

Disease Control Measures for Domestic Animals **Provisional translation**

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I Basic concept of disease control measures

1 Situation surrounding disease control

In the livestock industry in Japan, the management scale has rapidly expanded in recent years, and the amount of distributed domestic animals and livestock products has increased, resulting in wide-area distribution. Therefore, once a domestic animal infectious disease occurs, the disease may spread rapidly and widely and cause serious damage. In addition, as trade liberalization has progressed and the distribution of overseas domestic animals and livestock products has increased, the risk of entry of transboundary animal diseases such as foot-and-mouth disease has also increased.

Furthermore, diseases that have not been a problem for a while (re-emerging infectious diseases), such as porcine epidemic diarrhea, have been observed, and salmonella infectious diseases that cause human infections from animals (infectious diseases from animals) have become problems.

Transmissible spongiform encephalopathy was first identified in the United Kingdom in 1986. Since then, it has spread to European countries, and in 2001, an outbreak was confirmed in Japan, causing great confusion in the meat industry, including livestock farmers. An outbreak of new diseases (emerging infectious diseases) may continue to occur.

To cope with such a situation, it is important to establish a proactive disease control system from the viewpoint of crisis management and to develop a system to promote disease control so that more effective and efficient control measures can be taken. Based on this situation, this outline describes the basic direction of promoting disease control measures against monitored infectious diseases under the Act on Domestic Animal Infectious Disease Control.

2 Basic direction of promoting disease control measures

(1) Establishment of a proactive disease control system

In view of the recent outbreaks of domestic animal infectious diseases in Japan and overseas, it is considered that the spread of damage is not sufficiently prevented with the conventional control measures that are taken after the outbreak of a domestic

animal infectious disease. For this reason, it is important to strive to establish a proactive disease control system focusing on the prevention of domestic animal infectious diseases through efforts such as the establishment of an inspection system to ascertain the trends of outbreaks prescribed in Article 5 of the Act on Domestic Animal Infectious Disease Control (Act No. 166 of 1951; hereinafter referred to as the "Act"), the systematic implementation of projects for preventing domestic animal infectious diseases (hereinafter referred to as "prevention projects"), and the proactive promotion of voluntary measures for the prevention.

(2) Prompt and accurate response from the viewpoint of crisis management

Since, once it occurs, a domestic animal infectious disease spreads rapidly and widely, prompt and accurate responses are necessary to minimize its damage. To do so, it is necessary to establish a system for implementing surveillance, establish a system to promote disease control, and conduct disease control simulations in anticipation of an outbreak of a domestic animal infectious disease.

With regard to a new infectious disease, prompt and careful responses are required because the pathogen is unknown, as are the infectiousness of the disease and the seriousness of the symptoms in the event of an outbreak. For this reason, it is necessary to make efforts to collect and provide information on outbreaks of diseases overseas at all times. When an outbreak of a new infectious disease is suspected, the prefectural government needs to promptly report it to the national government, and the national government needs to promptly organize a team for investigation and take other proactive measures.

(3) Roles to be played by the national and prefectural governments

For disease control for domestic animals, the national government and prefectural governments (hereinafter referred to as "prefectural government") need to take measures to prevent the outbreak and spread of domestic animal infectious diseases in cooperation with each other, and endeavor to take measures against infectious diseases such as dissemination of correct knowledge; collection, analysis, and publication of information; promotion of research, training, quality improvement, and securing of human resources; development of rapid and accurate inspection systems; etc.

(4) Roles to be played by owners of domestic animals

To ensure thorough prevention of damage caused by domestic animal infectious diseases, owners of domestic animals themselves need to carry out thorough daily hygiene management, accurate vaccinations, and inspections, etc. as voluntary measures for the prevention. Voluntary measures for the prevention are positioned as the basis of disease control for domestic animals.

From the viewpoint of effective and efficient control measures for domestic animals, there are two types of voluntary measures for the prevention one is led by organizations such as the Prefectural Domestic Animal and Livestock Products Sanitation Guidance Association (hereinafter referred to as the "Association, etc."), which need to be implemented in an organized and unified manner nationwide or regionally: and the other is implemented individually by owners of domestic animals.

Voluntary measures for the prevention led by the Association, etc. include: formulation of programs for voluntary measures for the prevention, dissemination and enlightenment activities concerning the importance of voluntary measures for the prevention to owners of domestic animals, vaccinations for domestic animal infectious disease freedom, systematic vaccinations in certain areas to prevent the outbreak of domestic animal infectious diseases based on surveillance results, and voluntary inspections that are effective and efficient when they are conducted systematically.

Furthermore, these organizations need to provide instruction for the smooth implementation of voluntary measures for the prevention individually implemented by owners of domestic animals in close cooperation with the national government and prefectural governments.

(5) International cooperation in domestic animal infectious diseases control

Domestic animal infectious diseases can no longer be solved by one country. Countries around the world must work together to tackle them. In particular, it is necessary to promote the exchange of information and cooperation in international initiatives with overseas government agencies, research institutions, and international organizations such as the World Organisation for Animal Health (OIE) concerning domestic animal infectious diseases, as well as to conduct international cooperation in research and human resource development concerning domestic animal infectious diseases.

3 Development of a system to promote disease control

(1) Strengthening the information transmission system

- a. In order to smoothly promote control measures, it is extremely important to accurately ascertain the hygiene situation of the region. Therefore, it is necessary to endeavor to collect information through notification based on the Act, inspections under Article 5 of the Act, spot inspections under Article 51 of the Act, and circuit guidance. In particular, efforts need to be made to collect information promptly through cooperation with relevant persons so that important hygiene information is not buried behind the expansion of the scale of farms, the commercialization of livestock management, and the development of private inspection agencies.

- b. In addition, since useful livestock hygiene information, such as mortem inspection results and poultry meat inspection results, etc., can be obtained in slaughterhouses and poultry slaughterhouses, it is necessary to establish a closer communication system with these organizations to actively exchange information and ascertain the hygiene situation.
- c. Furthermore, in order for the collected hygiene information to be effectively utilized, the information needs to be quickly and accurately communicated to the relevant persons. For this reason, it is necessary to promote the exchange of information between prefectural governments, and between prefectural governments and related organizations or owners of domestic animals, while utilizing the livestock hygiene information system between the national and prefectural governments, and to make efforts to promptly transmit useful information.

(2) Strengthening the pathogenicity determination system

In order to ensure the accuracy and promptness of the pathogenicity determination and other inspection services required by Livestock Hygiene Service Centers, the national government formulates pathogenicity determination guidelines in accordance with the latest scientific knowledge, etc. Each prefectural government needs to endeavor to improve the pathogenicity determination function so that accurate pathogenicity determination can be made based on the guidelines and strive to maintain and improve the technical level of Livestock Hygiene Service Centers by disseminating and promoting the guidelines to owners of domestic animals, private veterinarians, relevant organizations, etc. and effectively utilizing livestock hygiene workshops held by the national government.

(3) Strengthening the system to utilize private veterinarians

Since the roles played by private veterinarians are important in promoting the disease control of monitored infectious diseases, it is important to improve the skill level of private veterinarians and to thoroughly disseminate laws and regulations related to livestock hygiene and the outline of disease control measures for domestic animals. Therefore, it is necessary for Livestock Hygiene Service Centers to enhance and strengthen the implementation system of disease control for domestic animals, through the holding of training sessions and research meetings, as well as promoting the improvement and maintaining a high benchmark standard of veterinary technology, such as by providing support to private veterinarians for facility utilization.

4 Specific measures for promoting disease control

(1) Outbreak prevention

In order to ensure the proper implementation of preventing outbreaks and predicting projects, it is necessary to accurately ascertain the status and trends of outbreaks of monitored infectious diseases nationwide or regionally in accordance with Appendix 1

"Guidelines for Surveillance Measures for Monitored Infectious Diseases" and to effectively implement vaccinations, etc. based on the provisions of Article 6 of the Act, amid a faster, expanded, and increased distribution of domestic animal and livestock products, such as the progress of collectivization and commercialization of livestock management and management across multiple prefectures, etc.

In addition, due to the increasing demand for hygiene measures for domesticated animals other than cattle, pigs, and poultry amid the recent diversification of reared domestic animals, it is necessary to endeavor to provide instruction to owners of domesticated animals other than cattle, pigs, and poultry for the prevention of outbreaks of monitored infectious diseases of the animals, including deer and boars, which have been added to the scope of the Act.

a. Notification of an outbreak of an infectious disease

Notification of an outbreak of a notifiable infectious disease based on Article 4 of the Act is extremely important for early recognition of the outbreak of the disease and prevention of a new outbreak. Therefore, it is necessary to fully inform veterinarians that the notification is a prerequisite for smooth disease control and that notifiable infectious diseases have increased significantly due to the revision of the Act. Therefore, it is important to ensure early notification of these notifiable infectious diseases.

b. Notification of an outbreak of a new disease

Before the name of the disease was determined, porcine reproductive and respiratory syndrome (PRRS) was known as "Heko-heko disease" because of its symptoms and caused unexplained abnormal deliveries. If a notification is made by a veterinarian in accordance with the provisions of Article 4-2 of the Act on a disease that is clearly different from previously known domestic animal infectious diseases, their symptoms, or result of treatment, Livestock Hygiene Service Centers are required to conduct an inspection and determine whether the disease is a new, known, or non-infectious disease.

If it is determined to be a new disease, Livestock Hygiene Service Centers will promptly report it to the national government after taking the necessary control measures. If it is determined that the disease is considered a new disease, and Livestock Hygiene Service Centers implement necessary control measures, and will conduct an inspection in accordance with paragraph (5) of the same Article.

If the national government has received the report, it shall endeavor to investigate the cause of the new disease in close cooperation with research and development institutes, prefectural governments, etc. With regard to new infectious diseases, based on the results of the investigation, it will take necessary measures, such as revision of laws and regulations, etc., after examining whether the disease is classified as a domestic animal infectious disease or a notifiable infectious disease.

c. Inspection and injection

To prevent and control monitored infectious diseases, it is important to make efforts to ascertain the status of infiltration by conducting inspections, and to take appropriate control measures such as vaccination based on the inspection results.

d. Report and notification

Any report or notification under the provisions of Article 12-2 of the Act shall be made as follows:

- (a) The scope of the relevant prefectural governors set forth in Article 12-2 of the Act shall be the governors of the prefectures adjacent to the concerned prefecture and the governors of the prefectures where the relevant domestic animals are continuously introduced from the concerned prefecture.
- (b) The notification to the relevant prefectural governor pursuant to the provisions of Article 20, paragraph (2) of the Regulations for Enforcement of the Act on Domestic Animal Infectious Diseases Control (hereinafter referred to as "Regulations") under the provisions of Article 12-2 of the Act shall be made by the 10th day of each month using the form equivalent to Appended Form 14 of the Regulations with regard to the measures taken during the preceding month.

(2) Spread prevention

The success or failure of the prevention of the spread of domestic animal infectious diseases depends on the speediness and accuracy of initial prevention of outbreaks. For this reason, focusing on the appropriate implementation of the measures, it is necessary to accurately take measures for spread prevention prescribed in the Act, paying attention to the following matters:

a. Notification and report of affected animals

For accurate initial prevention of outbreaks, notification of affected animals or suspected affected animals based on the provisions of Article 13 of the Act and related pathogenicity determination are required to be made promptly and accurately. Accordingly, it is necessary to pay attention to the following matters:

- (a) It is necessary to ensure that owners of domestic animals are informed of the pathogenicity of domestic animal infectious diseases, and to instruct them to promptly contact relevant organizations and relevant persons, such as Livestock Hygiene Service Centers, livestock clinics, and private veterinarians, when they find a domestic animal exhibiting abnormalities.
- (b) It is necessary to thoroughly inform veterinarians about the purpose of the Act and to instruct them to promptly give notification in accordance with the provisions of the Act.

- (c) When there is a suspicion of a domestic animal infectious disease, the pathogenicity will be determined promptly based on the "Pathogenicity determination Guidelines" (Notification 10 Livestock A No. 1937 of the Director of Livestock Bureau, Ministry of Agriculture, Forestry and Fisheries of October 22, 1998; hereinafter referred to simply as the "Pathogenicity determination Guidelines").
- (d) If an outbreak is found, it is necessary to take all possible measures to prevent the spread of the disease by making full use of information collected on a daily basis to prevent the outbreak, such as the status of vaccination and the movement of domestic animals. It is also necessary to make efforts to effectively take such measures by making use of publicity magazines, etc. At this time, municipal governments, prefectural governments, and the national government need to notify or closely communicate with relevant organizations at each stage.

b. Isolation of affected animals

In order to prevent the spread of pathogens of domestic animal infectious diseases, it is important to promptly isolate affected animals or suspected affected animals. Therefore, it is necessary to instruct owners of domestic animals so that isolation under the provisions of Article 14 of the Act can be implemented promptly.

c. Slaughter disposition

The slaughter disposition of affected animals, etc. pursuant to the provisions of Article 17 of the Act needs to be carried out in an accurate manner by comprehensively taking into consideration various factors related to spread prevention, such as the condition of the affected animals in the region, the rearing conditions of domestic animals, and the status of vaccination.

d. Slaughter disposition for pathogenicity determination

Since slaughter disposition for pathogenicity determination based on the provisions of Article 20 of the Act is to be carried out for the prompt and accurate diagnosis of domestic animal infectious diseases, it needs to be carried out as efficiently as possible while fully considering its purpose.

e. Incineration of carcasses and contaminated objects

It is necessary to examine and prepare procedures for the disposal of carcasses, etc. in advance, in full cooperation with relevant organizations, and to determine the location of disposal, disposal method, and carcass transportation procedures so that measures can be taken promptly in anticipation of a situation that there are many carcasses resulting from a mass outbreak of a domestic animal infectious disease.

f. Inspection, injection, dipping, or medication

When affected animals or suspected affected animals are found, inspection, injection, dipping, or medication based on the provisions of Article 31 of the Act should be carried out in consideration of the rearing conditions of domestic animals and the status of vaccination in the area around the location concerned. In principle, the area subject to inspection, injection, dipping, or medication shall be the area within the movement restriction area pursuant to the provisions of Article 32 of the Act. Attention shall be paid to ensure that measures are taken effectively in accordance with a. (e) for the inspection, injection, dipping, or medication in order to prevent the spread of the disease.

g. Movement restriction

Movement restrictions of domestic animals, etc. pursuant to the provisions of Article 32 of the Act need to be implemented by comprehensively taking into consideration the type of domestic animal infectious disease, its pathogenicity, progress after detection, the rearing conditions of domestic animals in the region, traffic conditions, distribution conditions of domestic animals and livestock products, etc., and by specifying the minimum area, period, and object, etc., so that the effect of the measures for spread prevention can be maximized. For this reason, it is important to consider responses in advance in the case of an outbreak of major diseases. At this time, unless there is a problem in disease control, consideration needs to be given when going directly to a slaughterhouse after taking necessary control measures, such as disinfection, etc., so that domestic animals can be moved out of the area and eggs and other products can be shipped. When the movement restrictions are imposed, the relevant prefectural governments shall maintain close communication regarding the status of outbreak and disease control, and endeavor to effectively implement the movement restrictions among them.

h. Restrictions on events at domestic animal gathering facilities and restrictions on pastures

With regard to restrictions on events at domestic animal gathering facilities and restrictions on pastures based on Article 33 and Article 34 of the Act, it is important to establish necessary rules and ensure their appropriate operation, and it is necessary to instruct the relevant persons of the events at domestic animal gathering facilities and pastures to establish the guidelines on biosecurity measures in advance and to perform management based on the guidelines.

i. Report and notification

Any report or notification under the provisions of Article 13, paragraph (4) and Article 35 of the Act shall be made as follows:

- (a) The scope of the relevant prefectural governor set forth in Article 13, paragraph (4) and Article 35 of the Act shall be the governors of the prefectures adjacent to the concerned prefecture and the governors of the

prefectures where the relevant domestic animals are continuously introduced from the concerned prefecture.

- (b) The notification by telegraph, telephone, or equivalent method to the relevant prefectural governor pursuant to the provisions of Article 25, paragraph (2) of the Regulations based on Article 13, paragraph (4) of the Act and the report to the Minister of Agriculture, Forestry and Fisheries pursuant to the provisions of Article 25, paragraph (3) of the Regulations shall be made using Appended Form 1.

j. Other

- (a) In the event of an outbreak of a domestic animal infectious disease, it is necessary to clarify the route of transmission and record related matters in detail by conducting a thorough epidemiological investigation on the status of introduction of domestic animals, access of relevant persons, where to obtain feed, the status of housing of domestic animals by livestock housing, the status of abnormal domestic animals other than affected animals and suspected affected animals, and whether or not vaccination has been implemented. At this time, the concerned prefectural government and relevant prefectural governments need to proactively conduct spot inspections based on the provisions of Article 51 of the Act at the concerned farm and epidemiologically related farms, while communicating with each other to ensure thorough prevention of the spread of the disease.
- (b) When the prefectural government obtains information on an outbreak of a monitored infectious disease in a slaughterhouse, etc., it also needs to conduct spot inspections, etc. at a shipping farm and epidemiologically related farms, as in the case of (3), and make thorough efforts to prevent the outbreak and spread of the disease.

(3) Formulation of a plan for the implementation of prevention projects

In order to smoothly promote prevention projects in prefectures, it is necessary to formulate a disease control plan for domestic animals to prevent the outbreak and spread of monitored infectious diseases in accordance with local circumstances. The plan shall be formulated using Appended Form 2, taking into consideration the concept of formulating the plan and the status of outbreaks of monitored infectious diseases in the region, etc.

In addition, if new responses are required in terms of disease control for domestic animals due to the outbreak of a domestic animal infectious disease, etc. during the year of the project, the prevention project plan needs to be changed using Appended Form 3.

5 Voluntary measures for the prevention

In order to prevent the outbreak of domestic animal infectious diseases, thorough daily hygiene management is essential. Accurate vaccinations and inspections, etc. are also important. In addition to monitored infectious diseases, other domestic animal infectious diseases require accurate and thorough voluntary measures. Therefore, while paying attention to the following matters, it is necessary to endeavor to instruct relevant persons so that effective and efficient voluntary measures for the prevention are taken based on the situation of livestock hygiene in the region.

- (1) In order to prevent the outbreak of infectious diseases, it is necessary to instruct owners of domestic animals and related organizations on thorough daily hygienic rearing management, such as entry restrictions, cleaning and disinfection, extermination of pest insects, thorough individual observation and recording, temporary isolation and rearing of introduced domestic animals, ensuring ventilation and warmth, prevention of stress due to close rearing, etc., as well as on the formulation of hygienic rearing management programs including vaccination programs in the region. In particular, facilities where it is important to prevent damage due to the negligence of general rearing measures, such as facilities for rearing male calves of dairy cattle, pastures for beef cattle, pig facilities (boar farms, etc.), poultry farms (incubation farms, etc.), and group horse rearing facilities (racecourses, etc.), instruction on hygiene measures is required with reference to the guidelines for hygiene measures provided in Appendices 2 to 6.
- (2) With regard to projects for voluntary measures for the prevention such as vaccinations implemented by the Association, etc. (hereinafter referred to as "Association projects"), instruction and advice need to be given to the Association, etc., paying attention to the following matters, and it is important to further enhance and strengthen the community-wide disease control system in which owners of domestic animals and Livestock Hygiene Service Centers are integrated.
 - a. Vaccination projects of the Association, etc. are implemented mainly for infectious diseases for which a certain vaccination rate is required to be secured regionally. Vaccinations are divided into two types: vaccinations carried out voluntarily by owners of domestic animals, and vaccinations carried out systematically by the Association, etc. for infectious bovine rhinotracheitis, etc. In formulating a plan for vaccination projects of the Association, etc., it is necessary to promote the proper implementation of planned vaccinations by actively utilizing information on the situation of outbreaks of monitored infectious diseases, etc. as prescribed in Article 5 of the Act and actively providing advice on the preparation of vaccination programs and the itinerary plans of private veterinarians engaged in Association projects, etc. (hereinafter referred to as "designated veterinarians"), in coordination with prevention projects, etc.
 - b. Other projects of the Association, etc. include support to gain freedom of livestock production farms and support for the production of safe livestock

products. From the viewpoint of promoting smooth regional projects, due attention needs to be paid when formulating plans and making coordination.

- c. Association projects require the involvement of private veterinarians, especially as designated veterinarians. Therefore, it is necessary to provide advice on the allocation of private veterinarians and their utilization necessary for the implementation of the projects. In coordination with the Veterinary Medical Association, veterinarians who have a normal medical relationship with owners of domestic animals shall be designated preferentially. In particular, in areas where it is difficult to secure designated veterinarians, it is necessary to gain the cooperation of municipalities, agricultural organizations, private companies, etc. to further utilize veterinarians who belong to them.
- d. With regard to Association projects above, the Association, etc. shall try to smoothly promote the projects based on the requests of owners of domestic animals, and to rationalize and improve the efficiency of project operations by exchanging information with other associations, etc. In the future, the Association, etc. needs to consider the improvement and strengthening of the operation base through the diversification of the projects, etc., as well as the formulation of plans on voluntary measures for the prevention and enhancement of coordination.

6 Prevention of transboundary animal diseases

While transboundary animal diseases such as foot-and-mouth disease still exist in a wide range of regions around the world, a variety of animal and livestock products are imported from various countries due to the progress of international trade liberalization. Opportunities for the entry of monitored infectious diseases from abroad are increasing further. Therefore, it is necessary to pay more attention to the prevention of entry of transboundary animal diseases and other monitored infectious diseases caused by the import of animal and livestock products, and to take all possible measures to prevent epidemics.

(1) Establishment of a system for inspection after arrival

In order to prevent the entry of monitored infectious diseases caused by imported domestic animals, it is important to promote import quarantine at the Animal Quarantine Service, and control measures such as isolated rearing at the breeding grounds of imported domestic animals after import quarantine (hereinafter referred to as "inspection after arrival") in an integrated and effective manner. Therefore, the Animal Quarantine Service and prefectural governments need to endeavor to instruct relevant persons in accordance with Appendix 7 "Guidelines for Inspection After Arrival of Imported Domestic Animals."

(2) Strengthening the disease control system for transboundary animal diseases

- a. Prefectural governments need to examine and prepare specific guidelines for control measures based on the Guidelines for the Specific Animal Infectious Disease of Domestic Animals (referring to the "Guidelines for the Specific Animal Infectious Diseases of Domestic Animals" based on Article 3-2, paragraph (1) of the Act; the same shall apply hereinafter), establish an emergency disease control system, and take measures to strengthen dissemination and enlightenment campaigns for relevant engineers and owners of domestic animals.
- b. In the event of an outbreak of an unknown disease that is considered to be a domestic animal infectious disease, measures shall be taken based on the provisions of Article 4-2 of the Act. If the disease is considered to be the first case in Japan, contact shall be promptly made with the national government. When it is necessary based on the directions of the national government, materials shall be collected based on the Guidelines for the Specific Animal Infectious Disease of Domestic Animals and the Pathogenicity determination Guidelines, and brought or sent to the National Institute of Animal Health, NARO (hereinafter referred to as "National Institute of Animal Health"). In addition, the final determination of the pathogenicity shall be made after consideration with the Animal Health Division, Food Safety and Consumer Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries (hereinafter referred to as "Animal Health Division, MAFF") and research organizations such as the National Institute of Animal Health. At this time, if the disease is considered to have a serious impact on the livestock industry, it is necessary to provide instruction to prevent the spread of the disease to surrounding areas and to promptly take measures to prevent the spread during the period until the pathogenicity is determined.
- c. The national government and prefectural governments shall endeavor to conduct disease control simulations on control measures for transboundary animal diseases and contribute to efficient disease control activities in the event of an outbreak. In addition, the national government shall stockpile necessary vaccines such as a vaccine for foot-and-mouth disease to prepare for unforeseen situations.
- d. The national government shall endeavor to collect information on trends in the outbreak of diseases overseas, and make every effort to develop the technology necessary to prevent the entry and spread of transboundary animal diseases, etc., as well as to develop a diagnostic system.

II Individual disease control

<<Domestic animal infectious diseases>>

1 Infectious encephalitis

Infectious encephalitis listed in Article 2 of the Act refers to infectious diseases caused by arbovirus that cause encephalitis such as Japanese encephalitis, western equine encephalitis, and Venezuelan equine encephalitis. Today, only Japanese encephalitis has developed in Japan. Since the main damage of Japanese encephalitis is death and poor prognosis in the case of the onset in horses, and stillbirth/miscarriage and azoospermia in breeding pigs, it is necessary to take disease control measures focusing on thorough outbreak prediction measures mainly in horses and breeding pigs.

(Outbreak prevention measures)

- (1) It is important to prevent outbreak of prevent Japanese encephalitis, basically through vaccination. Especially for pigs, mainly for sows and boars born between November of the preceding year and April of the concerned year, it is necessary to instruct owners of domestic animals to complete the vaccination at least six weeks before the phase of antibody rise in the region. It is also necessary to instruct them to complete the vaccination of multiparous pigs with a small number of parturition as necessary.
- (2) In order to contribute to the disease control of this disease, such as the prediction of the epidemic of Japanese encephalitis and the examination of the vaccination, etc., it is necessary to make effective use of the antibody kinetic survey results of this disease in slaughterhouses in cooperation with public health authorities, and to carry out the antibody kinetic survey based on the provisions of Article 5 of the Act as necessary.

(Measures to prevent the spread of the disease)

- (3) With regard to Japanese encephalitis, the slaughter disposition of affected animals based on the provisions of Article 17 of the Act and the disposition of suspected affected animals for pathogenicity determination based on the provisions of Article 20, paragraph (1) of the Act will not be implemented in principle.
- (4) It is necessary to instruct owners of domestic animals of the concerned farm and surrounding farms on the control of bloodsucking insects by spraying insecticides, etc. as necessary.

2 Anthrax

This disease is often found as a case of sudden death, and if the carcasses and contaminated objects of affected animals or suspected affected animals are treated improperly, the disease will not only become endemic due to the characteristics of the pathogen, but also greatly affect the freedom of the disease. If it develops in dairy farms, the damage caused by the disposal of raw milk will be enormous behind the wide-spread and large-scale distribution of raw milk. Therefore, with regard to this disease, it

is necessary to take control measures with an emphasis on enlightenment and instruction to relevant persons about the importance of prompt and accurate pathogenicity determination and thorough implementation of early detection and prompt disease control measures when a case suspected of this disease is detected.

(Outbreak prevention measures)

- (1) It is necessary to instruct owners of domestic animals to make efforts to prevent the outbreak of this disease based on the promotion of vaccination in the endemic area of the pathogens of this disease.

(Measures to prevent the spread of the disease)

- (2) In the event of sudden death of a domestic animal, it is necessary to immediately notify the Livestock Hygiene Service Center, and to instruct the relevant persons not to mix raw milk produced at the concerned facilities for rearing domestic animals with raw milk shipped from other facilities for rearing domestic animals until the results of the pathogenicity determination of the domestic animal are available.
- (3) When a suspected case of this disease is found, it is necessary to prevent leakage of blood, etc. from the natural hole and promptly perform a pathogenicity determination. In addition, it is necessary to instruct the relevant persons to refrain from moving domestic animals, raw milk, and objects that may transmit the pathogens of this disease. When collecting materials for pathogenicity determination, it is important to minimize the number of incision sites to the extent possible, in order to prevent contamination of the surrounding part by leakage of blood and body fluids from the incision sites.
- (4) As a result of pathogenicity determination, if a positive reaction for Ascoli is shown and capsular bacilli is detected in a domestic animal, the animal is considered a suspected affected animal of this disease, and it is necessary to promptly implement appropriate measures to prevent the spread of the disease and to promptly carry out subsequent pathogenicity determination.
- (5) When the outbreak of this disease is confirmed, it is necessary to immediately take movement restriction measures for domestic animals, raw milk, and other objects that may transmit the pathogens of this disease, based on the provisions of Article 32, paragraph (1) of the Act. In addition, it is necessary to conduct inspections based on the provisions of the Act and provide instruction to producers on the processing of raw milk, etc. during the movement restriction period.
- (6) For the incineration, etc. of carcasses and contaminated objects pursuant to the provisions of Article 20 and Article 23 of the Act, and disinfection of livestock housing, etc. pursuant to the provisions of Article 25 of the Act, it is necessary to take measures while paying attention to the following matters:
 - a. In principle, the carcasses of affected animals and suspected affected animals will be incinerated.

- b. Items whose disinfection is difficult, unnecessary contaminated objects, floorboards and other wooden products, low-value contaminated objects, etc. in livestock housing where affected animals or suspected affected animals were reared will be incinerated.
 - c. Not only the concerned livestock housing but also other facilities, such as the related ground, etc., are subject to disinfection.
- (7) In principle, raw milk to be incinerated pursuant to the provisions of Article 23 of the Act is raw milk located in livestock housing and that to be transported to milk collection centers, etc. The raw milk needs to be treated as follows:
- a. Raw milk to be treated as raw milk that has been contaminated with anthrax is:
 - (a) Raw milk in which anthrax has been demonstrated by culture or other methods.
 - (b) Raw milk from cattle infected with anthrax and with severely reduced milk production.
 - (c) Raw milk from cattle that is infected with anthrax and has a fever of 40°C or higher.
 - b. Raw milk to be treated as raw milk that may have been contaminated with anthrax.
 - (a) Raw milk from cattle infected with anthrax and expressed on or after the day before the onset of symptoms (excluding those listed in (b)), and that combined with such raw milk.
 - (b) Raw milk from cattle cohabiting with cattle infected with anthrax, and having a fever of 40°C or higher, or that mixed with such milk.
 - (c) Raw milk from milking cattle that is reared in a place where there is a risk of anthrax contamination due to delays in finding affected animals. (The period of delay depends on the location of the outbreak, the condition at the time of the outbreak, and any subsequent treatment, but it is approximately one week after the disposal of the affected animals.)
- (8) For cohabiting cattle in the concerned livestock housing, it is necessary to promptly take measures using antibacterial substances, etc. based on the provisions of Article 31 of the Act, and to endeavor to prevent continued outbreaks. To prevent the spread of the disease, cohabiting cattle in the concerned livestock housing and cattle raised in the contaminated livestock housing need to be vaccinated after 10 days have passed since the last outbreak of the affected animals.

3 Brucellosis

Freedom of this disease has been promoted through the inspection based on the provisions of Article 5 of the Act and disease control measures based on the slaughter

disposition of affected animals identified by the inspection based on the provisions of Article 17 of the Act.

It is necessary to take disease control measures with an emphasis on maintaining cleanliness and achieving freedom.

In the future, national cleanliness confirmation surveillance will be carried out as specified by the Director of the Animal Health Division, MAFF.

4 Tuberculosis

Freedom of this disease has been promoted through the inspection based on the provisions of Article 5 of the Act and disease control measures based on the slaughter disposition of affected animals identified by the inspection based on the provisions of Article 17 of the Act.

It is necessary to take disease control measures with an emphasis on maintaining cleanliness and achieving freedom. In addition, it is necessary to strengthen cooperation with meat inspection organizations and to take appropriate control measures based on I-4-(2)-j-(b) when affected animals are confirmed in a slaughterhouse.

In the future, national cleanliness confirmation surveillance will be carried out as specified by the Director of the Animal Health Division, MAFF.

5 Johne's disease

It is necessary to take preventive measures through proper biosecurity management, and to take measures for the prevention of spread of the disease through slaughter disposition and disinfection, etc. of affected animals based on the provisions of Article 17 of the Act, and to promote comprehensive measures based on the "Guidelines for Disease control Measures for Johne's Disease in Cattle" (Notification 18 Consumer Safety No. 8586 of the Director of Consumer Affairs and Safety Bureau, Ministry of Agriculture, Forestry and Fisheries of November 1, 2006).

6 Piroplasmosis and anaplasmosis

Piroplasmosis caused by *Babesia bigemina* and *Babesia bovis* and anaplasmosis caused by *Anaplasma marginale* have been cleaned up without any outbreak in recent years. In the future, it is important to confirm the cleanliness in relation to this disease by conducting inspections based on the provisions of Article 5 of the Act as necessary, and it is necessary to take disease control measures with an emphasis on continued promotion of freedom.

(Outbreak prevention measures)

- (1) In areas where the outbreak of this disease is observed, it is necessary to instruct owners of domestic animals to endeavor to eliminate ticks attached to cattle bodies, by administering regular medication as necessary.

- (2) In other areas, it is necessary to confirm the cleanliness of the areas concerning cattle ticks and the relevant pathogens by conducting inspections based on the provisions of Article 5 or Article 51 of the Act.

(Measures to prevent the spread of the disease)

- (3) In the event of an outbreak of this disease, it is necessary to implement movement restrictions based on the provisions of Article 32, paragraph (1) of the Act as necessary, taking into consideration the status of outbreak, the movement of cattle, etc. In addition, it is necessary to conduct an inspection and tick investigation of cattle cohabiting with affected animals or suspected affected animals, to take control measures based on the results, and to promptly inform the relevant prefectural governments.

7 Transmissible spongiform encephalopathy

Transmissible spongiform encephalopathy provided in Article 2 of the Act and listed in the left-hand column of the table of Article 1 of the Order for Enforcement of the Act on Domestic Animal Infectious Disease Control (Cabinet Order No. 235 of 1953; hereinafter referred to as "Cabinet Order") refers to that caused by prions such as bovine spongiform encephalopathy and scrapie.

Although bovine spongiform encephalopathy, a transmissible spongiform encephalopathy in cattle, was first confirmed in Japan in 2001, it has not been confirmed in cattle born in and after February 2002, due to the implementation of countermeasures based on the Act on Special Measures concerning Measures against Bovine Spongiform Encephalopathy (Act No. 70 of 2002), the Basic Plan for Countermeasures against Bovine Spongiform Encephalopathy (announced by the Minister of Agriculture, Forestry and Fisheries and the Minister of Health, Labour and Welfare on July 31, 2002), and the Guidelines for the Specific Animal Infectious Disease of Domestic Animals concerning Bovine Spongiform Encephalopathy (announced by the Minister of Agriculture, Forestry and Fisheries on March 17, 2015). Therefore, it is necessary to continue to promote these measures.

Sporadic outbreaks of scrapie, a transmissible spongiform encephalopathy in sheep and goats, have been reported in Japan. In recent years, an outbreak of atypical scrapie, which differs in nature from those previously reported in Japan, has been confirmed. As there are still many unclear points regarding this atypical scrapie, it is necessary to identify epidemiologically related sheep or goats as is the case in conventional scrapie, as well as to promote disease control measures focusing on confirmation of the cleanliness in relation to this disease based on the "Transmissible Spongiform Encephalopathy (TSE) Testing Response Manual" (Notification 15 Production Livestock No. 1337 of the Director of Livestock Department, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries of June 17, 2003).

8 Equine infectious anemia

This disease has been continuously occurring in Japan for a long time. However, since the establishment of the serodiagnosis method by the agar-gel immunodiffusion test, it is considered that the disease has been cleaned up in Japan by the steady detection of horses affected by this disease and disease control measures based on the slaughter disposition of affected animals under the provisions of Article 17 of the Act. Therefore, in the future, it is necessary to take disease control measures with an emphasis on entry prevention.

(Outbreak prevention measures)

- (1) For imported horses (excluding imported fattening horses reared and isolated from horses reared in Japan for other purposes), advice and instruction need to be given to owners of domestic animals imported to have the horses undergo an inspection of this disease at least one month after import during the period of inspection after arrival, taking into account the incubation period of this disease. For international racehorses whose period of inspection after arrival has been shortened to one month or less, advice and instruction shall be given to them to have the horses undergo an inspection immediately before the end of the period to the extent possible.
- (2) For imported fattening horses, advice and instruction need to be given to owners of domestic animals imported to rear them in isolation from horses reared in Japan for other purposes until they are shipped to slaughterhouses after import.
- (3) Prefectural animal health inspectors shall, as necessary, conduct an inspection of this disease based on the provisions of Article 51, paragraph (1) of the Act.

(Measures to prevent the spread of the disease)

- (4) Affected animals of this disease shall be isolated promptly based on the provisions of Article 14, paragraph (1) of the Act, and the order of slaughter disposition shall be given within two weeks of the outbreak based on the provisions of Article 17 of the Act.
- (5) In principle, the slaughter disposition for pathogenicity determination based on the provisions of Article 20, paragraph (1) of the Act will not be implemented.
- (6) In the event of an outbreak of this disease in facilities where horses are gathered, such as racecourses, etc., it is necessary to implement movement restrictions in a timely manner as needed based on the provisions of Article 32, paragraph (1) of the Act, taking into consideration the status of outbreak, the arrangement of the concerned stables, the movement of horses, etc. It is also necessary to conduct an investigation of horses cohabiting with affected animals or suspected affected animals and to promptly notify the relevant prefectural government.

9 Newcastle disease

Although this disease has not resulted in a pandemic, due to thorough vaccination, mainly through voluntary measures for the prevention, it is reasonable to assume that the virus of this disease is still widely present in the field, based on the epidemiological knowledge gained so far. Under the situation where the scale for domestic animals prescribed is increasing and intensification is progressing, the damage could be extremely serious once outbreak occurs. For this reason, it is necessary to take disease control measures against this disease, focusing on the prevention of outbreaks by promoting efficient voluntary vaccination, mainly through Association projects.

(Outbreak prevention measures)

- (1) For this disease, it is necessary to accurately ascertain the status of vaccination in the region on a daily basis by actively conducting spot inspections based on the provisions of Article 51 of the Act as necessary, and to make efforts to thoroughly implement outbreak prevention measures by instructing owners of domestic animals on appropriate vaccination.

It is necessary to actively advise and instruct the relevant persons on the creation of an effective vaccination program, taking into account the characteristics of each type of prophylactic solution and the situation of outbreak in the region.

- (2) It is important to endeavor to enlighten and instruct the relevant persons about the prevention of entry of this disease by wild birds and pet birds, which seem to be related to the transmission of this disease.

(Measures to prevent the spread of the disease)

- (3) If the outbreak of this disease is suspected in an area where the disease has not occurred, it is necessary to provide instruction to take appropriate measures for preventing the spread of this disease other than slaughter disposition, in addition to prompt pathogenicity determination.
- (4) The slaughter disposition of affected animals pursuant to the provisions of Article 17 of the Act must be carried out effectively by fully taking into consideration the process of the outbreak, the situation of the outbreak, the presence of symptoms, the status of vaccination, etc. In particular, in the early stage of the outbreak, it is necessary to take effective disease control measures through prompt slaughter disposition in a flock. If the disease has already spread widely or has occurred in a contaminated area when this disease has been detected, it is necessary to investigate the pathogenicity and the status of vaccination, and to take disease control measures other than slaughter disposition, such as isolation observation, disinfection of objects and livestock housing, etc.
- (5) For suspected affected animals, slaughter disposition is not necessarily the most reasonable means as a control measure in a situation where it is considered that the virus of this disease still exists in a wide area. Therefore, in principle, slaughter disposition under the provisions of Article 17 of the Act may not be implemented.

However, in cases where it is difficult to ascertain the status of immunization of the suspected affected animals, and where slaughter disposition is deemed necessary and effective for spread prevention, slaughter disposition may be necessary.

- (6) Poultry in facilities where the outbreak occurs that have not yet shown symptoms must be promptly isolated pursuant to the provisions of Article 14, paragraph (1) of the Act.
- (7) When deemed necessary, emergency vaccination needs to be carried out based on the provisions of Article 31 of the Act with regard to poultry in facilities where the outbreak occurs that have not yet shown symptoms and poultry in the concerned area and its surrounding areas, taking into consideration the rearing conditions, vaccination status, presence of abnormal poultry, etc. In principle, the area subject to emergency vaccination shall be an area within the movement restriction area set pursuant to the provisions of Article 32, paragraph (1) of the Act.
- (8) Movement restrictions based on the provisions of Article 32 of the Act need to be implemented in consideration of geographical conditions, rearing conditions, etc., mainly in the concerned farm and in a timely manner. In addition, it is necessary to conduct an inspection under the provisions of Article 31 or Article 51 of the Act on poultry in the relevant area during the relevant period, in order to confirm the health condition of the poultry. In principle, the movement restrictions are subject to an observation period of three weeks after the measures for the last outbreak are taken. If a new outbreak is not observed, the restrictions may be lifted, taking into consideration the status of vaccination.
If it is found that there is no hindrance to the prevention of epidemics by taking necessary measures such as disinfection and limitation of use during the movement restriction period, poultry can be moved outside the restricted area only for the shipment of eggs and the shipment of broiler to the nearest poultry slaughterhouse.

10 Avian salmonellosis

Among the pathogens defined in Article 1 of the Regulations, pullorum disease caused by *Salmonella Pullorum* has been observed in Japan. As a result of control measures based on voluntary inspection of owners of domestic animals and the detection of infected parent stock in prevention projects, the disease occurs sporadically today, because pullorum disease is transmitted mainly through egg transmission. For this reason, it is necessary to take disease control measures against this disease, focusing on the detection of infected poultry in the parent stock farm and the maintenance of cleanliness by culling.

(Outbreak prevention measures)

- (1) For parent stock and candidate parent stock, it is important to actively instruct owners of domestic animals on voluntary inspections during the mid- and pre-

laying periods. Parent stock is required to be inspected at least once a year based on the provisions of Article 5 of the Act.

- (2) In a situation where freedom has been promoted, it is important to continuously endeavor to raise awareness and collect information on the pathogenicity of this disease, mainly in brooder housing, which is the main place where this disease occurs, in order to thoroughly prevent the outbreak of this disease. If necessary, spot inspections shall be conducted based on the provisions of Article 51 of the Act, and efforts shall be made to ascertain the actual situation of this disease and provide instruction.
- (3) Since poultry that has received a vaccine against *Salmonella* serovar Enteritidis is diagnosed as antibody-positive in pullorum disease testing, it is necessary to perform pathological evaluation for all the labeled unvaccinated flocks.

(Measures to prevent the spread of the disease)

- (4) In principle, it is necessary to order early and stable slaughter disposition of affected animals based on the provisions of Article 17 of the Act.
- (5) It is necessary to instruct owners of domestic animals to promptly dispose of eggs, etc. produced from affected animals and suspected affected animals (including antibody-positive poultry detected by voluntary testing).
- (6) In the event of an outbreak of this disease at a poultry farm other than parent stock farms, it is necessary to promptly conduct a spot inspection at the concerned parent stock farm and relevant parent stock farms pursuant to the provisions of Article 50 of the Act. In addition, it is necessary to instruct owners of domestic animals to take adequate measures for achieving freedom when contamination is confirmed as a result of the inspection.

11 Foulbrood

The following control measures need to be taken for this disease.

(Outbreak prevention measures)

- (1) In order to enhance the effect of preventing foulbrood, it is necessary to establish a voluntary inspection system for daily rearing management, such as observation of honeybees and inside and outside of hives by owners of domestic honeybees, in view of the pathogenicity of this disease. Therefore, it is necessary to provide necessary advice and instruction to the relevant persons on the formulation of inspection implementation plans so that voluntary inspections by owners of domestic honeybees and related organizations can be conducted efficiently.
- (2) It is important to regularly ascertain the actual condition of rearing and distribution of honeybees by owners of domestic honeybees who keep the honeybees in a fixed place throughout the year or in other places in specific seasons, as well as horticulture companies and persons who keep bees for the purpose of a hobby,

etc. It is necessary to provide instruction so that honeybees are not left unattended, and if necessary, endeavor to prevent an outbreak by conducting inspections based on the provisions of Article 5 or Article 51 of the Act.

(Measures to prevent the spread of the disease)

- (3) Although honeybees are not subject to slaughter disposition under Article 17 of the Act, it is necessary to instruct owners of domestic animals to incinerate honeybees living in hives, which are contaminated objects, at the time of incineration of other contaminated objects, because they are highly likely to carry the pathogen of this disease.
- (4) Incineration, etc. of contaminated objects based on the provisions of Article 23 of the Act shall, in principle, be conducted only for hives in which brood infected with this disease is kept, and for combs, etc. in the concerned hives, etc. Other residual hives, etc. shall be repeatedly inspected based on the provisions of Article 31 or Article 51 of the Act, and if infection is confirmed as a result of the inspections, the hives need to be incinerated after careful examination of the scope.
- (5) In principle, it is necessary to restrict the transfer of honeybees and objects that are likely to spread the pathogens of foulbrood beyond the prefecture based on the provisions of Article 32, paragraph (1) of the Act. In this case, the transfer is permitted if certified by the prefectural governor, the director of the Livestock Hygiene Service Center, or the prefectural animal health inspector of the breeding area immediately before the introduction as having no abnormalities concerning this disease.

The validity period of the certificate shall be 30 days in principle. However, if it is found that there is no problem in terms of prevention of the disease within the valid period, in consideration of the remaining period of honey collection in the rearing area immediately before the introduction and the hygiene condition of the rearing area after transfer, movement restrictions can be lifted. It is also necessary to standardize the form of the certificate as shown in Appended Form 4 in order to efficiently promote the prevention of this disease.

<<Notifiable infectious diseases>>

12 Bluetongue

In general, this disease shows severe symptoms in sheep but not in cattle. However, in recent years, since this disease accompanied by swallowing disorder has been found in cattle in Japan, it is necessary to take control measures to predict the outbreak and prevent the spread of this disease.

- (1) This disease shows clinical symptoms such as fever, respiratory distress, and excessive salivation, and is sometimes accompanied by swallowing disorder such as reflux of drinking water and difficulty in swallowing. Since these symptoms closely resemble those of Ibaraki disease and pathological evaluation is difficult based on clinical symptoms, it is necessary to instruct owners of domestic animals

to promptly report the symptoms or similar symptoms to the Livestock Hygiene Service Center.

- (2) In order to accurately predict the outbreak of this disease, it is important to conduct an antibody survey and other tests on farms where this disease occurred and epidemiology-related farms to ascertain the antibody retention status.
- (3) Since the epidemic of this disease occurs from early autumn to early winter and is transmitted by bloodsucking insects, it is necessary to instruct owners of domestic animals on the control of bloodsucking insects through the improvement of the hygiene environment of cattle barns in areas where antibody-positive cattle are detected by antibody tests.
- (4) When the outbreak of this disease is confirmed or suspected, it is necessary to report the situation of outbreak and control measures, etc. to the Animal Health Division, MAFF.

13 Akabane disease

This disease becomes a cyclical epidemic against the background of changes in the antibody retention rate due to the renewal of cattle, etc. Therefore, it is necessary to take disease control measures with an emphasis on preventing the outbreak through early recognition of the epidemic signs of this disease based on the antibody retention status and encouragement of vaccination during proper periods based on that.

- (1) It is necessary to determine the necessity of vaccination by taking into consideration the past outbreak situation in the region and the dynamics of antibodies. If vaccination is to be carried out, instruction needs to be given to owners of domestic animals to complete vaccination, especially for cattle for which mating is planned, before the epidemic period.
- (2) It is considered that the transmission of this disease is closely related to air currents and bloodsucking insects. Therefore, it is necessary to examine the past outbreak route and instruct owners of domestic animals to thoroughly vaccinate their animals immediately in areas where immunization is necessary.

14 Malignant catarrhal fever

There are two types of this disease: the African type (Wildbeast-associated type MCF: WA-MCF) and the American type (Sheep-associated type MCF: SA-MCF). WA-MCF has occurred in East Africa, but has not occurred in Japan. SA-MCF has occurred worldwide, including Japan. Pathogenic diagnosis of WA-MCF can be made because the pathogenic virus has been determined, but the pathogen of SA-MCF has not been determined.

For both types, since bovine and Cervidae are infected and contracted by contact with subclinical infected animals (WA-MCF: wildebeest, SA-MCF: Sheep) during the perinatal period, it is necessary to instruct compound feeders of sheep and cattle to

keep the concerned animals in isolation. In particular, it is necessary to instruct them to have their animals have no contact with sheep, cattle, and deer before and after childbirth.

15 Chuzan disease

This disease was spreading mainly in the Kyushu, Chugoku, and Shikoku regions from 1985 to 1986. However, since the virus of this disease has been confirmed even after that, it is necessary to continue to ascertain the antibody retention status while keeping in mind the possibility of a resurgence of the disease, and to take disease control measures with an emphasis on the prevention of the outbreak by carrying out vaccination as necessary, mainly on cattle for which mating is planned.

16 Bovine viral diarrhea-mucosal disease

Since this disease frequently occurs in herds of cattle and pasture cattle that are reared in a group, and fetal infection may occur in pregnant cattle, it is important to make efforts to prevent the outbreak by carrying out planned vaccination in areas where the disease occurs. In addition, when persistently infected calves are recognized in a herd where an outbreak has already occurred, it is necessary to take disease control measures focusing on voluntary culling.

- (1) It is necessary to instruct owners of domestic animals to prevent the outbreak of the disease by vaccination of cattle reared in areas where the disease has occurred or in farms where cattle are frequently introduced. With regard to vaccination of breeding cattle, it is necessary to instruct the relevant persons to complete the vaccination before mating, because immune tolerance, stillbirth, or congenital abnormality may be caused in fetuses in the first to second trimester if they are infected with the virus.
- (2) For reared cattle provided in (1), it is necessary to conduct antigen test as necessary, and if persistent infection is suspected, it is necessary to conduct antigen test again to confirm persistent infection.
- (3) In the event of an outbreak of this disease, the vaccination status needs to be ascertained as soon as possible, and for unvaccinated cattle, it is necessary to instruct owners of domestic animals to carry out vaccination, and for persistently infected calves, it is necessary to instruct them to immediately isolate the calves, stop their use as breeding stock, and carry out voluntary culling as soon as possible, because placental infection or transmission via semen may also occur.
- (4) The details of the control measures specified in (1) through (3) above are as provided by the Director of the Animal Health Division, MAFF.

17 Infectious bovine rhinotracheitis

The pathogenic virus of this disease seems to be still widely present in the field, and it causes serious damage, especially when it occurs in a group cattle breeding facility.

Therefore, it is necessary to take disease control measures focusing on the prevention of damage at the facilities concerned.

- (1) Since cattle that carry the virus of this disease are often sensitized to stresses by cold, pregnancy, transportation, etc., and develop this disease, it is necessary to instruct owners of domestic animals on effective vaccination (before mating, approximately two to three weeks before transportation, etc.) so that sufficient immunity can be provided before they are sensitized to these stresses.
- (2) For the introduction, it is necessary to instruct owners of domestic animals to select cattle vaccinated against this disease and to vaccinate the herd of the concerned farm against this disease in advance.
- (3) Although the mortality rate due to this disease is generally low (1 to 3%), when mixed infection with bacteria or other viruses occurs, the rate will become high. Therefore, it is necessary to instruct the relevant persons to improve the rearing environment and administer antibacterial substances as necessary for cattle with this disease, and to endeavor to prevent damage mainly on cattle reared in group breeding facilities.

18 Bovine leukosis

In recent years, the outbreak of this disease has increased in Japan, and the damage to production sites has increased accordingly. For this reason, based on the "Formulation of Guidelines for Hygiene Measures Concerning Bovine Leukosis" (Notification 26 Consumer No. 6117 of the Director of Consumer Affairs and Safety Bureau, Ministry of Agriculture, Forestry and Fisheries of April 2, 2015), the relevant persons of this disease are required to unite and take measures to achieve freedom of farms and areas by taking appropriate control measures according to the infiltration status.

19 Aino virus infection

The movement of antibody was confirmed and abnormal deliveries due to the causative virus of this disease were observed mainly in southern Kyushu at the end of 1995. Disease control measures against this disease need to be taken in the same manner as for Akabane disease caused by the congeneric virus.

20 Ibaraki disease

The disease is transmitted by bloodsucking insects and has occurred only in areas south of the Kanto region. In recent years, it has occurred mainly in the Kyushu region. It is necessary to take disease control measures with an emphasis on instruction on vaccination based on the outbreak prediction.

- (1) It is necessary to decide whether or not to carry out vaccination by taking into consideration the past outbreak of the disease in the region and antibody trends such as antibody retention status, etc. It is also necessary to instruct owners of domestic animals to complete the vaccination by the end of June.

- (2) Since this virus is rapidly transmitted over a wide area and infects both beef cattle and dairy cattle to cause them develop the disease (incidence of 1 to 2%), it is necessary to instruct owners of domestic animals on thorough vaccination.

21 Bovine papular stomatitis

This disease first occurred in imported beef cattle in 1969. The main symptoms are papule and pox, and lesions form in the mouth, breast, and teat. In particular, the initial lesion of this disease resembles that of foot-and-mouth disease such as bulla, so pathological evaluation is important. When domestic animals with suspected symptoms of this disease are found, evaluation needs to be made on the differentiation between this disease and foot-and-mouth disease, after accurately ascertaining the clinical symptoms and the status of epidemiological spread. If the clinical and epidemiological differentiation is difficult, it is necessary to immediately notify the Animal Health Division, MAFF and take measures based on the Guidelines for the Specific Animal Infectious Disease of Domestic Animals.

22 Bovine ephemeral fever

This disease is transmitted by bloodsucking insects and has occurred only in areas south of the Kanto region. In recent years, it has occurred mainly in the Kyushu region. It is necessary to take disease control measures with an emphasis on instruction on vaccination based on the outbreak prediction.

Transmission of this disease is closely related to air currents and bloodsucking insects, and the status of outbreak varies regionally. However, there are few subclinical infections, and in most cases, this disease develops after infection. Therefore, taking into consideration the past outbreak status, the antibody retention status, etc., it is necessary to instruct owners of domestic animals to complete the vaccination by the end of June, especially for milking cattle and breeding beef.

23 Tetanus

This disease tends to occur sporadically in the endemic area, and since it is transmitted from the wound site, epidemiological character of this disease is that it is caused by birth canal infection associated with parturition, postoperative infection by castration and docking, and contamination of the umbilical cord of a newborn animal. For this reason, it is necessary to take disease control measures in the endemic area, focusing on vaccination or prophylactic administration of antibacterial substances at the occasion when susceptible domestic animals may be infected, such as parturition, castration, docking, etc. In addition, since this disease tends to be endemic due to the characteristics of its causative microorganism, it is necessary to make efforts to prevent the spread of contamination and endemicity when treating carcasses contaminated with the pathogens.

24 Blackleg

This disease tends to occur mainly in facilities for group rearing of fattening cattle, and there is a concern that the scale of damage caused by the collective outbreak will be extremely large if control measures are delayed or inappropriate. Therefore, it is necessary to take disease control measures against this disease at these facilities, focusing on early detection of abnormal cattle, prevention of damage at the time of outbreak, and thorough vaccination in the endemic area.

- (1) In order to minimize the damage caused by this disease, it is important to provide thorough instruction to the relevant persons on prompt notification when there is abnormal cattle, and to develop a disease control system until prompt diagnosis is made and the pathogenicity is determined.
- (2) When an acute death of an animal suspected of having this disease is found, it is necessary to promptly perform a pathogenicity determination, bearing in mind the pathological evaluation of anthrax, etc. When collecting materials for pathogenicity determination, it is necessary to prevent environmental contamination and endemicity by pathogens by minimizing the incision of carcasses, etc.
- (3) If carcasses and objects contaminated with the pathogens of this disease are not properly treated, this disease tends to become endemic due to the characteristics of the pathogens, so it is necessary to make efforts to prevent the spread of contamination and endemicity when treating carcasses contaminated with the pathogens.
- (4) When an abnormal domestic animal suspected of having this disease is found, it is important to collect materials for pathogenicity determination such as subcutaneous exudates to the extent possible and to prevent damage by promptly administering antibacterial substances. In addition, instruction needs to be given to owners of domestic animals to vaccinate cohabiting domestic animals and cattle kept in contaminated livestock housing. However, if the disease is likely to spread rapidly throughout the herd, instruction needs to be given on the administration of antibacterial substances prior to this vaccination.

25 Leptospirosis

The transmissibility of this disease to domestic animals varies according to the serotype (limited to that due to *Leptospira interrogans Pomona*, *Leptospira interrogans Canicola*, *Leptospira interrogans Icterohaemorrhagiae*, *Leptospira interrogans Grippotyphosa*, *Leptospira interrogans Hardjo*, *Leptospira interrogans Autumnalis*, and *Leptospira interrogans Australis*). *Leptospira* bacteria excreted in the urine of wild rats, etc. infect cattle and dogs through surface water and soil. The duration of carriage also varies by animal species, from within a few weeks (cattle) to several years (dogs). Furthermore, since there are many subclinical infections and *Leptospira* bacteria are excreted in the urine, they become a new source of infection, which is a problem not only in livestock

hygiene but also in public health. Therefore, it is necessary to focus on the following matters and take disease control measures.

- (1) Focusing on the prevention of transmission of this disease from the environment and early containment in the event of outbreak, instruction needs to be given to owners of domestic animals to thoroughly perform daily hygiene management, such as disinfection of livestock housing and appropriate treatment of excreta, and to exterminate field rats and other vectors.
- (2) Cattle diagnosed with this disease need to be treated with antibiotic substances and other necessary measures must be taken.
- (3) Leptospirosis in dogs means that caused by *Leptospira interrogans Canicola* and *Leptospira interrogans Icterohaemorrhagiae*. When it is considered to have a serious impact on livestock hygiene, instruction needs to be given on the prevention of outbreak of this disease by daily hygiene management and periodic vaccination. In addition, the diagnosis in dogs shall be made based on comprehensive judgment of clinical symptoms, epidemiological situations, etc.

26 Salmonellosis

This disease is caused by *Salmonella serovar Dublin*, *Salmonella serovar Enteritidis*, *Salmonella serovar Typhimurium*, and *Salmonella serovar Choleraesuis*, and is found in cattle, pigs, and poultry.

(1) Cattle

This disease occurs nationwide in cattle, mainly in group housing and rearing facilities for cattle under six months of age, and is increasing in adult dairy cattle. In addition, once it occurs, the concerned farm becomes an important source of contamination because of carrier cattle and environmental contamination, which not only causes damage in livestock management but also causes problems in public health. Therefore, it is necessary to prevent the spread of contamination and take disease control measures, focusing on cleanup of the rearing environment, thorough rearing management, and interruption of propagation pathways.

- a. It is necessary to instruct owners of domestic animals to prevent outbreaks by daily hygienic rearing management such as cleaning and disinfection of livestock housing, extermination of rats and other unhygienic animals, prevention of entry of wild birds, and appropriate treatment of excreta. In addition, it is necessary to make efforts to detect carrier cattle by conducting inspections of the infected herd based on the Act, and to take subsequent measures to achieve freedom.
- b. In the event of an outbreak of this disease, it is necessary to regularly conduct inspections of excrement of all reared cattle to detect carrier cattle, and to instruct owners of domestic animals to rear the carrier cattle and the infected cattle in isolation. Calves will be carrier cattle for a long time and it is sometimes difficult to completely eliminate *Salmonella* from the body even with antibacterial substances. So, with regard to subsequent measures, before using antibacterial

substances, it is necessary to test the drug susceptibility of isolated bacteria to the extent possible and avoid continuous administration for a long period of time, as well as actively educate and instruct relevant persons about the suppression of the development of antimicrobial resistance bacteria and to instruct them on voluntary culling.

(2) Pigs

Although the frequency of the outbreak of this disease in pigs is low, this disease sometimes occurs collectively in young pigs about two to four months after weaning, often resulting in substantial economic losses. It is also important as a causative microorganism of food poisoning in public health. Therefore, it is necessary to prevent the spread of contamination in case of an outbreak, and to take disease control measures focusing on cleanup of the rearing environment, thorough rearing management, and interruption of propagation pathways.

- a. Since the main propagation pathway of this disease is oral ingestion of contaminated excrement, efforts need to be made to eliminate the source of contamination in case of an outbreak, through isolation and treatment or voluntary culling of infected pigs and, if possible, with the all-in/all-out method. At the same time, it is important to pay sufficient attention to the contamination of feed, drinking water, etc. by thoroughly cleaning and disinfecting barns. In addition, it is necessary to carry out regular inspections of excrement and environmental materials of infected pigs and cohabiting pigs to confirm freedom. In addition, it is necessary to take appropriate measures, such as medication, isolation, and voluntary culling, for detected carrier pigs.
- b. In addition to disinfection of livestock housing, it is necessary to ascertain the hygiene conditions of the place of introduction at all times, introduce clean pigs, eliminate vectors such as dogs, cats, and wild birds, and thoroughly exterminate rats and other unhygienic animals, as outbreak prevention measures. In addition, it is necessary to instruct owners of domestic animals to take into consideration rearing management such as room temperature, humidity, and air conditioning in order to prevent new bacteria discharge, because the bacterium tends to become a carriage and carrier pigs that look healthy may resume bacteria discharge due to stress such as heat, cold, close herding, nutritional disorder, and transportation, becoming a new source of contamination.
- c. Although the administration of antibacterial substances has a preventive effect on cohabiting pigs, it is necessary to educate and instruct the relevant persons to pay due attention to the use of antibacterial substances, because the frequent use of antibacterial substances may promote the development of multidrug resistance and carriage.

(3) Poultry

Concerning this disease in poultry, achieving freedom is difficult because not all carrier poultry develop the disease even after infection, and the environment is

contaminated. Appropriate measures from the viewpoint of public health are necessary. Therefore, in accordance with the "Guidelines for Hygiene Measures against Salmonella in Egg-Harvesting Hen Farms" and "Guidelines for Sanitation Measures in Incubation Farms and Other Poultry Farms," it is necessary to make maximum efforts in daily hygiene management and take disease control measures basically by avoiding the introduction of pathogens into farms and regular disinfection of facilities to achieve freedom of the farm.

- a. In broiler farms, it is necessary to instruct owners of domestic animals to constantly ascertain the hygiene conditions of the hatcheries from which poultry is introduced, try to introduce only clean chicks, and test for salmonella in chicks that die or are culled within seven days after introduction. In addition, it is necessary to conduct inspections of feed and environmental materials of the poultry farm and to take appropriate hygiene measures based on the contamination status of the poultry farm.
- b. It is necessary to instruct owners of domestic animals to promptly dispose of poultry that have died of this disease and abnormal poultry and to strive for rearing management by eliminating stress, etc. that promotes bacteria discharge.
- c. At layer farms, it is necessary to instruct owners of domestic animals on regular inspections of chicks and hens as is the case with layer farms, and to take appropriate hygiene measures based on the inspection results.
- d. For parent stock flocks, pullorum disease testing shall be conducted to isolate and identify the bacteria in positive cases. In addition, inspections of the environmental materials in poultry houses shall be conducted and, if necessary, inspections shall be conducted on the dead in shell at the stage of hatching, cotton wool in the incubator, and the meconium of the chicks.
- e. In particular, when infection with a serotype that causes egg transmission, such as *Salmonella serovar Enteritidis*, is observed, it is necessary to instruct owners of domestic animals livestock to conduct an inspection of cohabiting poultry and, in principle, to clean the group in which infection is confirmed by voluntary culling.
- f. Since poultry vaccinated with *Salmonella serovar Enteritidis* is diagnosed as antibody-positive when tested for pullorum disease, it is necessary to instruct owners of domestic animals to inform the Livestock Hygiene Service Center in advance of the vaccination and to leave about 1% of the flocks unvaccinated and label the flocks in order to make pathological evaluation between this disease and pullorum disease.

27 Bovine genital campylobacteriosis

For this disease, it is necessary to conduct an inspection in addition to the inspection based on the provisions of the Act on Improvement and Increased Production of

Livestock, mainly on breeding stock and cohabiting cattle, and to take disease control measures with an emphasis on maintaining cleanliness.

- (1) For bulls diagnosed with this disease, it is necessary to immediately stop their use as breeding stock, take necessary control measures such as treatment, etc., and conduct follow-up surveys, etc. as necessary to confirm that they continue to be negative even if the subsequent test is negative. Since it is often difficult to completely remove this bacterium from the preputial cavity, it is necessary to instruct owners of domestic animals on voluntary culling of bulls without therapeutic effect.
- (2) For cows diagnosed with this disease, instruction needs to be given to take necessary measures such as isolation and treatment, and to conduct an epidemiological survey based on mating records.

28 Neosporosis

This disease is one of the diseases causing miscarriage in cattle. Taking into consideration the status of outbreak of abnormal deliveries and antibody retention status, it is necessary to take disease control measures focusing on voluntary culling or isolation of mother cows having a miscarriage and antibody positive cattle.

- (1) Instruction needs to be given that miscarried or stillborn fetuses will be subject to pathological examination for definitive diagnosis, and those that are the source of infection such as miscarried/stillborn fetuses and placentas shall be promptly disposed of.
- (2) It is necessary to prevent entry of pets and wild animals into livestock housing and ancillary facilities, and to provide instruction on disinfection with hot water, etc. of livestock housing where this disease occurred and ancillary facilities.
- (3) It is necessary to give instruction to try to introduce antibody-negative cattle and perform embryo transplantation only to antibody-negative cattle.

29 Hypodermosis

Since this disease occurs in cattle imported from North America and their cohabiting cattle, it is necessary to take disease control measures with emphasis on detection and prevention of this disease by thorough inspection after arrival of imported cattle from contaminated areas.

- (1) For cattle imported from contaminated areas of this disease, the body surface including the neck and back, mainly under the skin on both sides of the back line, should be monitored as to whether there is a walnut- to pigeon egg-sized pustule. If the pustule is found, the worm body should be checked to determine the pathogenicity. In addition, instruction needs to be given to conduct the observation periodically during the period of inspection after arrival and during the first winter to early summer after the inspection after arrival. It is important to make efforts for

early detection of this disease and for prevention of transmission of this disease associated with the emergence of cattle flies.

- (2) When this disease is confirmed, it is necessary to remove the larvae by surgical treatment or pressure with a fingertip, etc., to prevent subsequent cases by conducting spot inspections of all cattle in the herd including the diseased animal in accordance with the provisions of Article 51 of the Act approximately once a month until the first August after detection, and to provide instruction on the extermination of larvae in the herd reared as necessary.
- (3) If it is suspected that cattle fly larvae have already emerged at the time of detection, it is necessary to conduct an inspection of surrounding farms within an area of approximately 5 km, mainly the farm where the disease occurred and related farms, and to make efforts to prevent the outbreak.
- (4) Any cattle that are suspected to be infected among those transferred from the concerned farm shall be promptly notified to the relevant prefectural government, and the prefectural government that has received the notification shall take necessary measures in accordance with the provisions of (1).

30 Equine influenza

Once this disease occurs, it spreads rapidly and causes great damage. Therefore, it is necessary to take disease control measures with an emphasis on prevention of outbreaks by vaccination.

- (1) It is necessary to actively educate and instruct the relevant persons about the promotion of vaccination for all horses.
- (2) When receiving a report that a horse group shows a respiratory symptom, this disease is suspected first. It is necessary to conduct a spot inspection, carry out necessary inspections, and instruct owners of domestic animals to rear the horse group as much as possible away from contact with other horse groups until the result of the inspection is available.
- (3) It is necessary to promptly report to the Animal Health Division, MAFF when inspection has been conducted due to suspicion of this disease and the result of the inspection is available. When this disease is identified, it is necessary to take measures such as isolation of infected horses and thorough disinfection of stables. In this case, it is necessary to instruct owners of domestic animals to continue isolation until respiratory symptoms, such as coughing, rhinorrhea, etc., completely recover, because the infected horses excrete the virus for a considerable period of time after alleviation of fever, which becomes a source of infection.
- (4) The antigenicity of the virus of this disease is easily mutated, and it is assumed that the existing prophylactic solution will not be sufficiently effective if there is an epidemic caused by a new mutant strain. Therefore, in order to contribute to the effective prevention of future outbreaks, it is necessary to endeavor to isolate the

virus in the pathogenicity determination, and to promptly send or bring the materials of pathogenicity determination to the National Institute of Animal Health in order to clarify the antigenicity of the isolated virus strain.

31 Equine rhinopneumonitis

Since this disease causes severe damage in production areas due to miscarriage at an outbreak, the pathogen itself is widely distributed in horse production areas in Japan, and infected horses may become virus carriers for a long time and then develop the disease again due to stress, etc., it is necessary to take disease control measures in production areas with emphasis on preventing miscarriage by thorough general hygiene management and necessary vaccinations.

- (1) It is necessary to instruct owners of domestic animals to try to prevent infection with this disease virus by thorough early pregnancy diagnosis. For pregnant horses, thorough measures shall be taken at all times to maintain their health and increase their physical strength, to build resistance to various sensitizations, and to have them avoid contact with other horses as much as possible in the third trimester of pregnancy. It is also necessary to instruct them to administer vaccinations when necessary.
- (2) If a broodmare from an area where the disease has not occurred is mated with a stallion from an area where the disease has occurred, instruction needs to be given to owners of domestic animals to keep them in isolation as much as possible until the end of the parturition season in the concerned area.
- (3) In the event of an unexplained miscarriage, it is necessary to instruct owners of domestic animals to immediately conduct pathogenicity determination and isolate and disinfect the horse having a miscarriage. Miscarried fetuses, placentas, etc. after collection of materials for pathogenicity determination need to be disposed of appropriately.
- (4) Horses that are infected or suspected to be infected shall be isolated as much as possible until the end of the parturition season in the concerned area, and instruction needs to be given to owners of domestic animals to refrain from moving horses cohabiting with these horses out of the field until the end of the parturition season in the concerned area and to prohibit entry of visitors who may transmit the virus into the place where the disease occurs.

32 Tularemia

This disease is one of the zoonotic infections and has been confirmed in humans mainly in the Tohoku, Kanto, and Hokkaido regions. The causative microorganisms of this disease are epidemiologically and biochemically differentiated into type A and type B. Type A, which is highly pathogenic to humans, is confined to North America, and type B strains have been isolated from humans in Japan. The distribution of the disease in animals and the outbreak of the disease in Japan are not clear, but the outbreak of this

disease has been confirmed in humans. Therefore, it is necessary to closely cooperate with public health bureaus and departments to check the existence of this disease. When the outbreak of this disease is confirmed in domestic animals, efforts shall be made to identify the source of infection through surveys of arthropods (ticks, horseflies, etc.), host animals (especially wild rabbits), and the environment (especially water) in the concerned area, and instruction needs to be given to owners of domestic animals to take measures such as interrupting the transmission route in order to prevent the entry and spread of this disease.

33 Contagious equine metritis

This disease causes infertility in horses, and once it becomes prevalent due to mating, etc., Achieving freedom will be difficult and it causes great damage in production. Therefore, it is necessary to take disease control measures, focusing on promoting freedom through the treatment of infected horses and carrier horses detected by periodic inspection and the concerned inspection.

- (1) For stallion or broodmare, if the following findings are recognized or it is suspected to be infected with this disease as a result of confirmation before mating whether there is an abnormality, it is necessary to instruct owners of domestic animals not to inbreed, promptly contact the Livestock Hygiene Service Center, and undergo pathogenicity determination.
 - a. Stallion
When the conception rate of mated broodmares is abnormally low compared to previous years or compared to other stallions
 - b. Broodmare
 - (a) When grayish-white mucus is discharged from the vulvar orifice or it makes the vulva or tail dirty
 - (b) When abnormal estrus (an abnormally short estrous cycle, etc.) is observed
- (2) It is necessary to instruct owners of domestic animals to thoroughly disinfect the external genitalia of stallions and broodmares, their surroundings, and the hands of persons who touch them before and after mating.
- (3) It is necessary to perform laboratory tests, bacterial tests, and other tests for this disease on the following horses.
 - a. Stallions and broodmares reared in areas where the disease occurs (Tests are conducted before the breeding season)
 - b. Among stallions or broodmares that have been transferred for mating from the area where the disease occurs, those for which the result of a test for the disease before the mating is unknown (Tests are conducted before mating)

- c. Horses reported by the government of a prefecture where the disease occurs, as they are epidemiologically related to carrier horses of the disease (Tests are conducted each time)
- (4) In addition to the tests described in (3) above, for stallions and broodmares in the outbreak area, it is necessary to instruct owners of domestic animals to conduct clinical observation after the start of the breeding season and promptly carry out tests if abnormalities are observed. In particular, stallions will be an important source of transmission if they are infected with this disease, so it is necessary to educate and instruct owners of domestic animals to conduct regular inspections.
 - (5) For carrier horses, it is necessary to instruct owners of domestic animals to isolate the horses immediately after detection, and if the detection is during the mating period, to stop mating immediately and take thorough measures until they are cured through regular inspection and treatment using effective drugs. In addition, for stables where carrier horses are kept, it is necessary to instruct owners of domestic animals to endeavor to prevent transmission by thoroughly disinfecting the hands of persons who take care of the horses, preparing special tools and equipment, and repeatedly disinfecting stalls, litter, and other contaminated objects.

34 Equine paratyphoid

Although this disease has been decreasing nationwide in recent years, it still occurs mainly in production areas, and horses with this disease may become carrier horses due to latent bacteria in the local area and bone marrow even after the disappearance of symptoms. Therefore, it is necessary to take disease control measures against this disease focusing on early detection of infected horses, voluntary isolation of the horses, and thorough treatment.

- (1) In production areas, infected horses need to be detected early by inspection based on the Act. The inspection needs to be conducted as efficiently as possible by using surplus serum for the inspection of equine infectious anemia.
- (2) It is necessary to instruct owners of domestic animals to promptly isolate horses with this disease and prevent transmission by symptomatic treatment with immune serum and thorough disinfection. If complete recovery is expected to be difficult, instruction needs to be given on voluntary culling. It is also important to prevent outbreaks by conducting inspections of cohabiting horses to check the infection.
- (3) Since horses with this disease will become carrier horses, efforts need to be made to ascertain the situation by conducting regular inspections for the time being after the disappearance of symptoms. During this period, it is necessary to instruct owners of domestic animals to strive for thorough hygienic rearing management, such as isolation of the horses with and without this disease and disinfection.

35 Contagious ecthyma

This disease forms skin or mucosal lesions such as papules, abscesses, ulcers, and molestus around the nose and mouth and inside the mouth, and sometimes on the face, limbs, and teat. It is a zoonotic disease that infects sheep, goats, and antelopes as well as humans, and has been observed in Japan and other countries around the world. This disease commonly occurs in young sheep between late summer and winter. Although the incidence is high (100%), the fatality rate is within a few percent and the prognosis is generally good. However, fever, debility, emaciation, anorexia, secondary infection, etc., are caused in severe cases, resulting in considerable economic damage.

In addition, pathological evaluation between this disease and foot-and-mouth disease is important, because this disease may show symptoms clinically similar to those of foot-and-mouth disease. When domestic animals with suspected symptoms of this disease are found, evaluation needs to be made on the differentiation between this disease and foot-and-mouth disease, after accurately ascertaining the clinical symptoms and the status of epidemiological spread. If the clinical and epidemiological differentiation is difficult, it is necessary to immediately notify the Animal Health Division, MAFF and take measures based on the Guidelines for the Specific Animal Infectious Disease of Domestic Animals.

- (1) In the event of an outbreak of a disease suspected of this disease, a definitive diagnosis, including pathological evaluation, needs to be made based on the Pathogenicity determination Guidelines.
- (2) Since this disease is transmitted by direct and indirect contact infection, wound infection, or oral infection, it is necessary to instruct owners of domestic animals to have their animals avoid contact with diseased animals and contaminated equipment and materials during pasture, milking, and feeding. In addition, since humans are infected by contact with diseased animals, appropriate measures need to be taken to prevent human infection when conducting laboratory tests and collecting diagnostic materials.
- (3) Since the causative virus is resistant to desiccation, it is necessary to instruct owners of domestic animals to thoroughly disinfect contaminated rearing facilities and isolate diseased animals from healthy animals so that secondary infection can be prevented and general hygiene can be improved.
- (4) It is important to dispose of carcasses promptly and accurately to prevent soil and environmental contamination and secondary infection in cohabiting domestic animals.

36 Toxoplasmosis

Since this disease causes great damage in the case of a mass outbreak, disease control measures are emphasized from the viewpoint of livestock management and public health. Since unhygienic animals are an important source of infection of this disease, it is necessary to strive for hygiene management mainly for extermination of

hygienic animals, and to take disease control measures, focusing on the elimination of the source of infection and the prevention of outbreak through administration of antibacterial substances when necessary.

- (1) Because cats are the source of discharge of oocyst and other unhygienic animals are deeply involved in the transportation of oocysts, it is necessary to instruct producers not to raise cats in farms and to thoroughly exterminate other unhygienic animals in daily hygiene management.
- (2) Oocyst, which is a common source of infection, has strong resistance to commonly used disinfectants and chemicals, but lacks resistance to heat. Therefore, it is important to instruct owners of domestic animals to perform heat disinfection using steam cleaners, etc., especially in affected areas.
- (3) It is necessary to conduct an antibody survey mainly in pig farms raising breeding pigs in areas frequently damaged by this disease. In addition, it is necessary to instruct owners of domestic animals to perform voluntarily culling of antibody-positive pigs by comprehensively considering the past damage to the pig farm and the pig's medical history.

37 Aujeszky's disease

Freedom of this disease has been promoted nationwide, but in some areas, pigs affected with the field virus have been confirmed, and feral boars carrying antibodies against the virus of this disease have also been confirmed. For this reason, it is necessary to instruct relevant persons to ensure wildlife control measures based on the Biosecurity Standards set forth in Article 12-3 of the Act, and to take control measures accurately in order to maintain cleanliness (or to promote freedom in areas where pigs affected with the outdoor virus have been confirmed) in accordance with the "Procedures for Disease control Measures for Aujeszky's Disease" (Notification 3 Livestock A No. 431 of the Director of Livestock Bureau, Ministry of Agriculture, Forestry and Fisheries of March 22, 1991).

38 Transmissible gastroenteritis

Once this disease occurs, it is rapidly transmitted to all pigs in the same barn. In particular, when young pigs are infected, the incidence and mortality rate are extremely high. Therefore, with regard to this disease, it is necessary to take disease control measures such as thorough general hygiene management, necessary vaccination, and prompt measures at the time of outbreak, focusing on the prevention of damage in young pigs.

- (1) Since this disease generally progresses acutely, it is important to raise awareness of the symptoms of this disease, etc. for proper disease control and damage prevention. It is also necessary to instruct owners of domestic animals to ensure early notification of this disease based on the provisions of Article 4 of the Act and to promptly take subsequent measures.

- (2) In order to promptly isolate pigs with this disease from healthy pigs and prevent worsening of symptoms due to concurrent bacterial infections such as colibacillosis, it is necessary to instruct owners of domestic animals on the administration of antibacterial substances, etc., and to repeatedly disinfect the concerned barn and rearing management equipment. In addition, since even pigs whose symptoms have disappeared excrete the virus in their excrement for a long time, it is necessary to instruct owners of domestic animals to refrain from moving the pigs, from the viewpoint of preventing transmission.
- (3) When this disease becomes endemic, instruction needs to be given to owners of domestic animals to achieve freedom the disease while paying attention to vaccination, cleaning, disinfection, and stress reduction measures such as daily hygienic rearing management, and striving for rearing management with the all-in/all-out method to the extent possible.

39 Porcine reproductive and respiratory syndrome

Although this syndrome may cause respiratory symptoms and abnormal deliveries according to past cases, there are many factors that make disease control measures difficult, such as numerous subclinical infections and the persistence of infection in individuals and groups. For this reason, it is necessary to promote the effective use of vaccines for this syndrome as necessary, and to instruct owners of domestic animals to take the following measures to prevent damage by thorough biosecurity management measures.

- (1) Since the virus of this disease may be introduced by introduced pigs, materials and equipment, vehicles, people, etc., sufficient attention shall be paid to preventing entry of the virus when introducing them.
- (2) Since the outbreak of respiratory symptoms is greatly affected by the rearing conditions, hygiene environment, management conditions, stress, etc., efforts need to be made to improve the environment of livestock housing such as ventilation, temperature, humidity, etc., and to prevent overcrowding of pigs. Since respiratory symptoms are often aggravated by secondary infection by bacteria, etc., efforts need to be made to prevent secondary infection by paying attention to biosecurity management. If an outbreak is observed, it is necessary to examine drug susceptibility and to prevent damage by using appropriate antibacterial substances.
- (3) Since there is a high possibility that the virus of this disease will become endemic, it is important to improve the breeding environment by thorough disinfection of livestock housing, etc., when the virus is recognized. In addition, since the virus is likely to persist depending on rearing and fattening pigs after weaning, efforts need to be made for early weaning, separate breeding of weaned pigs, the all-in/all-out method for rearing and fattening pigs, and thorough disinfection of empty barns.

40 Porcine epidemic diarrhea

It is necessary to take outbreak prevention measures and spread prevention measures against this disease in accordance with the "Porcine Epidemic Diarrhea (PED) Control Manual" (Notification 26 Consumer Safety No. 3377 of the Director of Consumer Affairs and Safety Bureau, Ministry of Agriculture, Forestry and Fisheries of October 24, 2014).

41 Atrophic rhinitis of swine

It is necessary to take disease control measures against this disease, placing particular emphasis on preventing infection and development in newborn pigs, by thorough daily hygiene management, accurate vaccination, and administration of antibacterial substances as necessary.

- (1) Since this disease develops strong symptoms when it is transmitted from a carrier sow during the lactation period, it is necessary to instruct owners of domestic animals to thoroughly clean and disinfect the farrowing barn, especially in infected farms, to vaccinate their pigs to ensure that they are sufficiently immunized at least at this period, and to take measures by administering antibacterial substances when necessary.
- (2) When a pig with significant symptoms of this disease is identified, prompt voluntary culling is important because the pig will be an important source of infection, and cohabiting pigs are also considered to have been infiltrated. Therefore, it is necessary to instruct owners of domestic animals to promote freedom by the all-in/all-out method to the extent possible.

42 Swine erysipelas

The outbreak of this disease has decreased in acute cases due to the penetration of vaccination, but chronic cases such as endocarditis type and arthritis type have been reported, mainly in slaughter inspections. Many of these chronic cases are considered to be caused because piglets receive vaccination before the transferred antibody titer falls below a certain level, and cannot obtain sufficient immunity in the piglet period. Therefore, it is necessary to take disease control measures, especially focusing on thorough vaccination in the piglet period.

- (1) In the endemic area of this disease, it is necessary to instruct owners of domestic animals to ascertain the timing of disappearance of transferred antibody in piglets and to make efforts to prevent the outbreak based on accurate and effective vaccination.
- (2) In the event of an outbreak of this disease, it is necessary to instruct owners of domestic animals to prevent damage through early treatment with antibacterial substances.

- (3) In the case of death in the acute course, it is necessary to carry out a pathogenicity determination, especially in consideration of pathological evaluation between this disease and swine fever, etc.
- (4) It is important to dispose of carcasses promptly and accurately to prevent soil and environmental contamination and secondary infection in cohabiting pigs.

43 Swine dysentery

Once this disease occurs, it tends to become endemic, and is likely to cause a significant decrease in productivity due to growth retardation, deterioration of feed efficiency, etc. In addition, since no vaccine has been developed, it is necessary to take disease control measures such as preventing the pathogens of this disease from entering farms and disinfection.

- (1) In order to prevent the entry of the pathogens of this disease, it is necessary to instruct owners of domestic animals to take all possible measures, such as preventing the introduction of pigs suspected of carrying the disease from contaminated areas, preventing vehicles and objects that are likely to be contaminated from entering and being carried in, and taking disinfection measures.
- (2) Although the administration of antibacterial substances is also effective for pigs with this disease, the most reliable method for achieving freedom is disease control measures by combining the all-in/all-out method with disinfection. Therefore, it is important to thoroughly inform owners of domestic animals to that effect. In particular, it is necessary to instruct pig farms that are heavily damaged by this disease to take measures based on voluntary culling to achieve freedom.

44 Avian influenza

Avian influenza as defined in Article 2 of the Regulations refers to influenza other than "highly pathogenic avian influenza" and "low pathogenic avian influenza" which are domestic animal infectious diseases. In order to prevent an outbreak of this disease and an increase in damage associated with the outbreak, it is necessary to take disease control measures with emphasis on thorough hygienic rearing management.

- (1) Regarding this disease, it is necessary to provide advice and instruction to owners of domestic animals on health observation of farmed chickens, prevention of entry of wild birds into poultry houses and access to water supply sources, restriction of access to farms, thorough disinfection, and thorough vaccination against Newcastle disease, a similar disease.
- (2) In the event of an outbreak in a general poultry farm, thorough disinfection of each flock and classification of managers and equipment shall be implemented, in addition to isolating the concerned flock and early voluntarily culling, and instruction needs to be given to owners of domestic animals to leave the house empty for three weeks in principle.

- (3) In the event of an outbreak at a parent stock farm (including a hatchery), suspension of the hatching work, early voluntary culling of the poultry with this disease, thorough disinfection of each flock, thorough classification of managers and equipment, and in principle, leaving the house empty for three weeks are required. In addition, it is necessary to instruct owners of domestic animals to perform processing of eggs in storage or produced eggs in a way that does not spread the pathogens of this disease before using them.
- (4) If hatching work is suspended due to an outbreak of this disease, instruction needs to be given to rear and observe chicks, which are produced from hatching eggs collected after the recovery of egg production, for three to four weeks, and resume sales after confirming that there is no recurrence.

45 Fowl pox

The disease is transmitted by vectors of bloodsucking insects or by contact and droplets between flocks. Since the basic preventive measure against this disease is the application of vaccines, it is necessary to instruct owners of domestic animals to carry out vaccination based on an appropriate vaccine program so that poultry can acquire sufficient immunity by the summer when the vector insects appear, and to confirm the effectiveness one week after vaccination according to the presence or absence of pox. In addition, it is necessary to instruct owners of domestic animals to strive for hygiene management such as extermination of bloodsucking insects such as mosquitoes, lice, and mites, etc., prevention of scattering of dust and dung, etc., and disinfection.

46 Marek's disease

For this disease, it is necessary to instruct owners of domestic animals to take disease control measures with emphasis on vaccination of chicks and instruction on isolated rearing in the chick period.

- (1) In hatcheries, it is necessary to instruct owners of domestic animals to pay attention to incubation hygiene and properly vaccinate the chicks produced.
- (2) In general poultry farms, instruction needs to be given to owners of domestic animals to try to introduce vaccinated chicks.
- (3) Younger chicks are more susceptible to this disease. For this reason, it is necessary to instruct owners of domestic animals to strive for thorough isolated rearing or to apply the all-in/all-out method in the chick period, in order to prevent infection in this period.
- (4) It is necessary to instruct owners of domestic animals to strive for early detection of poultry with this disease and carry out voluntary culling of the poultry early. In particular, when this disease occurs in a vaccinated flock, it is necessary to give instruction to make efforts to investigate the cause of the outbreak while paying attention to the effects of transferred antibodies, the intervention of diseases that cause immune deficiency such as infectious bursal disease, and the emergence of

strains with strong pathogenicity, as well as to take necessary measures to improve the rearing environment, vaccination methods, etc.

47 Avian infectious bronchitis

In addition to general hygiene management, it is necessary to take disease control measures against this disease, focusing on thorough planned vaccination.

- (1) To prevent this disease, it is necessary to instruct owners of domestic animals to make thorough efforts to prevent the outbreak through vaccination, because it is considered that this disease has infiltrated nationwide and the transmissibility is strong. At this time, since the serotypes of the pathogenic virus are diverse, it is necessary to provide advice and instruction so that prophylactic solutions are appropriately selected according to the circulating virus strain and, if necessary, to perform inspections such as virus isolation on the serotypes of the circulating virus strains in poultry farms.
- (2) With regard to poultry houses where this disease occurs, it is necessary to promptly investigate on whether or not vaccination has been carried out. If vaccination has been carried out, it is necessary to promptly investigate the serotype of the isolated virus, etc., and endeavor to provide advice and instruction so that the prophylactic solution is appropriately selected, because it is suspected that the outbreak was caused by a field virus of a serotype different from the viral antigen of the prophylactic solution. If strains different from the conventional serotype are isolated or suspected to exist, they need to be reported promptly.

48 Infectious laryngotracheitis

Since this disease tends to become endemic once it has invaded, it is necessary to instruct owners of domestic animals to take disease control measures, focusing on maintaining cleanliness by thorough virus entry prevention in clean areas, and on preventing damage by vaccination and cleanup using the all-in/all-out method in contaminated areas.

- (1) Once the disease has entered a farm, achieving freedom will be difficult unless disease control measures are taken by the all-in/all-out method, because poultry carrying the virus remain. In order to prevent the entry of the pathogens of this disease into the farm, it is necessary to instruct owners of domestic animals to take all possible preventive measures, such as preventing the introduction of poultry suspected of carrying the virus from contaminated areas and restricting the entry and carrying-in of vehicles and objects that are likely to be contaminated.
- (2) In the event of an outbreak of this disease, the all-in/all-out method is the most effective method to prevent the disease from becoming endemic in the region. However, when it is difficult to apply the method due to the contamination situation of the region and the scale for domestic animals prescribed, it is necessary to instruct owners of domestic animals to prevent damage by utilizing vaccination.

With regard to this vaccination, it is also important to educate and instruct owners of domestic animals about the importance of continuous vaccination, because this disease tends to become endemic.

- (3) For carrying out vaccination, it is necessary to comply with the usage and to instruct the relevant persons to take into consideration the situation of outbreak and the rearing conditions in the vicinity when using the vaccine in clean areas.

49 Infectious bursal disease

For this disease, it is necessary to take disease control measures with an emphasis on proper vaccination and thorough hygienic rearing management in order to prevent an increase in damage due to development caused by this disease and other diseases which are caused subsequently by the development.

- (1) It is considered that the development of this disease is closely related to improper general rearing measures such as the deterioration of the rearing environment. Therefore, it is necessary to actively instruct owners of domestic animals in the outbreak area about the improvement of the rearing environment by cleaning poultry houses and other poultry farms, disinfection with effective drugs, and setting an appropriate period to leave the houses.
- (2) With regard to vaccination against this disease, it is necessary to instruct relevant persons about thorough vaccination of parent stocks and chicks, while paying attention to the emergence of highly pathogenic strains, etc., and about accurate vaccination of chicks, taking into consideration the effects of transferred antibodies.
- (3) It is necessary to instruct owners of domestic animals to strive for early detection of poultry with this disease, eliminate stress as much as possible, and carry out voluntary culling of the poultry early. If the disease is observed despite vaccination, instruction needs to be given to owners of domestic animals to review the vaccination program at the concerned farm. If differences are suspected with respect to the conventional pathogenicity, it is important to try to isolate and identify the virus and clarify its pathogenicity.

50 Avian leukosis

Since there is no vaccine for this disease, it is necessary to instruct owners of domestic animals to make efforts to introduce parent stock and hatching eggs in light of the past outbreak of leukemia, in addition to thorough daily hygiene management such as disinfection, in order to prevent horizontal transmission in the chick period.

51 Avian tuberculosis

In the past, this disease distributed worldwide, but has declined with the modernization of rearing management. Furthermore, since an outbreak of this disease in domestic poultry in Japan has virtually not occurred, this disease is considered a foreign infectious disease. However, it is necessary to instruct owners of domestic animals not

to introduce poultry from infected flocks, especially parent stocks, because this disease has occurred in display animals and imported birds in recent years, there are no effective treatments available, accurate individual diagnosis during life is difficult, and it causes serious damage to the poultry industry once it occurs. In addition, it is necessary to instruct owners of domestic animals to take necessary disease control measures, such as voluntarily culling of the entire flock concerned and disinfecting inside the poultry house to leave the house empty for a long time.

52 Chicken mycoplasmosis

For this disease, it is necessary to take disease control measures with emphasis on prevention of outbreak by thorough daily hygienic rearing management and necessary vaccination.

- (1) It is important to instruct owners of domestic animals to thoroughly implement general hygienic rearing management, and for this disease, it is necessary to instruct them to make efforts for voluntarily culling of flocks carrying the disease. It is necessary to instruct owners of domestic animals not to use hatching eggs of the relevant flocks carrying the disease until the freedom is confirmed, if there is an outbreak in a parent stock farm, because there is a risk of transmission by egg transmission.
- (2) It is necessary to instruct owners of domestic animals to conduct spot inspections based on the provisions of Article 51 of the Act as necessary, endeavor to ascertain the situation of outbreak, and when this disease is suspected, take appropriate measures such as isolation of affected poultry, voluntary culling, treatment, and disinfection of poultry houses. It is also necessary to instruct them to promptly conduct a pathogenicity determination and accurately take measures based on the results of the appraisal.
- (3) When this pain occurs at a parent stock farm, it is necessary to instruct owners of domestic animals to examine all poultry at least on a group-by-group basis (minimum gauge unit) and conduct voluntarily culling of positive flocks, as well as to promote freedom by administering antibacterial substances when necessary to prevent secondary infection, etc.

53 Leucocytozoonosis

For this disease, it is necessary to take disease control measures with emphasis on prevention of outbreak by vector insect control before the epidemic period and administration of antibacterial substances when necessary.

- (1) In order to exterminate *Culicoides arakawae*, the vector of this disease, it is necessary to instruct owners of domestic animals to systematically spray insecticides and repellents (hereinafter referred to as "insecticides") on poultry bodies and poultry houses and to collect insects using light traps and mosquito traps as necessary. At this time, it is important to give instruction on the removal

and thorough extermination of *Culicoides arakawae* by spraying insecticides, because the grass and sheds located in areas with poor ventilation around poultry houses may be resting places for *Culicoides arakawae*. In addition, when a new poultry house is installed, it is necessary to provide instruction to install windows and ventilation openings at high places in order to prevent the entry of *Culicoides arakawae* into the poultry house.

- (2) It is necessary to instruct owners of domestic animals on effective use of insecticides such as spraying water or oil agent with good adhesion on the pillars and walls of the poultry house, and spraying powder or water agent on sheds, grass, shades, etc. depending on the situation.
- (3) If the risk of outbreak is found to be particularly high, it is necessary to instruct owners of domestic animals on the administration of appropriate antibacterial substances, including restrictions on use such as setting the withdrawal period, etc.
- (4) For the disease control measures in (1) to (3), it is very effective to accurately identify the initial small epidemic in the region for subsequent control of this disease. Therefore, it is important for the concerned farmers among poultry farmers in the paddy field area or those in the area where the outbreak of this disease has been observed to conduct inspections even before the emergence of *Culicoides arakawae*, and to prevent the outbreak of this disease by detecting antibodies from poultry born between November of the preceding year and April of the concerned year or detecting sporozoite in the body of *Culicoides arakawae*.

54 Varroosis

This disease is caused by varroa destructor parasites in the body surface of young bees, pupae, and adult bees. Once this disease occurs and becomes established, it causes great damage. Therefore, it is necessary to instruct owners of domestic bees to introduce bees from a clean colony, and to take disease control measures focusing on identification of the etiology, extermination of mites, and improvement of hygiene management, such as secondary infection prevention, etc., if there is a case in which this disease is suspected.

55 Chalk brood disease

Since this disease infects and kills larvae, it reduces the vitality of bee colonies, and in severe cases, leads to the total destruction of bee colonies. Since 1980, it has been widely distributed in bee colonies in Japan. Therefore, it is necessary to introduce bees from a clean colony and to take disease control measures, focusing on early detection by laboratory tests and frequent disinfection with effective agents.

- (1) In order to prevent the outbreak of this disease, it is necessary to advise and instruct owners of domestic bees to observe inside and outside the hive and thoroughly perform hygiene management such as disinfection of equipment, etc., and to carry out daily hygiene management, as well as not to place a bee station

in a damp, poorly ventilated area, which encourages the growth of the causative fungus.

- (2) Since this disease is most likely to occur in spring, early summer, and mid-autumn, it is important to educate owners of domestic bees to strive for rearing management that can powerfully maintain bee colonies during these periods.
- (3) When infected young bees (mummies) are found, it is necessary to disinfect the comb, inside and outside the hive, and the whole bee field to prevent spread in the bee field, and to perform culling as necessary.

III Other

1 Disaster control measures

- (1) In preparation for wind/flood damage and earthquake, appropriate plans need to be prepared in advance regarding systems for securing disinfectants and vaccines and treatment of dead domestic animals, and measures against domestic animal infectious diseases need to be taken promptly according to the actual conditions of the disaster in consideration of past infectious disease outbreaks.
- (2) As specified by the "Guidelines for Reporting Damage in Agriculture, Forestry and Fisheries Industry" (Notification 48 General No. 382 of the Vice-Minister of Agriculture, Forestry and Fisheries of May 21, 1973), the status of damage to domestic animals needs to be reported promptly in accordance with the prescribed reporting form.

Appendix 1

Guidelines for Surveillance Measures for Monitored Infectious Diseases

Although the outbreaks of major acute domestic animal infectious diseases have decreased, the diseases are expected to cause larger and wider damage once they occur, due to the recent development of large-scale and intensive livestock management and motorization. For this reason, it is necessary to fully ascertain the geographical and temporal distribution of the invasion status of each disease, and take measures such as early warning, accurate outbreak prevention, spread prevention measures, and control measures to achieve freedom when the risk level increases. It is also necessary to conduct further epidemiological investigations to determine the source of the outbreak and to contribute to accurate disease control measures.

Therefore, proactive disease control measures shall be formulated by establishing the Guidelines to promptly and accurately ascertain the actual situation of epidemics based on the status of outbreak of each disease and search results for pathogens, etc., and by promptly returning necessary information, thereby contributing to effective and accurate disease control against these diseases.

1 Definition

The term "surveillance" as used in the Guidelines means a method of continuously collecting, analyzing, and evaluating information on the status of the outbreak of monitored infectious diseases, the prevalence of antibodies, the search for pathogens, the geographical distribution, etc. in a specific period and region based on inspections to ascertain the status and trends of the outbreak, when necessary to prevent or predict the outbreak of a monitored infectious disease.

2 Areas and diseases subject to surveillance

Surveillance shall be conducted by classifying the geographical area into national area and regional area, comprehensively considering the pathogenicity, status of outbreak, and geographical distribution of a monitored infectious disease subject to surveillance and the degree of need for control measures against the disease.

Detailed matters such as test method for surveillance will be formulated by the Animal Health Division, MAFF in cooperation with relevant organizations such as the National Institute of Animal Health and experts in relevant fields, and notified and thoroughly informed separately by the Director of the Animal Health Division, MAFF.

(1) National surveillance

- a. National surveillance is conducted with the aim of contributing to the establishment of a national disease control system by allowing the national

government to intensively obtain information on diseases that have the potential to spread widely across prefectural areas and to damage livestock management and that need to be ascertained widely throughout the country.

- b. Diseases subject to the national surveillance are selected by the national government. The surveillance shall be conducted on a nationwide and uniform basis, and include national cleanliness confirmation, wide-area epidemic prediction, etc. The diseases are 1) diseases which should be eradicated, 2) monitored infectious diseases for which no outbreak has been reported in Japan (monitored infectious diseases listed in the left-hand column of Table 1 of Article 10, paragraph (1) of the Regulations; hereinafter referred to as "foreign infectious diseases"), 3) arthropod-borne viral infectious diseases among monitored infectious diseases for which an outbreak has been reported in Japan (monitored infectious diseases listed in the left-hand column of Table 2 of Article 10, paragraph (1) of the Regulations; hereinafter referred to as "arbovirus infection"), and 4) monitored infectious diseases for which an outbreak has been reported in Japan (monitored infectious diseases other than those listed in the left-hand column of Table of Article 10, paragraph (1) of the Regulations; hereinafter referred to as "domestic Infectious diseases") that are particularly contagious and have a significant impact on livestock hygiene, such as showing an epidemic outbreak, etc.

(2) Regional surveillance

- a. Regional surveillance is conducted with the aim of contributing to the establishment of a regional disease control system by allowing the prefectural government to ascertain the status of outbreak of monitored infectious diseases and the antibody retention status in the prefecture.
- b. Diseases subject to the regional surveillance are selected by the prefectural government according to the actual conditions of the region, based on the pathogenicity and geographical situation of monitored infectious diseases. The diseases are 1) domestic infectious diseases that recur in regional epidemics, and 2) domestic infectious diseases that tend to become endemic in the specified area.

3 Procedures for conducting surveillance

According to the procedures for 1) establishment of surveillance objectives, 2) formulation of surveillance plans, 3) implementation of inspections, 4) reporting of inspection results, 5) aggregation of inspection results, 6) analysis and evaluation of aggregated results, and 7) return of information, surveillance shall be smoothly promoted taking into consideration the following basic matters:

(1) Establishment of surveillance objectives

- a. For conducting surveillance, it is necessary to clearly indicate to relevant persons involved in surveillance, such as owners of domestic animals, Livestock Hygiene Service Centers, the competent division for livestock of the prefecture, the Animal Health Division, MAFF, etc., the purpose to ascertain the status of outbreak and trends of monitored infectious diseases.
- b. In addition, when an inspection order is issued pursuant to the provisions of Article 5 of the Act, it is necessary to give public notice of matters specified in the Act, such as the purpose of implementation and the region of implementation, in accordance with the procedures specified by the Regulations.

(2) Formulation of surveillance plans and points to consider

It is important to consider the following points when formulating and implementing a surveillance plan.

- a. The overall surveillance and its components (procedures) should be as simple as possible so that surveillance can be conducted without difficulty.
- b. Improvements should be made by increasing flexibility in the implementation of surveillance and by providing feedback on the opinions of organizations that conduct surveillance.
- c. The understanding of relevant persons involved in surveillance should be obtained smoothly, and the importance of the roles of relevant persons and organizations in collecting data and providing information should be clearly recognized.
- d. The type of data to be collected and the definition of diagnostic criteria should be clarified.
- e. A sampling method should be selected so that the results obtained by surveillance will be representative results of the population, and errors are not caused depending on the organization (Livestock Hygiene Service Center, etc.) that conducts the inspection.
- f. Measures at each stage from data collection to implementation of countermeasures can be taken promptly.
- g. Data should be collected periodically according to the characteristics of the disease, in order to ascertain temporal distribution.

(3) Concept of conducting inspections

Since the inspection to ascertain the status of outbreak, etc. of monitored infectious diseases is the basis of surveillance of monitored infectious diseases, the appropriateness of the inspection is directly related to the success or failure of the surveillance. Therefore, it is important to conduct the inspection by the most appropriate method, paying attention to the following basic points for each disease:

- a. Basic concept for inspection of domestic infectious diseases
 - (a) In setting the implementation area, due consideration should be given to the transmissibility of the disease, the status of outbreak of the disease, the rearing conditions of domestic animals, etc. Consideration should also be given to selecting an area suitable for the inspection purpose so that the status of the entire population can be ascertained to the extent possible.
 - (b) An appropriate sampling method (including slaughterhouses, etc.) and inspection method should be selected according to the purpose of surveillance.
For selecting samples with high accuracy from which one can infer the characteristics of population, it is mandatory to use a method using a random number table, etc.
 - (c) For diseases that occur throughout the year, the date of inspection should be set mainly in the period when domestic animals are most likely to be exposed to pathogens, taking into account the hygiene conditions of adjacent areas and the movement of domestic animals. For diseases with seasonal variability in their outbreak, the date should be set based on the season of outbreak.
- b. Basic concept for inspection of foreign infectious diseases
 - (a) Diseases that have not occurred in Japan are subject to the inspection of foreign infectious diseases. When it is judged that the risk of foreign infectious diseases has increased in Japan, spot inspections and interviews shall be conducted to detect foreign infectious diseases and confirm their cleanliness.
 - (b) The Animal Health Division, MAFF shall maintain close contact with relevant departments and bureaus and proactively collect information on foreign infectious diseases.
 - (c) If the risk of an outbreak of a foreign infectious disease increases in Japan and surveillance is deemed necessary, detailed matters such as methods of conducting surveillance shall be notified by the Director of the Animal Health Division, MAFF.
- c. Basic concept for inspection of arbovirus infection
 - (a) Inspection for arbovirus infection is mainly conducted to identify the movement of pathogens based on changes in antibody titers in the blood and to detect an outbreak early.
 - (b) Because arbovirus infection is transmitted by arthropods and generally spreads across prefectures, inspection shall be conducted according to national and uniform standards.

(4) Reporting and aggregation of results, and return of information

- a. The results of the inspection shall be reported and collected in writing, as well as reported and collected efficiently by using electronic media, etc.
- b. Information on epidemiological characteristics, sources, routes of infection, and properties of pathogens shall be collected as necessary. For diseases that are related to environmental factors, such as temperature, humidity, etc., and epidemics, information on local environmental factors shall also be collected proactively.
- c. In addition, when returning information, due consideration needs to be given to privacy so that personal information is not leaked.
- d. The roles of the Livestock Hygiene Service Centers, competent division for livestock of the prefecture, and Animal Health Division, MAFF, etc., in reporting results and collecting and aggregating information are as follows:

(a) Livestock Hygiene Service Centers

The Livestock Hygiene Service Centers will send or transmit information obtained through inspections in writing or by fax/e-mail to the competent division for livestock of the prefecture in accordance with the unit of survey period. In addition, when the Livestock Hygiene Service Centers receive surveillance information returned from the competent division for livestock of the prefecture and the Animal Health Division, MAFF, they need to provide necessary advice and instruction to livestock owners or their organizations.

(b) Competent division for livestock of the prefecture

In national surveillance, the competent division for livestock of the prefecture will aggregate information obtained from Livestock Hygiene Service Centers, and send or transmit it in writing or by fax/e-mail to the Animal Health Division, MAFF in accordance with the unit of survey period.

In regional surveillance, the competent division for livestock of the prefecture will aggregate information obtained from Livestock Hygiene Service Centers, prepare the analyzed and evaluated information as a weekly report, monthly report, annual report, etc., according to the classification of the survey unit, etc., widely return the information to livestock owners, Livestock Hygiene Service Centers, and relevant prefectural governments in writing, by fax/e-mail, or via Internet, etc., and contact the Animal Health Division, MAFF.

(c) Animal Health Division, MAFF

The Animal Health Division, MAFF will promptly aggregate the national surveillance information obtained from the competent division for livestock of the prefecture, prepare the analyzed and evaluated information as a weekly report, monthly report, annual report, etc., according to the classification of the survey unit, etc., and widely return the information to relevant organizations in writing, by fax/e-mail, via Internet, etc. In addition, it will aggregate regional

surveillance information as necessary, and return the information after conducting analysis and evaluation.

(5) Analysis and evaluation of results

- a. Nationally aggregated information shall be analyzed and evaluated scientifically and objectively by the Animal Health Division, MAFF in cooperation with relevant organizations such as the National Institute of Animal Health and experts in relevant fields.
- b. With regard to regionally aggregated information, prefectural governments shall cooperate with relevant organizations mutually and cooperate with the national government to conduct scientific and objective analysis and evaluation according to the situation of outbreak and trends of diseases characteristic of the region, regional climate, and characteristics of diseases.
- c. Scientific and objective analysis and evaluation shall be conducted comprehensively by actively utilizing tables, graphs, maps, etc., paying attention to the outbreak condition of vectors, meteorological information, environmental factors, etc., and shall be utilized for epidemiological consideration of diseases, selection of future control measures, evaluation of current disease control measures, and establishment of outbreak prediction methods to strengthen the proactive disease control system.

Appendix 2

Guidelines for Hygiene Measures in Rearing Facilities for Male Calves of Dairy Cattle

In order to stabilize the nursing, growing, and fattening management of male calves of dairy cattle and the combined management of dairy cattle and beef cattle, it is important to reduce the attrition rate by preventing the onset of diseases in the lactation period and the nursing period (up to approximately 3 months of age) in which calves have a weak resistance to diseases and are susceptible to various stresses. For this reason, it is necessary to thoroughly instruct rearing facilities for male calves of dairy cattle to take various effective hygiene measures for preventing damage.

1 Hygiene measures at parturition

During parturition, hygiene measures shall be taken, paying attention to the following matters in order to prevent infection of calves and provide sufficient maternal antibodies .

- (1) Clean and disinfect the area around the parturition area well in advance, put dry bedding, and disinfect the breasts and vulva with disinfectant immediately before parturition.
- (2) Feed at least 500 g of colostrum within 15 to 30 minutes after birth, approximately 5% of body weight twice within 4 hours and 8 hours after birth, and approximately 8 to 10% of body weight divided into two to three times a day for at least 4 days thereafter.
- (3) Soak the umbilical cord in dilute tincture iodine (2 to 3%) immediately after parturition and the next day, because there is a risk that pathogens may enter the body of a calf directly if the umbilical cord is not disinfected.
- (4) Move the calf to a calf hutch or, if a calf hutch is not used, place the calf in a dedicated nursery barn and move it as far away as possible from growing cattle and adult cattle to avoid infection with pathogens.

2 Hygiene measures for introduced calves

When introducing calves from a production farm, hygiene measures need to be taken, paying attention to the following points in order to prevent the entry of diseases associated with the introduction of calves and to minimize the stress from transportation.

- (1) When introducing calves, consider the exhaustion of physical strength and various stresses associated with transportation, and try to purchase calves from a production farm located at a short distance so that calves can be transported in a short time.
- (2) When transporting calves, ensure adequate ventilation and avoid direct sunlight in order not to avoid giving stress to the extent possible.

- (3) When selecting calves, ensure that they have consumed enough colostrum.
- (4) Before introducing calves, disinfect and dry inside and outside the calf hutch or nursery barn, and put enough bedding in the stall.
In addition, place a disinfection tank for vehicles at the entrance for vehicles, a disinfection tank for work boots at the entrance of the nursery and rearing barn, and a hand disinfection rack at the isolation barn, and change the disinfectant at least once or twice a week, paying attention to the cleanliness inside the disinfection tank.
- (5) Before placing calves in a nursery barn or calf hutch, put neck tacks or ear tags for individual identification, and conduct clinical observation, temperature check, and disinfection of the cow bodies and limbs. At this time, move the calves found to be abnormal to the isolation barn for detailed examination, and treat and manage them according to their medical conditions.
- (6) Rest calves immediately after introduction so that they can recover quickly from fatigue and exhaustion caused by transportation and rapid changes in environment.
- (7) For calves whose colostrum intake is deemed to be insufficient, feed frozen colostrum or fermented colostrum to reduce the incidence of diarrhea. In addition, it is desirable to feed whole milk to introduced calves including the concerned calves until they reach two to three weeks of age.

3 Hygiene measures in the lactation period

During the lactation period, it is necessary to take hygiene measures mainly to prevent diarrhea, paying attention to the following points:

- (1) Perform individual observation.
- (2) It is desirable to use a calf hutch during the lactation period. When rearing calves in a barn unavoidably, pay attention to the following matters:
 - a. Secure good ventilation, but do not let in a draft.
 - b. Keep the inside of the barn dry through cleaning and disinfection.
 - c. Prevent contact of the mouth and face between calves and tussling of the umbilicus, and raise abnormal calves individually.
- (3) Ensure hygiene management such as disinfection of rearing equipment (lactation buckets, etc.) before use, and cleaning, drying, and storing of the equipment in a clean place after use.

In addition, at least once a week (twice in summer), disinfect rearing equipment for dissolving milk replacer with a dilution of invert soap or sodium hypochlorite.

4 Hygiene measures during the nursing period

In the nursing period, respiratory diseases such as pneumonia occur more frequently instead of diarrhea in the lactation period. Therefore, it is necessary to take hygiene measures mainly for the prevention of respiratory diseases, by paying attention to the following points.

- (1) In order to facilitate individual observation and achieve uniform growth, ensure a fixed rearing area, and perform a medical examination before herding. Avoid herding of calves with abnormalities.
- (2) When preparing a hygiene management program, especially a vaccination program, for the nursing period and the growing period, perform a serological test on a part of the herd in the facility if possible, taking into consideration past outbreaks of infectious diseases not only in the facility but also in the region, and refer to the results of the test.

5 Hygiene management in the growing period and the fattening period

In the growing period and the fattening period after three months of age, it is necessary to take hygiene measures by paying attention to the following points:

- (1) When introducing calves for fattening, basically purchase calves that have been given the necessary vaccination. For those without vaccination, give the necessary vaccination two to three weeks after the introduction.
- (2) Group the introduced calves for fattening according to age and body weight to the extent possible, place them in a large stall that has good ventilation and allows daylight in, and covered with clean bedding, and put ear tags and nasal rings on them.
- (3) Make efforts to exterminate endoparasites (*Fasciola hepatica*, *Dictyocaulus viviparus*, gastrointestinal nematodes, etc.) and prevent fungus disease and urolithiasis.

6 Prevention of outbreak of diseases

In order to prevent an outbreak of diseases, it is important to carry out thorough hygiene management. In addition, depending on the type of disease, a part of the cattle with the disease may become a source of infection as a carrier even after the symptoms have apparently recovered. Therefore, it is important to thoroughly take the prescribed control measures and accurately judge the prognosis and the appropriate timing of culling, especially in the event of entry of the disease in a nursing and rearing facility. For diseases for which preventive solutions are available, it is necessary to promote effective disease control by systematic vaccination as necessary.

Guidelines for Hygiene Measures in Pasture

In the production of beef cattle, etc., it is important to promote pasture rearing in order to reduce production cost. However, since various pasture diseases such as small piroplasmiasis are major production inhibitors, it is indispensable to take measures against these diseases.

For this reason, it is necessary to give thorough instruction to take various effective hygiene measures to prevent damage by pasture diseases.

1 Basic direction of promotion

In general, basic hygiene management of domestic animals includes disease control measures based on hygiene programs and early detection and treatment of abnormal cattle by sufficient individual observation. However, since individual observation is often difficult in a pasture, it is necessary to prepare a management program based on the following matters:

- 1) Early detection of cattle unsuitable for pasture and abnormal cattle through systematic hygiene inspection before entering the pasture and during pasture, and subsequent damage control
- 2) Thorough extermination of ticks in grassland and cattle bodies

It is also necessary to implement hygiene measures by paying attention to the following matters:

(1) Conducting hygiene inspections

- a. Owners of domestic animals shall submit an application to the pasture manager for cattle subject to pasture two to three months before entering the pasture, have cattle subject to pasture receive a hygiene inspection about one month before entering the pasture, and determine the suitability for pasture individually based on the results.
- b. In addition, efforts shall be made to thoroughly take measures necessary for pasture, such as vaccination, dehorning, and hoof trimming. Diseases requiring vaccination against bovine parainfluenza, infectious bovine rhinotracheitis, bovine viral diarrhea-mucosal disease, blackleg, etc. shall be examined in consideration of past disease outbreaks in the region and in the pasture.

(2) Instruction on tame pasture

In addition to deepening awareness of the importance of pasture stress and making efforts to familiarize cattle with weather conditions and feed, taming shall

be started one month before entering the pasture for cattle pastured for the first time and two weeks before for cattle pastured again.

- (3) Inspection and maintenance of hygiene facilities and equipment for pasture
The pasture manager shall carefully inspect and maintain pasture hygiene facilities such as continuous frames, dipping tubs, livestock housing for sick animals, and eave forests in preparation for entering the pasture, and endeavor to prevent accidents associated with pasture, especially in the early stage after entering the pasture.

2 Hygiene measures at entering the pasture

Even cattle that did not show any abnormalities during herding may develop a disease due to transportation stress or stress associated with contact with other herds, etc. Therefore, hygiene inspection shall be conducted for all cattle at the time of entering the pasture to determine the appropriateness of pasture again. In this case, efforts shall be made to collect blood from all cattle and preserve the serum for a certain period of time in preparation for the outbreak of disease during pasture.

Furthermore, based on the results of the sanitary inspection, the cattle shall be grouped, and specific measures in the event of an abnormal situation shall be examined between the pasture manager and the management consignor.

3 Hygiene measures during pasture

- (1) Cattle pastured for the first time often do not adapt to the environment immediately after entering the pasture, so it is desirable to pasture them preliminarily for two to three weeks so that they can adapt to the pasture environment.
- (2) When pasture grass is insufficient, measures, such as supplementary feeding of mixed feed and providing hay, etc., shall be taken.
- (3) Pasture monitoring shall be conducted twice a day during the period of preliminary pasture and at least once a day thereafter. When abnormal cattle are found, they should be carefully observed, and abnormalities, points to be noted, and measures taken shall be recorded in a diary.
- (4) Hygiene inspection after starting pasture shall be conducted periodically at least once a month in addition to weight measurement, etc. At this time, instruction shall be given to exterminate ticks on cattle. In addition, when sick cattle are expected to increase based on past outbreaks, and when cattle suspected to have contracted an infectious disease are found, temporary inspection shall be conducted.
- (5) If sick cattle are identified during pasture and an acute infectious disease is suspected since there are many cattle showing similar symptoms, etc., necessary measures such as isolation shall be taken. If pastured cattle die, the cause of death shall be identified by asking a veterinarian.

4 Hygiene measures at leaving the pasture

When cattle leave the pasture, including leaving during pasture, clinical examination, fecal examination, and ectoparasite examination shall be conducted on all cattle from the viewpoint of thoroughly confirming the health status of the cattle leaving the pasture and preventing the introduction of ticks and pathogenic microorganisms to the farm. In particular, attention shall be paid to ticks, *Dictyocaulus viviparus*, and dermatomycosis, and it is advisable to have cattle leave the pasture after eradicating them or providing treatment. If having cattle leave the pasture in the middle of treatment, instruction shall be given to the farmer to continue treatment of the cattle in isolation from other cattle.

Consideration shall be given to setting the timing of inspection at leaving the pasture so that, if any measures are required based on the results of the inspection, the measures can be taken in the pasture to the extent possible.

Appendix 4

Guidelines for Sanitation Measures in Swine Facilities such as Boar Farms

In order to stabilize swine farming, it is important to eliminate factors that inhibit health due to the spread of intensive production methods in recent years, prevent an outbreak of diseases, and prevent decline in productivity. In particular, if a disease has occurred or becomes latent in a boar farm, the risk of transmission of the disease to fattening pig herds in general sow farms is extremely high due to the distribution of boars. Therefore, it is necessary to thoroughly instruct swine facilities and other boar farms to take the following effective hygiene measures to achieve freedom of the disease:

1 Arrangement of facilities, access restrictions, etc.

For freedom of diseases on farms, efforts shall be made for the arrangement of facilities and access restrictions in order to prevent the entry of pathogens into farms and to prevent the spread of pathogens on farms, paying attention to the following points:

- (1) A fence (net, etc.) shall be set around the farm to clarify the division with the outside, restrict the access to the farm by using a designated entrance, and prevent the entry of dogs and cats.
- (2) As far as possible, barns shall be divided according to the growth and rearing stage, and a barn to isolate introduced pigs (hereinafter referred to as "quarantine barn") and a barn to isolate sick pigs (hereinafter referred to as "isolation barn") shall be set up. At this time, from the viewpoint of disease control, environment, and operation, efforts shall be made to reasonably arrange the barns so that pigs can be managed in one direction (one-way).
- (3) As a general rule, insulation structure shall be applied to barns, and adequate ventilation shall be considered. In addition, the floor, ceiling, and walls shall be designed to be easily washed and disinfected, and to have a water-resistant structure.
- (4) When visitors enter the facilities, they must disinfect their clothes, footwear, and hands, and put on a hat, jacket, trousers, footwear, and other items that are used only in the barn, to the extent possible. When entering and leaving the quarantine barn and the isolation barn for sick pigs, visitors need to disinfect their clothes and hands again, and change into designated clothes, rubber boots, etc.
- (5) In principle, ordinary vehicles are prohibited from entering the facilities, but when entering, disinfection is required at the entrance. When carrying materials in the facilities, spray disinfection is performed as necessary.

2 Hygiene management in the facilities

For the control of diseases, it is important to pay attention to isolation from the outside, proper arrangement of facilities, etc., and to thoroughly carry out daily hygiene management to prevent dispersal of pathogens and maintain a good breeding environment in the facilities. Therefore, it is necessary for the relevant persons of the farm to pay attention to the following matters on a regular basis and take all possible measures for hygiene management in the facilities, bearing in mind that even if the facilities are kept isolated from the outside world, the insides of the facilities are not completely cleaned up.

(1) Thorough measures to prevent contamination of facilities

- a. At the entrance of each barn, hand disinfection facilities, a stepping disinfection tank, equipment for cleaning and disinfecting equipment, etc. shall be placed, and facilities located in the premises such as the administration building, barns, feed shed, etc. shall be cleaned and disinfected periodically.
- b. Barns shall be operated with the all-in/all-out method to the extent possible. After carrying out all pigs, dung, feed, etc. the barns shall be thoroughly cleaned, washed, and disinfected. The next pig herd shall be introduced after disinfecting the barns again at regular intervals immediately before introduction.
Barns where it is difficult to adopt the all-in/all-out method shall be left empty after a certain period of use, and cleaned and disinfected completely.
- c. In barns, management houses, warehouses, etc., rats and pest insects shall be exterminated periodically or as necessary.
- d. Work clothes shall be kept clean, and special management equipment shall be provided for each building of the barn and kept clean at all times. In principle, the equipment shall be washed and disinfected after each use.

(2) Thorough individual hygiene management

- a. When the sow is moved to the farrowing barn, her body should be thoroughly washed and disinfected, and insecticides should be sprayed as necessary.
- b. The temperature inside the barn shall be maintained appropriately. In particular, barns where young pigs are reared shall be provided with sufficient heat insulation facilities. In addition, in hot weather, it is desirable to take heat protection measures such as blowing air, spraying water with a one-man spray or shower, etc.
- c. When boars are introduced from outside the farm, they shall be housed in the quarantine barn and observed in isolation for at least two weeks to confirm that there are no abnormalities. If abnormal boars are identified, efforts shall be made to clarify their pathogenicity and necessary measures shall be taken.

- d. When moving pigs from the quarantine barn or the isolation barn for sick pigs to a general barn, it is necessary to confirm that their bodies are clean and to wash and disinfect them.
- e. Dead pigs suspected of having an infectious disease must receive pathogenicity determination at the Livestock Hygiene Service Center.

3 Prevention and treatment

For preventing diseases, it is necessary to take necessary measures such as systematic vaccination and introducing boars from a clean area, in addition to daily general hygiene management. In addition, once a disease has entered, some pigs may remain as carrier pigs and become a source of infection depending on the type of disease, even after their symptoms have apparently disappeared. Therefore, thorough control measures should be taken for carrier pigs, especially in boar farms.

For diseases for which preventive solutions have already been developed, it is necessary to make effective use of vaccination as a method of health management.

4 Hygiene management system

In order to ascertain the hygiene condition of a boar farm, it is necessary to clarify the infiltration condition of various diseases in the boar population by systematically conducting antibody tests, etc., while paying attention to the following matters. Therefore, it is important to ascertain the health of piglets and the hygiene condition of the boar farm by fattening and shipping piglets other than boar candidates as monitor pigs, and by clarifying hygiene problems based on the results of autopsy findings in slaughter inspection.

- (1) Since there are chronic infectious diseases for which no diagnostic method has been developed, and the causality with the damage situation cannot be clarified in many cases during the lifetime, it is necessary to keep records on breeding and rearing, such as the number of times of parturition, conception rate, number of times of stillbirth/miscarriage and its situation, number of weaned piglets per litter, number of piglets that died suddenly and those culled, and rearing situation, etc., to use them not only as technical indicators, but also as indicators for the detection and infiltration of diseases.
- (2) In daily feeding management, efforts shall be made to detect abnormal pigs as early as possible, and regular checks shall be carried out to improve the management by determining inspection items in advance for personal hygiene management.

5 Other

Instruction should be given to pig farms other than boar farms to strive for hygiene management in accordance with the Guidelines.

Appendix 5

Guidelines for Sanitation Measures in Incubation Farms and Other Poultry Farms

In recent years, the poultry industry in Japan has been rapidly expanding, intensifying, and dramatically developing. However, various poultry diseases have occurred, which has great impact on poultry management. Many of these diseases are caused by mismanagement in facilities with inadequate hygiene management. It is particularly important to take incubation hygiene measures in hatcheries in terms of poultry hygiene. For this reason, efforts shall be made to maintain the cleanliness of the facilities of parent stock farms by using various methods that can be applied at present (periodic inspection, vaccination, improvement of rearing environment, etc.), and to thoroughly disinfect hatching eggs and incubators and improve the hygiene management of the facilities of hatcheries. It is also necessary to thoroughly give instruction to take the following effective hygiene measures and to improve the hygiene of hatcheries and other poultry farms.

1 Arrangement of facilities, access restrictions, etc.

For freedom of diseases in hatcheries and other poultry farms, efforts need to be made for the arrangement of facilities and access restrictions in order to prevent the entry of pathogens into farms and to prevent the spread of pathogens on farms, paying attention to the following points:

- (1) Efforts shall be made to set up parent stock farms and hatcheries in places where there are few other poultry farms and with good ventilation and drainage.
- (2) In the facilities of parent stock farms and hatcheries, a fence shall be set up to prevent unnecessary and improper access of persons and entry of wild dogs. In addition, at the entrance to the facilities, a dressing room shall be prepared, which shall have 1) a room (or locker) for removing outer clothes, 2) a shower room (or bathroom), and 3) a room (or locker) for wearing designated clothes, in order from the outside. If it is not possible to set up all of them, at least separate lockers or rooms shall be prepared for removing outer clothes and wearing designated clothes.

In addition, it is necessary to have persons who enter the facilities change their hats, jackets, trousers, and footwear before entering the facilities.

- (3) Entry of unnecessary foreign visitors into facilities such as parent stock farms and hatcheries as well as poultry houses and incubation facilities shall be prohibited in principle, and entry of general vehicles into the facilities shall also be prohibited in principle. Disinfection facilities for vehicles shall be set up at the entrance/exit of the facilities, and disinfection shall be strictly enforced when vehicles enter and materials are brought in.

- (4) The relevant persons (managers and employees) of parent stock farms, hatcheries, etc. shall avoid raising poultry and other birds at home, and endeavor to exterminate rats and other hygienic animals and prevent the entry of wild birds, etc. at parent stock farms, hatcheries, etc.

2 Hygiene management in the facilities

It is impossible to remove all normal microorganisms in a group of commonly bred flock even if the entry of pathogens from the outside world is completely prevented. Most of these normal microorganisms have generally very low pathogenicity or in rare cases cause mild symptoms in the event of infection. However, if the hygiene management of the poultry house and the incubation facilities is not properly carried out, they may cause a collective onset. Therefore, it is necessary to clean the facilities and handle the flock and egg incubators hygienically at all times.

- (1) Thorough measures to prevent contamination at parent stock farms
 - a. At the entrance of the poultry house, hand disinfection facilities, a stepping disinfection tank, an area to wash equipment, etc. shall be set up, and rearing management facilities located in the premises such as the administration building, poultry houses, feed shed, etc. shall be cleaned and disinfected periodically.
 - b. Poultry houses shall be operated for each building with the all-in/all-out method to the extent possible. After carrying out all poultry, dung, feed, etc. the poultry houses shall be thoroughly cleaned, washed, and disinfected. The next flock shall be introduced at an interval of two weeks or more. Disinfection shall also be performed immediately before introduction.
 - c. Operational clothing shall be kept clean at all times. Special management equipment shall be provided for each building of the poultry house and kept clean at all times. In principle, the equipment shall be washed and disinfected after each use.
- (2) Thorough hygiene management of hatching eggs

The laying box shall be kept clean at all times and eggs shall be collected as often as possible. The eggshell surface shall be immediately disinfected after egg collection. Disinfected hatching eggs shall be stored in an egg storage room under suitable conditions to prevent condensation on the surfaces of the hatching eggs due to temperature changes. Eggs with cracked eggshells, malformed eggs, extra-ovarian eggs, and eggs with dirty eggshells shall not be used as hatching eggs.
- (3) Thorough measures to prevent contamination at hatching facilities
 - a. In incubation facilities, a fumigation room, egg storage room, incubation room, chick differentiation and sorting room, vaccination room, chick packing and shipment room, chick storage area, etc., shall be set up in isolation in a sanitary manner, and efforts shall be made to apply, as the work process, the one-way method, and to take the same measures as those for preventing contamination in

the parent stock farms, etc. described in (1). The incubation room should be divided into a setter room and a hatcher room, and the all-in/all-out method should be adopted.

- b. Since the container for receiving meconium excreted from chicks is contaminated with a large number of bacteria, etc., efforts shall be made to thoroughly disinfect the contents and container after use.
- c. When transporting chicks, the transport vehicle shall be washed and disinfected after each use. It is desirable to use a covered vehicle as a transport vehicle, with an air conditioning system capable of maintaining constant temperature and humidity.
- d. Hatching eggs brought into the hatchery shall be disinfected by formalin fumigation or immersion in a reverse soap solution at 42 to 43°C, etc., and promptly stored in the egg storage room to avoid contamination. After the hatching eggs are transferred from the setter to the hatcher, formalin fumigation is performed when the temperature and humidity in the container reach normal setting conditions.
- e. Incubation facilities and incubators shall be cleaned and washed with water before use, and subject to formalin fumigation, etc. for 24 hours or more. In particular, since the remnants after hatching (eggshell, aborted egg, dead in shell, cotton wool, etc.) contain a large amount of bacteria, pre-spraying of disinfectant solution or formalin fumigation shall be performed prior to cleaning and disinfecting the incubation facilities after use, in order to prevent scattering of these remnants, and the facilities shall be cleaned using a vacuum cleaner. Remnants shall be collected and incinerated or completely disinfected and disposed of.
- f. Formalin gas is harmful to humans and animals. So, before use, make sure to wear a mask, glasses, gloves, etc. for proper protection.

Appendix 6

Guidelines for Hygiene Measures at Racecourses and Other Group Horse Rearing Facilities

As racehorses are more likely to be reared collectively and the rearing scale has become larger, they have been transported more frequently. Riding horses are also more likely to be reared collectively, and opportunities for mutual exchange have increased. In such an environment, maintaining the health of racehorses and improving their quality and abilities are essential requirements for the management of horse racing and promoting the production of riding horses. For this reason, it is necessary to continue to further enhance hygiene management at racecourses, etc. Therefore, it is necessary to continue to provide thorough instruction to take the following effective biosecurity measures at a nationally harmonized level.

1 Development of the hygiene management system

(1) Assignment of staff in charge of disease control

At least one staff member (veterinarian) in charge of disease control shall be assigned to the administrative office and shall be in charge of planning disease control plans, providing instruction on hygiene management, and communicating information.

(2) Control of practicing veterinarians

In order to ensure proper medical treatment of racehorses, etc. in the facilities, a medical clinic with necessary facilities shall be established, and a medical veterinarian shall be secured by hiring a full-time veterinarian or commissioning medical treatment to a practicing veterinarian to control their activities.

2 Standards for Disease control and Hygiene Management

(1) Disease control at the time of entering the stable

a. Submission of the application for approval of entering the stable and designation of the date of entering the stable

Persons who wish to enter the stable (horse owners or trainers, etc.) shall submit an application for approval of entering the stable to the administrative office in advance, and receive designation of the date of entering the stable.

b. Quarantine for entering the stable

(a) Inspection of documents

The horse's certificate book and the certificate related to vaccination shall be submitted to the administration office for inspection.

- (b) Inspections

Horses that enter the stable are housed in the quarantine stable and undergo laboratory tests and other inspections for entering the stable.
- (c) Entering the stable

If no abnormalities are found as a result of the inspections, the horses are allowed to enter the general stable.
- (2) Submission of the notice of leaving the stable

Persons (horse owners or trainers, etc.) who intend to have horses leave the stable shall submit a notice of leaving the stable to the administrative office before the horses leave the stable.
- (3) Vaccination

Vaccinations against equine influenza, infectious encephalitis, etc., shall be carried out systematically in consultation with prefectural authorities, and injection certificates shall be prepared.
- (4) Daily hygiene management
 - a. Temperature check of horses in the stable

A temperature chart shall be distributed for each horse, and the temperature of the horses shall be checked and recorded in the morning and evening under the supervision of the person in charge of rearing management (trainer, etc.).
 - b. Disinfection of stables

Waste pits, horse manure yard, sewage ditches, etc. shall be disinfected periodically.
In addition, efforts shall be made to control insects by spraying insecticides at appropriate seasons, in addition to the installation of light traps and fly traps, in places and facilities where insects grow or are likely to grow mainly in summer.
Efforts shall also be made to apply the disinfectant at least once every year and exterminate rats inside and outside the stable.
 - c. Notification and isolation of abnormal horses
 - (a) When an infectious disease is suspected in a feverish horse or a horse subject to medical treatment, the veterinarian who diagnosed or discovered the disease and the person in charge of rearing management (trainer, etc.) shall promptly notify it to the administrative office.
 - (b) If, as a result of the inspection conducted based on the notification, it is found that the horse is affected or is suspected to be affected with an infectious disease and it is deemed necessary to isolate the horse, the horse shall be moved to an isolation stable and isolated for the necessary period.
 - (c) In the case of (b) above, the staff in charge of disease control at a racecourse and other facilities shall make the necessary notification to the Livestock Hygiene Service Center and promptly notify the secretariat of the

Light Stallions Quarantine Council of the history of the outbreak and the measures, etc.

3 Improvement of hygiene facilities

At racecourses and other facilities, efforts shall be made to improve hygiene facilities such as a clinic (including equipment necessary for inspection), quarantine stable, isolation stable, sewage pit (with a roof), sewage treatment facilities, etc., and to ensure thorough control measures.

Guidelines for Inspection After Arrival of Imported Domestic Animals

1 Period of inspection after arrival

As a general rule, inspection after arrival needs to be conducted for three months after domestic animals (domestic animals listed in the right-hand column of the table under Article 2 of the Act and Article 1 of the Cabinet Order) arrive at the place where the inspection after arrival is conducted (hereinafter referred to as "destination"). However, with regard to the inspection after arrival to be conducted on racehorses and riding horses that have conducted expeditions, its period may be shortened to three weeks as provided for in Note 3 of "Import Quarantine and Inspection After Arrival on International Racehorses at Return" (Notification 2 Livestock A No. 1654 of the Director of Livestock Bureau, Ministry of Agriculture, Forestry and Fisheries of August 10, 1990). In principle, inspection after arrival will not be conducted for other artiodactyls, rabbits, dogs, honey bees, and domestic animals placed on display at zoos.

2 Measures to be taken by the Animal Quarantine Service

(1) Instruction for importers

The Animal Quarantine Service shall provide instruction to importers on the following matters:

- a. For imported domestic animals for entertainment purposes that are scheduled to be moved during the period of inspection after arrival, the entertainment plan shall be notified to the competent division for livestock of the prefecture to which the animals will be moved during said period.
- b. When purchasing domestic animals overseas, the importer shall communicate with the livestock hygiene agency of the exporting country in advance, fully ascertain the condition of livestock hygiene of the country, and purchase from a farm in an area clean of domestic animal infectious diseases.

(2) Notification of destination schedule

Prior to the arrival of imported domestic animals at the destination, the Animal Quarantine Service shall notify the competent division for livestock of the prefecture where the imported domestic animals will be located of the matters necessary for the inspection after arrival, such as the matters set forth in Form No. 23 based on Article 49 of the Regulations.

(3) Notification of quarantine results

- a. If detecting a monitored infectious disease during import quarantine, the Animal Quarantine Service shall promptly notify it to the Animal Health Division, MAFF and the competent division for livestock of the prefecture of the destination of the

concerned domestic animal and domestic animals of the same lot as the concerned domestic animals (all domestic animals imported by the same vessel or aircraft as the concerned domestic animal and all domestic animals housed in the same livestock housing as the concerned domestic animal).

- b. Immediately after the release of imported domestic animals, the Animal Quarantine Service shall notify the competent division for livestock of the prefecture of the destination of the inspection results in the exporting country and the inspection results in the Animal Quarantine Service using Appended Form 5.

3 Survey and instruction by the prefectural government

Based on the notification from the Animal Quarantine Service, the prefectural government is required to provide instruction on the following matters to owners of domestic animals imported.

(1) Place of inspection after arrival

- a. Imported domestic animals shall be kept in a place or facility (hereinafter referred to as "isolation facility") where they can be adequately isolated from other domestic animals.
- b. Dedicated equipment, etc. shall be used in the isolation facility, and a disinfection tank shall be set up at the entrance.
- c. Excreta and waste shall be disposed of hygienically.
- d. The entry of rats and other hygienic animals shall be prevented.

(2) Movement restriction of domestic animals during the period of inspection after arrival

In principle, imported domestic animals shall not be moved during the period of inspection after arrival. However,

- a. Imported horses may be moved if it is unavoidable in order to conduct inspection necessary for the registration of the horse name for horse racing, and if the inspection is conducted in isolation from other animals.
- b. If it is unavoidable due to the entertainment plan, imported domestic animals for entertainment may be moved in isolation from other animals while maintaining close communication with the competent division for livestock regarding the date of the movement, the hygiene condition during the inspection after arrival, etc.
- c. Imported horses other than those in a. or b. above may be moved if prefectural animal health inspectors approve in consideration of livestock hygiene measures.

(3) Biosecurity management

- a. A dedicated rearing manager shall be assigned to the isolation facility to the extent possible.
- b. Access to the isolation facility shall be prohibited, excluding relevant persons.

- c. When entering the isolation facility, hats, jackets, trousers, rubber boots, etc. shall be changed into special clothes, and hands, hats, jackets, trousers, rubber boots, etc. shall be disinfected.
- d. Operations in the isolation facility shall be performed after completing operations in places other than the isolation facility.
- e. Efforts shall be made to ascertain the health conditions of domestic animals under isolated rearing. The records of the health conditions shall be kept, and if any abnormalities are found, the Livestock Hygiene Service Center shall be notified promptly. In addition, the isolation facility and feeding tanks, etc. shall be cleaned, washed, and disinfected.
- f. Vaccination shall be carried out as necessary in consideration of the condition of livestock hygiene in the place of inspection after arrival.
- g. As far as possible, efforts shall be made to set up frames in the isolation facility so that biosecurity measures can be taken smoothly.
- h. For imported horses (excluding fattening horses reared and isolated from horses reared in Japan for other purposes), advice and instruction shall be given to owners of domestic animals imported to have the horses undergo an inspection for equine infectious anemia at least one month after import during the period of inspection after arrival. For international racehorses whose period of inspection after arrival has been shortened to one month or less, advice and instruction shall be given to have the horses undergo an inspection immediately before the end of the period to the extent possible.
- i. For imported fattening horses, advice and instruction shall be given to owners of domestic animals imported to rear them in isolation from horses reared in Japan for other purposes until they are shipped to slaughterhouses after import.

4 Inspection after arrival conducted by the prefectural government

- (1) It is important for the prefectural government to maintain close contact with owners of domestic animals imported and to conduct clinical observation during the period of inspection after arrival to ascertain the health conditions of the animals.
The inspection should be conducted at the time of introduction and thereafter approximately once a month. In addition, if abnormalities are found, detailed examinations such as a serological test shall be performed as necessary.
- (2) As a general rule, for domestic animals that are epidemiologically related with domestic animals in which a monitored infectious disease is detected during import quarantine, the prefectural government is required to carry out a detailed examination of the monitored infectious disease at least once during the period of inspection after arrival. In this case, the first detailed examination shall be carried out within approximately two weeks to one month after the concerned domestic animal arrives at the place of inspection after arrival. However, when the disease

is anaplasmosis, piroplasmosis, or Equine viral arteritis, the detailed examination shall be carried out as follows:

- a. Anaplasmosis (caused by pathogens specified in Article 1 of the Regulations)
Microscopy of blood film (once a month), CF testing
- b. Piroplasmosis (caused by pathogens specified in Article 1 of the Regulations)
Microscopy of blood film (once a month)
- c. Equine viral arteritis
Serum shall be collected from the concerned imported horse and sent to the Animal Quarantine Service. The Animal Quarantine Service shall conduct a neutralization test on the serum and notify the competent division for livestock of the prefecture and the Animal Health Division, MAFF of the results.

5 Reporting the results of inspection after arrival

If the prefectural government has conducted a detailed examination under 4 (1) and detected a monitored infectious disease, or has conducted an examination under 4 (2), the prefectural government shall promptly report the results to the Animal Health Division, MAFF.

Appended Form 1

1 Outbreak report

<p>Diseases to be reported</p>	<ol style="list-style-type: none"> 1 Affected animals or suspected affected animals by Rinderpest, Contagious bovine pleuropneumonia, Foot-and-mouth disease, infectious encephalitis, vesicular stomatitis, Rift Valley fever, Hemorrhagic septicemia, Glanders, African horse sickness, swine fever, African swine fever, swine vesicular disease, Fowl cholera, Highly pathogenic avian influenza, Low pathogenic avian influenza, or Newcastle disease (limited to those listed in the items of Article 1-2 of the Regulations) (Article 25, paragraph (1), item (i) of the Regulations) 2 First affected animals or suspected affected animals other than the affected animals or suspected affected animals provided in 1 above (Article 25, paragraph (1), item (ii) of the Regulations) 3 Monitored infectious diseases other than 1 and 2 above that are likely to have a significant impact on livestock hygiene.
<p>Items to be reported</p>	<ol style="list-style-type: none"> 1 Disease name, type of domestic animal, date when the pathogenicity is determined, place of outbreak, number of heads with the disease, and outcome breakdown 2 Process of determining affected animals or suspected affected animals 3 Clinical symptoms and autopsy findings 4 Control measures 5 Epidemiological consideration 6 Other
<p>Remarks</p>	<p>When an important infectious disease that does not exist in Japan occurs and an emergency event occurs, and report will be made on holidays or outside working hours, the report shall be made to the Disease control Operations Team of the Animal Health Division, MAFF.</p> <p>Since the authorities need to know each prefectural government's emergency contact information on holidays or outside working hours, the information shall be reported each time when there is a change.</p>

2 Detailed report of outbreak (Report shall be made only to the Animal Health Division, MAFF.)

Diseases to be reported	<ol style="list-style-type: none"> 1 Affected animals or suspected affected animals by Rinderpest, Contagious bovine pleuropneumonia, Foot-and-mouth disease, Rabies, vesicular stomatitis, Rift Valley fever, Hemorrhagic septicemia, Glanders, African horse sickness, African swine fever, swine vesicular disease, Fowl cholera, Highly pathogenic avian influenza, Low pathogenic avian influenza, or Newcastle disease (limited to those listed in the items of Article 1-2 of the Regulations) 2 Domestic animal infectious diseases other than 1 above that are likely to have a significant impact on livestock hygiene.
Items to be reported	<ol style="list-style-type: none"> 1 Disease name, type of domestic animal, date when the pathogenicity is determined, place of outbreak, number of heads with the disease, and outcome breakdown 2 Process of determining affected animals or suspected affected animals 3 Clinical symptoms and autopsy findings 4 Control measures 5 Epidemiological consideration 6 Other
Remarks	Report shall be made in writing to the Animal Health Division, MAFF promptly after ending.

Appended Form 2

FY xx Project Plan on the Prevention of Domestic Animal Infectious Diseases

Name of prefecture

Units: heads, thousand heads, swarms, %

1. Rearing conditions of domestic animals

		Cattle			Pigs			Poultry				Honey bee			
		Number of heads reared			Number of heads reared			Number of heads reared				Number of swarms reared			
		Dairy cow	Beef cattle		Total	Sow	Other	Total	Parent stock	Egg-harvesting hen	Poultry	Total	Kept in a fixed place throughout the year	Kept in other places in specific seasons	Total
			Breeding	Fattening											
Previous year															
Business year	Number of heads														
	Comparison with the previous year														

		Other domestic animals						Description
		Number of heads reared						
		Horse	Sheep	Goat	Boar	Other	Total	
Previous year								
Business year	Number of heads							
	Comparison with the previous year							

- (Note) 1. For honeybees kept in other places in specific seasons, enter the total number of swarms that move across prefectural borders.
 2. In the other column of other domestic animals, enter the specific type of domestic animals such as buffalo, deer, etc.

2. FY xx project implementation policy on the prevention of domestic animal infectious diseases (Enter the implementation policy for each domestic animal.)

3. FY xx outline of priority projects

Animal species	Target diseases, etc.	Category (test, injection, dipping, or medication)	Number of heads reared in the implementation area or implementation facility		Scope of target animal species and volume of projects (number of heads)		Timing of implementation	Description
			Name of the implementation area or number of implementation facilities	Number of heads reared in the area in the left column	Scope of the target animal species	Volume of projects		
						heads		

- (Note)
1. In the description column, enter the test item and test method if the test is performed, and the name of the drug used if injection, dipping, or medication is performed.
 2. For the scope of the target animal species, enter the purpose (meat or milk, raising or breeding, egg collection, meat or parent stock, etc.).

4. FY xx implementation plan

Project category	Disease category	Number of heads (swarms)		Number of people required (total)				Article of the law on the basis of implementation	Description
		Actual number of heads (swarms)	Total number of heads (swarms)	Prefectural animal health inspectors	Hired veterinarian	Total	Average number of heads (swarms) per person per day		
Inspection projects	Laboratory test								
		Subtotal							
	Detailed examination								
		Subtotal							
Total									
Injection projects									
	Total								
Projects to prevent the outbreak of parasite diseases									
	Total								
Total								(Actual number of employed veterinarians:)	

5. Drug use (purchase) plan

Drug name	Number of heads (total)	Amount used (purchased)		Unit price per sales unit (yen)	Required amount (yen)	Description
		Quantity (Unit: bottles, boxes, etc.)	Unit per packet volume (Unit: g, ml, boxes, etc.)			
Disinfectants						
	Subtotal					
Test drugs						
	Subtotal					
Dipping and medication drugs						
	Subtotal					
Slaughter disposition drugs						
	Subtotal					
Infection prevention drugs						
	Subtotal					
Total						

(Note) 1. Pursuant to the provisions of Article 60, paragraph (1), items (vi) through (viii) of the Act on Domestic Animal Infectious Diseases Control, the scope of the subsidy specified in 1 of the Determination of Costs for Drugs, Sanitary Materials, Incineration, or Burial Designated by the Minister of Agriculture, Forestry and Fisheries (Notification No. 1127 of the Ministry of Agriculture, Forestry and Fisheries of June 2, 2004; hereinafter referred to as "Notification of Designation by the Minister") shall be limited to drugs used by the prefectural governor or prefectural animal health inspector based on the provisions of the Act on Domestic Animal Infectious Diseases Control, and those used by the order of the prefectural governor or by the instruction of the prefectural animal health inspector shall be excluded.

2. "Disinfectants" mean drugs listed in 1-(a) of the Notification of Designation by the Minister, and include drugs listed in the standards for disinfection specified in Appended Tables 3 and 4 of the Ordinance for Enforcement of the Act on Domestic Animal Infectious Diseases Control and disinfectants containing such drugs and having an effect equivalent to the standards for disinfection. In addition, based on the provisions of Appended Table 2 of the Ordinance for Enforcement of the Act on Domestic Animal Infectious Diseases Control, pharmaceuticals specified in the Pharmaceuticals Designated by the Minister of Agriculture, Forestry and Fisheries and Method of Use Separately Specified (Notification No. 1128 of the Ministry of Agriculture, Forestry and Fisheries of June 2, 2014) shall be limited to those approved under the provisions of the Act on Securing Quality, Efficacy and Safety of Products Including Pharmaceuticals and Medical Devices (Act No. 145 of 1960; hereinafter referred to as the "Pharmaceuticals and Medical Devices Act").
3. "Test drugs" mean drugs listed in 1-(d) of the Notification of Designation by the Minister, and exclude biological preparations for animal use for the purpose of diagnosis of diseases that have undergone an official verification provided in Article 43 of the Pharmaceuticals and Medical Devices Act.
4. "Dipping and medication drugs" mean drugs listed in 1-(b) and (c) of the Notification of Designation by the Minister, and the scope of subsidy under 1-(b) includes drugs used for disinfection in the concerned livestock housing and place of inspection, injection, etc.
5. "Slaughter disposition drugs" mean drugs listed in 1-(e) of the Notification of Designation by the Minister.
6. "Infection prevention drugs" mean drugs listed in 1-(f) of the Notification of Designation by the Minister.
7. For the drug name, enter the product name. For the disinfectant and dipping and medication drug, enter the main ingredient name and method of use in the description column. For the test drug, enter the intended disease name in the description column. For the slaughter disposition drug, enter the intended domestic animal in the description column. For the infection prevention drug, enter the intended disease name in the description column.
8. If drugs required for the project to prevent the outbreak of parasite diseases are used, enter the amount to be borne by the national treasury in brackets in addition to the total required amount in the required amount column, and enter the total amount to be borne by the national treasury in brackets in addition to the total required amount in the sections of subtotal and total.

6. Plan on use (purchase) of biological preparations for animal use

Name of biological preparations for animal use	Use (purchase) plan							Required expenses		Description	
	First half (April to September)		Last half (October to March)		Total			Average amount used per head	Unit price per sales unit (yen)		Amount (yen)
	Number of heads (total)	Amount used (purchased) (bottles, boxes, etc.)	Number of heads (total)	Amount used (purchased) (bottles, boxes, etc.)	Number of heads (total)	Amount used (purchased)					
						Amount used (purchased) (bottles, boxes, etc.)	Capacity per sale (ml, specimen, box, etc.)				
Total											

- (Note) 1. Biological preparations for animal use mean biological preparations for animal use that have undergone an official verification provided in Article 43 of the Pharmaceuticals and Medical Devices Act.
 2. Enter the names of biological preparations for animal use by type (prophylactic solution for live virus, inactivated prophylactic solution, etc.).
 3. In the column of amount used (purchased), enter the quantity according to the sales unit.

7. Plan on the use (purchase or lease) of sanitary materials

Material name	Amount used (purchased)		Unit price per sales unit (yen)	Required amount (yen)	Description
	Quantity	Sales unit (boxes, pieces, units, etc.)			

- (Note) 1. Sanitary materials mean those listed in 2 of the Notification of Designation by the Minister.
 2. In the description column, enter the packaging unit (Unit: pairs, bottles, etc.) of the material, and whether it is purchased or leased.

8. Required expenses

		Travel expenses of prefectural animal health inspectors			Allowance for hired veterinarian			Drug cost				Cost of purchasing biological preparations for animal use	Total expenses
		Number of people (total)	Unit price	Amount	Number of people (total)	Unit price	Amount	Disinfectants	Test drugs	Dipping/ medication drugs	Total		
Inspection projects	Laboratory test	people	yen	yen	people	yen	yen	yen	/	/	yen	/	yen
	Detailed examination												
	Total												
Meeting expenses, etc.													
Injection projects													
Dipping and medication projects													
Projects to prevent the outbreak of parasite diseases	Inspection projects												
	Dipping and medication projects												
	Total												
Total													
Expense burden	National treasury												
	Prefectural expenses												

- (Note) 1. The classification of laboratory test, detailed examination, and injection projects shall be the same as the classification of "4. FY xx implementation plan."
2. Enter all projects related to parasitic diseases in the section of the project to prevent the outbreak of parasite diseases, and do not enter them in other sections.
3. In the amount column, enter the total required amount and the amount to be borne by the national treasury (breakdown) using brackets in the upper part.
4. The classification of drugs, such as disinfectants and test drugs, shall be the same as the classification of "5. Drug use (purchase) plan" and "6. Plan on use (purchase) of biological preparations for animal use."

9. Status of appointment of prefectural animal health inspectors

As of dd/mm/yyyy (Unit: people)

Grand total	Veterinarians															Other than veterinarians		
	Total	Local governments										Private organizations					Private clinic	
		Total	Prefectures							Health center	Municipalities	Other	Total	Agricultural mutual aid association	Agricultural cooperative			Other
			Livestock hygiene	Public health-related	Other	Regional agriculture and forestry offices, etc.	Livestock Hygiene Service Centers	Livestock experiment station	Public Health Institute									
A+B+C+D	A+B+C	A										B				C	D	

- (Note) 1. Agricultural mutual aid organizations mean those who work for an agricultural mutual aid organization, and exclude veterinarians and commissioned veterinarians designated by the organizations.
 2. Part-time staff who are engaged in multiple fields or duties are counted as members of their main duties.

Appended Form 3

Plan on the Change of the Disease control Plan for Domestic Animals (Outbreak Prevention Projects and Spread Prevention Projects)

- 1 Types of domestic animal infectious diseases and animal species
 - 2 Situation of outbreak and control measures
 - 3 Details of control measures (enter the name and period of the movement restriction area, and the name of the area and period for which control measures such as vaccination and spot inspections are implemented.)
 - 4 Reasons why the project needs to be implemented
 - 5 Project plan
- } Not required in case of outbreak prevention projects

(1) Outline of implementation in the project implementation area

Project category	Disease category	Name of implementing municipality	Rearing conditions (animal species)		Volume of projects in the initial plan	Volume of projects in the changed plan	Increase/decrease	Description
			Number of farmers	Number of heads				
			farmers	heads	heads	heads	heads	
			farmers	heads	heads	heads	heads	
			farmers	heads	heads	heads	heads	
			farmers	heads	heads	heads	heads	
			farmers	heads	heads	heads	heads	
			farmers	heads	heads	heads	heads	

- (Note) 1. For the columns of project category and disease category, refer to the table in Appended Form 2-4. However, for disinfection projects of spread prevention projects, add the section of the disinfection projects in the project category and enter the number of implementing farmers in the column of the project volume in the changed plan. For slaughter disposition projects and incineration or burial projects, add the sections of the slaughter disposition projects and incineration or burial projects in the project category and enter the number of heads in the column of project volume in the changed plan.
2. The volume of projects in the initial plan is not necessary in the case of spread prevention projects.

- (2) Change in the project plan on the prevention of domestic animal infectious diseases
Enter the concerned project name and, in two paragraphs, the initial plan and the changed plan (upper row) in the total section of Appended Form 2-4. However, for disinfection of livestock housing, etc., slaughter disposition, and incineration or burial, add the section of disinfection projects, slaughter disposition projects, and incineration or burial projects under the section of the project to prevent the outbreak of parasite diseases in the same table.
- (3) Drug use plan
Enter the concerned drug name and, in two paragraphs, the initial plan and the changed plan (upper row) in the total section of Appended Form 2-5. However, for the plan on the use of disinfectants for disinfection of livestock housing, etc., add the section of disinfectants for livestock housing, etc. under the section of dipping and medication drugs.
- (4) Plan on use of biological preparations for animal use
Enter the name of the concerned biological preparations for animal use and, in two paragraphs, the initial plan and the changed plan (upper row) in the total section of Appended Form 2-6.
- (5) Plan on use of sanitary materials
Enter the concerned materials and, in two paragraphs, the initial plan and the changed plan (upper row) in the total section of Appended Form 2-7.
- (6) Required expenses
Enter, in two paragraphs, the initial plan and the changed plan (upper row) in the concerned section of Appended Form 2-8. However, for purchase of disinfectants for the disinfection of livestock housing, etc., sanitary materials for slaughter disposition, and incineration or burial, add the section of disinfection projects, slaughter disposition projects, and incineration or burial projects under the section of the project to prevent the outbreak of parasite diseases.

6 Other references

Foulbrood test certificate form

B6 size

Prefectures	Issue number	No. xx	Foulbrood test certificate		
Address and name of ownership (administrator)					
Place of inspection		Date of inspection	dd/mm/yyyy		
Number of swarms reared	Number of test groups		Other		
As a result of the foulbrood test, it is proved that there is no abnormality in the honeybees above.					
dd/mm/yyyy			xxxx, (Certifier)		
Name of destination and name of consignee					
Location of shipment (Station or port) name		Destination (Station or port) name		Method and route of transport	
<p>Cautions</p> <p>1 This certificate shall be carried at all times when traveling, and submitted to the prefectural governor or the director of the nearest Livestock Hygiene Service Center immediately upon arrival at the destination.</p> <p>2 This certificate is valid for 30 days from the date of issuance.</p>					

- 1 Notes on the preparation of the form
Enter one of the prefectural governor, the director of Livestock Hygiene Service Center, or a prefectural animal health inspector in the column of xxxx. (Certifier)
- 2 Notes on filling out the form
 - (1) In the column of the place of inspection, enter the location of the apiary where the inspection was conducted. In the column of the number of swarms reared, enter the total number of bee colonies owned (managed) by the owner (manager). In the column of the

number of inspected swarms, enter the number of swarms that received inspection at the place of inspection.

(2) In the other column, enter the issue number of the foulbrood test certificate.

Notice of destination

dd/mm/yyyy

To the director of the competent division for livestock of the prefecture

Animal Quarantine Service (xxxx) branch
(xxxx) liaison office

We have sent imported livestock (animals) as follows. The results of the inspection at the Animal Quarantine Service are as shown in the attachment.

Notice

- 1 Type and variety 1)
 2)
 3)
- 2 Number of heads 1) Male: xx heads, Castration: xx heads, Female: xx heads, Total: heads
 2) Male: xx heads, Castration: xx heads, Female: xx heads, Total: heads
 3) Male: xx heads, Castration: xx heads, Female: xx heads, Total: heads
- 3 Date of sending dd/mm/yyyy
- 4 Country of origin
- 5 Quarantine period From dd/mm/yyyy to dd/mm/yyyy
- 6 Breakdown of destinations

Import quarantine certificate number	Destination	Destination name	Number of heads	Quarantine number	Remarks

- (Note) 1. If additional description is necessary, prepare a separate sheet.
2. For breeding horses, enter the data by sex.

7 Monitored infectious diseases, abnormal findings, etc. detected during the quarantine period and their treatment status

Quarantine number	Individual marking	Name of disease, abnormal findings, etc.	Outcome	Description

- (Note) 1. If additional description is necessary, prepare a separate sheet.
2. For detected diseases, enter the date and method of determination in the description column.

Attachment

Inspection results of imported animals

Quarantine number			
1) Special notes on clinical findings			
2) Results of various inspections			
Disease name	Inspection method and results	Disease name	Inspection method and results
3) Status of implementation of medication, etc. at the Animal Quarantine Service			
Medication name	Date of implementation	Remarks	

(Reference 1) Results of inspections in the exporting country

Disease name	Inspection method and results	Disease name	Inspection method and results

(Reference 2) Status of implementation of medication, etc. in the exporting country

Disease name	Date of implementation	Remarks