuring safety and considering the environment

Principle 3. Ensuring nutritional value and approving ingredients

Principle 4. Ensuring the sustainability and traceability of raw material sources

Implementation of the matters specified in this standard should be based

on scientific evidence, but even if there is insufficient scientific evidence that the production of compound feed for fish farming poses a hazard to healthy social activities, food safety, animal nutrition, or the environment, or if the social and economic systems for taking the necessary measures have not been established, the necessary preventative measures should be implemented in any way possible, as long as the measures do not have a significant impact on sustainable and safe production activities. In addition, while this standard is intended to be applied to the production of compound feed for all farmed aquatic animals, if there are specific requirements such as the type of fish farmed, production methods, or handling of special raw materials, they should be specified as individual standards.

Certification standards and inspection system

Certification based on this standard is carried out by an independent third-party organization (certification body) that is certified as conforming to the ISO standard (latest edition of ISO/IEC17065) that defines the capabilities and competence of certification bodies, and the certification of such organizations is carried out by member organizations of the International Accreditation Forum (IAF).

This standard is equally authentic in both Japanese and English. Furthermore, to maintain its relevance and effectiveness, it will be reviewed at least once every five years and revised as necessary. Furthermore, when related international standards and guidelines, such as the FAO Aquaculture Certification Guidelines and the GSSI Benchmarking Tool, or related laws and regulations of the Japanese government, are revised, this standard will also be reviewed and revised as necessary.

MEL Formula Feed Standard Ver. 1.0 goes into effect

With the MEL compound feed standard coming into effect, we would like to summarize our thoughts on three points.

First, it means actively working to link domestic fisheries, feed, and aquaculture into a sustainable supply chain. Raw seafood ingredients from

fisheries that use marine resources sustainably and consider the environment and ecosystem are supplied to fishmeal and fish oil producers who are also making similar efforts. Next, those fishmeal and fish oil ingredients are supplied to compound feed producers who are also making similar efforts. These compound feeds are then supplied to aquaculture producers who are sustainable, consider the environment and ecosystem, and work toward co-prosperity with local communities and industry. Finally, consumers can safely consume the farmed fish produced by aquaculture producers. Each of these entities obtaining certification (for fisheries, fishmeal/fish oil, compound feed, and aquaculture) means that everyone is working to build the value chain, which will contribute to the development of a fisheries industry that is trusted by society and consumers.

The second is the transition to solid compound feed. The Fisheries Agency's "Comprehensive Strategy for the Growth of Aquaculture Industry" calls for a shift from live feed to compound feed,¹ and the Ministry of Agriculture, Forestry and Fisheries' "Green Food System Strategy" includes a goal of converting all fish feed used in fish farming to compound feed by 2050².

In this way, the feeding system for domestic fish farming is shifting from live feed to moist pellets and then to solid compound feed. Although technical challenges exist for some fish species, solid compound feed is expected to become mainstream in the medium to long term from the perspectives of stabilizing product quality, reducing the burden on the fishing environment, protecting wild fish used for feed, and improving the efficiency of aquaculture operations, and MEL would like to play a part in promoting this transition. To that end, the MEL Aquaculture Standard (Version 2.0), revised in August 2022, no longer allows the continued use of moist pellets (a three-year transition period has been set).

The third issue is the handling of fishery processing residues. Increasing the production of safe and secure feed and improving productivity are essential for the development and expansion of aquaculture.

On the other hand, there are concerns about the stable procurement of imported fish meal and fish oil due to factors such as the increasing global demand for fish meal, movements to protect resources of abundant pelagic fish, and unstable exchange rate fluctuations. Although progress is being

¹ Ministry of Agriculture, Forestry and Fisheries Aquaculture Growth Industry Policy July 2021

² Ministry of Agriculture, Forestry and Fisheries Green Food System Strategy July 2021

made in the development of alternative proteins and low-fish meal feed, plant-based ingredients face competition from food, livestock, and fuel, and the carnivorous migratory fish (bluefin tuna and amberjack) that are widely raised in Japan have high energy consumption and are said to be difficult to adapt to low fish meal.

For example, in the aquaculture growth industrialization strategy, target production volumes for yellowtail and red sea bream in 2030 at 240,000 tons and 110,000 tons, respectively, with production increases of 100,000 tons and 50,000 tons, respectively, necessitating the securing of approximately 187,000 tons of fishmeal for feeds³. This is an amount equivalent to Japan's domestic fishmeal production. It is unrealistic to devote all of the increased production of sardines (Pacific stock) mentioned above to feed.

In this context, Japan has a system in place to produce fish meal and fish oil using fishery processing residues (fish guts and bones (fish offal)). The volume of urban processing residues (residues collected from fish markets and retail stores) handled is particularly large, and this unique Japanese system is attracting attention from the perspective of reducing food waste and recycling.

Unfortunately, traceability is an issue when using fishery processing residues, and it is difficult to gain understanding from the international community about the risks of IUU, endangered species, and contamination with raw materials from the same species and genus. It is particularly difficult to trace urban residues.

However, the SDGs call for the efficient use of natural resources and efforts to reduce waste, and the FAO report also calls for the use of fishery processing residues as feed. Furthermore, " ⁴The Future of Food from the Sea, " compiled by a group of world-renowned marine scientists, proposes that the aquaculture industry could become a supplier of fishery by-products and residues, supplying raw materials for fishmeal and other products, and then become a consumer of that feed⁵.

The MEL Council will continue to work with relevant parties to build a sustainable supply chain, promote the use of solid compound feed, and raise

³ The calculation was based on the target values for each fish species in the Fisheries Agency's Aquaculture Growth Industry Strategy, using the weight gain coefficient (yellowtail 2.8, red sea bream 2.7) and a fish meal ratio of 40 %. Fish oil was excluded.

⁴ The State of World fisheries and Aquaculture 2022, Rome FAO

⁵ Nature 2020, The Future of Food from the Sea

awareness of the circular feed production and supply system internationally, with the aim of making it an international trend.

Referenced Standards

In formulating this standard, the latest editions of the following norms and standards were referenced.

- FAO Code of Conduct for Responsible Fisheries
- FAO Technical Guidelines on Aquaculture Certification
- FAO Technical Guidelines for Responsible Fisheries – Aquaculture Development – 1-10
- GSSI Global Benchmark Tool Version 2.0
- World Trade Organization (WTO) Technical Barriers to Trade (TBT) Agreement Annex 3 Code of Good Practice for the Preparation, Adoption and Application of Standards
- ISO/IEC Guide 59:1994 Code of good practice for standardization
- ISO/IEC 17065:2012 Conformity assessment - Requirements for bodies certifying products, processes and services
- ISO/IEC 17067:2013 Conformity assessment - Fundamentals of product certification and guidelines for product certification schemes

Scope, units and subjects of certification

The scope of certification under this standard covers feed manufacturing businesses that are legally conducted in accordance with Japanese feed-related laws and regulations, such as those that have received permission or a license from the Minister of Agriculture, Forestry and Fisheries or the prefectural governor of Japan.

The unit of certification is an organization that produces fish feed using a specific production method under the same management rules, and there are group certifications that include group certifications that manage and operate multiple sites, and group certifications that include external organizations that undertake manufacturing through contract manufacturing agreements, etc. (Note: Products produced by compound feed businesses certified under this standard are subject to CoC certification, which is specified separately.)

The certification applies to production facilities for compound feed for fish farming and the feed products manufactured at those facilities. Moist pellets

(solid feed containing moisture, made by mixing frozen feed and powdered compound feed (mash) into granules) and powdered compound feed for moist pellets prepared and manufactured by aquaculture producers themselves are not included.

Definition of Terms

Aquaculture:	The act of actively promoting the development or growth of aquatic plants and animals through artificial means under human control, with the purpose of harvesting, in order to increase the number or quantity of those individuals.
Farmed fish:	Artificial breeding and rearing of fish.
Compound feed:	Feed is a nutritionally balanced feed containing a variety of ingredients to ensure the sufficient growth of farmed fish, and has a shape and physical properties suitable for consumption.
Feed additives:	These are quality preservatives and nutrients that are added or mixed into feed for the purposes of maintaining the quality of feed and providing nutritional supplements.
Live bait:	Raw or unprocessed fish fillets used for feeding.
Moist pellets:	This is a semi-solid feed made by mixing raw feed ingredients and powdered compound feed in a certain ratio and molding it into a desired particle size while retaining moisture.
Fish meal:	Fish that has been dried and crushed into a powder is called fish meal.
Fish oil:	This fatty oil is extracted from fish and is produced by boiling the fish and separating the fat from the broth. It is called fish oil.
GMP:	Good Manufacturing Practice, it is a management method that ensures product safety by thoroughly managing production and quality throughout the entire process, from the procurement of raw materials to manufacturing and shipping.
Residue:	Inedible parts of fish such as innards, bones, and skin that are generated at seafood processing plants, seafood markets, retail stores, etc. (Also called fish ilium (fish bones)). Residue generated at the seafood processing stage is sometimes classified as processing residue, and residue generated at the distribution stage as urban residue.
IUU fishing:	Illegal, unreported and unregulated fishing.

Endangered species: A species whose numbers are declining and which is at risk of extinction. The list of such species is called the "Red List" and is compiled by the International Union for Conservation of Nature (IUCN) and, in Japan, by the Ministry of the Environment. Depending on the level of risk, species are classified as endangered (Category IA), endangered (Category IB), endangered (Category II), near threatened, etc.

Certification principles, certification standards and criteria

Applicable to: All fish feed compound manufacturers

Principle 1. Social responsibility in fish feed production activities

Certification Criterion 1.1 When producing compound feed for fish farming, the relevant laws and regulations, as well as ordinances established by the local government where the feed manufacturing plant is located, must be complied with.

Indicators for determining compliance with criteria

- 1.1.1 Producers are required to follow instructions and properly implement the requirements of the Act on Ensuring Safety and Improving Quality of Feed (Act No. 35 of 1953), the Act on Ensuring Quality, Efficacy and Safety of Pharmaceuticals, Medical Devices, etc. (Act No. 145 of 1960), the Water Pollution Control Act (Act No. 138 of 1970), and other local ordinances established by the local government where the fish feed compound manufacturing plant is located, which are likely to apply to the production of fish feed.
- 1.1.2 The business is engaged in the legal manufacture of feed in accordance with the necessary licenses or permits, and the factory and products produced are consistent with the contents of the licenses, etc.
- 1.1.3 Those engaged in the production of compound feed for fish farming are provided with wages, benefits and working conditions in accordance with relevant laws and regulations, and appropriate health management is implemented and an appropriate working environment is ensured.
- 1.1.4 There is no illegal labor, such as child labor.
- 1.1.5 Working to preserve the living environment of the local community.

Certification Criterion 1.2 Ability to provide necessary information to

aquaculture producers.

Indicators for determining compliance with criteria

- 1.2.1 A system exists to provide aquaculture producers with the information they need to receive MEL certification.

Principle 2. Ensuring safety and considering the environment

Certification Criterion 2.1 Fish feed manufacturing is conducted under appropriate management in accordance with Good Manufacturing Practice (GMP) guidelines.

Indicators for determining compliance with criteria

- 2.1.1 Management is carried out in accordance with the Good Manufacturing Practices (GMP) guidelines for feed, etc. established by the Ministry of Agriculture, Forestry and Fisheries based on the Act on Assurance of Safety and Improvement of Quality of Feed (Act No. 35 of 1953).
- 2.1.2 Appropriate monitoring is carried out to check for the possibility that the manufactured compound fish feed may cause the accumulation of substances that have a significant impact on human health beyond the permissible level.

Certification Criterion 2.2 The risk of contamination by harmful chemicals derived from fish feed and feed ingredients is understood, and appropriate production management of fish feed is carried out.

Indicators for determining compliance with criteria

- 2.2.1 Fish feed products are manufactured under appropriate controls.
- 2.2.2 Are fish feed products shipped under appropriate management?

Certification Criterion 2.3: The risk of contamination from harmful substances originating from the aquaculture feed

manufacturing environment and equipment is understood, and appropriate fish feed manufacturing management is carried out.

Indicators for determining compliance with criteria

2.3.1 Products are manufactured with due consideration of the risk of contamination within the factory.

Certification Criterion 2.4: Understand the risk of pollution that the production of fish feed poses to the surrounding environment of the factory and strive to minimize the impact.

Indicators for determining compliance with criteria

2.4.1 Fish feed production activities are carried out with consideration for the environment around the factory.

Principle 3: Ensuring nutritional value and approving ingredients

Certification Criterion 3.1 Feed must contain nutrients that meet the nutritional requirements of the target fish species and their growth stages.

Indicators for determining compliance with criteria

3.1.1 The nutrient content or guaranteed value of the feed must satisfy the nutritional requirements according to the type and growth stage of the target fish species. Note that this applies to rearing fish, and does not apply to feed for young fish (larvae, fry).

Certification standard 3.2: The feed must contain only feed ingredients and feed additives approved and recognized for use in farmed aquatic animal feed in accordance with the Feed Safety Act .

Indicators for determining compliance with criteria

3.2.1 The raw materials used in the manufacture of feed must be those

that are approved and recognized for use in aquaculture feed and contain feed additives within the content limits stipulated by the Feed Safety Act.

Principle 4. Ensuring the sustainability and traceability of raw material sources

Certification Criterion 4.1 The main ingredients of fish feed, such as fish meal and fish oil, derived from marine fish, are produced with care to minimize the impact on natural resources.

Indicators for determining compliance with criteria

4.1.1 The traceability of raw materials for fish feed is ensured, and fish species are identified for fish meal and fish oil to ensure they do not contain endangered species or products derived from IUU (illegal, unreported, and unregulated) fishing.

4.1.2 Efforts are made to reduce the amount of fish meal and fish oil used to the extent that it does not interfere with the healthy growth of the target aquaculture species.

Certification Criterion 4.2 Is traceability ensured for non-marine fish-derived ingredients (plants, land animals, additives)?

Indicators for determining compliance with criteria

4.2.1 The origin of raw materials from suppliers of plants, land animals, additives, and other non-marine fish-derived raw materials is known.

Certification Criterion 4.3 Procedures are established to ensure traceability throughout all processes from production to shipping, and verifiable records are kept.

Indicators for determining compliance with criteria

4.3.1 The production volume, shipping destination, etc. of each production

batch are confirmed and recorded. In addition, a method for identifying products is established, and measures are taken to properly transmit identification codes to shipping destinations.

Additional notes

Date of establishment: The date of establishment of this standard is June 17, 2026.

Effective Date: The effective date of this standard is December 1, 2026.

In the event of discrepancies due to translations into languages other than Japanese, please refer to the original Japanese document.
You must comply with that.