What is Risk Assessment?

Risk assessment is a scientific process to evaluate the probability of known or potential adverse health effects which may occur from exposure to pesticide residues in food.
Basis/Criteria of Risk Assessment

- Comparing the data on dietary exposure for the concerned pesticide residues (i.e. dietary exposure estimates based on the local food consumption pattern) with the respective safety reference values (e.g. ADI or ARfD), in order to assess the potential health risk of the population.

- When the estimated dietary exposure is below the safety reference value, the detected level would be considered acceptable for public health protection.
Risk Assessment

Dietary Exposure

Safety Reference Values
Dietary Exposure Assessment

Dietary Exposure = Food Consumption Data \times Level of Pesticide Residues
Food Consumption Data

FEHD commissioned the Chinese University of Hong Kong to conduct the first territory-wide food consumption survey of Hong Kong in 2005-2007.

To collect food consumption data of the population, such as (1) types of food intake, (2) amounts of food intake and (3) dietary practices
FOOD CONSUMPTION SURVEY

Introduction

The Food and Environmental Hygiene Department (FEHD) has conducted Hong Kong’s largest scale and most comprehensive food consumption survey for collecting information on food consumption patterns of the general public. Such information provides data for the evaluation of risks associated with food. In the past, only small scale studies for collecting food consumption data had been conducted in Hong Kong. As there were no previous surveys to collect territory-wide food consumption data for the purpose of food safety risk assessment, it is crucial for FEHD to conduct a population-based food consumption survey to establish a comprehensive database for food safety risk assessment. The survey also enhances the department’s risk assessment capacity.

What is a food consumption survey?

- A food consumption survey is a survey to collect food consumption data of the population, such as (1) types of food intake, (2) amounts of food intake and (3) dietary practices.

How will the results be used?

- We will use the food consumption data to find out if the public is exposed to any potential dietary risks such as those from contaminants and food additives, and also to understand the size of the risk and which population groups may be most at risk. In the past, we did not have comprehensive data to conduct these in-depth risk assessments.
- Such information is vital for the Government in formulating public policies and education strategies to promote food safety in Hong Kong.

Which groups of people is this survey targeted at?

- This survey aims to cover the Hong Kong population aged 20 to 84 years. Around 5000 qualified people all over the territory have been selected through an anonymous and scientific household address sampling procedure.

What information has been collected in this survey?

- Food consumption data has been collected by three face-to-face and telephone interviews with each participant. Other information such as the participants’ dietary habits, weight
Safety Reference Values

- The Joint FAO/WHO Meeting on Pesticide Residues (JMPR) and regulatory agencies worldwide will conduct toxicological evaluation on pesticides and establish safety reference values
  - Acute reference dose (ARfD) for acute exposure
  - Acceptable daily intake (ADI) for chronic exposure
Thank You