

Guideline for Ensuring Safety of Feeds Using Food Residues, etc.

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The Director-General of Food Safety and Consumer Affairs Bureau,
Ministry of Agriculture, Forestry and Fisheries of Japan

Regarding Establishing Guideline for Ensuring Safety of Feeds Using Food Residues, etc.

In New [Basic Plan for Food, Agriculture and Rural Areas](#) (Cabinet Meeting on March 25, 2005), an improvement of the feed self-sufficient rate is one of important subjects and in order to improve the self-sufficient rate of concentrated feeds, it is important to convert food residues to feeds. On the other hand, for the feeds which use food residues, there are inherent problems such as contamination by foreign matters and it has been confirmed that there is a case that some of the manufacturers newly enter feed manufacturing industry from other industries. For the reasons, we need to set a practical measure, etc. to ensure safety of feeds. Please beware that the appended “Guideline for Ensuring Safety of Feeds Using Food Residues, etc.” has been established.

Apart from the food residues, there is a case that some manufacturers try to use livestock wastes as raw materials of feeds. As for these, there is a high possibility that it may cause problems from the standpoint of ensuring the animal health and safety of feeds such as the occurrence of transmissible spongiform encephalopathy including bovine spongiform encephalopathy, so please provide thorough instruction to refrain from using them as raw materials of feeds unless they are safely treated by a method such as burning.

Appendix

Guideline for Ensuring Safety of Feeds Using Food Residues, etc.

I. Purpose

In case of manufacturing feeds, it is required to give consideration for prevention of adverse effects on health of human who consumes final products as food and animals which are foraged feeds.

For this reason, this guideline indicates basic policy for a management in each process of obtaining raw materials, manufacturing, storing, feeding, etc. from the standpoint of ensuring the safety of feeds which are manufactured by using food residues, etc. and animal health. Also, this policy is premised on complying with “[Act on Safety Assurance and Quality Improvement of Feeds](#)” (Act No. 35 of 1953) (hereinafter referred to as “Feed Safety Act”) and “[Act on Domestic Animal Infectious Diseases Control](#)” (Act No. 166 of 1951).

II. Definitions

The terms which are used in this guideline are based on following definitions and definitions which are used in [Feed Safety Act](#) and the related law.

1. By-products of food production

By-products of food production refer to the following (1), (2), and (3).

- (1) By-products, which are generated by a food production process such as rice bran, sake cake, shochu distillers residue, soy sauce cake, starch pulp, brewers grain, wheat bran, barley bran, corn gluten meal, fruit juice pulp, soybean curd residue, bread crumbs and stale bread, beet pulp, bagasse, tea lees, molasses, corn steep liquor, etc.
- (2) Processing residues such as waste of cut vegetables
- (3) Residues such as processed foods made from cut porks, etc., poultry meats, etc., or fish and shellfish (it refers to prepared foods such as sausages, hams, bacons, the other related meat products, fish sausages, fish hams, the other related fish meat paste products, extracts, frozen foods, etc.) which are resulting from a production process of a food plant which has received the verification of Minister of Agriculture, Forestry and Fisheries based on the provision of I.2.(2), “[Regarding a procedure of Minister of Agriculture, Forestry and Fisheries for Animal-derived Proteins and Animal Fats and oils Based on the Order of Ministerial Order on the Specifications and Standards of Feeds and Feed Additives](#)” (Notice 16 Shoan No. 9574, Notice of the Director-General of Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries of Japan, dated March 11,

2005) (hereinafter referred to as “confirmed processed residue”).

2. Surplus Food

Surplus food refers to rice, bread, noodle, tofu (soybean curd), vegetable, snacks, milk, ice cream, prepared food, boxed lunch, etc. which were produced as food but are not used as food.

3. Cooking residue

Cooking residue refers to as a residue which is generated by cooking.

3-1. Business-related cooking residue

Business-related cooking residue refers to a residue which is discharged from a workplace which provides food.

3-2. Family cooking residue

Family cooking residue refers to a residue which is discharged from a standard home.

4. Leftover

Leftover refers to a leftover which is left cooked food after providing.

4-1. Business-related leftover

Business-related leftover refers to a leftover which is generated from a workplace which provides food.

4-2. Family leftover

Family leftover refers to a leftover which is generated in a standard home.

5. Feeds using food residues

Feed using food residues refers to feeds which use by-product of food production, surplus food, cooking residue and leftover (hereinafter referred to as “food residue”) without processing or which use food residues as raw materials of processing.

6. Raw leftover food

Raw leftover food refers to things which collect cooking residue and leftover and which are not conducted additional cooked process, etc.

7. Type A feed

Type A feed refers to feed, etc. and their raw materials of feed which are handled not to be contaminated with animal-derived proteins, etc. because they are or may be fed to ruminants (refers to cattle, sheep, goats, and deer).

III. Basic Policy Concerning Obtaining Raw Materials, Manufactures, etc.

1. Obtaining Raw Materials

(1) Separation of a source of discharge of raw materials.

(i) By-product of food production

If by-product of food production (excluding confirmed processed food residues) which contains mammal-derived proteins (excluding milks, dairy products and things which have

received the verification of Minister of Agriculture, Forestry and Fisheries), poultry-derived proteins (excluding eggs, egg products, and things which have received the verification of Minister of Agriculture, Forestry and Fisheries), and fish- and shellfish-derived proteins (excluding things which have received the verification of Minister of Agriculture, Forestry and Fisheries) are used as raw materials of feeds, it acts in violation of Article 4 of [Feed Safety Act](#), thus it is required to separate these proteins surely.

(ii) Business-related cooking residue and business-related leftover

As for a cooking residue, it shall be required to confirm that no foreign matters such as pieces of cooking utensils are mixed in and separate only them and put them in a dedicated container (hereinafter referred to as “dedicated container for separation”). As for a highly probable material which is contaminated with pathogenic microorganisms, etc., unless otherwise it can surely be prevented from infection by measures such as conducting a heating treatment at a production stage, etc., it must not be used as its raw material.

Since there is a higher possibility that harmful matters come to be mixed in leftover compared to cooking residue, it is required to confirm that no foreign matters other than food such as cigarettes, etc. and carry out storage such as storing it in a dedicated container for separation with a lid for separation after removing chopsticks, toothpicks, etc. If it is impossible to remove harmful materials, it must not be used.

A dedicated container for separation must be cleansed or sterilized after collection. Also, a cooking residue which is discharged from an aircraft for international flight and a ship for oversea route must not be admitted unloading in principle from the standpoint of animal quarantine. Including these, a cooking residue which is discharged from foreign-related facilities must not be used as a raw material of feeds.

(iii) Family cooking residue and family leftover

Since there is a high possibility that more various foreign matters come to be mixed in family cooking residue and family leftover compared to (ii) and it is difficult to ensure the safety, it must not be used as a raw material.

However, from the standpoint of food education, etc., if it is exceptionally used as a raw material, it must be required to be more strictly separated than (ii). Especially, it must be required to thoroughly separate so that foreign matters other than food such a pet food, etc. which contains mammal-derived proteins, etc. does not come to be mixed in.

Also, it must be required to confirm and record a status of separation by each source of discharge by an intensive monitoring activity, etc.

(2) Separation when obtaining a raw material

(i) General rule

It must be required to confirm a fungi growth and a decomposing state by a sense of sight and smell and not to use a raw material which is confirmed fungi growth or decomposition.

(ii) Surplus food

As for packaged goods, it must be required to remove a packaging matter as much as possible.

(iii) Business-related cooking residue and business-related leftover

It shall be required to confirm a status of separation of (ii) of (1) and not to turn inappropriate into obtaining.

(iv) Family cooking residue and family leftover

It shall be required to confirm a status of separation of (iii) of (1) and not to turn inappropriate into obtaining.

(3) Responsibility of a source of discharge

A discharger shall carry out thorough separation specified in (1) of 1 and prevent from contamination with cleaning substance, etc., which is difficult to confirm visually.

Also, a discharger shall take measures to prevent from growing fungi and decomposition depending on the type of wastes and the storage period until collection in such a way as to store them in a cold-storage warehouse or a cold dark place.

In addition, as for storing, it shall be required to put them in an exclusive container with a lid in principle to insulate them from crows, dogs, cats, mouse, foxes, cockroaches, blackflies, etc. (hereinafter referred to as “crows, etc.”) and to prevent from contamination with foreign matters from the standpoint of preventing from contamination by pathogenic microorganisms, etc.

As for a self-validation or a confirmation by an obtainer, etc. (including business operator and farmer who manufactures feeds by using food residues, etc. as a raw material), it shall be required not to discharge substances which were confirmed as inappropriate as raw materials of feed from the standpoint of (1) of 1 and (2), etc.

(4) Contract with a source of discharge

Business operator, etc. who manufactures feed by using food residues, etc. and a source of discharge shall make a contract based on following.

Even if a collector intervenes, the contract shall be made by between two parties or among three parties.

(i) Surplus food

It shall be required to make a contract for the content of (3), a storage condition, and an obligation to make an effort for assuring the quality as a raw material of feeds, etc.

(ii) Business-related cooking residue and business-related leftover

It shall be required to make a contract for the content of (ii) of (1) and (3), a storage condition and an obligation to make an effort for assuring the quality as a raw material of feeds, etc.

(iii) Family cooking residue and family leftover

It shall be required to make a contract for the content of (iii) of (1) and (3), a storage condition, an obligation to make an effort for assuring the quality as a raw material of feeds, etc.

(iv) Raw leftover food

In case of using a raw leftover food in a livestock farmer directly, as for obtaining, a livestock farmer must make a contract with a source of discharge directly.

It shall be required not to obtain from a source of discharge who makes a contract with other livestock farmer.

(v) Verification in a source of discharge

Business operator who manufactures feeds by using food residues as raw materials, etc. shall visit a source of discharge periodically and confirm a status of compliance of the contract of (4).

(vi) Training / Request of a source of discharge, etc.

As for a conclusion of a contract of (4), business operator who manufactures feeds by using food residues, etc. as raw materials shall train a source of discharge on concrete methods, etc. such as a separation of foreign matters as needed. Also, if it have been confirmed that there is an inappropriate case in a separation status, etc. after beginning to obtain, it shall be required to re-request a strict separation, etc. and take measures to train or to stop to receive the raw materials, etc. as needed.

2. Transportation / Storage of a raw material

In case of using processing residue such as waste of cut vegetables, perishable by-products of food production, surplus foods, cooking residues, and leftovers as raw materials, it shall be required to transport and store based on following.

- (1) It must be required to shorten a storage period in a source of discharge as much as possible and obtain promptly.
- (2) As for a transportation, it shall be required to insulate with crows, etc. and to put it in a dedicated container with a lid to prevent from contaminating with foreign matters in principle. Also, it shall be required to cleanse or sterilize it after use.
- (3) It is preferable that a transportation is carried out by a refrigerator truck but in case of not using a refrigerator truck, it shall be required to shorten a moving distance as much as possible and to prevent from quality degradation such as decomposition and a lipid oxidation.
- (4) A raw material which was transported to a supply destination must be used for manufacturing

or using as soon as possible and if storing it temporarily, it must be stored in a cool-storage warehouse or a cool dark place. Especially as for a raw material including leftover, it shall be required to promptly conduct from discharge to production or use as much as possible and shall not be stored for a long period.

3. Manufacture

(1) Separation when accepting a raw material

(i) General rule

Inappropriate materials which have been confirmed fungi growth, decomposition, etc. as a raw material shall not be used for manufacturing or using.

(ii) Surplus food

It shall be required to separate and remove packaging matters which were not able to be separated when obtaining a raw material.

(iii) Business-related cooking residue and business-related leftover

It shall be required to remove foreign metals, chopsticks, toothpicks which were not able to be separated when obtaining a raw material by means of a visual verification, a sieve, a magnet, etc.

(2) Measure to pathogenic microorganisms contamination such as bacteria and virus

Raw materials which may be mixed in with raw meats, etc. shall be conducted a heat-treatment for 30 minutes or more at 70 °C or for 3 minutes or more at 80 °C pursuant to the provision of (10) of 2 of II in “[Specific Domestic Animal Infectious Disease Quarantine Guidelines for Classical Swine Fever](#)” (issued by Minister of Agriculture, Forestry and Fisheries on June 26, 2013) and Appendix 3 in “Regarding Consideration of Preventing the Occurrence and Implementing the Prevention of the Spread of Domestic Animal Infectious Diseases Based on Specific Domestic Animal Infectious Disease Quarantine Guidelines for Classical Swine Fever” (Notice 25 Shoan, No. 1193, by the Director-General of Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries of Japan, dated June 26.).

Even if there is no possibility that raw meats, etc. are mixed in, it shall be required to heat it at appropriate temperature from the standpoint of preventing from pathogenic microorganisms contamination as needed.

Also, since there might be a large difference between a setting temperature and an actual product temperature depending on a heating treatment method, it shall be required to meet the above heating condition by monitoring the product temperature properly, etc.

As for a fermentation drying method, it shall be required to meet the above heating condition for entire product by crosscutting and monitoring the product temperature properly, etc.

(3) Manufacture of Type A feed

In [Feed Safety Act](#), it is specified that mammal-derived proteins (excluding milks, dairy products and gelatins and collagens which have received the verification of Minister of Agriculture, Forestry and Fisheries), poultry-derived proteins (excluding eggs and egg products) and fish- and shellfish-derived proteins must not be included in feeds which are or may be fed to ruminants (they refer to cattle, sheep, goats, and deer) in a farm. Specifically, it must be required to try to prevent from contamination with animal-derived proteins thoroughly pursuant to the “[Guideline for Prevention of Cross-contamination of Animal-derived Proteins in Ruminant Feeds](#)” (Notice 15 Shoan No. 1570 by the Director-General of Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries of Japan dated September 15, 2003) (hereinafter referred to as “AB Guideline”).

(4) Manufacture of a raw material of compound feed

In case of manufacturing a raw material of compound feed, it is preferable to conduct a powder drying process. As for water content, it is preferable to regulate to 13.5% or less.

(5) Use of feed additives

In case of using additives such as antioxidants and fungicides, it must be required to use feed additives.

In such case, it must be required to comply with the specified criteria / standard.

4. Quality Control

(1) Collecting of samples

A collection of samples shall be conducted based on the “[Operation Guide for Inspection of Feed, etc.](#)” (Notice 52-chiku-B No. 793, by the Director-General of Livestock Industry Bureau, Ministry of Agriculture and Forestry of Japan, dated May 10, 1977)

(2) Analysis items and analysis frequency

From the standpoint of preventing from contamination with harmful materials or pathogenic microorganisms, it shall be required to select analysis item and analysis frequency from mycotoxin, pesticide residue, heavy metal, pathogenic microorganism, product of lipid oxidation, salt, nitrate, a volatile basic nitrogen, etc. according to each character of product.

(3) Analysis method and analysis place

Although an analysis method shall be based on “[Analytical Standard of Feed](#)” (Notice 19 Shoan, No. 14729, by the Director-General of Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries of Japan dated April 1, 2008) in principle, a commercial simple test kit, etc. can also be used. Analysis shall be conducted in own-test facility or an outside analysis agency.

(4) Standard of quality control

A standard of quality control of product shall be based on following.

Salmonella Negative

Pesticides residue, etc. Item (n) of (1) of 1 of Appended table 1 of the “[Ministerial Order on the Specifications and Standards of Feeds and Feed Additives](#)” (Order No. 35 of the Ministry of Agriculture and Forestry of Japan of 1976) based on the provision of Article 3, paragraph 1 in [Feed Safety Act](#) and “[Regarding Establishment of Guideline for Harmful Materials of Feeds](#)” (Notice 63-Chiku-B No. 2050, by the Director-General of Livestock Industry Bureau, Ministry of Agriculture and Forestry and Fisheries of Japan, dated October 14, 1988)

(5) Quality control ledger and its preservation

It shall be required to list the date of manufacturing, date of collection of samples, analyst, analysis result, measure which was implemented based on the analysis result, etc. in a quality control ledger and preserve it for 8 years.

5. Store and transport of products, etc.

(1) Prevention of contamination with foreign matters

In order to insulate with crows, etc. and prevent from contamination with foreign matters, a product shall be stored in a well-closed container such as a paper bag and a flexible container bag.

(2) Store of products

Although a product shall be stored with a temperature control according to a condition of a product such as water content, it shall be required to ship out as soon as possible.

(3) Regulation of destination

Feeds including mammal-derived proteins, poultry-derived proteins, and fish-and shellfish-derived proteins (hereinafter referred to as “mammal-derived proteins, etc.”) must not be transported for other than pigs or poultries.

(4) Transportation of Type A Feed

As for transportation of Type A Feed, it shall be required to use a dedicated container which is indicated that the container is only for either Type A Feed specified in [AB Guideline](#) or feeds for ruminants.

(5) Indication of products

When transporting a product, it shall be required to indicate following.

(i) The name or type of feed

(ii) The year and month of manufacture (import)

(iii) The name and the address of the manufacturer (importer)

(iv) The name and location of the manufacturing facility (or the name of the import source country if imported)

(v) If including mammal-derived proteins, etc., it shall be required to indicate following letters:

”使用上及び保存上の注意” “Precautions for use and storage”

”1 この飼料は、牛、めん羊、山羊及びびしかには使用しないこと（牛、めん羊、山羊及びびしかに使用した場合は処罰の対象となるので注意すること。）”

”1 This feed shall not be used for cattle, sheep, goats, and deer. (Note that penalties may apply if used for cattle, sheep, goats or deer.)”

”2 この飼料は、牛、めん羊、山羊及びびしかを対象とする飼料（飼料を製造するための原料又は材料を含む。）に混入しないよう保存すること。”

”2 This feed shall be stored in such a way that it cannot contaminate feed (including ingredients or materials used for the manufacture of feeds) for cattle, sheep, goats, and deer.”

(vi) If a feed additive (antioxidants, etc.) is added, it shall be required to indicate the indication items specified in [Feed Safety Act](#).

6. Entry in register books, etc.

(1) Book entry when manufacturing

When manufacturing a product, it must be required to enter following matters in a register book without delay.

(i) Name

(ii) Quantity

(iii) Date of manufacture

(iv) Name and quantity of ingredients or materials which were used for manufacturing

(v) If ingredients or materials which were used for manufacturing were given by someone, it shall be required to indicate the received date and the name of the counterparty.

(2) Obtaining list of sources of discharge

If not obtaining a raw material personally, it shall be required to obtain a list of sources of discharge from a collector every obtaining day.

(3) Entry of register book when giving a product

When giving a product, it must be required to enter following matters in a book in each case.

(i) Name

(ii) Quantity

(iii) Date

(iv) Name of the counterparty

(v) Type of packing

(4) Preservation period of register book

It must be required to preserve (1), (2), and (3) of a register book, etc. for 8 years.

7. Submission of notification of feed manufacture, etc.

Pursuant to Article 50 of [Feed Safety Act](#), it must be required to submit a notification of feed manufacturer to Minister of Agriculture, Forestry and Fisheries. A manufacturer which has received a registration pursuant to Article 10 of the Act on Promotion of Recycling and Related Activities for Treatment of Cyclical Food Resources is exempted from to this.

Also, if adding a propionic acid, etc. to feeds, it must be required to allocate a supervisor of feed manufacture pursuant to Article 25 of [Feed Safety Act](#) and to submit a notification of supervisor of feed manufacture to Minister of Agriculture, Forestry and Fisheries.

IV. Management system of manufacture, etc.

1. Management rule of feed operation

(1) In order to conduct from 1 to 6 of III effectively and efficiently, it is preferable to establish management rule of feed operation and put it in writing.

As for a management rule of feed operation specified in the [AB Guideline](#), it is required to establish separately.

(2) As for an implementation of an operation management and its confirmation based on management rule of feed operation, it is preferable to record its content and preserve it for 8 years.

(3) In order to implement an operation management based on a management rule of feed operation appropriately, it is preferable to allocate operation control manager of feeds.

2. Rule of quality control of feeds

(1) It is preferable to establish a rule of quality control of feeds which establishes a specific content of 4 of III and put it in writing. As for a rule of quality control of feeds specified in the [AB Guideline](#), it is required to establish separately.

(2) As for an implementation of analysis and its result based on a rule of quality control of feeds, it is preferable to record its content and preserve it for 8 years.

(3) In order to carry out a quality control based on a rule of quality control of feeds appropriately, it is preferable to allocate a quality control manager of feeds.

V. Manufacture, store, and use in a farm

1. Manufacture

Based on from (1) to (3) of 3 of III.

2. Store

In order to insulate with crows, etc. and prevent from contamination with foreign matters, a product shall be stored in a well-closed container such as a paper bag and a flexible container

bag.

3. Use

(1) Regulation of use

If a food residue, etc. include mammal-derived proteins, etc., it must be required not to use these as feeds for animals other than pigs, chickens, quails, or aqua cultured fishery species

(2) Instructions and directions for use

Feeds which were carried in shall be used promptly. Also, it shall be required to understand an amount of nutrient component including content of salt and nitrate and to use it at a proper ratio.

(3) Treatment of raw leftover food

Raw leftover foods which may be mixed in with raw meats, etc. shall be used after conducting a heat-treatment for 30 minutes or more at 70 °C or for 3 minutes or more at 80 °C. Even if there is no possibility that raw meats, etc. are mixed in, it shall be required to heat it at appropriate temperature from the standpoint of preventing from contamination by pathogenic microorganisms as needed.

(4) Entry in register books, etc.

(i) Book entry when manufacturing

Based on (1) of 6 of III

(ii) Book entry when using

A person concerned must endeavor to keep and record following details specified in [Feed Safety Act](#) in a register book and preserve it after using feeds.

- (a) The date on which the feed was used
- (b) The place where the feed was used
- (c) The type of livestock animals, etc. for which the feed was used
- (d) The name of the feed
- (e) The quantity of the feed used
- (f) The date on which the feed was accepted and the name of the counterparty

(iii) Preservation period of register book

A book of (i) must be preserved for 8 years based on [Feed Safety Act](#).

As for a book of (ii), it is preferable to preserve based on following.

- (a) Cattle 8 years
- (b) Layers 5 years
- (c) Pigs, broilers 2 years
- (d) Yellow tails, red sea bream, greater amberjacks, flatfish, tiger puffers, yellow jacks, yellowtail amberjacks, *Lateolabrax maculatus*, Japanese sea perch, bluefin tuna, carps (excluding inedible carps), rainbow trout, yamame a kind of trout, land-locked

variety of red-spotted masu trout, Nikko chars, Ezo chars, Yamato chars	4 years
(e) Silver salmon, jack mackerel, cobias, eels	3 years
(f) Sweetfish (Ayu), prawns	2 years

VI. Use in a compound feed factory

If feeds using food residues- such as a food residue derived from by-product of food production, etc. (excluding confirmed processed food residues) is used for a compound feed as raw materials for pigs, chickens, quails, and aqua cultured fishery species, it shall be required to confirm that mammal-derived proteins (excluding milks, dairy products and things which have received the verification of Minister of Agriculture, Forestry and Fisheries), poultry-derived proteins (excluding eggs, egg products, and things which have received the verification of Minister of Agriculture, Forestry and Fisheries), and fish- and shellfish-derived proteins (excluding things which have received the verification of Minister of Agriculture, Forestry and Fisheries) are not included in the feeds using food residues.

[Note]

This English translation of this guideline has been prepared (up to the revisions of Notice 28 Shoan No. 3615 of 2016) in compliance with the Standard Legal Terms Dictionary (March 2017 edition).

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