Food Safety Risk Communication

May 28, 2015

Planning Committee, Food Safety Commission of Japan

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#### Introduction

More than 10 years have passed since the Food Safety Commission of Japan (FSCJ) was established in 2003 а risk assessment as agency. During this decade, the FSCJ conducted over 1,800 risk assessments, assessments of potential effects of food on human health. The FSCJ also has been working on promotion of risk communication by providing information through various methods, such as organizing public meetings, dispatching lecturers, publishing quarterly journals and delivering mail magazines, for hazards of significant social impact such as BSE and radioactive substances and basic knowledge related to food safety.

Many authorities in Japan as well as overseas have studied and published better approaches to food safety risk communication. The FSCJ published "Present Status and Issues in Food Safety Risk Communication" in 2004, and "Toward Improvement of Food Safety Risk Communication" in 2006. In Japan, risk management authorities such as the Ministry of Health, Labour and Welfare (MHLW) and the Ministry of Agriculture, Forestry and Fisheries (MAFF), also published reports and handbooks on risk communication. Overseas, the Codex Alimentarius Commission (CAC)<sup>1</sup>, the European Food Safety Authority (EFSA) and the U.S. Food and Drug Administration (FDA) did the same<sup>2</sup>.

Considering the situation surrounding food safety risk communication in Japan, it is hard to say that the concept of risk analysis has been accurately appreciated and established. For example, there existed situations where consumers were swayed by information not supported by scientific basis, and meetings organized with intent to mutually exchange information and opinions became a place of onedirection claims or of one-sided assertions. This could be because only 10 years have passed since a concept of risk analysis consisting of three components, namely risk assessment, risk management and risk communication, was introduced into the food safety administration in Japan.

Therefore, in December 2014 the Expert Committee for Planning of the FSCJ decided to establish a working group with an objective of promoting more appropriate and effective risk communication strategy. The working group developed a report based on its discussion.

<sup>&</sup>lt;sup>1</sup> International organization established by the FAO (the Food and Agriculture Organization of the United Nations) and WHO (the World Health Organization).

<sup>&</sup>lt;sup>2</sup> Appendix 3, Documents on Risk Communication Created by Overseas Authorities

Given the concept that risk analysis is intended to prevent damage to human health, crisis communication implemented immediately after the occurrence of health-related crisis is not included in the discussion of the present report, but briefly addressed in Appendix I.

It is expected that the present report would be widely utilized by the FSCJ as well as by other administrative authorities and stakeholders engaged in food safety to promote various types of risk communication since it is a reference material compiling the basic principles of risk communication based on experiences and practices up until now.

#### 1. What is risk communication?

Risk communication is one of the three key components of risk analysis, the others being risk assessment and risk management.

The Codex Alimentarius Commission (CAC) defines risk communication as "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."

More plainly, risk communication is the exchange of information and opinions concerning risk and risk-related factors among relevant authorities and stakeholder groups. Through the process it strengthens mutual understanding among the various groups to establish trust and confidence. Risk communication process widely ranges from stakeholder dialogues through public meetings to dissemination of a wide variety of information through various communication channels.

The goal of risk communication is to promote stakeholder engagement activities which involve "communication, cooperation and collaboration", and does not use the persuasion strategy. It reflects a philosophy or thought of civil rights and democracy that citizens should participate in decision making as stakeholders.

#### 2. Issues identified for risk communication practices in the past

Risk communication practices have been conducted so far for example, as exchange of information and opinions among stakeholders including government, local governments, food related industry, consumers, scientists and the media, dissemination of information through channels including website and responding to inquiries via telephone helplines. However, some of these practices have lost substance, resulting in one-sided provision of information from risk managers all the time while risk communication should be interactive. Risk communication includes various types of approaches and activities, and ones to be used should be selected according to its objectives. There are, however, cases in which the objective is unclear and where an inappropriate method is employed. Sometimes flooding of information not supported by sufficient scientific evidence makes consumers confused.

The current situation mentioned above might be due to the fact that the concept of risk analysis, which based on scientific evidence, is not widely disseminated among risk communicators and target audience.

### 3. Risks in Food

The term "risk" is different from "hazard", and used in reference to potential damage or loss. Risk refers to the possibility or probability of loss or hazard and its severity, and is generally difficult to understand because it is a probabilistic phenomenon.

### (1) Characteristics of food

When considering risks in food, it is necessary to keep in mind the following characteristics of food.

- Food, except nonessential grocery items, supplies various nutrients to human body, and is essential for its survival.
- Many people associated with production and import of raw materials, processing, distribution and so on are involved in the process that supplies food to consumers, which makes it difficult for consumers to comprehend the process.
- Different dietary habits and food cultures among nations and regions raise a variance in the amount of intake of specific foods, therefore a finding that a particular food has a potential health problem in other nations may not be relevant in Japan.
- If active ingredients extracted from conventional food with a long history of consumption are ingested in a form of tablets or the like, there is a possibility of the excessive intake of the active ingredients.
- Chemical reactions occurring during ordinal cooking or processing may produce new substances.
- Progress in science and technology, such as analytical chemistry, and advance of research study may reveal new food hazards.

• Not all the food components and their health effects have been scientifically elucidated.

(2) How is risk in food perceived?

While a report published by WHO/FAO in 1988 states that a safe food does not mean a food of zero risk, the general perception of risk in food has been subjectified and people tend to deem that risk in food should be zero.

Furthermore, risks from use of artificial substances, such as food additives and agricultural chemicals, tend to be overly concerned, while risks from naturally occurring substances such as solanine in potatoes are underrated. In addition, there are certain gaps in perception of risks in food between experts and laypersons.

Such tendency is probably due to the fact that in risk judgement of daily life activities as far as two human thinking systems, namely "analytical system" and "experimental system" are concerned, the latter prevails just like the characteristics of general risk perception. It is to be noted that while analytical thinking system follows a logical process, experiential thinking system is governed by intuition and emotion<sup>3</sup>.

(3) Handling and dealing with food information.

People are highly interested in foods and related subjects, and therefore various information on risks and benefits of food is provided through newspapers, magazines and other publications or a variety of media including so-called social networking services. However, some of such information are not supported by scientific evidence and in some cases provision of biased information inflames public anxiety. Furthermore, such information is often accepted without confirming its accuracy.

<sup>&</sup>lt;sup>3</sup> Please also refer to the third report of the working group on risk communication.

#### 4. Effective risk communication

Based on the above discussion, in this section effective risk communication within the FSCJ is addressed.

#### (1) Goals of risk communication

Risk communication is the interactive exchange of information and opinions among relevant stakeholders. The goal of such activities is for relevant stakeholders to think together, to mutually understand positions, and to establish credibility among each other. As a result, a decision may be reached on. It is to be noted that the major goal of risk communication may not be just to make decisions. Helping consumers make decisions about food safety reasonably without being influenced by biased information and on scientific basis is also an important goal of risk communication.

#### (2) Approaches to risk communication

When promoting effective risk communication, collaboration between the FSCJ as a risk assessment agency and MHLW, MAFF and CAA as risk management agencies is essential on the premise of current risk analysis system of this country. Those responsible for risk communication in each authority should recognize its importance and show leadership in maintaining good working relationships with relevant authorities. Also, it is important that those responsible for policy implementation measures participate in risk communication when reflecting stakeholders' opinions in risk management measures.

The ability of an implementing body to foster trust by stakeholders is essential in risk communication. This is because one's risk perception and risk judgment are apt to be influenced largely by "experience systems"<sup>3,4</sup> that are governed by intuition and emotion, in which trust is significantly involved.

Financial resources and workforces are required for the implementation of risk communication. The whole society should bear such financial resources and workforces since the society may enjoy benefits of risk communication.

<sup>&</sup>lt;sup>4</sup> In regard to risk perception, please refer to the summary of Ms. Yamada's presentation "Food Safety Administration and Risk Communication" given at the first study session, and the summary of Mr. Tanaka's presentation "based on Discussion on Risk Communication" given at the second study session

### (3) Clarifying goals of individual risk communication and evaluating achievements

It is essential to clarify goals when applying risk communication. Types of questions to ask when clarifying goals include the following:

- · Is it to provide scientific information on food safety?
- · Is it to promote understanding the specifics of each food safety risk?

 Is it to collect opinions of stakeholders to reflect in risk management measures? After its implementation, it is necessary to evaluate the level of achievement for these goals. An appropriate evaluation method which is fit for the purpose should be selected and elaborately designed prior to the evaluation. When questionnaire is used, credibility of risk information and risk communicator should be evaluated mainly in terms of "fairness". <sup>5</sup>

(4)Precautions in the practice of risk communication

When providing any information, such information should be fully open to the public as much as possible. For the information not available to the public at that point, the reason should be explained to ensure transparency. It is controversial whether beneficial information should be provided at the same time when providing risk information on food. Too much use of technical terms may make recipients of information feel a sense of alienation and develop a feeling of distrust. Use of plain words is imperative. Risk communicators are required to have not only scientific expertise but also communication skills on food safety. At public meetings the purpose of which is to reflect opinions of stakeholders in risk management measures, it is important to attempt to elicit a wide variety of information in a balanced manner in order not to make the meeting only a forum of information exchange.

For risk information with possibly significant social impact, it is important to promptly provide information available at that time. In addition, it is crucial to collect new information and deliver it accordingly. In such cases, utilization of social networking services may be one of information transmission methods. Diversified information delivery channels should be put in place, since different consumers use different ways to access to information sources.

<sup>&</sup>lt;sup>5</sup> Please also refer to the documents from the second working group on Review of Risk Communication

#### (5)Dealing with information lacking in scientific validity

For information lacking in scientific validity such measures as constant provision of accurate information should be taken. An approach to deliver expert comments on certain information which became a hot topic took place, but this approach is limited to a small number of cases.<sup>6</sup>

For Information lacking in scientific validity, the status of diffusion and extent of influence should be analyzed, and then transmission of information based on scientific evidence should be promoted strategically and effectively.

It is also important to make important points publicly known when determining whether certain information on food safety is accurate or not.<sup>7</sup>

#### (6) Dissemination of scientific knowledge

Scientific knowledge is essential in understanding food safety issues. People are required to gain such knowledge at various settings such as school education, social education and consumer education. School education which provides an opportunity to acquire scientific knowledge at the early stage of growth process has now started to address food safety, however human resources to systematically teach food safety and teaching materials would not be sufficient. The U.S. Food and Drug Administration (FDA) carries out a week-long training program for school teachers on food safety. In order to adequately promote the dissemination of knowledge of food safety in school education, provision of training to teaching staff by carrying out a teaching program for them utilizing a period during summer, for example, and development of teaching materials should be considered as in U.S.

Taking day-to-day progress of science and technology into consideration, it is important to provide many opportunities for learning safety and risk in food even after completion of school education.

<sup>&</sup>lt;sup>6</sup> For example, Science Media Center provides information, not only limited to food

<sup>&</sup>lt;sup>7</sup> National Health Service, UK advices following question to ask in "method of reading health information" :

Is it based on scientific research? Is it checked by a third person? Is research on human subjects? How many researchers are involved in the research? Is there a control group? Does the title describe the research content? Who provided the funding?

5. Stance on Risk Communication to be expected from Stakeholders

In order to promote effective risk communication, cooperation among all the stakeholders is essential in addition to efforts of FSCJ. Stance to be expected from each stakeholder including FSCJ is discussed below.

(1) The Food Safety Commission of Japan (FSCJ) as a risk assessment organization

The Food Safety Commission of Japan (FSCJ) which performs risk assessments based on scientific findings is required to explain the contents of these assessments in an easy-to-understand manner.

FSCJ is also requested to promote the dissemination of basic scientific knowledge on food safety through various media and opportunities to enable consumers to make a rational choice of food since it has accumulated a wide range of scientific findings on food safety.

Moreover, FSCJ working on risk assessment from a neutral and fair standpoint is required to be trusted by the nation as a reliable source of information.

However, many people are unfamiliar with the role that FSCJ plays in comparison to risk management authorities related to food safety due to a short history of approximately 10 years since its establishment. Therefore, a strategy to make more people acknowledge the presence of FSCJ itself as a risk assessment agency is also required.

(2) Administrative authorities

Besides FSCJ many authorities such as the Ministry of Health, Labour and Welfare (MHLW), the Ministry of Agriculture, Forestry and Fisheries (MAFF), the Consumer Affairs Agency, the Ministry of the Environment (MOE) and local governments are involved in food safety administration. The Ministry of Education, Culture, Sports, Science and Technology (MEXT) which is responsible for the whole educational administration is also involved. It is important that these authorities have a common recognition of risks in food on the scientific basis and strengthen their cooperation to transmit relevant information in a consistent manner.

In addition, these risk management authorities are expected to explain risk management measures, their costs and effectiveness at liaison meetings for opinion exchange among concerned authorities.

#### (3) Food-related businesses

Food-related businesses occupy an important position in food safety as they are in a positon to supply foods and responsible for risk management of such foods.

Food-related businesses are also engaged in wide-ranging activities for the public trust and sympathy. There are, however, some positions taken which seem to place emphasis upon information provision for promoting purchase intention of consumers. In this regard, food-related businesses should acknowledge that it is one of their social responsibilities to actively provide information on hazards and risks.

#### (4) Consumers and consumer organizations

Consumers are encouraged to have a wide interest in food safety. Consumers are required to have media literacy, namely a stance to judge the reliability and accuracy of food-related information transmitted through various media by proactively collecting relevant information. Some information transmitted by social networking services are not clear for the background of senders, therefore such information should be handled with care. Considerable information on food safety is also available through food labelling and packaging.

Consumers are also encouraged to actively participate in forums for risk communication to obtain updated information on food safety and express their opinions. Consumer organizations are urged to act to help consumers obtain accurate information and deliver their opinions.

#### (5) Scientists

Scientists from various disciplines are involved in food risk assessments. Scientists are required to have communication skills, namely an ability to make explanations in an easy-to-understand manner based on their expertise. When information lacking in scientific validity is transmitted, scientists are required to actively express opinions based on science so that consumers can make rational choices of food on the basis of scientific evidence.

Then, such social contributions should be adequately taken into account in the evaluation of scientists.

#### (6) Media

Because of consumers' deep interest in information on food, various media often feature information on food as a topic. Information provided by the media tends to be simplified and accepted as it is.

Though the freedom of expression must be guaranteed for the media, the media is required to provide scientifically accurate information on the basis of which the public can make decisions. The media is required to report in a manner of expression by which recipients can understand the severity of the risk. And to do so the media is required to cover information on the risk accurately and adequately from the relevant risk assessment agencies or bodies.

#### Conclusion

This report described issues in risk communication up to the present and effective risk communication from now on.

The Food Safety Commission of Japan (FSCJ), which performs risk assessments from an objective, neutral and fair standpoint based on scientific findings, is required to provide its opinions on risks and relevant accurate scientific information, and at the same time is urged to make efforts to play a role of risk communicator who explains the contents of these assessments in an easyto-understand manner. The Food Safety Commission of Japan is also required to be an authority trusted by the nation as various information is transmitted.

In the practice of risk communication, it is important to clarify the goals, to evaluate approaches, to improve them based on the evaluation, and to try to make the risk communication better one by cooperation with relevant stakeholders. Therefore, it is expected that the present report would be utilized by a wide range of interested parties. Appendices

### Appendix 1

### **Crisis Communication**

Crisis communication is a communication activity performed in the case where an emergency (an accident or incident) has arisen, certain health effect is emerging or most likely to emerge.<sup>8</sup> Crisis communication requires not cooperation, but appropriate leadership.

Risk communication is a communication for managing a risk to prevent its causing adverse health effects. Responding to the social confusion caused by the situation that although any health effect has not emerged (or not likely to emerge), the risk has not been understood properly (the risk has not been accepted by the public) is also included in risk communication.

Both communications have common requirements, which include that trust in information source is important, that in principle information should be fully provided, and that scientific information should be provided in an easy-to-understand manner. It is important to apply crisis communication to those incidents which causes anxiety among consumers, such as a recent case of food contaminated by pesticides.

<sup>&</sup>lt;sup>8</sup> FAO/WHO: Food and Nutrition Paper 70 "Strategies for risk communication during a food safety crisis" in Chapter 5 "STRATEGIES FOR EFFECTIVE RISK COMMUNICATION" is the reference source.

Appendix 2

### Examples of Risk Communication

Title: Risk communication for food additives

Objective: Information provision (explanation), Information sharing,

Mutual understanding and maturation of reliability, consensus formation

Method: (1) Create media, Posting on website and printed matters

(2) Inform via Facebook and twitter, etc. (two-way)

(3) Presentations, explanatory sessions

(4)Delivered presentations, public meetings (two-way) (5) Individual handling

(6) Workshops (7)Other (

Date and time (frequency): 2 times

Executors: Administration, businesses (organizations), consumers (organizations),

educational institutions, Other (Companies)

Target: Administration, businesses (organizations), consumers (organizations), educational institutions, Other (Media)

Summary and features

Ueno Fine Chemicals Industry is a major manufacturer of food additives (food preservatives), and the largest producer of sorbic acid. To perform risk communication on preservatives, analysis was made of the behavioral principle that leads to consumer misunderstanding through internet questionnaires in collaboration with universities and other research institutes. It was found that the major cause of the increased subjective risk for preservatives is that "there is almost no fundamental understanding on the role of preservatives."

Therefore, benefit communication to explain the role of preservatives in reducing a risk of food poisoning and restraining food waste was conducted simultaneously with risk communication. Specifically, an enlightenment pamphlet that reflects analytical results was created (this pamphlet is used as a supplementary teaching material in elementary schools). The company also delivers presentations and holds public meetings targeting consumers and mass media.

Reference URL: <u>http://www.ueno-fc.co.jp/foodsafety/index.html</u>

Reporter: Masahiko Ariji

Title: "Seminar on food safety" for leaders of member consumers of consumer			
cooperatives			
Objective: Information provision (explanation), Information sharing,			
Mutual understanding and maturation of reliability, consensus formation			
Method: (1) Create media, Posting on website and printed matters			
(2) Inform via Facebook and twitter, etc. (two-way)			
(3) Presentations, explanatory sessions			
(4)Delivered presentations, public meetings (two-way) (5) Individual handling			
(6) Workshops (7) Other (Participating-type seminars)			
Date and time (frequency): Twice per year, One day session divided into morning			
and afternoon			
Executors: Administration, businesses (organizations), consumers (organizations),			
educational institutions, Other ( )			
Target: Administration, businesses (organizations), consumers (organizations),			
educational institutions, Other ( )			
Summary and features			

Since the 1960s, consumer co-operatives of Japan have continued their efforts to ensure food safety to respond to the wishes of consumers seeking safe and sound living conditions. The Japanese Consumers' Co-operative Union had conducted a signature-collecting campaign to seek revision of the Food Sanitation Act together with its member consumer co-operatives throughout Japan and other consumer organizations in order to call for the establishment of social systems that ensure food safety since before a BSE infected cow was identified in Japan. This led to a revision of the Food Sanitation Act in 2003, and an enactment of the Food Safety Basic Act, in which risk analysis as a concept for international food safety strategy was introduced. Risk analysis consists of 3 factors: risk assessment, risk management and risk communication. Various activities are being conducted in acknowledgement of the importance of risk communication.

As one of such efforts, seminars have been held from 2008 targeting leaders, including directors representing member consumers of consumer co-operatives.

The seminars consist of presentations and discussions; and these are offered to executive staff and leaders of member consumers to deepen their understanding of food safety and improve their capability to assert oneself. Seminar participants are members who participate in a food safety council of regional governments and public

meetings held by national administration as representatives of consumers. Each seminar session has a specific and timely theme, such as radioactive substances, BSE measures, and food labelling system. Presentations are given by experts and learned individuals with expertise on given themes, and are followed by group discussions. After the seminar, workshops may be held in local community under the same theme. Such endeavors aim to foster consumers capable of responding to various risk communication situations by providing opportunities for individuals to proactively deepen their understating of food safety.

Reporter: Kazuo Onitake

Tille: Food allergies		
Objective: Information pro	ovision (explanation), Info	rmation sharing,

Mutual understanding and maturation of reliability consensus formation

Method: (1) Create media, Posting on website and printed matters

(2) Inform via Facebook and twitter, etc. (two-way)

(3) Presentations, explanatory sessions

(4)Delivered presentations, public meetings (two-way) (5) Individual handling

(6) Workshops (7)Other (

Date and time (frequency):

Title: Feed alleraise

Executors: Administration, businesses (organizations), consumers(organizations), educational institutions, Other ( companies(y) )

Target: Administration, businesses (organizations), consumers (organizations), educational institutions, Other (so-called influencers, such as medical doctors, nutritionists, dietitians and other nutrition instructors)

Executor: Japan Dairy Association (J-milk)

Summary and features

It is rare for food business operators to be the main agents of risk communication. Communications based on hazard risk assessment are commissioned to administration and academic specialists.

However, for foods such as milk and dairy products that are considered effective for nutrition to maintain life activity, business operators often attempt communications by themselves if a specific component is considered hazardous under certain conditions. Completely stopping the intake of a food to avoid a hazardous component that has become an issue and is contained in the food may lead to a risk of nutritional deficiency. Therefore, there is a need to explain how to keep a balance between risk and benefit, and publicize that business operators are exerting efforts to seek methods to reduce the content of such hazardous component in finished food products, as well as to educate and inform consumers about what they are asked to do.

J-milk is an organization members of which are dairy organizations nationwide including the Japan Dairy Council, Zen-Noh (National Federation of Agricultural Cooperative Associations) and Zenrakuren (a national federation of dairy farmer cooperative associations), diary industry organizations nationwide including Japan Diary Industry Association, raw milk sale organizations, and dairy promotion associations in prefectures. Its activity includes (1) research study of enlightenment concerning the value of milk (social value and, particularly nutritional value), accumulation of evidences for that basis and their use, (2) publicizing of above results and their dissemination through workshops, publications, and food education activities, (3) promotion of school milk operations, and (4) receiving, sending and sharing of dairy industry information including supply and demand. J-milk has also organized the Milk Academic Alliance, which is composed of physicians, academic experts and dieticians.

Communications related to risks for milk and dairy products are mainly to responds to consumer anxiety about allergies and metabolic syndrome. Below is an overview of J-milk's communication.

• From 2002, 37 lectures of Media Milk Seminar were held under the auspices of the Agriculture & Livestock Industries Corporation. The contents of seminars are published. In the 22<sup>nd</sup> session held in February 2010, Dr Motohiro Ebisawa of the Clinical Research Center for Allergy and Rheumatology, National Hospital Organization Sagamihara National Hospital gave a presentation under the theme of "Current treatment for milk allergies."

• J-milk posted think piece articles in Medical Asahi (April 2013 issue): "On the frontline of Food Allergy Measures in Schools" (Dr Takanori Imai, Department of Pediatrics, Showa University), "Panel Discussion: Appropriate Handling of Children's Food Allergies" (Panelists: Dr Motohiro Ebisawa, Dr Takanori Imai, Mr Nagashima, Chairman of School Dietitian Conference of Japan, Mr Takami, Director of J-Milk)

Kewpie's website provides a wide range of information and measures implemented by the company for food allergies, with Q&As for general consumers. The site can be accessed through (Top page  $\Rightarrow$  Understand / enjoy  $\Rightarrow$  Safe food  $\Rightarrow$  Know about allergy, about food allergy)

Reporter: Kaoru Koide

Title: Explanation of Acrylamide Objective: Information provision (explanation), Information sharing, Mutual understanding and maturation of reliability, consensus formation Method: (1) Create media, Posting on website and printed matters (2) Inform via Facebook and twitter, etc. (two-way) (3) Presentations, explanatory sessions (4) Delivered presentations, public meetings (two-way) (5) Individual handling (6) Workshops (7) Other ( ) Date and time (frequency): Posted at all times Executors: Administration, businesses (Calbee Inc.), consumers(organizations), educational institutions, Other ( )

Target: Administration, businesses (organizations), consumers (organizations) educational institutions, Other (General )

Summary and features

A basic explanation is provided on the company's website, as shown below, of acrylamide, a hazard linked to the company's main products, potato chips.

Access from the company's website through Customer Service  $\Rightarrow$  Q&As  $\Rightarrow$  Q&As for acrylamide  $\Rightarrow$  and see the detailed 12-page pdf file.

Contents

- In 2002, Sweden announced that a particular food group contained acrylamide. Then CODEX recommended a reduction in its concentration in the food. In terms of carcinogenicity, acrylamide is classified as level 2A (probably carcinogenic to humans).
- It was also explained that food and many vegetables containing reducing sugars and asparagine generated acrylamide when heated to 120°C or higher either in industrial processing or home cooking. Therefore, this substance has long been included in the diet and is not possible to reduce to zero in the normal diet.
- The above information is posted on the MAFF's website and the company's website has a link to administration.
- The company continues research to reduce acrylamide generation through the selection of raw materials and technical development in the manufacturing process.
- Links to the academic papers and conference presentations in which the company was involved were also added in the company website.
   Reference URL : <u>http://www.calbee.co.jp/index.php</u>

Reporter: Kaoru Koide

Title: Trans Fatty Acids

Objective: Information provision (explanation), Information sharing,

Mutual understanding and maturation of reliability, consensus formation

Method: (1) Create media, Posting on website and printed matters

(2) Inform via Facebook and twitter, etc. (two-way)

(3) Presentations, explanatory sessions

(4) Delivered presentations, public meetings (two-way)

(5) Individual handling (6) Workshops

Date and time (frequency):

Executors: Administration, businesses (Megmilk Snow Brand Co, Ltd.),

consumers (organizations), educational institutions, Other (

Target: Administration, businesses (organizations), consumers (organizations),

educational institutions, Other (

Summary and features

Trans fatty acids, which are hydrogenated vegetable fats and oils, have (has) become a matter of public concern. Megmilk Snow Brand Co., Ltd., as a major margarine manufacturer, posted an explanatory statement on its website.

Access: on the top page bottom line  $\Rightarrow$  along with CSR measures, Company Profile, To shareholder and investors, there are "Other notifications" with 2 subtitles  $\Rightarrow$  One of which is the PDF "About trans fatty acids and other fatty acids," a 12 page explanation.

 Content: FSCJ has announced its assessment that trans fatty acids, normally taken in a small amount in the Japanese diet, will not create a health hazard.
 With that in mind,

- in consideration of all the fatty acids, saturated and trans fatty acids being regulated and subject to labelling requirement in the US and Europe, an easyto-understand explanation on how trans fatty acids are generated, related health issues, and foods containing large amounts of these fatty acids is provided to consumers.
- Furthermore, the nutritional value of fat components and incorrectness of having concern about only the intake of trans fatty acids are explained.
- The explanation is mostly targeted at consumers who feel anxious about consuming margarine.

- Methods to control the amount of trans fatty acid in margarine products are given.
- The website has links to MAFF, MHLW, and Japan Margarine Industry Association, and notes that "Refer to the FSCJ website for more information." Reference URL: <u>www.meg-snow.com</u>

Reporter: Kaoru Koide

Title: Management of an in-house food safety commission Objective: Information provision (explanation), Information sharing, Mutual understanding and maturation of reliability, consensus formation Method: (1) Create media, Posting on website and printed matters (2) Inform via Facebook and twitter, etc. (two-way) (3) Presentations, explanatory sessions (4) Delivered presentations, public meetings (two-way) (5) Individual handling (6) Workshops (7) Other (Risk assessment as basis for risk communication and internal sharing of policy for explanation) Date and time (frequency): Executors: Administration, businesses(Meiji Co., Inc.), consumers(organizations), educational institutions, Other ( Target: Administration, businesses (organizations), consumers (organizations), educational institutions, Other (Directly internally. Based on this, communicate externally. Assessment of responses)

Summary and features

In April 2003, an in-house version of the Food Safety Commission was established.

- Various hazard candidates in the business and their risks are assessed, equipment or facilities and systems to prevent them are evaluated for their levels, and policy for disclosure of relevant information is also discussed.
- Experts on microbiological hazards and chemical hazards are called in as advisors. The executive office is located within the Quality Assurance Headquarters in the main office, and managed jointly by its Engineering Department and Research HQs. Regular meetings are held quarterly.

Microbiological hazards or chemical hazards are likely to contaminate a food as foreign matters, if manufacturing lines or packaging materials come into contact with the food, or if they are damaged. Therefore, fact sheets are developed for relevant chemical substances.

Hazards that were subject to discussion or summarized in fact sheets will not be subject to so-called risk communication at explanatory sessions or round-table conferences. These will be used as basic information when quality assurance staff makes presentations outside the company or when dealing directly with consumers at the Customer Service Window.

Milk allergies were discussed in the past, and are now being re-examined assuming the communication outside the company. At the present moment, no dairy companies have made any statements about food allergies other than in the Q&As on the company website, and the statements on the J-milk website are considered as the common opinion.

Reporter: Kaoru Koide

Title: Review of a report of Study Group on New Labelling System of Food Functions

Objective: Information provision (explanation), Information sharing,

Mutual understanding and maturation of reliability, consensus formation

Method: (1) Create media, Posting on website and printed matters

(2) Inform via Facebook and twitter, etc. (two-way)

(3) Presentations, explanatory sessions

(4)Delivered presentations, public meetings (two-way)(5) Individual handling(6) Workshops(7) Other (

Date and time (frequency): September 16, 2014 6:00 – 8:00 pm

Executors: Administration, businesses (organizations), consumers(organizations), educational institutions, Other (

Target: Administration, businesses (organizations), consumers (organizations), educational institutions, Other (

Summary and features

[Lecturer] Tsuneo Matsumoto, President, National Consumer Affairs Center of Japan

[Attendees] 21 persons

Pursuant to a Cabinet decision made in June 2013 on Regulatory Reform Plan and Japan Revitalization Strategy, a study group on a new labelling system of food functions was established. The study group met 8 times until July 2014, and submitted a summary report.

A workshop was held by inviting Mr Tsuneo Matsumoto, President of the National Consumer Affairs Center of Japan as a lecturer to study the contents of the report to prepare public comments to be submitted to proposed food labelling standards in regard to a new labelling system of food functions.

At the workshop it was pointed out that while the most important points, namely safety, scientific basis for function and quality control were addressed to some extent in the report, the present call for public consultation only stated that particulars would be given in guidelines in the future and therefore it was not clear how this system would be warranted. Furthermore, it was noted that while food with function claims was newly introduced in addition to the current Food with Nutrient Function Claims and Food for Specific Food Uses (FOSHU), it is hard to clearly compare and comprehend food labelling and its conditions for each system by

referring to a published explanatory chart. Also, it was pointed out that while information collection system for health injuries was required to be notified, it was not clear how to handle information on serious accidents.

It is stipulated that notified information should be freely accessible to the public from the time point prior to start of sale. It was noted that in addition to administrative surveillance of system operation it was important for consumers to monitor foods based on information notified in advance.

Some responses to participant questionnaires are given below:

- I realized the importance of monitoring and control, and at the same time I felt what consumers themselves and consumer organizations should do was an enormous challenge.
- This time I had a good opportunity to understand the issues related to the proposed food labelling standards and the importance of monitoring by consumer organizations.
- I understood clearly that there were many problems in the labelling system of food functions.
- I was able to picture in my mind the labelling system of food functions in a multifaceted manner by listening to remarks from other participants. I would like to think further on the basis of the proposed food labelling standards.

Reporter: Yasuko Kono

Title: Public meeting on ensuring safety of imported foods
~Risk communication on food~
Objective: Information provision (explanation), Information sharing,
Mutual understanding and maturation of reliability, consensus formation
Method: (1) Create media, Posting on website and printed matters
(2) Inform via Facebook and twitter, etc. (two-way)
(3) Presentations, explanatory sessions
(4) Delivered presentations, public meetings (two-way) (5) Individual handling
(6) Workshops
(7) Other ( )
Date and time (frequency): January 29, 2015
Executors: Administration, businesses (organizations), consumers(organizations),

)

### **Examples of Risk Communication**

Target: Administration, businesses (organizations), consumers (organization)s,

educational institutions, Other (

educational institutions, Other (

Summary and features

Host: Ministry of Health, Labour and Welfare (MHLW)

Target: Administration, businesses (organizations), consumers (organizations), other.

Objective: MHLW formulates Monitoring and Guidance Plans for Imported Foods regarding the monitoring and guidance executed by the government every fiscal year to ensure food safety of imported foods, and makes its effort to execute focused, efficient and effective monitoring and guidance. The present public meeting was held under the theme, "Let's think about safety of imported foods together." Presentations were given by the administration, food-related businesses and consumers from their respective positions. In addition, a panel discussion was conducted by these presenters, followed by an opinion exchange session.

Content: information provision and panel discussion, opinion exchange session with attendees

 Information provision (1) "Ensuring the safety for imported foods" ~Proposed FY2015 Monitoring and Guidance Plan for Imported Foods ~ / Inspection and Safety Division, Department of Food Safety, Pharmaceutical and Food Safety Bureau, MHLW, (2) Efforts to ensure the safety of imported foods at quarantine stations / Food Monitoring Division, Quarantine Station, Narita International Airport, (3) Measures for quality guarantees by businesses / Quality Guarantee Center, Ajinomoto Frozen Foods Co., Inc., (4) Imported foods viewed from the perspective of consumers / U Co-op and Headquarters of Promotion of Cooperation

 Panel Discussion and opinion exchange session with attendees
 Coordinator: Ms. Waki Matsunaga (Representative of the Food Communication Compass)
 Panelists: Four presenters

Reporter: Satoko Natsume

 Title: Diet and Health

 Objective: Information provision (explanation) Information sharing,

 Mutual understanding and maturation of reliability) consensus formation

 Method: (1) Create media, Posting on website and printed matters

 (2) Inform via Facebook and twitter, etc. (two-way)

 (3) Presentations, explanatory sessions

 (4) Delivered presentations, public meetings (two-way)

 (5) Individual handling

 (6) Workshops

 (7) Other ( )

 Date and time (frequency): October 19, 2014

 Executors: Administration, businesses (organizations), consumers(organizations), educational institution, Other ( )

 Target: Administration, businesses (organizations), consumers (organizations), educational institutions, Other ( )

Executor: National Federation of Regional Women's Organizations Method: Executed as a Sectional Meeting at the National Conference

# Summary and features

 Information provision (1) "Let's think about our bodies now" ~ From health checkup data before and after the earthquake ~ / Fukushima Preservative Service Association of Heath, (2) Physical exercises for health you can do at home to fight metabolic syndrome / Fukushima Preservative Service Association of Health, (3) Efforts to ensure safety and security for prefecture produced agricultural, forest and fishery products / Farm Product Marketing Division, Agriculture, Forestry and Fishery Department, Fukushima Prefecture.

In (1), the Preservative Service Association of Health, an organization to which Fukushima prefecture delegates residents' health checkups, reported on a comparison between checkup results before and after the earthquake. After the earthquake, levels of obesity, neutral fat and blood glucose generally increased. This was particularly noted in residents who were forced to evacuate after the nuclear plant accident. The presumed causes included decreased opportunities to go out, decreased level of vegetable intake and increased number of times of eating out. (3) The Agriculture, Forestry and Fishery Department, Fukushima Prefecture reported on the method used to examine agricultural products for radioactivity levels, how to promote agricultural products in order that they would

be purchased while maintaining consumers' confidence, and enthusiastic efforts to dispel rumors that agricultural products might have been contaminated.

2. Opinion exchange session

Some participants asked questions about a survey of health damage caused by radiation in the prefecture's residents, and other requested more effort be put into informing consumers that agricultural products of Fukushima were safe in a more understandable manner.

### 3.Other remarks

The meeting was held with the objective of enabling participants to obtain information and to utilize it in their activities upon returning to their hometowns; therefore, the objective has, by and large, been met.

Reporter: Satoko Natsume

Title: Study group on allergy labelling Objective: Information provision (explanation), Information sharing, Mutual understanding and maturation of reliance, consensus formation Method: (1) Create media, Posting on website and printed matters (2) Inform via Facebook and twitter, etc. (two-way) (3) Presentations, explanatory sessions (4) Delivered presentations, public meetings (two-way) (5) Individual handling (6) Workshops (7) Other (Undisclosed meeting with stakeholders as members) Date and time (frequency): FY 2001 ~ FY 2002, More than once per month Executors: Administration, businesses (organizations), consumers(organizations), educational institutions, Other () Target: Administration, businesses](organizations), consumers (organizations), educational institutions, Other (Medicine-related individuals, patients) Venue: Juntendo University, the Ministry of Health Labour and Welfare

Summary:

The Food Sanitation Act was revised in March 2001, and, accordingly, allergen labelling on processed foods became compulsory from April 2002. Discussions were held among stakeholders, and standards, such as specific display rules, were established. Depending on the theme of discussion, the stakeholders involved were asked to attend meetings as observers, and examinations were conducted with relevant parties. Agreed upon contents were announced in interim and final reports for review meetings managed by the research group, and block copy for leaflets for patients and businesses was created. Interim reports were passed on from the Ministry of Health, Labour and Welfare (MHLW) to regional governments as announcement. Leaflets for patients and businesses were published by the MHLW. These leaflets have undergone several revisions and are currently issued by the Consumer Affairs Agency.

Meeting Management:

FY2001-2002, Department of Public Health, Juntendo University in which the research representative for the Health Science Research Grant Comprehensive Research on Life Safety Project "Social effect of food labelling and its measures and international comparison" is stationed

Features:

Discussions were held on allergen labelling among stakeholders (food ingredient producers, food processing businesses, distributors, patients, patient groups, pediatricians (clinicians), food allergy researchers, detection method developers, public health researchers, epidemiologists, etc.) to understand one another's situations and requests.

With the review meeting members as the core, workshops for businesses were planned and executed. Later, an NPO was established and one of the stakeholders was appointed director. The NPO's activities continue.

Reference URL:

Interim report: <u>http://www.mhlw.go.jp/topics/2001/0110/tp1031-1.html</u> Leaflet: <u>http://www.caa.go.jp/foods/pdf/syokuhin18.pdf</u>

Reporter: Itsuko Horiguchi

Title: Science café		
Objective: Information provision (explanation), Information sharing,		
Mutual understanding and maturation of reliability, consensus formation		
Method: (1) Create media, Posting on website and printed matters		
(2) Inform via Facebook and twitter, etc. (two-way)		
(3) Presentations, explanatory sessions		
(4) Delivered presentations, public meetings (two-way) (5) Individual handling		
(6) Workshops		
(7) Other ( )		
Date and time (frequency): 12 times (as of March 6, 2015)		
Executors: Administration, businesses (organizations), consumers(organizations),		
educational institutions, Other ( )		
Target: Administration, businesses (organizations), consumers (organizations),		
education al institutions. Other (		

Summary and features

Location: Food Science Wing 2F Café, Graduate School of Agricultural and Life Sciences, Tokyo University

Host: Research Center for Food Safety, Graduate School of Agricultural and Life Sciences, Tokyo University

Content: With facilitation by the center faculty, individuals propose topics in their specialized fields and make presentations using slides and actual items. Questions from participants are answered. Materials are distributed on the day of the presentations and a report on the session is posted on the Research Center for Food Safety website (linked to Facebook). Participation is free; however, participants are requested to order a beverage at the café.

No. 1: Ask about radioactive materials and agricultural produce / July 4, 2012

- No. 2: Vegetation activities seen through isotope imaging ~Technology to transform invisible to visible~ / August 28, 2012
- No. 3: Sequel to the Ask about radioactive materials and agricultural produce presentation / January 18, 2013
- No. 4: Reducing radioactive cesium. Why potassium? / July 27, 2013
- No. 5: Food poisoning presentation for delicious and safe grilled beef / August 2, 2013

- No. 6: Radiation to visualize the micro world of vegetation ~ Technology to transform invisible to visible (2) / December 21, 2013
- No. 7: Ask about radioactive materials and agricultural produce ~Foods in Fukushima ~ / January 17, 2014
- No. 8: Ask about radioactive cesium and sieverts / July 29, 2014
- No. 9: Ask about the radiation level in Fukushima ~ today and tomorrow ~ / August 11, 2014
- No. 10: Ask about radiation effect as seen from comic books / December 8, 2014
- No. 11: Ask about food and allergies / January 9, 2015
- No. 12: Ask about food additives ~ Truth about villains ~ March 4, 2015

Reference URL: <u>http://www.frc.a.u-tokyo.ac.jp/</u>

Reporter: Hiromi Hosono

Title: Measures on quality assurance at the consumer level
(Good Consumer Practice)
Objective: Information provision (explanation), Information sharing,
Mutual understanding and maturation of reliability, consensus formation
Method: (1) Create media, Posting on website and printed matters
(2) Inform via Facebook and twitter, etc. (two-way)
(3) Presentations, explanatory sessions
(4) Delivered presentations, public meetings (two-way) (5) Individual handling
(6) Workshops (7) Other ( )
Date and time (frequency): More than once per month from October 2012
Executors: Administration, businesses (organizations), consumers organizations),
educational institutions, Other ( )
Target: Administration, businesses (organizations), consumers (organizations),
educational institutions, Other ( )

Executor: Quality Management Department, CO-OP Kyushu, etc.

Summary:

Co-op structured a Quality Management System (QMS) based on HACCP • ISO22000, etc. in 2006. A food-chain approach has been established from producers to retailers; however, it has not infiltrated to consumers. Very few consumers think that "We also have the responsibility for ensuring food safety." Because of this, sometimes consumers do not store food appropriately. This may lead(s) to the development of mold on food or inappropriate preparation resulting in higher risk of food poisoning or food waste. (Example: After a package is opened, it should have been stored in a refrigerator, but it is left outside / eating raw meat / insufficiently cooked hamburger / eating eggs past their best before date raw, etc.)

CO-OP Kyushu, consisting of 8 regional co-ops in the Kyushu and Okinawa area, thinks it necessary to establish a system for quality assurance at the co-op member level, in addition to the quality assurance system established for the chain from producers to retailers, and planned to establish the system in 2013. All affiliated co-ops exchanged opinions between staff and interested members to deepen understanding about food risks. Points consumers should be careful about were summarized in a Self-Check Sheet (Total of approximately 20 questions, which include the following: Is your shopping bag clean? / Do you open and close refrigerator as quickly as possible? / Do you check the expiration date ("use-by"

date) or date of minimum durability ("best before" date) of ingredients before cooking? / Do you wash your hands before cooking and every time you handle meat or fish?) The creation of the Self-Check Sheet took approximately 1 year.

This is positioned as QMS at the consumer stage and called "Shokuno Anzen Mamoru-chan (*Food safety boy*). CO-OP announced its objective and distributed the Self-Check Sheet to all co-op members in the Kyushu and Okinawa areas. (February ~ July 2014, 3 times series)

Thereafter, Co-op Net and Japanese Consumers' Co-operative Union approved and are spreading this activity.

### Features:

CO-OP Kyushu Implemented risk communication with the objective of reforming member consumers' awareness. The aim is to change their awareness so that members consider themselves as not just customers using products but as players in the food chain. "Consumers are the anchor runners in the relay to ensure safe food." This is emphasized and consumers are encouraged to "receive the food safety baton."

Consumers are urged to think about what is needed and what should be done to ensure food safety for the family, and to behave accordingly. CO-OP Kyushu intends to continue this activity with the hope of eventually increasing the number of consumers capable of acting on the basis of the risk analysis concept. Reference URL: Summary <u>http://www.kyushu.coop/shokunoanzen/index.html</u>

Report to business partners <u>http://www.kyushu.coop/new/1307/index.html</u>

Reporter: Waki Matsunaga

Title: Seminar for Nutrition and Home Economics Teachers

"Scientific thinking in Food Education"

Objective: Information provision (explanation), Information sharing,

Mutual understanding and maturation of reliability consensus formation

Method: (1) Create media, Posting on website and printed matters

(2) Inform via Facebook and twitter, etc. (two-way)

(3) Presentations, explanatory sessions

(4) Delivered presentations, public meetings (two-way)(5) Individual handling(6) Workshops

(7) Other (

Date and time (frequency): Held about 3 times per year starting from March 2013 Executors: Administration, businesses (organizations), consumers organizations), educational institutions, Other (Mass media)

Target: Administration, businesses (organizations), consumers (organizations), educational institutions, Other (Nutrition and Home Ed Teachers)

Executor: Hosted by Mainichi Newspapers Co., Ltd., Cooperation by Japan Crop Protection Association

Summary and features

Seminars are held to provide food information supported by scientific evidence to nutrition and home economics teachers. Two panelists give presentations at each session, followed by Q&As session.

Information on risk in food and food education is provided from diverse angles: Food risk is never zero, and there are diverse risks from nature / It is important to control many risks / Meal menus and nutritional values / scientific thinking in cooking process / importance of risk management.

There is plenty of time allotted not only for presentation but also for Q&As sessions, during which many different questions are answered. Presentation content, summary of Q&As sessions and participants' comments are posted on the website.

There are a large number of participants, sometimes exceeding 200. Cooperation is obtained from the Japan Crop Protection Association; however, this is not persuasion-type communication to have them gain an understanding of agrichemicals. The objectives of the sessions are to have participants understand the diverse hazards and risks of food from a scientific perspective and utilize this understanding in creating menus and cooking school lunches, and in home economics and food education lessons.

Participant questionnaires are conducted after each session. Comments include the following: "I never had an opportunity like this," "I was able to correct my biased thinking and false information at the seminar," "I want to utilize presentation contents in my lessons" and "I want to participate in the next session." It was found that nutrition and home economics teachers are always seeking new and highly specialized information about food.

Reference URL : Educator-related Seminar Report, Agrichemical Information Bureau, Japan Crop Protection Association

"How to teach diet and future" <u>http://www.jcpa.or.jp/labo/</u>

Reporter: Waki Matsunaga

#### **Documents on Risk Communication Created by Overseas Authorities**

### When food is cooking up a storm :

EFSA (the European Food Safety Authority) [February 2015] Fundamental rules for outstanding communication (openness, transparency, independence, timing), factors affecting communication level and style (features of hazard, disclosure level, possible to control), tool and channel (media, web, printed matter), Learning from experience (collection of cases)

#### A handbook on risk communication applied to food safety :

FAO/WHO (Food and Agriculture Organization of the United Nation / World Health Organization) [2014]

Handbook for use in conducting risk communication targeting agencies involved in food safety, and parties involved in food safety, such as food business operators, etc.

Food safety risk communication (what is important, goals, etc.), fundamental rules for appropriate risk communication (disclosure and transparency, timeliness and responsibility), factors to consider (nature of risks and benefits, nature of safety hazards, understanding the needs of the other party), conducting risk communication (importance of understanding the other party, mutual effects with media, monitoring and evaluation).

#### **Risk Analysis in Food Regulation** :

FSANZ (Food Standards Australia New Zealand) [2013]

Communicating health risks related to 7 food groups

Risk communication, strategy (Low risk-low awareness: passive, low risk-high awareness: prompt response, high risk-low awareness: educational, high risk-high awareness: active)

#### **Risk Communication** :

U.S.EPA (United States Environmental Protection Agency)

Hint for risk communication

Obtain trust and establish reliability, formulating strategy, use of external experts, problems with too much and too little information, transparency, honestly

accepting issues and errors from the past, be patient and kind, response to telephone and e-mail contact within 24 hours

### FDA's Strategic Plan for Risk Communication :

U.S.FDA (U.S. Food and Drug Administration) [Fall, 2009] Strengthen science to support effective risk communication, creating effective risk communication, improving skills of FDA's to spread and monitor, optimizing FDA policy related to risk and benefit communication

### Food safety risk analysis :

FAO/WHO (Food and Agriculture Organization of the United Nation / World Health Organization [2006]

4. Risk communication

Objective of communication (set up objective, risk communication is not education nor public relations, saying that it's safe will not necessarily lead to safety), strategy (identifying risk-related issues causing anxiety to certain parties, ensuring openness, transparency and flexibility), identify related party, communication method (holding meetings) and media

### A Framework for Strategic Risk Communication :

Health Canada 【2006】

Fundamental rule for strategic risk communication

Strategy includes risk communication at each stage of risk management, related parties are important, decisions based on social and natural sciences, transparency, continuous improvement based on assessment

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# OMembers of the Working Group

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