

Training Workshop on Risk Management of Contaminants in Foods

- Introduction and Objectives -

MAFF
27 - 29 November 2019

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Welcome to The MAFF Training Workshop on Risk Management of Contaminants in Foods!

Let's work together for protecting the
health of our people by
Improving our capacities

We welcome questions!

27 Nov. 2019, YY. 2/19

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In this Workshop

1. Please do not be shy!
2. Challenge!
3. Try to think!
4. There is no such a thing as "stupid question"
5. Questions are not only for you but also for your peers and fellow students.
6. I used the realistic exercises and therefore they may be difficult for you. But don't worry! Exercises are for you to identify what you don't know.
7. In exercises, I will value the way you think and try.

27 Nov. 2019, YY. 3/19

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1. Objectives of the workshop
2. Materials
3. Importance of Codex recommendations for contaminants
 - a. Codes of practice for prevention and reduction of contamination
 - b. Maximum Levels (MLs) for contaminants

27 Nov. 2019, YY. 4/19

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Objectives of the Workshop

- To help understand:
 - Principles of risk analysis and risk management for contaminants
 - ◇ Establishing maximum levels
 - ◇ Importance of elaborating codes of practice
 - How to obtain occurrence data and food consumption data
 - How to utilize the obtained data
 - How to estimate dietary exposure to ensure the safety and effectiveness of MLs
- By showing:
 - Logic and critical aspects of managing risk from contaminants
 - Importance of applying basic science in developing and using the data

27 Nov. 2019, YY. 5/19

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Materials

1. Codex Working Principles for Risk Analysis for Food Safety for Application by Governments (CXG 62-2007)
2. Codex General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995)
3. Codex Alimentarius Commission Procedural Manual
4. Reports of CCCF and JECFA
5. Data (for exercises)
 - a. Occurrence data
 - b. Food consumption data
6. Presentations (after each day)

27 Nov. 2019, YY. 6/19

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Importance of Codex Recommendations for Contaminants

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SPS Agreement

1. World Trade Organization (WTO) deals with international trade of goods
2. The Agreement on the Application of Sanitary and Phytosanitary Measures is one of the WTO Agreements and covers food safety
3. Article 3 of the SPS Agreement describes "Harmonization"
 - a. Using Codex standards, guidelines or recommendations as a basis (Art. 3.1)
 - b. Members shall play a full part, within the limits of their resources, in the Codex Alimentarius Commission to promote the development and periodic review of the recommendations

27 Nov. 2019, YY. 8/19

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4. The SPS Agreement describes the need for:
 - a. Scientific principles and sufficient scientific evidence (Art. 2.3)
"any sanitary measure is applied only to the extent necessary to protect human health, is based on scientific principles and is not maintained without sufficient scientific evidence";
 - b. Conducting risk assessment (Art. 5.1)
5. In case where relevant scientific evidence is insufficient, provisional measure may be adopted (Art. 5.7)

27 Nov. 2019, YY. 9/19

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Use of Codex Recommendations

1. SPS Agreement Article 3
2. Food safety measures that conform to Codex standards are presumed to be consistent with the WTO's SPS Agreement and GATT 1994.
2. If you use Codex recommendations, no further risk assessment is required; Codex has already based its decision on the risk assessment

27 Nov. 2019, YY. 10/19

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However:

SPS Agreement Article 3

"3. Members may introduce or maintain sanitary measures which results in a higher level of sanitary protection than would be achieved by measures based on the relevant international standards, guidelines or recommendations, if there is a scientific justification, or as a consequence of the level of sanitary protection a Member determines to be appropriate These measures shall not be inconsistent with any other provisions of the Agreement"

⇒ Need to justify by risk assessment

27 Nov. 2019, YY. 11/19

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Codex recommendations for contaminants

1. Two types of recommendations:
 - a. Codes of practice (COPs) for prevention and/or reduction of contamination
 - 1) By controlling the production, manufacturing, processing, storage and/or distribution methods, to increase the safety of foods
 - b. Maximum levels (MLs) for contaminants
2. Codex COPs and MLs for contaminants are within the framework of the SPS Agreement and may be used as reference
3. Developed on a basis of scientific data

27 Nov. 2019, YY. 12/19

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4. Developed by the Codex Committee on Contaminants in Foods (CCCF) and adopted by the Codex Alimentarius Commission
5. Hosted by the Netherlands
 - a. Previously, Codex Committee on Food Additives and Contaminants (CCFAC)
 - b. First session in 2007
6. Major terms of reference, among others:
 - a. To establish, revise or endorse permitted **MLs** & **GLs** for contaminants and natural toxicants in foods and feeds
 - b. To prepare **priority lists** of contaminants and natural toxins for risk assessment
 - c. To elaborate **codes of practice**

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Codex Definition of Contaminant

1. Any substance **not intentionally added** to **food or feed** for food producing animals;
2. Present in such food or feed as a result of the **production** (incl. operations carried out in crop husbandry, animal husbandry and veterinary medicine), **manufacture**, **processing**, **preparation**, **treatment**, **packing**, **packaging**, **transport** or **holding** of such food or feed; or
3. Present as a result of **environmental** contamination.
4. Does not include insect fragments, rodent hairs and other extraneous matter.

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"Contaminant" includes

1. Mycotoxins / Bacterial toxins
2. Phytotoxins
3. Phycotoxins (incl. marine toxins)
4. Heavy metals
5. Organic substances
 - a. Occurring during processing, etc.
 - b. Migrating from packaging materials to foods
6. Radionuclides
7. Also pesticide & veterinary residues and processing aids

Note: Substances used in adulteration are not contaminants (intentionally added)

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Codex definition of maximum level for contaminant

1. Maximum concentration (in mg/kg) of that substance recommended by the Codex Alimentarius Commission to be **legally permitted** in that commodity (food or feed)

Use scientific data from as wide areas as possible in the world.

- a. Previously only from North America and Europe
- b. Now, also from Asia

27 Nov. 2019, YY. 16/19

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Codex Elaboration Procedures of MLs/COPs



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Recommendations

1. Use Codex recommendations, if feasible
2. Fully participate in Codex activities
3. However:
 - a. If scientifically justifiable, measures providing higher level of health protection can be used
 - b. Impact of MLs on the dietary exposure may be different from country to country
 - 1) Different contamination levels
 - 2) Different food consumption
 ⇒ different MLs can be used if scientifically proven
4. Base measures on scientific principles and sufficient scientific evidence

27 Nov. 2019, YY. 18/19

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Thank you for your attention!

27 Nov. 2019, YY. 19/19