### International Symposium on Food Safety and Control



#### Monday, 27 May 2024 - Friday, 31 May 2024

#### **IAEA - Headquarters**

### **Scientific Programme**

### Food authenticity and fighting food fraud

Methods and systems to support food authenticity and combat food fraud

• Isotopic and elemental analysis for food authenticity and verification of production and geographical origin

• Field-deployable methods to check food authenticity at the point of contact

• Promotion of food authenticity for food safety and to improve nutrition

### Food and phytosanitary irradiation

• Food irradiation to maintain and extend food quality, minimise pathogens in food and food packaging

· Phytosanitary applications of food irradiation to meet pest quarantine requirements

• Advances in machine source irradiation using electron beam and X rays including soft beam (keV) technologies

Dosimetry and dose modelling for process control

### Chemical residues and contaminants in food and feed

• Detection and control of chemical residues and contaminants in food and feed to protect human and animal health

• Contributing to antimicrobial resistance knowledge and control through antimicrobial residue monitoring

• Building resilience to climate change - laboratory capability to identify and respond to changing contamination patterns

# Preparing for and responding to emergencies and incidents affecting the food supply

- Rapid, field-deployable screening tests for food contaminants
- · Methodology to help trace contaminated products to origin
- · Laboratory networks for fast response and communication
- Food irradiation for long-life emergency rations (for responders and those affected)

# Detection and characterization of pathogens in food

• Nuclear and related techniques for the detection of pathogens in food

• Contributing to antimicrobial resistance knowledge and control through the detection and characterization of antimicrobial resistant organisms

#### Standard setting and risk assessment

Procedures and engagement with Codex Alimentarius

- · Irradiation dosimetry and generic treatments
- · Risk-based food safety and control

• Labs and networks using nuclear-related methods to meet food safety/quality equivalence standards for trade

### **One Health**

· Holistic approaches to human, animal and environmental health