

# Training Workshop

## Risk Management of Contaminants in Foods

27<sup>th</sup> -29<sup>th</sup> November 2019, Tokyo, Japan

At Meeting Room “Takao 1”, Washington Hotel Shinjuku (Annex 3F)  
(2-9 Nishishinjuku, 3 chome, Shinjuku-ku, Tokyo)

Organized by the Ministry of Agriculture, Forestry and Fisheries, Japan

## Agenda

### Lecturers:

Dr. Yukiko Yamada, Senior Advisor, MAFF

Dr. Hidetaka Kobayashi, Food Safety and Consumer Affairs Bureau, MAFF

Mr. Tetsuo Urushiyama, Food Safety and Consumer Affairs Bureau, MAFF

Mr. Kazuhiro Sakamoto, Food Safety and Consumer Affairs Bureau, MAFF

Mr. Yoshiyuki Takagishi, Food Safety and Consumer Affairs Bureau, MAFF

<b>DAY 1 (27<sup>th</sup> November)</b>	
<b>Objectives</b>	
<ul style="list-style-type: none"> <li>● To understand the overview of risk analysis and principles for establishing maximum levels</li> </ul>	
9:15 – 9:30	<b>Registration</b>
9:30 – 10:00	<ul style="list-style-type: none"> <li>➤ <b>Opening remarks:</b> Mr. Makoto Osawa, Vice-Minister for International Affairs, MAFF</li> <li>➤ <b>Introduction and meeting objectives:</b> Dr. Yukiko Yamada</li> </ul>
10:00 – 11:00	<b>Lecture:</b> Food safety legal system in Japan (Concerning contaminants) (Dr. Yamada)
11:00 – 11:30	<b>Tea/Coffee break</b>
11:30 – 13:00	<b>Lecture:</b> Overview of risk analysis (Dr. Yamada) <ul style="list-style-type: none"> <li>➤ Agreement on the application of Sanitary and Phytosanitary measures</li> <li>➤ Risk analysis principles in Codex (Risk management, Risk assessment, Risk communication)</li> <li>➤ Prioritization of hazards for risk management</li> <li>➤ General Principles of contaminants in foods and feeds</li> </ul>
13:00 – 14:00	<b>Lunch</b>
14:00 – 15:30	<b>Lecture:</b> Criteria for the establishment of maximum levels (Dr. Yamada) <ul style="list-style-type: none"> <li>➤ Toxicological information</li> <li>➤ Analytical data</li> <li>➤ Intake data</li> <li>➤ Technological considerations</li> <li>➤ Identification of foods/food groups that contribute significantly to total dietary exposure</li> </ul>
15:30 – 16:00	<b>Tea/Coffee break</b>
16:00 – 17:30	<b>Exercise 1:</b> Establishment of maximum levels (Dr. Yamada and other lecturers) <ul style="list-style-type: none"> <li><b>Exercise 1.1:</b> Identification of foods/food groups that contribute significantly to total dietary exposure</li> <li><b>Exercise 1.2:</b> Establishment of maximum levels</li> </ul>
18:30 – 20:30	<b>Conference dinner</b>

<b>DAY 2 (28<sup>th</sup> November)</b>	
<b>Objectives</b>	
<ul style="list-style-type: none"> <li>● To understand how to obtain occurrence data and food consumption data</li> <li>● To understand how to estimate dietary exposure (1) point estimation</li> </ul>	
9:30 – 11:00	<p><b>Lecture:</b> Obtaining occurrence data of contaminants in foods (Method of sampling, calculation of minimum sample size, validation of analytical methods, requirements for laboratories) (Dr. Kobayashi)</p> <p><b>Exercise 2:</b> Obtaining occurrence data of contaminants (Dr. Kobayashi and other lecturers)</p> <p><b>Exercise 2.1:</b> Calculation of minimum number of samples</p> <p><b>Exercise 2.2:</b> Select sample size and acceptance number for ensuring the compatibility of lots</p>
11:00 – 11:30	<b>Tea/Coffee break</b>
11:30 – 13:00	<p><b>Exercise 3:</b> Analysis of occurrence data (Dr. Kobayashi and other lecturers)</p> <p><b>Exercise 3.1:</b> Data aggregation (calculation of maximum, minimum, mean, median)</p> <p><b>Exercise 3.2:</b> Creating a frequency table, histogram</p> <p><b>Exercise 3.3:</b> Calculation of high percentile</p>
13:00 – 14:00	<b>Lunch</b>
14:00 – 15:30	<p><b>Lecture:</b> Obtaining food consumption data (Mr. Sakamoto)</p> <ul style="list-style-type: none"> <li>➤ Population-based methods</li> <li>➤ Household-based methods</li> <li>➤ Individual-based methods</li> </ul> <p>(Food record, 24h dietary recall, Food frequency method, diet history survey)</p>
15:30 – 16:00	<b>Tea/Coffee break</b>
16:00 – 17:30	<p><b>Lecture:</b> Overview of estimation of intake (Point estimates, probabilistic approach) (Mr. Takagishi)</p> <p><b>Exercise 4:</b> Calculation of dietary exposure by point estimates (Mr. Takagishi and other lecturers)</p> <p><b>Exercise 4.1:</b> Exposure estimate based on occurrence data and food consumption data</p> <p><b>Exercise 4.2:</b> Exposure estimate based on total diet studies</p> <p><b>Exercise 4.3:</b> Acute exposure estimate</p> <p><b>Exercise 4.4:</b> Consideration of uncertainty in point estimates</p>

<b>DAY 3 (29<sup>th</sup> November)</b>	
<b>Objectives</b>	
<ul style="list-style-type: none"> <li>● To understand how to estimate dietary exposure (probabilistic estimation)</li> <li>● To understand the importance of elaborating codes of practice</li> </ul>	
9:30 – 11:00	<b>Lecture:</b> Overview of probabilistic estimation of exposure (Mr. Urushiyama) <ul style="list-style-type: none"> <li>➤ Probabilistic models</li> <li>➤ Principles of the Monte Carlo simulation</li> <li>➤ Fitting occurrence data to an appropriate distribution model</li> <li>➤ Fitting occurrence data for estimation of maximum level</li> <li>➤ Estimation of dietary exposure</li> </ul>
11:00 – 11:30	<b>Tea/Coffee break</b>
11:30 – 13:00	<b>Exercise 5:</b> Calculation of probabilistic estimates of dietary exposure (using the @RISK® free trial version) (Mr. Urushiyama and other lecturers) <b>Exercise 5.1:</b> Fitting occurrence data to an appropriate distribution model <b>Exercise 5.2:</b> Probabilistic estimates of dietary exposure (mean exposure and high percentile exposure) <b>Exercise 5.3:</b> Consideration of risks at estimated level of exposure
13:00 – 14:00	<b>Lunch</b>
14:00 – 15:30	<b>Lecture:</b> Importance of elaborating codes of practice rather than establishing maximum levels (Mr. Sakamoto)  <b>Exercise 6:</b> Verification of the effectiveness of mitigation measures (Mr. Sakamoto and other lecturers) <b>Exercise 6.1:</b> Comparison of newer occurrence data with older data <b>Exercise 6.2:</b> Necessity of further mitigation measures
15:30 – 16:00	<b>Closing session</b> <ul style="list-style-type: none"> <li>➤ <b>Presentation of certificates</b></li> <li>➤ <b>Conclusions</b></li> <li>➤ <b>Closing remarks:</b> Dr. Yukiko Yamada</li> </ul>