Relationship between Risk Analysis, Crisis Management and Food recall and Traceability

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   Chemical poisoning by imported frozen pork dumplings
1. Risk Analysis
Components of risk analysis for food safety

• Risk Assessment
• Risk Management
• Risk Communication
Risk Assessment

• A scientifically based process consisting of the following steps:
  – Hazard Identification
  – Hazard Characterization
  – Exposure Assessment
  – Risk Characterization

• Conducted by independent scientific bodies
Risk Management

• The process, distinct from risk assessment, of weighing policy alternatives, in consultation with all interested parties, considering risk assessment and other factors relevant for the health protection of consumers and for the promotion of fair trade practices, and, if needed, selecting appropriate prevention and control options.
1. Risk Analysis

Risk Communication

• The interactive exchange of information and opinions throughout the risk analysis process concerning risk, risk-related factors and risk perceptions, among risk assessors, risk managers, consumers, industry, the academic community and other interested parties, including the explanation of risk assessment findings and the basis of risk management decisions.
2. Emergency/Crisis Management
Definition of food safety emergency/crisis in Japan

A situation where there is/may be significant foodborne risk to public health that requires urgent action to ensure the food safety. Specifically, the incident causes large-scale and/or wide spread damage.

Definition of “emergency/crisis” in “MAFF Basic Principle for Food Safety Emergency Response”
2. Emergency/Crisis Management

“Emergency/Crisis” or not? (1/2)

• Pesticide residue is detected in a vegetable sold in Japan

→ **No.**
  • Intake of the vegetable doesn’t cause any adverse health effect, even if the vegetable contains the pesticide exceeding the MRL

→ **Yes. If the consumer’s intake of pesticide exceeds ARfD**
  • Intake of the pesticide should be compared to ARfD
  • Data on pesticide level and food consumption is needed to estimate pesticide intake

**ARfD (Acute Reference Dose):** An estimate of the amount of a substance that can be ingested in a period of 24 h or less without appreciable health risks
“Emergency/Crisis” or not? (2/2)

• Food products are intentionally and heavily contaminated with a poisonous substance

→ Yes.

• Emergency/crisis response is required to protect consumers from the poisonous substance
• Suspend the distribution and provide the information to consumers immediately
• Cooperation with the police department may also be needed
3. Relation between Risk Management & Crisis Management

**Risk Management (RM) and Crisis Management (CM)**

- **Business as usual**
  - **RM**
  - **CM**

- **Occurrence of incidents**
  - Preventive RM options
  - CM options against damage expansion

- **Identifying the cause**

- **Collect, analyze and communicate information**
  - Prevention of reoccurrence

**Steps:**

1. Preliminary risk management activities
2. Preventive RM options
3. CM options against damage expansion
4. During emergency/crisis
5. Identifying the cause
6. Prevention of reoccurrence
3. Relation between Risk Management & Crisis Management

**Risk management or emergency/crisis management?**

① Change the irrigation system of rice paddies to reduce cadmium level in rice
② Set screens or nets on poultry houses to prevent the invasion of wild birds infected with avian influenza
③ Recall products in question in the wake of the detection of high-level pesticide in imported pork dumplings
④ Suspend the supply of an agricultural produce immediately after the detection of pesticide residue exceeding the MRL
3. Relation between Risk Management & Crisis Management

**Risk management or emergency/crisis management?**

1. Change the irrigation system of rice paddies to reduce cadmium level in rice
2. Set screens or nets on poultry houses to prevent the invasion of wild birds infected with avian influenza
3. Recall products in question in the wake of the detection of high-level pesticide in imported pork dumplings
4. Suspend the supply of an agricultural produce immediately after the detection of pesticide residue exceeding the MRL
4. Japanese Administrative Organizations
Japanese Administrative Organizations

Japanese administrative organizations in charge of food safety

Cabinet Office

CAA

Coordination of RC

Conclusion of RA Recommendation

MAFF

Risk Management

FSC

Risk Assessment (RA)

Commission for RA

Conclusion of RA Recommendation

MHLW

Risk Management

Consumers, Producers, Manufactures, etc.

Risk Communication (RC)
Roles of MAFF and MHLW on food safety

Food Chain

Primary production
- Farm
- Agricultural, Forestry and Fishery Product

Processing, Distribution
- Processed food
- Consumer

MAFF (recommendation)
- Improvement of production/processing methods of domestically produced food, etc.

MAFF (enforcement)
- Fertilizer, Feed, Veterinary drug, the use of pesticide

MHLW (enforcement)
- Setting MRLs, Food Inspection, etc.

MHLW (enforcement)
- Import quarantine

Exporting Country
- Cooperation
MAFF’s approach for food safety emergency/crisis

Objective (mission)
- Protect consumers’ health
- Ensure stable food supply

Goal
- Minimize the damage and avoid the worst case
- Avoid panic and eliminate consumers’ concern on the food

Action
① Identify the cause immediately
② Cooperate with MHLW for speedy recall of unsafe food products
③ Ensure reliable food supplies

Traceability!
5. MAFF’s Approach

**Readiness for emergency/crisis**

- We don’t know when, where and how emergency/crisis happens before it really takes place
  - Preparedness is essential for an appropriate response
- Quick response is crucial
5. MAFF’s Approach

Preparedness toward food safety emergency/crisis

1. Multi-agency coordination
   Identify contact points for prompt communication and decision making

2. Establishment of principle and guideline
   Develop emergency response plan

3. Tabletop training
   Identify problems and take remedial measures e.g. revise guidelines or manuals
5. MAFF’s Approach

Preparedness toward food safety emergency/crisis

• 1. Multi-agency coordination

MAFF

Headquarter (Tokyo)

Regional branches

Local governments

FSC

MHLW

ME

CAA
Preparedness toward food safety emergency/crisis

2. Establishment of principle and guideline

- Create guideline(s) and manual(s) etc.
  - “MAFF Basic Principle for Food Safety Emergency Response”
  - Manual for hazard (e.g. pesticide, environmental pollutant)
  - Manual for regional branches
- Review as necessary
5. MAFF’s Approach

Preparedness toward food safety emergency/crisis

3. Tabletop training

- Training to review the manuals
- Training to enhance communication between involved agencies
- Training for regional branches to make emergency checkout patrol plan
- Training for a press briefing
2. Emergency/Crisis Management

Emergency/Crisis Communication

MAFF, Local government → via Website → Meeting with consumers → Consumers

Press Release
Press Briefing

EMERGENCY

Rapid & Massive

Mass Media
TV, Radio etc.
6. Food Recall and Traceability
Food recall

• “The action to remove food from the market at any stage of the food chain, including that possessed by consumers”.

### Related laws and guidelines

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<tr>
<th><strong>MHLW</strong></th>
<th><strong>MAFF</strong></th>
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<tbody>
<tr>
<td><strong>Chapter II. Food and Food additives</strong></td>
<td><strong>Section 3. Measures taken on emergency</strong></td>
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<tr>
<td>Article 6-11 (excerpt). Food and food additives that suspected to be so, and <strong>involve a risk to human health shall not be sold.</strong></td>
<td>Article 2. Measures to suspend supply the food in question to the consumers</td>
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<tr>
<td>Article 54 (excerpt). The Minister of Health, Labour and Welfare or a prefectural governor <strong>may order disposal of the food.</strong></td>
<td>2.1. In case of emergency, MHLW normally orders suspension and recall. Additionally, <strong>MAFF will actively corporate with MHLW for effective and appropriate implementation of these measures.</strong></td>
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*Food Sanitation Law of Japan*

*MAFF Basic Principles for Food Safety Emergency Response*
Traceability

- Traceability or product tracing is defined by the Codex Alimentarius Commission as “the ability to follow the movement of a food through specified stage(s) of production, processing and distribution”.

- In Japan, the Law for Keeping Transaction Record and Relaying Place of Origin Information of Rice and Rice Products and the Law for Special Measures Concerning the Management and Relay of Information for Individual Identification of Cattle have been implemented.
**Law for Keeping Transaction Record and Relaying Place of Origin Information of Rice and Rice Products**

- **Aim:** To prevent distribution of rice and rice products that do not meet the safety standard and to ensure proper labelling and thereby to secure proper and smooth distribution of those products as well as to promote providing information about place of origin of covered products.

- **Outline:** All domestic rice dealers, food processors who produce rice products, and rice farmers shall keep transaction records such as:
  a. product name, quantity, date, name of buyer/seller;
  b. information necessary for identifying the linkage between purchased product(s) and sold product(s).

- **Products covered:** Rice and rice products
6. Food Recall and Traceability

Food recall and Traceability

Food Chain

Primary production

Processing, Distribution

A problem occurs at this point

Traceability

Record the path of a food product or an ingredient in a food product. Include: Identification, information, and linkage.

Food recall

Intentional removal of a product from the market when there are reasons to believe it may be a potential hazard for the consumer.

Day-to-day efforts maintaining the system is essential!
7. Case Study: Chemical poisoning by imported frozen pork dumplings
7. Case Study

Summary of the incident

- 10 people in 2 prefectures who ate imported frozen pork dumplings showed poisoning symptoms caused by organophosphate (Some of the patients were hospitalized)

- High concentration of methamidophos (organophosphorous pesticide) was detected in the dumplings
7. Case Study

**Actions taken by MHLW and MAFF**

**MHLW**
- Via local governments, request and encourage food handlers to stop distributing the food products processed in the factory which manufactured the poisonous dumplings

**MAFF**
- Inform food handlers not to distribute the food products subject to recall
- Set up Inquiry counter at “Consumers’ Room” of MAFF and its Regional Offices
- Emergency checkout patrol to ensure the removal of the recalled food products
Points to be remembered

• Preparation on a routine basis is a key to successful management in emergency/crisis!
  ✓ The pork dumpling incident occurred a few months after a tabletop training
  ✓ Emergency checkout patrol was smoothly conducted

**Be prepared and have no regrets!**

- Risk based approach should be taken toward food safety emergency/crisis
  - Tabletop training on the third day of the Workshop is going to cover this topic
Thank you very much!

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