

Government Actions to Ensure the Safety of Beef and Other Food

August 29, 2011

The Government of Japan

Table of Contents

- I. The Detection of Radioactive cesium which exceeds the provisional regulation values provided by the Food Sanitation
 - 1. Overview and Background
 - 2. Safety of Beef
 - (1) The Establishment of Regulatory Framework for Food Safety
 - (2) Examples of Factors Affecting the Quantity of Radioactive Materials contained Beef
 - 3. Shipping Restrictions and Surveys on Distribution Channels
 - 4. Temporary Release of Restrictions on the Transfer of Cattle Fed in Fukushima, Miyagi, Iwate and Tochigi Prefecture to Locations in Other Prefectures and Their Shipment to Slaughterhouses
 - (1) Shipping and Examination Policy of Fukushima, Miyagi, Iwate and Tochigi
 - (2) Shipment to Slaughterhouses and guidance to farms giving feed cattle
 - (3) Shipping Plan and Management at shipment destination in each
 - (4) Measures to thoroughly implement appropriate feeding management systems
 - 5. Initiatives to Restore Trust in Japanese Beef
 - (1) Support to Restore Trust in Japanese Beef
 - (2) Measures to Support Livestock Farms
 - (3) Emergency Supply Support for Rice Straw, etc.
 - 6. Pork, Chicken, and Dairy Products
 - 7. Technical Details
 - (1) Surveillance of Distribution and Announcement of Individual Identification Numbers
 - (2) Method of Screening for Radioactive Cesium in Beef
- II. Radioactive Substances Inspection Scheme for Rice

1. Overview and Background

March April July August

3/11 The Great East Japan Earthquake occurred

3/17 Establishment of provisional regulation values for radioactive materials in food

- 3/19 Notification to prefectures in the vicinity of the nuclear station of precautions regarding feed, water, feeding locations, etc.
- 4/14 Notification of the standards for radioactive materials in feed to ensure that produced meat and milk does not exceed the provisional regulation values stipulated in the Food Sanitation Act
- 4/22 Notification of a guideline on the production and uilization of feed for avoiding radioactive contamination of cattle beef and milk
- 7/8-9Radioactive cesium exceeding the provisional regulation values of the Food Sanitation Act was detected in the beef cattle of 11 heads shipped from Minamisoma City, Fukushima Prefecture
- 7/14 Discovery that cattle shipped from Asakawa Town in Fukushima Prefecture were fed rice straw containing a high concentration of radioactive cesium
- 7/19 Shipping restrictions imposed by the Nuclear Emergency Response Headquarters on cattle fed within Fukushima Prefecture
- 7/28 Shipping restrictions imposed on Miyagi Prefecture
- 8/1 Shipping restrictions imposed on Iwate Prefecture
- 8/2 Shipping restrictions imposed on Tochigi Prefecture
- 8/19 Temporary release of restrictions on the transfer of cattle fed in Miyagi prefecture to other prefectures and their shipment to slaughterhouses
- 8/25 Temporary release of restrictions on the transfer of cattle fed in Fukushima, lwate and Tochigi prefecture to other prefectures and their shipment to slaughterhouses

Thorough Guidance on Feeding

The Government has been providing:

- The neighboring prefectures with thorough instruction on the precautions on feed, water and feedlot; and
- Livestock farmers with instruction to keep concentrated feed in an appropriate manner

The causes of the case are:

- Rice straw left in paddy fields after the harvest was contaminated by radioactive nuclides from the TEPCO's Fukushima Daiichi Nuclear Power Plant;
- The rice straw was fed to beef cattle; and
- Radioactive cesium which exceeds the provisional regulation values provided by the Food Sanitation Act was detected in beef.

2. Safety of Beef Cattle

(1) The Establishment of Regulatory Framework for Food Safety

Major regulation values / standards

• In 1984 the International Commission on Radiological Protection (ICRP) set the guidelines for the maximum radiation exposure that a person should receive from all sources at 50mSV/year. ICRP set 5mSV/year as the maximum exposure from all sources. Japan's maximum levels for the safety of the food supply are based on the ICRP values. The Ministry of Health, Labour and Welfare (MHLW) established the provisional regulation for exposure to radio active cesium in food products as 500 Bq/kg. Examples of the similar values from other countries are 1,000 Bq/kg in Singapore and Hong Kong; 1,200 Bq/kg in the U.S.A.; 370 Bq/kg in the Republic of Korea and Taiwan.

Effect of eating 1kg of beef contaminated radioactive cesium

- Context: Remembering that 5mSv/year is the GOJ maximum figure for total radiation exposure, the following equation provides an estimation of the impact on the human body of consuming a kilogram of beef containing 500 Bq (the regulatory maximum) of radioactive cesium (assuming Cesium 134 and 137 are equally mixed):
- $250 \times 1.3 \times 10^{-5} + 250 \times 1.9 \times 10^{-5} = 0.008 \text{ mSy}$
- Using the same equation, but replacing the level of radiological contamination with the worst case identified in Japanese beef the impact is calculated as:
- 2,175×1.3×10⁻⁵+ 2,175×1.9×10⁻⁵=0.07 mSv
- These levels can be compared with the additional radiation exposure associated with a one-way flight from Tokyo to New York, approximately 0.1 mSv.
- Even if food that exceeds the provisional regulation values is consumed on a temporary basis, it does not present real concerns regarding negative effects on human health. However, the GOJ food safety management system is designed to ensure that such consumption does not take place.

(2) Examples of Factors Affecting the Quantity of Radioactive Materials contained Beef

Examples of factors

- Feed (the concentration of radioactive materials, quntity provided and period of time)
- Water (as with feed)
- Feeding locations (outdoors or indoors), etc.

Biological half-life

 Even if radioactive materials are taken in the bodies of the cattle, they are gradually expelled, and their concentration falls through appropriate feeding of uncontaminated feed (in the case of radioactive cesium, the concentration level in the beef cattle falls by half in approximately 60 days)

3. Shipping Restrictions and Surveys on Distribution Channels

As a result of finding beef in commercial distribution with radioactive cesium exceeding the provisional regulation values, and on discovering that contaminated rice straw feed was the source of the problem, the following steps have been taken under the Act on Special Measure Concerning Nuclear Energy Preparations:

- 1. All beef from the prefectures of Fukushima, Miyagi, Iwate and Tochigi has been restricted from entering commercial channels until beef animals and products are proven not to exceed the provisional regulation values. The following measures will have to be followed:
 - a. In Planned Evacuation Zones, Emergency Evacuation Preparation Zones and other specifically designated areas, all cattle will be subject to examination and only those cattle that show levels below the 500 Bg/kg regulation level will be allowed to be marketed.
 - b. In other areas of Fukushima prefecture an examination of all farms will be carried out and samples drawn from every farm. Only those farms that show levels significantly below the regulation value will be approved for entering commerce. Cattle will continue to be subject to regular examinations.
 - c. In Miyagi, Iwate, Tochigi Prefectures all cattle on farms that have had problems with feed management will be examined, and only those radioactive cesium values within the provisional regulation value will be approved for marketing. All other cattle farms in these prefectures will have their farms sampled and tested, and if they show levels below the regulation values, marketing will be approved. These farms will be subject to regular examination hence.
 - d. Other prefectures in Japan have voluntarily decided to institute similar testing regimes for the beef produced in their areas.
- 2. For technical details on testing of beef and herd control see 8. of this presentation

4. Temporary Release of Restrictions on the Transfer of Cattle Fed in Fukushima, Miyagi, Iwate and Tochigi Prefecture to Locations in Other Prefectures and Their Shipment to Slaughterhouses

Temporary Release of Restrictions on the Transfer of Cattle Fed in Miyagi Prefecture to Locations in Other Prefectures and Their Shipment to Slaughterhouses (Miyagi (Aug 19), Fukushima, Iwate, Tochigi (Aug 25))

These measures based on establishment of safety management systems (appropriate cattle feeding management systems and blanket examinations) and ensuring proper shipment management:

- Each prefecture will responsibly manage measures to thoroughly implement appropriate feeding management systems and ensure that contaminated rice straw is no longer used and is isolated.
- □ Cattle farms that fed contaminated rice straw or cattle farms that are not conducting on-site inspections of contaminated rice straw etc., will be subject to blanket examinations.
- □ Cattle farms other than those subject to the blanket examinations must test at least one of the cows included in the first shipment.

- Only safe beef is being shipped, based on the current system we have implemented.
- We are doing everything we can to track down and reclaim all beef that is potentially contaminated and that has already been shipped using traceability.

4. (1) Shipping and Examination Policy of Fukushima, Miyagi, Iwate and Tochigi

Miyagi, Iwate, Tochigi

- Cattle farms for which proper feeding management was not confirmed.
- Cattle farms where examination results exceed provisional regulation values.
- Cattle farms that are not conducting on-site inspections of rice straw contaminated with radioactive cesium.

Fukushima

- 1. Cattle farms located in Planned Evacuation Zones and Emergency Evacuation Preparation Zones.
- 2. Cattle farms for which proper feeding management was not confirmed
- 3. Cattle farms where examination results exceed provisional regulation values

Farms subject to blanket examinations

- 1. Excluding the case described in 2. below, all cattle shall be shipped to Sendai Central Wholesale Meat Market or Miyagi Meat Market Co., Ltd. where all cattle will be examined.
- 2. The shipment of cattle to slaughterhouses outside of Miyagi Prefecture will be permitted in the case that another local government conducts an examination on all cattle, or in the case that the cooperation of another local government is acquired in sampling the cattle before Miyagi Prefecture examines all of the cattle.

Cattle farms not subject to blanket examinations

Farms subject to comprehensive farm examinations

- Cattle of farms subject to comprehensive farm examinations shall be shipped to Sendai Central Wholesale Meat Market or Miyagi Meat Market Co., Ltd. where an examination will be conducted for each farm.*
- 2. Cattle used at farms that have completed comprehensive farm examinations are permitted for shipment to slaughterhouses. Blanket examinations shall be conducted in the following two cases:
 - Cattle has eaten contaminated rice straw and been transferred to a farm that has completed a comprehensive farm examination.
 - (2) Cattle that was transferred from within the 20-kilometer range of Fukushima Daiichi Nuclear Power Station following the accident
- 3. In order to restore credibility in Miyagi beef, including "Sendai beef," Miyagi Prefecture shall cooperate in having examinations carried out for radioactive materials on all cattle fed at farms that have completed comprehensive farm examinations, in addition to examinations conducted for each farm.
- *An examination for radioactive materials carried out on one or more cattle designated by Miyagi Prefecture for each farm.

- Cattle of farms subject to comprehensive farm examinations shall be shipped to Fukushima Meat Distribution Center where an examination will be conducted for each farm.*
- Cattle used at farms that have completed comprehensive farm examinations are permitted for shipment to slaughterhouses. Blanket examinations shall be conducted in the following two cases:
 - Cattle has eaten contaminated rice straw and been transferred to a farm that has completed a comprehensive farm examination.
 - (2) Cattle that was transferred from within the 20-kilometer range of Fukushima Daiichi Nuclear Power Station following the accident
 - (3) Cattle that was transferred from Planned Evacuation Zones and Emergency Evacuation Preparation Zones to outside of these zones, and for which proper feeding management was not confirmed.

4 (2) Shipment to Slaughterhouses and guidance to farms giving feed cattle

Miyagi, Iwate, Tochigi

Fukushima

Shipment to slaughterhou ses in other prefectures

- Miyagi Prefecture shall provide prior notification to local governments outside of Miyagi Prefecture with jurisdiction over slaughterhouses concerning the farm cattle were fed at, the planned shipment date, the slaughterhouse where cattle are to be shipped, the number of cattle to be shipped, and the individual identification numbers of cattle to be shipped.
- > The local governments shall be requested to notify Miyagi Prefecture in the event cattle are shipped to slaughterhouses for which prior notification was not received.
- In the event that cattle that were fed at farms subject to blanket examinations are found are included, Miyagi Prefecture will identify the individual identification number of the cattle in question, and request the local government to cooperate in carrying out an examination for radioactive substances on all of these cattle, ensuring proper management at the slaughterhouse, and notifying the results of the examination to Miyagi Prefecture.
- Miyagi Prefecture will hold prior discussions with the local government that has jurisdiction over the slaughterhouse in a comprehensive manner regarding the details of such requests.

Guidance to farms giving feed to cattle

> Strengthening of guidance systems

- : In cooperation with related institutions, etc., Miyagi Prefecture will implement regular on-site examinations of farms giving feed to cattle, and provide them with guidance to ensure that they are continuing to implement appropriate feeding management
- > Thorough provision of information and the sharing of information about shipping and examination systems
- : The "Miyagi Prefecture Beef Cattle Shipping Plan Adjustment Council" will be established to carry out the thorough provision of information about the new shipping and examination systems, and provide guidance to ensure that proper examination systems are being developed and implemented. This Council will aim to share and publicize all forms of information provided by the national government, etc.

> Provision of information

: In cooperation with related institutions, etc., Miyagi Prefecture will provide timely and accurate information such as examination results to consumers and distributors, and will publicize the fact that there is no problem with the beef available on the market in terms of the Food Sanitation Act

Strengthening of guidance systems

: In cooperation with related institutions, etc., Fukushima Prefecture will implement regular on-site examinations of farms giving feed to cattle, and provide them with guidance to ensure that they are continuing to implement appropriate feeding management . Focused guidance will be provided, especially to Planned Evacuation Zones and Emergency Evacuation Preparation Zones.

> Thorough provision of information about shipping and examination systems

:In cooperation with related institutions and groups, etc., Fukushima Prefecture will carry out the thorough provision of information about the new shipping and examination systems, and provide guidance to ensure that proper examination systems are being developed and implemented for cattle farmers.

> Sharing of information

: Fukushima Prefecture will establish a liaison council with related institutions, etc. and ensure the thorough sharing of information as well as provision of information and guidance to livestock farms. Also, it will provide timely and accurate information such as examination results to consumers and distributors, and will publicize the fact that there is no problem with the beef available on the market in terms of the Food Sanitation Act.

4. (3) Shipping Plan and Management at shipment destination in each

Shipping plan

- > Miyagi Prefecture is creating a ledger including the following information for each farmer giving feed to cattle, and updates it every time there is a change
 - (1) Whether it is a farm subject to blanket examination, a farm subject to comprehensive farm examination, or a farm that has completed comprehensive farm examination.
 - (2) Whether the farm has fed (i) cattle that ate contaminated rice straw and were transferred to farms that have completed comprehensive farm examinations, and /or (ii) cattle that were transferred from within the 20-kilometer range of Fukushima Daiichi Nuclear Power Station after the accident this information includes the cattle's individual identification numbers.
- In order to ensure that examinations of radioactive materials are carried out smoothly, for each planned shipping date, the ledger stipulates the slaughter house from which the cattle are shipped, the farms giving feed to cattle being shipped, the cattle shipped, the place of examination, etc.
- > The "Miyagi Prefecture Beef Cattle Shipping Plan Adjustment Council" (comprised of Miyagi Prefecture and related organizations, etc.) finalize draft shipping plans (created by producers' organizations, etc.)
- A feasible plan is stipulated, taking into account the slaughtering capacity of the Sendai Central Wholesale Meat Market and Miyagi Meat Market Co., Ltd., the examination capability of the examination institutions that Miyagi Prefecture has asked to perform surveys of radioactive materials, and the status of acceptance of cattle that have been shipped to slaughterhouses outside Miyagi Prefecture

Confirmation of Accepted Cattle

For each head of cattle accepted, the Sendai Central Wholesale Meat Market and Miyagi Meat Market Co., Ltd., will confirm sources of the shipped cattle, check the shipping plan, and report the findings to Miyagi Prefecture.

Storage and Management of Carcass and Internal Organs, etc.

Management, etc. at shipment destination in each prefecture

- Measures for **ensuring distinct grouping** between the cattle subject to be tested for radioactive materials and others (management according to the order of slaughtering and marking signs on the carcass, etc.)
- > Test samples will be collected by people designated by slaughterhouse staff or Miyagi Prefecture under the supervision and guidance of Sendai City officials at the Sendai Central Wholesale Meat Market and Miyagi Prefecture officials at Miyagi Meat Market Co., Ltd.
- ➤ Until test results are ready, cattle carcasses and internal organs, etc., provided for testing will be **stored and managed** at the Sendai Central Wholesale Meat Market and Miyagi Meat Market Co., Ltd., and other locations designated by Miyagi Prefecture that assure safe management.
- ▶ If test results show radiation levels above the provisional regulation values, Sendai City officials, Miyagi Prefecture officials and those designated by Miyagi Prefecture will verify the test findings with the actual cattle based on group identification numbers, etc., and ensure that the cattle are not distributed.

Issuance of Test Results Notificatio ns

- "Notification of Radiation Test Results for Beef": Issued for beef taken from cattle which had radiation readings below the provisional regulation values
- Notification which identifies that a farm has tested all of its cattle*
 - : Notification issued by Miyagi Prefecture with an expiration date. For (1) farms that cultivate cattle which had eaten contaminated rice straw before being shipped to the farm and which have tested all of their cattle and (2) farms which raise cattle shipped from within the 20-km radius zone of the Fukushima Daiichi Nuclear Power Station following the nuclear incident and which have tested all of their cattle, the notification notes that the farms raise cattle and indicates the group identification numbers of the cattle. Farms that have tested all of their cattle can make shipments by enclosing a copy of the said notification.
- * Of the farms that must have all of their cattle tested, this section refers to those for which the tests conducted for each farm yielded radioactive cesium readings below 50Bq/kg. Furthermore, no more than three months may have passed since the date the test findings were obtained.

4. (4) Measures to thoroughly implement appropriate feeding management systems

Miyagi, Iwate, Tochigi

Disposal, etc. of contaminated rice straw: Miyagi Prefecture will take responsibility for managing the implementation of measures (1) to (4)

- (1) In order to determine the appropriate treatment method at the time of disposal, examinations of radioactive materials will be implimented while cooperating and consulting with the concerned municipalities, etc., regarding storage location and the disposal method
- (2) Regarding contaminated rice straw that is in excess of the provisional regulation values, a "Contaminated Rice Straw Proper Management Checklist" will be created (recording the remaining amount, the results of the measurement of the volume of radioactivity, the storage location, etc., for each farm), and verification will be made on whether appropriate storage is regularly implemented throughout the period leading up to disposal
- (3) In places distant from livestock barns and human residences, colored sprays, etc., will be applied to contaminated rice straw, and the straw shall be covered using blue plastic sheet, etc.
- (4) Contaminated rice straw shall be disposed of as quickly as possible, and after it is verified that the straw has been disposed of, a record shall be made of this fact in the Contaminated Rice Straw Proper Management Checklist
- > Strengthening of feeding management guidance systems: Regular interviews and on-site surveys of farms giving feed to cattle shall be implimented
- Providing information to livestock farmers: Miyagi Prefecture shall distribute a feeding management manual regarding the rapid changes to feeding management arising from shipping restrictions, etc.
- Strengthening of guidance for rice straw distributors, etc.: The implementation of interviews and on-site surveys shall be continued

Fukushima

- ➤ **Disposal**, etc. of contaminated rice straw: Miyagi Prefecture will take responsibility for managing the implementation of measures (1) to (3)
 - (1) Regarding contaminated rice straw that is in excess of the provisional regulation values, a "Contaminated Rice Straw Proper Management Checklist" will be created (recording the remaining amount, the results of the measurement of the volume of radioactivity, the storage location, etc., for each farm), and verification will be made on whether appropriate storage is regularly implemented throughout the period leading up to disposal
 - (2) In places distant from livestock barns and human residences, colored sprays, etc., will be applied to contaminated rice straw, and the straw shall be covered using blue plastic sheet, etc.
 - (3) Contaminated rice straw shall be disposed of as quickly as possible, and after it is verified that the straw has been disposed of, a record shall be made of this fact in the Contaminated Rice Straw Proper Management Checklist
- ➤ Continuation of feed situation confirmation examinations*:

 Fukushima Prefecture will regularly conduct feed situation confirmation
 examinations, and thereby, confirm feeding management systems are appropriate.
 Pace: Farms subject to blanket examinations-each time shipment is made to
 slaughterhouses; Farms subject to comprehensive farm examinations-time of first
 shipment and every 3 months thereafter
 - * Inquiries into feeding situation and feed management, etc.; radiation measurements of feed, water, cattle bedding materials, etc.; if the above contain radiation amounts exceeding a certain value, samples will be taken and tested for radioactive substances

Guidance based on examination findings:

- For farms deemed to have appropriate feeding management, a confirmation document to this effect will be issued which approves shipments to slaughterhouses within three months from the examination date.
- 2) For farms confirmed to have inappropriate feeding management, management guidance will be provided to rectify the situation and shipments to slaughterhouses will not be approved until improvements in feeding management are confirmed.

> Other

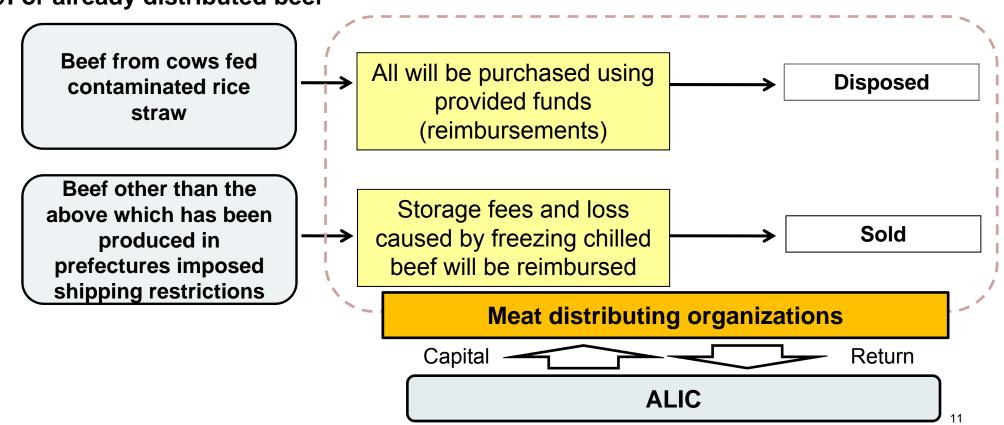
- Guidance for Fukushima Meat Distribution Center to ensure that cattle shipped from farms that have not submitted a copy of the feed situation confirmation examination is not slaughtered.
- 2) Guidance for cattle farms to ensure the cleaning of the bodies of cattle 10

Measures to thoroughly implement appropriate feeding management systems

5. Initiatives to Restore Trust in Japanese Beef

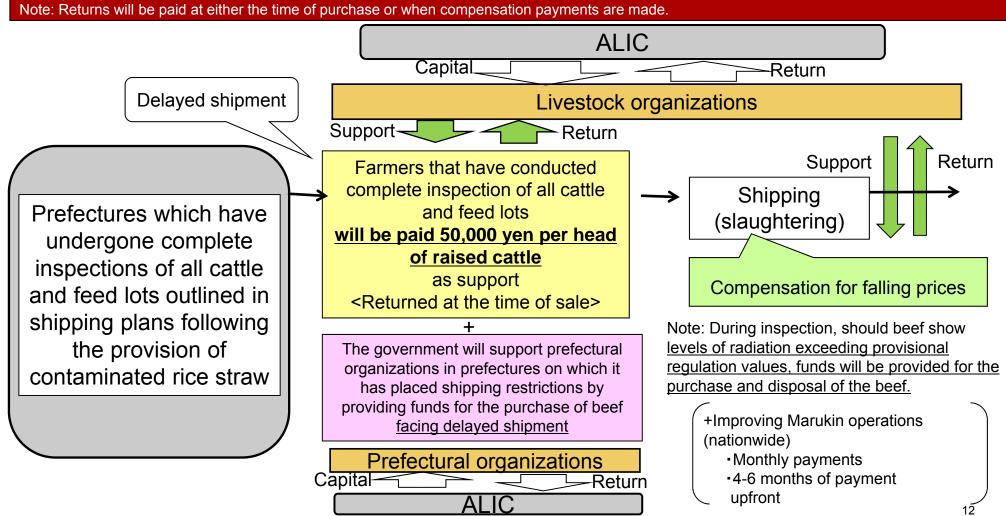
- (1) Support to Restore Trust in Japanese Beef
- In order to restore consumer confidence, meat distributing organizations will provide funds for the purchase of beef from cows that may have been fed rice straw with radiation levels exceeding provisional regulation values (as a reimbursement) and dispose of the beef.
- Also, the government will reimburse storage fees etc., for beef at distribution level produced in prefectures imposed shipping restrictions.
- Note: Returns will be paid at either the time of purchase or when compensation payments are made.

OFor already distributed beef



(2) Measures to Support Livestock Farms

- •For livestock farms in prefectures where contaminated rice straw was fed to cattle and where complete inspections of all cattle and feed lots were carried out, livestock organizations will pay support of 50,000 yen per head of cattle.
- ·Livestock organizations will also pay support to compensate for falling beef prices.
- •Within prefectures facing shipping restrictions, the Government will support prefectural organizations by providing funds for the purchase of beef facing delayed shipment.



(3) Emergency Supply Support for Rice Straw, etc.

 Producer's unions will supply replacement feed to those livestock farmers running low on rice straw and grass. Livestock **Distributor of** farmer feed **Payment** (reimbursement) Request supply Producer's unions Capital Return **ALIC**

Rice straw (17 prefectures): Hokkaido, Aomori, Iwate, Miyagi, Akita, Yamagata, Fukushima, Ibaraki, Tochigi, Gunma, Saitama, Chiba, Shizuoka, Niigata, Gifu, Mie, Shimane

6. Pork, Chicken and Dairy Products

Differences in digestive organs

Because the pigs and chickens have different digestive organs from cattle, they cannot digest rice straw and pastures. Rice straw has been the vector for problem below.

Pork Chicken

> Feed

Grains and its by-products are fed and rice straw is not fed to pigs and chickens. (Please refer to http://www.maff.go.jp/i/syouan/pdf/12.pdf)

> Test Results

Until now, nothing has been found to contain radioactive cesium which exceeds the provisional regulation values stipulated in the Food Sanitation Act from tested pork and chicken.

(Please refer to http://www.maff.go.jp/e/seisan/meat inspection/index.html)

Dairy Product

There has been no cases since March 24 that shipping restrictions imposed on Fukushima and Ibaraki Prefecture

(As of August 18. Please refer to http://www.mhlw.go.jp/stf/houdou/2r9852000001ceoratt/2r9852000001cest.pdf)

8. Technical Details

(1) Surveillance of Distribution and Announcement of Individual Identification Numbers

Attach ear labels

• Ear labels with 10 digit UID numbers are attached to all cattle born in and imported into Japan.

Create cattle

• Along with the gender and classification (Japanese Black Cattle etc.) of the cattle, information (geographic data etc.) from birth to for beef cattle is recorded on the database under UID numbers.

Record and display ID number

• After the cattle is slaughtered, the UID numbers are displayed by the distributors etc. handling the meat during its processing and distribution stage from carcass, sub primal, into dressed meat, and it will be recorded in books and be stored by the customers purchasing from buyers.

Tracking Enabled • Tracking and retroaction from birth to consumer is possible, in other words, the record of production and distribution information is traceable. -->Tracking of the cattle's production history is possible on the internet using the UID numbers on the beef purchased.

measures

- MHLW has requested local municipalities concerned to review the distribution route and secure the samples of beef that may have been fed rice straw contaminated by radioactive substances which exceeds the provisional regulation values.
- The government is taking actions to put testing system in place and to announce UID numbers.
 - The government has taken measures to immediately recall contaminated beef if it is found to contain radioactive substances which exceed the provisional regulation values through tests by the municipalities.

(2) Method of Screening for Radioactive Cesium in Beef

Main Points

The "Manual for Measuring Radioactivity of Foods in Case of Emergency (*)" stipulates a nuclide analysis technique involving gamma-ray spectrometry using a germanium semiconductor

*Carry out monitoring in compliance with this manual using the index values published by the Nuclear Safety Commission as the provisional regulation values

Nuclide analysis method

Performance for efficiently examining a large number of specimens is limited

- The number of instruments is limited
- > The number of specimens thought to be necessary is relatively great

rpose and intent

The purpose is to determine beef samples with reliably lower radioactive cesium concentrations than the provisional regulation values

- Particular analytical instruments are not stipulated
- For samples for which the screening results do not reliably show a lower level of radioactive cesium than the provisional regulation values, finalize the examination results with the gamma-ray spectrometry using a germanium semiconductor stipulated in the emergency manual

Method of screening

Analysis target: radioactive cesium 134,137

Target food: the meat from cattle

Analytical metho

Background value: this is the value that can guarantee the following measured lower limit. The background value shall be the value when the same amount of water is put into the same container as the specimen. However, in the case that the shielding is sufficient the measured value in a blank state can also be used as the background

Measured lower limit: is 50Bq/kg or less

Trueness (adjusted): composed using the appropriate standard radiation source

Screening level: less than half the regulation value. The upper limit of the 99% confidence interval of the measured value in the screening level is less than the measured value obtained with the regulation value level

II. Radioactive Substances Inspection Scheme for Rice

No care needed in purchasing newly harvested rice

Safety is confirmed for the newly harvested rice produced this year and the rice is brought to the consumers after conducting radioactive substances inspection.

Radioactive substances inspection scheme for rice

Rice planting is restricted in areas with high concentration of radioactive cesium in the soil.

The planting restriction for rice has been implemented in April 2011, so that the radioactive cesium concentration of rice produced this year will remain below the provisional regulation values (500Bq/kg) provided by the Food Sanitation Act.

*Because the degree of the radioactive cesium transferring to brown rice from paddy soil is 0.1, rice planting is restricted in area with the cesium concentration in the soil is above 5,000Bg/kg

Two phases of inspection (before and after harvesting) will be conducted based on the results of soil surveys.

In cities and villages mainly in Tohoku and Kanto region, where the radioactive cesium concentration in soil or atmospheric radiation dosage level is high (above 1000Bq/kg or 0.1µSv/h), the following two phases of inspection shall be conducted.

- 1) <u>Preliminary inspection</u> (check the concentration level of radioactive substances before harvesting)
- 2) <u>Main inspection(measure the concentration of radioactive substances after harvesting to decide whether shipment restriction is necessary)</u>

All the rice produced in the area exceeding the regulation values of the radioactive cesium concentration will be disposed.

The rice produced in the area will be subject to shipment restriction and be disposed entirely if the radioactive cesium concentration in brown rice is found to be above the regulation values (500Bq/kg) from the inspection.

The rice sold in the market is safe