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Results of Monitoring and Guidance Based on the Imported Foods Monitoring and Guidance Plan for FY 2022

Interim Report

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Pharmaceutical Safety and Environmental Health
Bureau, Ministry of Health, Labour and Welfare

Result of Monitoring and Guidance Based on the Imported Foods Monitoring and and Guidance Plan for FY 2022 (Interim Report)

1. Introduction

In order to ensure the safety of foods, etc., imported into Japan (hereinafter, “imported foods”), the government established the Imported Foods Monitoring and Guidance Plan for 2022 (hereinafter, “the Plan”) as per the regulations of Article 23, paragraph 1 of the Food Sanitation Act (Act No. 233, 1947; hereinafter, “the Act”), and monitoring and guidance for imported foods is being conducted based upon the Plan.

(The Plan is formulated based on the Guidelines for Monitoring and Guidance for Food Sanitation (Ministry of Health, Labour and Welfare Notification No. 301 of 2003) after conducting collection of public comments and risk communication. The plan is published in the Official Gazette as an official report according to the regulations of Article 23, paragraph 3 of the Act.)

This document publishes an outline of the implementation status of the monitoring and guidance for imported foods, conducted in accordance with the Plan, for the period from April to September 2022.

Reference: “Imported Foods Monitoring: To Ensure the Safety of Imported Foods”

https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/kenkou_iryou/shokuhin/yunyu_kanshi/index.html (Japanese)

https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/kenkou_iryou/shokuhin/yunyu_kanshi/index_00017.html (English)



2. Overview of the Imported Foods Monitoring and Guidance Plan for FY 2022

1. What is the Imported Foods Monitoring and Guidance Plan?

This is the plan for the implementation of monitoring and guidance for the import of foods by the Japanese government as stipulated by Article 23, paragraph 1 of the Act.

Purpose: To further ensure the safety of imported foods by the national government by promoting intensive, effective and efficient monitoring for imported foods and guidance to importers.

2. Principles of Monitoring and Guidance for Imported Foods

The basic concept is implementation of measures to ensure food safety at each stage, from the production in the exporting countries to domestic distribution after import, in light of Article 4 (“food safety shall be ensured by taking the necessary measures appropriately at each stage of the food supply process both in and outside of Japan”) of the Food Safety Basic Act (Act No. 48 of 2003).

3. Priority Items for Monitoring and Guidance

- Check for the compliance to the Act at the time of import
- Implementation of monitoring inspections*¹ (FY 2022 Plan: 171 food groups, 100,000 cases)
- Inspection orders*²
- Regulations for comprehensive import bans*³
- Emergency measures based on oversea information

*1: Systematic inspection based on a statistical approach considering the import volume and violation rate for each type of food.

*2: Inspection for products with a high probability of violation where inspection is ordered for the importer, each time of the import. Import and distribution is not permitted unless the results comply with the Act.

*3: Measures whereby the Minister of Health, Labour and Welfare prohibits sale or import of specific foods without requiring an inspection, in cases where it is deemed necessary to prevent harm.

4. Promotion of Hygiene Control Measures in Exporting Countries

- Disseminate food hygiene regulations in Japan to the authorities and exporters in exporting countries
- Request for the investigation of a cause of violation of the Act and the establishment of

corrective and preventive measures through bilateral consultations, as well as the promotion of hygiene control at production stages, building up a monitoring system and pre-export inspections, etc

- Systematic collection of information on hygiene control measures for foods exported to Japan
- Technical cooperation that helps to build up a food hygiene monitoring system in exporting countries

5. Guidance to Importers on Voluntary Hygiene Control

- Pre-import guidance (known as import consultation)
- Guidance on voluntary inspections at import consultation, initial import and continued import
- Guidance on preparation and storage of records on the import and distribution of imported foods
- Raising awareness of food safety amongst importers

3. Results of Monitoring and Guidance Based on the Imported Foods Monitoring and Guidance Plan for FY 2022 (Interim Report: Tentative)

Figures in brackets are for the same period in the previous year.

The number of import notifications made from April through September 2022 was 1,246,556 cases 【1,246,313 cases】 , and the weight of notified items was 12,154 thousand tons 【11,891 thousand tons】 .

Inspections were carried out on 106,351 cases 【102,352 cases】 (monitoring inspections on 28,568 cases 【26,614 cases】 , inspection orders on 33,480 cases 【32,819 cases】 , and voluntary inspections on 43,716 cases 【43,742 cases】 , deducting duplicates). Of these, 388 cases 【398 cases】 were found to be in violation of the Act, and steps were taken for reshipment or disposal, etc. (Table 1).

Regarding violations categorized by provision, violations of Article 13 of the Act (standards for food (e.g., microbiological criteria, agricultural chemical residues, and veterinary drug residues) and standards for use for food additives) were the most common with 242 cases, followed by 117 cases of violation of Article 6 (e.g., contamination with harmful or toxic substances such as aflatoxin, cyanide), 24 cases of violation of Article 12 (use of undesignated additives), 24 cases of violation of Article 18 (standards for apparatus, containers and packaging) (Table 2).

Monitoring inspections were conducted for 28,568 cases (running total of 60,178 cases compared to the planned cumulative total of 100,021 (implementation rate: approx. 60%)), and of which, 87 cases (running total of 87 cases) were confirmed to be in violation of the Act, and steps were taken for their recalls, etc. (Table 3). For the same type of imported foods that were found to be in violation of the Act by monitoring inspections, the inspection rate was increased as necessary, to determine the probability of violations (Table 4). Additionally, for imported foods that are considered to have a high probability of violation to the Act, inspections were strengthened by making them subject to inspection orders (Table 5).

As of September 30, 2022, 15 items from all exporting countries, and 89 items from 34 countries and regions were subject to inspection orders. The inspections have been carried out for 33,480 cases (running total of 42,183 cases), 123 cases of which (running total of 123 cases) were found to be in violation of the Act, and steps were taken for reshipment or disposal, etc. (Table 6).

As emergency measures based on overseas information, measures were taken to reship natural cheese from France due to potential contamination with *Listeria monocytogenes*, and chocolate from Belgium using almonds as ingredient due to potential contamination with Aflatoxin (Table 7).

Table 1 - Notifications, Inspections, and Violations (Apr-Sep 2022: Tentative)

Notifications ^{*1} (cases)	Imported Weight ^{*1} (thousand tonnes)	Inspections ^{*2} (cases)	Proportion ^{*3} (%)	Violations (cases)	Proportion ^{*3} (%)
1,246,556	12,154	106,351 (33,480 ^{*4})	8.5	388	0.03
(FY2021)					
1,246,313	11,891	102,352	8.2	398	0.03

*1 Cargoes of planned import system (excluding the time of first importation) are not included.

*2 Number of inspections by authorities, registered inspection organizations and foreign official laboratories, deducting duplications.

*3 Proportion compared to notifications.

*4 Number of inspection orders.

Table 2 - Violations by Legal Provision (Apr-Sep 2022: Tentative)

Provision violated	Violations (cases)	Proportion	Major Violation Details
Article 6 (Foods and additives prohibited to distribute)	117 (Gross) 117 (Actual)	28.7%	Aflatoxin contamination in almonds, corn, nutmeg, pistachio nuts, peanuts, etc., detection of cyanide from manioc, decay and deterioration (e.g., unpleasant smell or mold) due to accidents during the transport of rice and wheat, etc.
Article 12 (Limitation on distribution, etc. of additives, etc.)	24 (Gross) 24 (Actual)	5.9%	Use of undesignated additives (TBHQ, Azorubine, Trisodium glycyrrhizinate, Cyclamic acid, Zinc oxide, Nicotinamide phosphoribosyl-transferase, Pentane, Borax, Potassium myristate)
Article 13 (Standards and criteria for foods and additives)	242 (Gross) 230 (Actual)	59.5%	Violations of standards for vegetables and its processed products (agricultural chemicals residues exceeding the standards, coliform bacteria test positive, etc.), violations of standards for livestock foods, aquatic foods and their processed products (coliform bacteria test positive, veterinary drugs residues exceeding the standards, etc.), violations of standards for other processed products (coliform bacteria test positive, etc.), violations of standards for use of additives (Sodium benzoate, Sorbic acid, Sulfur dioxide, etc.), and violations of specifications for additives, detection of radiation irradiation, etc.
Article 18 (Standards and criteria for apparatus, containers and packaging)	24 (Gross) 19 (Actual)	5.9%	Violations of material standards
Total	(Gross) ^{*1} (Actual) ^{*2}	407 388	

*1 Number of inspection cases by inspected substance

*2 Number of inspection cases by notification (Of 2 cases violated both Article 12 and 13)

Table 3 - Implementation of Monitoring Inspections (Apr-Sep 2022: Tentative)

Food Groups	Inspected Substances ^{*1}	Planned Number in FY	Actual Number	Violations
Livestock Foods Beef, pork, chicken, horse meat, other poultry meat, etc.	Antibacterial substances, etc.	1,909	1,182	0
	Residual agricultural chemicals	1,909	986	0
	Additives	118	100	0
	Pathogenic microbes	657	377	0
	Standards, etc.	445	215	0
	Radiation irradiation	29	19	0
	Removal of SRMs	-	686	0
Processed Livestock Foods Natural cheese, meat products, ice cream, frozen food (meat), etc.	Antibacterial substances, etc.	1,876	1,097	0
	Residual agricultural chemicals	1,817	1,291	1
	Additives	1,127	899	0
	Pathogenic microbes	4,123	2,493	1
	Standards, etc.	1,907	1,401	6
	Mycotoxins	-	16	0
	Radiation irradiation	-	4	0
Fishery Foods Bivalves, fish, crustacean (shrimps, crabs, etc.) , etc.	Antibacterial substances, etc.	2,057	1,129	1
	Residual agricultural chemicals	1,518	1,069	0
	Additives	297	138	1
	Pathogenic microbes	1,194	996	0
	Standards, etc.	684	268	1
	Genetically modified food	59	57	0
	Radiation irradiation	64	41	0
Processed Aquatic Foods Processed fish products (fillet, dried or minced fish, etc.), frozen food (marine animals, fish), processed fish egg products, etc.	Antibacterial substances, etc.	3,275	2,473	0
	Residual agricultural chemicals	3,183	2,523	0
	Additives	1,504	1,452	1
	Pathogenic microbes	4,777	3,157	2
	Standards, etc.	4,237	2,729	24
	Mycotoxins	-	2	0
	Radiation irradiation	-	13	0
Agricultural Foods Vegetables, fruit, wheat, corn, beans, peanuts, nuts, seeds, etc.	Antibacterial substances, etc.	2,410	1,933	0
	Residual agricultural chemicals	10,717	5,406	21
	Additives	863	692	0
	Pathogenic microbes	1,434	1,392	0
	Standards, etc.	295	200	0
	Mycotoxins	2,776	1,257	1
	Genetically modified food	502	227	0
Radiation irradiation	119	91	0	
Processed Agricultural Foods Frozen foods (vegetables), processed vegetable products, processed fruit products, spices, instant noodles etc.	Antibacterial substances, etc.	598	452	0
	Residual agricultural chemicals	7,160	4,961	6
	Additives	3,593	3,230	0
	Pathogenic microbes	2,689	1,537	0
	Standards, etc.	2,888	2,338	6
	Mycotoxins	3,493	1,995	2
	Genetically modified food	302	242	0
Radiation irradiation	458	310	2	
Other Foods Health foods, soups, seasonings, confectionary, cooking oil and fat, frozen food, etc.	Residual agricultural chemicals	1,074	821	0
	Additives	3,404	2,279	2
	Pathogenic microbes	-	3	0
	Standards, etc.	1,196	459	3
	Mycotoxins	1,135	745	0
	Genetically modified food	-	4	0
	Radiation irradiation	-	5	0
Beverages Mineral waters, soft drinks, alcohol drinks, etc.	Residual agricultural chemicals	178	192	0
	Additives	1,075	771	0
	Standards, etc.	956	497	0
	Mycotoxins	178	104	0
Additives Apparatus, Containers and Packaging Toys for infants	Specifications, etc.	1,762	1,222	6
Total (gross)		100,021 ^{*2}	60,178 ^{*3} Implementation rate of 60%	87 ^{*3}

*Figures in table are running total.

*1 Examples of inspected substances

- Antibacterial substances, etc. : Antibiotics, synthetic antimicrobials, hormone agents, etc.
- Residual agricultural chemicals : Organophosphorus, organochlorines, carbamates, pyrethroids, etc.
- Additives : Preservatives, coloring agents, sweeteners, antioxidants, fungicides, etc.
- Pathogenic microbes : Enterohemorrhagic *Escherichia coli* (*E. coli*) O26, O103, O104, O111, O121, O145 and O157, *Listeria monocytogenes*, *Vibrio parahaemolyticus*, etc.
- Standards, etc. : Items stipulated in the standards (bacterial count, coliform bacteria, radioactive substances, etc. (excluding pathogenic microbes)), shellfish poisons (diarrhetic shellfish poisons and paralytic shellfish poisons), etc.
- Mycotoxins : Aflatoxin, deoxynivalenol, patulin, etc.
- Genetically modified food : Genetically modified food etc. that have not been assessed for safety
- Radiation irradiation : Whether irradiation is applied

*2 Gross number of cases with the 10,000 cases planned for strengthened inspections added.

*3 Gross number of inspection cases by inspected substances. The number of notification cases is 28,568 cases. The number of violations by notifications is 87.

Table 4 - Items Subject to Enhanced Monitoring Inspection*¹ (Apr-Sep 2022)

Country / Region	Subject Items (Inspection order item, etc.)	Inspected Substances
Italy	Non-glutinous rice	Deltamethrin and tralomethrin
Iran	Pistachio nut	Imidacloprid
India	Processed almond products	Aflatoxin
	Wheat	Profenofos
	Chili peppers	Triazophos
	Fennel seed	Triazophos
United Kingdom	Honey	Glyphosate
Ecuador	Cacao beans	Malathion
Australia	Mullet roe	Dieldrin
Netherlands	Celeriac	Chlorpropham
Ghana	Cacao beans	Cypermethrin
South Korea	Red hot pepper	Hexaconazole
	Green pepper	Tetraconazole
	Oriental melon	Procymidone
Kenya	Coffee beans	2,4-D
		Chlorpyrifos
Spain	Non-glutinous rice	Deltamethrin and tralomethrin
Sri Lanka	Red hot pepper	Triazophos
Thailand	Red hot pepper	Triazophos
	Feverweed	Pyridaben
	<i>Capsicum frutescens</i>	Triazophos
		Propiconazole
	Wild betel	Profenofos
	Immature peas	Diniconazole
Flusilazole		
Hexaconazole		
Taiwan	Taro	Paclobutrazol
China	Chinese pepper	Aflatoxin
	Shiitake	Procymidone
	Buckwheat	Haloxyfop
	Rape flower	Chlorpyrifos
	Broccoli	Haloxyfop
	Mushroom	Diethofencarb
	Immature peas	Chlorpyrifos
		Diniconazole
		Propiconazole
	Sorghum	Aflatoxin
	Mung bean	Cyproconazole
Japanese horseradish	Tebuconazole	
Chile	Apple juice and Apple juice concentrate	Patulin
Turkey	Chickpea	Aflatoxin
New Zealand	Strawberry	Carbaryl
	Honey	Glyphosate
Pakistan	Sesame seeds	Chlorpyrifos
Paraguay	Chia seeds	Aflatoxin

Country / Region	Subject Items (Inspection order item, etc.)	Inspected Substances
Bangladesh	Non glutinous rice	Chlorpyrifos
	Red pepper	Methamidophos
	Green pepper	Methamidophos
Philippines	Okra	Profenofos
Brazil	Processed brazil nuts products	Aflatoxin
Burkina Faso	Sesame seeds	Aflatoxin
USA	Celery	Acephate
	Apple juice and Apple juice concentrate	Patulin
	Lemon	Fenazaquin
Vietnam	Foxtail millet	Bromide
	Feverweed	Chlorpyrifos
		Cypermethrin
	<i>Limnophila aromatica</i>	Diflubenzuron
	Shrimp for raw consumption	<i>Vibrio parahaemolyticus</i>
	Banana	Dinotefuran
		Cypermethrin
		Dimethomorph
Permethrin		
Pitahaya (Dragon fruit)	Metalaxyl and mefenoxam	
Venezuela	Cacao beans	Cypermethrin
Peru	Quinoa	Fipronil
	Banana	Cypermethrin
Malaysia	Liliaceous vegetables (<i>Allium</i> -spp., hybrid of a garlic and a chinese chive only)	Chlorpyrifos
Mexico	Mango	Permethrin

*1 Include the Items which were rescinded from inspection order. Exclude the items which were transferred to inspection order.

Table 5 - Items Transferred to Inspection Order (Apr-Sep 2022)

Country/Region	Subject Items (Inspection order item, etc.)	Inspected Substances
Italy	Foods containing pistachio (manufacturer limited)	Aflatoxin
India	Cashew nut	Chlorpyrifos
	Foods containing pistachio (manufacturer limited)	Aflatoxin
Indonesia	Tuna fillet for raw consumption (manufacturer limited)	<i>Salmonella</i> spp.
United Kingdom	Foods containing pistachio (manufacturer limited)	Aflatoxin
Croatia	Foods containing almond or dried fig (manufacturer limited)	Aflatoxin
Spain	Foods containing dried fig (manufacturer limited)	Aflatoxin
	Unheated meat products (limited to products to be eaten without heating) (manufacturer limited)	<i>Listeria monocytogenes</i>
China	Foods containing red pepper, chinese pepper or peanut (manufacturer limited)	Aflatoxin
	Foods containing walnut or sunflower seed (manufacturer limited)	Aflatoxin
	Foods (manufacturer limited)	Cyclamic acid
Turkey	Foods containing dried fig (manufacturer limited)	Aflatoxin
	Hazelnuts	Aflatoxin
France	Natural cheese (manufacturer limited)	Enterohemorrhagic <i>Escherichia coli</i> O145
Bulgaria	Foods containing almond, proso millet, pistachio or sunflower seed (manufacturer limited)	Aflatoxin
Vietnam	<i>Capsicum frutescens</i>	Tricyclazole
	Foods (manufacturer limited)	Cyclamic acid

Table 6 - Major Items Subject to Inspection Orders and Inspection Results (Apr-Sep 2022: Tentative)

Country/Region	Major Subject Foods	Major Inspected Substances	Inspections (cases)	Violations (cases)
All exporting countries (15 items)	Almonds, Chili peppers, Peanuts, etc.	Aflatoxin	6,004	67
	Manioc, Beans containing cyanide	Cyanide	217	4
	Salted salmon roe	Nitrite	51	0
China (20 items)	Short-neck clam, Vegetables (Red pepper, Onion, Carrot, Garlic sprout, Broccoli, Spinach, etc.),	Agricultural chemical residues (Endrin, Chlorpyrifos, Dimethomorph, Thiamethoxam, Triadimenol, Haloxypop, Procymidone, Propiconazole, Prometryn)	19,367	13
	Bivalves	Diarrhetic shellfish poison, Paralytic shellfish poison	3,296	0
	Buckwheat, Sunflower seeds	Aflatoxin	285	1
	Eel, Soft-shelled turtle	Veterinary drug residues etc. (Enrofloxacin, Oxolinic acid, Sulfadimidine)	172	0
	Processed foods	Cyclamic acid	88	0
Vietnam (14 items)	Shrimp, Filefish	Veterinary drug residues etc. (Enrofloxacin, Chloramphenicol)	5,250	2
	Red pepper, Capsicum frutescens, Carrot, Durian, Banana, Lychees	Agricultural chemical residues (Tricyclazole, Procymidone, Propiconazole, Hexaconazole, Permethrin)	244	4
	Processed foods	Cyclamic acid	29	0
	Proso millet	Aflatoxin	1	0
South Korea (13 items)	Bivalves	Diarrhetic shellfish poison, Paralytic shellfish poison	1,902	0
	Green hot pepper, Red pepper, Perilla	Agricultural chemical residues (Indoxacarb, Tebufenpyrad, Paclobutrazol, Fluquinconazole, Propiconazole, Hexaconazole)	277	1
India (9 items)	Cultured shrimp	Veterinary drug residues etc. (Furazolidone)	882	4
	Cassia tora, Defatted soy, Pearl millet, Corn, Basil seeds	Aflatoxin	278	0
	Cashew nut	Agricultural chemical residues (Chlorpyrifos)	29	1
Thailand (9 items)	Feverweed, Okra, Green asparagus, Durian, Banana, Mango, Mangosteen	Agricultural chemical residues (EPN, Imazalil, Chlorpyrifos, Cypermethrin, Procymidone, Propiconazole)	476	1
USA (8 items)	Dried dates, Corn, Pistachio nuts	Aflatoxin	1,708	12
Other (28 countries and regions; total of 54 items)			1,627	13
Grand total			(Gross)*1 42,183	123
			(Actual)*2 33,480	123

*1 Number of cases by inspected substance

*2 Number of cases by notification

Table 7 - Major Enhanced Monitoring Based on Overseas Information (Apr-Sep 2022: Tentative)

Month of Enhancement	Country/Region	Food Items and Risks	Background and Measures Taken
April	France	Natural cheese (Possible contamination with <i>Listeria monocytogenes</i>)	Based on the information that <i>Listeria monocytogenes</i> was detected from the natural cheese and that it was voluntarily recalled in France, measures such as reshipment were taken when an import notification of the recalled product was made.
May	Belgium	Chocolate using almond as ingredient (Possible contamination with Aflatoxin)	Based on the information that high level of Aflatoxin was detected from almonds and that chocolates using them as ingredient were voluntarily recalled in Belgium, measures such as reshipment were taken when an import notification of the recalled product was made.
May	USA	Peanut butter (Possible contamination with <i>Salmonella</i> spp.)	Based on the information that the peanut butter was voluntarily recalled in USA due to potential contamination of <i>Salmonella</i> spp., measures such as reshipment were taken when an import notification of the recalled product was made.
June	Spain	Snack using paprika oleoresin as additive (Possible contamination with undesignated coloring agent)	Based on the information that the snacks using paprika oleoresin as additive were voluntarily recalled in Spain due to potential contamination with Sudan Blue II (undesignated coloring agent), measures such as reshipment were taken when an import notification of the recalled product was made.
July	Belgium Germany	Chocolate (Possible contamination with <i>Salmonella</i> spp.)	Based on the information that the chocolate made in Belgium was voluntarily recalled in Europe by Belgian manufacturer and German distributor due to potential contamination of <i>Salmonella</i> spp., measures such as reshipment were taken when an import notification of the recalled product was made.

(Reference) Description of Key Terms

Term	Description
Acephate	Agricultural chemical (organophosphorus insecticide)
Aflatoxin	Mycotoxin produced by fungi <i>Aspergillus flavus</i> and <i>Aspergillus parasiticus</i> , which belong to fungi imperfecti.
Bromine	Agricultural chemical (Insecticide)
Carbaryl	Agricultural chemical (carbamate insecticide)
Chloramphenicol	Veterinary drug (synthetic antibacterial agent)
Chlorpropham	Agricultural chemical (carbamate herbicide)
Chlorpyrifos	Agricultural chemical (organophosphorus insecticide)
Cyanide	Harmful or poisonous substance (cyanide compounds (e.g., cyanogenic glycosides)) found in plants such as some varieties of beans
Cyclamic acid	Undesignated additive
Cypermethrin	Agricultural chemical (pyrethroid insecticide)
Cyproconazole	Agricultural chemical (triazole fungicide)
Deltamethrin and Tralomethrin	Agricultural chemical (pyrethroid insecticide)
Diarrhetic shellfish poison	Shellfish poison (mainly refers to toxins produced by harmful planktons accumulated in bivalves)
Dieldrin	Agricultural chemical (organochlorine insecticide)
Diethofencarb	Agricultural chemical (N-Phenylcarbamate fungicide)
Diflubenzuron	Agricultural chemical (Benzoylphenyl urea insecticide)
Dimethomorph	Agricultural chemical (cinnamic acid derivative fungicide)
Diniconazol	Agricultural chemical (triazole fungicide)
Dinotefuran	Agricultural chemical (neonicotinoid insecticide)
Endrin	Agricultural chemical (organochlorine insecticide)
Enrofloxacin	Veterinary drug (new quinolone synthetic antibacterial agent)
Enterohemorrhagic <i>Escherichia coli</i> (<i>E. coli</i>)	Pathogenic microorganism (a bacterium that exists in intestines of animals. It contaminates foods and drinking water via faeces and urine, and causes early cold-like symptoms followed by severe abdominal pain and bloody diarrhea with a large amount of bright red blood).
EPN	Agricultural chemical (organophosphorus insecticide)
Fenazaquin	Agricultural chemical (quinazoline insecticide/acaricide)
Fipronil	Agricultural chemical (phenylpyrazole insecticide)
Fluquinconazole	Agricultural chemical (triazole fungicide)
Flusilazole	Agricultural chemical (triazole fungicide)
Furazolidone	Veterinary drug (nitrofurans synthetic antibacterial agent); generates AOZ when metabolized
Glyphosate	Agricultural chemical (amino acid herbicide)
Haloxypop	Agricultural chemical (aryloxyphenoxy-propionate herbicide)
Hexaconazole	Agricultural chemical (triazole fungicide)
Imazalil	Agricultural chemical (fungicide)
Imidacloprid	Agricultural chemical (neonicotinoid insecticide)
Indoxacarb	Agricultural chemical (oxadiazine insecticide)
<i>Listeria monocytogenes</i>	Pathogenic microorganism (a bacterium that exists widely in the natural environment. It commonly contaminates dairy products and processed meat products, and causes influenza-like symptoms including malaise and fever)
Malathion	Agricultural chemical (organophosphorus insecticide)
Metalaxyl and mefenoxam	Agricultural chemical (anilid fungicide)
Methamidophos	Agricultural chemical (organophosphorus insecticide)
Nitrite	Additive (color former)
Oxolinic acid	Veterinary drug (quinolone synthetic antibacterial agent)
Paclobutrazol	Agricultural chemical (triazole plant growth regulator)
Paralytic shellfish poison	Shellfish poison (mainly refers to toxins produced by harmful planktons accumulated in bivalves)
Patulin	Mycotoxin (produced by the fungi such as <i>Penicillium</i> spp. and <i>Aspergillus</i> spp.)
Permethrin	Agricultural chemical (pyrethroid insecticide)
Procymidone	Agricultural chemical (dicarboximide fungicide)

Term	Description
Profenofos	Agricultural chemical (organophosphorus insecticide)
Prometryn	Agricultural chemical (triazine herbicide)
Propiconazole	Agricultural chemical (triazole fungicide)
Pyridaben	Agricultural chemical (pyridazinone group insecticide)
<i>Salmonella</i> spp.	Pathogenic microorganism (a bacterium that exists widely in nature. It commonly contaminates poultry eggs and meat, and causes abdominal pain, diarrhea, and fever)
Sudan Blue II	Undesignated additive
Sulfadimidine	Veterinary drug (synthetic antibacterial agent)
Tebuconazole	Agricultural chemical (triazole fungicide)
Tebufenpyrad	Agricultural chemical (pyrazole ring group insecticide)
Tetraconazole	Agricultural chemical (triazole fungicide)
Thiamethoxam	Agricultural chemical (neonicotinoid insecticide)
Triadimenol	Agricultural chemical (fungicide)
Triazophos	Agricultural chemical (organophosphorus insecticide)
Tricyclazole	Agricultural chemical (benzothiazole herbicide)
<i>Vibrio parahaemolyticus</i>	Pathogenic microorganism (a bacterium living in seawater (estuaries, coastal areas, etc.) that commonly contaminates fish and shellfish, and causes abdominal pain, watery diarrhea, fever and vomiting.)
2,4-D	Agricultural chemical (phenoxy acid herbicide)