

Introduction

By 2050, the world population will exceed 9 billion individuals, leading to ever increasing demand on food and agrifood production. The various climatic and geopolitical shockwaves we are presently experiencing, are impacting how the food and agriculture sector is evolving and are resetting several agendas of food production, management and oversight, with long term consequences on food security and the sustainability of food production systems.

Some constant imperatives of safety and consumer protection remain unchanged though, while opportunities of new technologies, data-driven solutions are offering avenues for transformation of global food systems: production, consumption and oversight.

The 7th Oman International Conference on Food Safety and Quality will review drivers of change impacting food systems and support discussions related to efforts underway to address challenges and build on arising opportunities enabling dynamic and more resilient food systems.

Day 1 • 21 April 2025

SESSION 1 • 8:00-10:00 • Registration / OFFICIAL OPENING SESSION

8:00-9:00 Registration

9:00-10:00 Official Opening Ceremony

Introductory remarks by:

- Dr. Hussein Samh Al-Masroori, Director General, Food Safety and Quality Center, Ministry of Agriculture, Fisheries and Water Resources, Sultanate of Oman
- Prof. Samuel Godefroy, Professor, Université Laval, Canada; President, International Union of Food Science and Technology; President / COO, Global Food Regulatory Science Society

Conference Keynote Lecture: Addressing Resilience of Food Systems Globally – The Indispensable Transformation

Professor Christopher Elliott, Professor of Food Security, International Joint Research Center on Food Security, Thammasat University; Honorary Professor, Queen's University Belfast

10:00-10:30 Health Break • Visit of Booths and Exhibition

SESSION 2 • 10:30-13:00 • MODERNIZING FOOD SAFETY AND QUALITY CONTROL AND OVERSIGHT – ROLE OF NEW TECHNOLOGIES AND ARTIFICIAL INTELLIGENCE

Chair: Dr. Rayya Al Balushi, Associate Professor, Chemistry and Head, Basic and Applied Sciences Department, College of Applied and Health Sciences, A' Sharqiyah University

This session will review the role of modern technology in developing innovative solutions that enhance food safety and quality, including but not limited to Modern traceability systems, Novel methods used to improve production, storage and distribution processes, as well as using smart sensing technologies that support rapid detection of contaminants.

10:30-11:00 Data & Al Approach to Elevate Food Safety Culture and Grow Trade

Mr. Brendan Ring, Creme Global, Ireland

11:00-11:30 AI in Clinical Nutrition

Fathia AlRashidiah, Ministry of Health, Sultanate of Oman

11:30-12:00 Advancing Halal Compliance in the Food Industry Through AI and Digital Innovation

> Reem Al-Shamsi, Ministry of Agriculture, Fisheries and Water Resources, Sultanate of Oman

12:00-12:30 Innovation in Phytosanitary Products

> **Dr. Stella Simiyu,** Crop Life Middle East

12:30-13:00 FoodSafeR: A Joint Up Approach to the Identification, Assessment, and Management of Emerging Food Safety Hazards and Associated Risks

> **Dr. Cormac McElhinney,** Irish Food Safety Authority

13:00-14:00 Lunch Break

14:00-14:30 Panel Discussion: Managing Innovation – Regulatory Oversight

Chair: Dr. Lyutha Al-Subhi, Sultan Qaboos University, Sultanate of Oman

Panel Members:

- Mr. Brendan Ring, Creme Global, Ireland
- Prof. Chris Elliott, Professor of Food Security, International Joint Research Center on Food Security, Thammasat University; Honorary Professor, Queen's University Belfast
- **Dr. Stella Simiyu,** Crop Life Middle East
- Prof. Rashid Al-Yahyai, Dean, College of Agricultural and Marine Sciences, Sultan Qaboos University, Sultanate of Oman
- Dr. Bashaer Abdullah Al Riyami, Director, Economic Diversification Investments, Oman Investment Authority
- Adil Nasser Al Sabqi, Oman Flour Mills Company (S.A.O.G)

SESSION 3 • 14:30-17:00 • FOOD FRAUD

Chair: Dr. Moza Abdullah Alembosidi, Research Specialist, Food Safety and Quality, Scientific Research and Innovation

This session will be dedicated to reviewing methods and approaches supporting efforts to ascertain authenticity of food products, inputs (e.g., pesticides) and processes, thus contributing to the protection of consumers' health and confidence in food products available for sale.

Such efforts are also associated with the reduction of the rate of food loss and waste and would contribute positively to national economies overall. This session will review food quality management processes and analytical methods used to verify food authenticity and to detect adulterated or counterfeit ingredients, including Mass Spectrometry-based techniques, Infrared spectroscopy (IR), Genetic analysis and sensory or organoleptic tests. Determining food authenticity is the process of verifying the validity and truthfulness of claims related to the characteristics or the source of food ingredients and products.

14:30-15:00 The Role of Regulations and Legislation to Preserve Food Authenticity

> Dr. Israa Al-Anbariah, Nizwa Municipality, Sultanate of Oman

15:00-15:30 Food Fraud Prevention and Detection

> **Dr. Somaiah Khalid Almubayedh,** Head, Food Fraud Section, Reference Laboratory of Food Chemistry, Saudi Food and Drug Authority

15:30-16:00 Health Break

16:00-16:30 Food Fraud Prevention and Mitigation in the Arab Region

> Eng. Ahmed Eddouaicer, Arab Industrial Development, Standardization and Mining Organization

16:30-17:00 Report from the Arab Codex Workshop

Food Fraud Prevention and Management Tools from Theory to Application

Mr. Hadi Elalem, Director, International Cooperation, Libyan National Center for Standardization and Metrology

Day 2 • 22 April 2025

SESSION 4 • 8:30-10:00 • FOOD ANALYTICAL SOLUTIONS AND OFFICIAL TESTING

Chair: Dr. Mohamed Al-Farsi, Assistant Professor and Head, Food Science and Technology Laboratory, Natural & Medical Science Research Center, University of Nizwa, Sultanate of Oman

This session will address the development, validation and adoption of food regulatory Analytical Methods, which are used to ensure the safety and quality of food and verify conformity with health and quality standards.

Discussions will include:

- Local and international food legislative and regulatory requirements associated with food methods.
- Requirements of Food Analytical methods used in quality management systems.

8:30-9:00 Introduction of the Arab Section of AOAC International

Activities of Standardization of Analytical Methods in the Region

➤ **Dr. Amine Kassouf**, Scientific Director, Global Food Regulatory Science Society; President, Arab Section of AOAC International

9:00-9:30 Innovative Analytical Solutions for PFAS: Tackling Emerging Contaminants

Radiation Testing for Contamination in Food and Groundwater and Public Health Protection

Mr. Khalid Ghaffar, Regional Business Development Manager, Waters Corporation, Dubai, UAE

9:30-10:00 Latest Developments in Methods and Applications from the Arab Region

Radiation Testing for Contamination in Food and Groundwater and Public Health Protection

> Abdullah Yousaf Al Marzooqi, Abu-Dhabi Quality and Conformity Council

Ascertaining Precision and Trustworthiness of Laboratory Testing

Mr. Othman Allamki, Food Safety and Quality Center, Sultanate of Oman

10:00-10:30 Panel Discussion

Bridging Innovation and Regulation: Strengthening the Role of Food Analytical Methods in Ensuring Safety and Compliance:

- Challenges in aligning analytical methods with evolving food safety regulations.
- The role of analytical innovation in addressing emerging contaminants.
- Capacity-building efforts in the Arab region to validate and standardize methods.
- How analytical advancements can enhance consumer trust and trade facilitation.
- Chair: Dr. Amine Kassouf, Scientific Director, Global Food Regulatory Science Society; President, Arab Section of AOAC International

Panel Members:

- Dr. Somaiah Khalid Almubayedh, Head, Food Fraud Section, Reference Laboratory of Food Chemistry, Saudi Food and Drug Authority
- Eng. Khaled Ghaffar, Regional Business Development Manager, Waters Corporation, Dubai, UAE
- Eng. Issam Krid, General Director, Agri-Food Technical Center, Tunisia

10:30-11:00 Health Break • Visit of Booths and Exhibition

SESSION 5-1 • 11:00-13:00 • FOOD SAFETY RISK ASSESSMENT SUPPORTING FOOD REGULATORY DECISIONS - PART 1

Chair: Dr. Intisar Al-Gharibi, Center of Food Safety and Quality, Sultanate of Oman

This session will focus on developments made in the Arab region and globally to build capacities and competencies associated with risk assessment to support standard setting and decision making.

The session will aim to offer updates on most recent risk assessment studies enabling documented food regulatory decisions globally.

Enablers of risk assessment, such as availability of food consumption data and food occurrence information in the Arab region and beyond will be discussed.

11:00-11:30 International Benchmarks for Food Risk Assessments

The Approach of the WHO/FAO Expert Advisory Body

> **Dr. Moez Sanaa**, Head, Scientific Advice, Food Safety and Nutrition Department, World Health Organization

11:30-12:00 Risk-Based Inspection for Imported Food Shipments

Aalaa Hameed Alsaffar, Sr. Public Health Specialist, Food Control Section, Public Health Department, Ministry of Health, Bahrain

12:00-12:30 Integrating Risk Assessment in a Food Safety Enforcement Strategy to Protect Public Health

> Dr. Richard Sprenger, Highfield International, Dubai, UAE

12:30-13:00 Importance of Data Quality in Risk Assessment Underpinning Food Regulatory Decisions

Prof. Bensu Karahalil, Head, Toxicology Department, Faculty of Pharmacy, Gazi University, Türkiye

13:00-14:00 Lunch Break

SESSION 5-2 • 14:00-18:00 • FOOD SAFETY RISK ASSESSMENT SUPPORTING FOOD REGULATORY DECISIONS - PART 2

Chair: Dr. Mohamed Al-Rizeiqi, Sultan Qaboos University, Muscat, Sultanate of Oman

14:00-14:30 Consumption of Salt: State of Knowledge, Positions and Practices between Adults and Youth in Oman

Dr. Halima Al-Ghanemi, Ministry of Health, Sultanate of Oman

14:30-15:00 Nutritional Data on Selected Food Products Consumed in Oman

An Update of the Food Composition Table and Use for Future Food Consumption Survey

> **Dr. Salima Almaamaria**, Ministry of Health, Sultanate of Oman

15:00-15:30 Assessing the Risks Associated with Energy Drinks supporting the Establishment of a Monograph in Regulations – the Egyptian Approach

> **Dr. Rasha Galal**, National Food Safety Authority, Egypt

15:30-16:00 Health Break

16:00-16:30 Distinguishing Levels of Titanium Dioxide used as a Food Additive

Discussing the Discrepancies of Risk Assessment Outputs

> **Dr. Intisar Al-Gharibi,** Food Safety and Quality Center, Sultanate of Oman

16:30-17:00 The Arab Food Occurrence Database: Lead Exposure from Honey – Meta-Analysis and Risk Assessment for the Arab Region

> **Dr. Amine Kassouf,** Scientific Director, Global Food Regulatory Science Society; President, Arab Section of AOAC International

17:00-17:30 Managing Non-Registered Pesticides in Various Jurisdictions in the Absence of a Codex Standard

Fatma Al-Armi, Head, Risk Assessment Section, Food Safety and Quality Center, Sultanate of Oman

17:30-18:00 Panel Discussion

Chair: Prof. Samuel Godefroy, Professor, Université Laval, Canada; President, International Union of Food Science and Technology; President / COO, Global Food Regulatory Science Society

Items of Discussion:

- Decisions based on hazards versus risk determinations.
- Efforts of Harmonization of Food Regulatory Measures in the Arab Region Underpinned by Risk Assessment.
- Data Limitations and Efforts to Access.
- Risk Assessment Training.

Panel Members:

- Dr. Mazin Al Rahbi, R&D Manager, Oasis Water, Sultanate of Oman
- Abdul Hamid Al-Sarmi, QA/QC Manager, Food Quality & Safety, HSE Specialist, Mazoon Dairy Company
- Dr. Moez Sanaa, Head, Scientific Advice, Food Safety and Nutrition Department, World Health Organization
- Dr. Intisar Al-Gharibi, Food Safety and Quality Center, Sultanate of Oman
- Dr. Rasha Galal, National Food Safety Authority, Egypt
- Prof. Bensu Karahalil, Head, Toxicology Department, Faculty of Pharmacy, Gazi University, Türkiye
- Dr. Amine Kassouf, Scientific Director, Global Food Regulatory Science Society; President, Arab Section of AOAC International
- Dr. Mohammed Al Rizeiqi, Deputy Director, Innovation and Technology Transfer Centre;
 Associate Researcher Position, Food Sciences and Nutrition, Sultan Qaboos University

Day 3 • 23 April 2025

SESSION 6 • 8:30-11:30 • QUALITY MANAGEMENT AND GREEN SUPPLY CHAIN

Chair: Dr. Abeer Alkalbani, Director, In-Country Value Department, Ministry of Agriculture, Fisheries and Water Resources, Sultanate of Oman

This session will discuss strategies, initiatives and programs aimed at reducing negative impacts on the environment (as a result of food supply chains), in addition to enhancing the sustainability of resources and consumers' health. To ensure the sustainability of natural resources and meet nutritional needs, efforts must be synergized (governments, companies and local communities). Among the topics that can be presented under this theme are the reduction of food loss and waste and sustainable production practices from farm to table.

The session will also tackle supply chain management including process of planning, organizing, controlling and monitoring. Discussions aim to consider approaches supportive of achieving operational efficiency and cost reduction, while ensuring product safety, quality and maintaining consumer confidence.

8:30-9:00 Food Safety Audit: A New Approach to Control Food Safety Risks

Ismail M. Al-Bulushi, Department of Food Science and Nutrition, Sultan Qaboos University, Sultanate of Oman

9:00-9:30 Challenges of Implementing HACCP in Small Food Businesses: Enhancing Regulatory Decisions Through Risk Assessment

Dr. Bassem Azzam, Director, TSI Quality Services, UAE

9:30-10:00 Production of Liquid Sugar from Unripe Mabseli Dates

Dr. Mohamed Al-Farsi, Food Science and Technology Laboratory, University of Nizwa, Sultanate of Oman

10:00-10:30 An explorative study on the bactericidal effect of sodium benzoate in combination with selected acids for the development of food preservative

Dr. Muzna Salim Abdullah Alsaadi, University of Technology and Applied Sciences, Muscat, Sultanate of Oman

10:30-11:00 Health Break

11:00-12:00 Reporting on the Outputs of the Conference

Rapporteurs of the different sessions report on the key recommendations related specific thematic objectives of the Conference.

- Theme 1: MODERNIZING FOOD SAFETY AND QUALITY CONTROL
- Theme 2: FOOD FRAUD
- Theme 3: FOOD ANALYTICAL SOLUTIONS
- Theme 4: FOOD SAFETY RISK ASSESSMENT
- Theme 5: QUALITY MANAGEMENT AND GREEN SUPPLY CHAIN

12:00-13:00 Official Closing Ceremony

Recognition Ceremony for Participants

13:00-14:00 Lunch