



**Food and Agriculture
Organization of the
United Nations**



IAEA
International Atomic Energy Agency
Atoms for Peace and Development

International Symposium on Food Safety and Control

**IAEA Headquarters
Vienna, Austria**

27–31 May 2024

**Organized by the FAO and the IAEA through the Joint FAO/IAEA Centre
of Nuclear Techniques in Food and Agriculture**

Announcement and Call for Papers

A. Background

Food control systems underpin food safety and quality, which are vital components of food security and are both necessary to safeguard international trade in food commodities. Food control systems are under increasing pressure due to various factors, including the disruptive effects of pandemics, food-borne diseases, and conflicts affecting food production, distribution, and supply chains. Climate change is also influencing patterns of food contamination as profound changes in weather patterns affect the conditions necessary for microbes and pests to thrive, and therefore changing climates impact food-illness, wastage, and losses.

Nuclear techniques play an important role in analytical laboratory services as many of the separation, identification, and quantification methods that are employed fundamentally rely on a nuclear related phenomenon. Some examples are isotope analysis to characterise the origin of food, nuclear spin in nuclear magnetic resonance, ionization for mass spectrometry, and mass spectrometric separation based on the mass differences of nuclei. Nuclear techniques are often used in conjunction with complementary, non-nuclear methods to provide powerful solutions to food safety and control problems. This includes the need to address food safety and quality requirements for market access. Being able to detect chemical and microbiological contaminants and to control food-borne disease are necessary for this purpose, as are capabilities to respond quickly to events that disrupt the food supply, using rapid, field-based testing methods.

Food processing techniques also include nuclear related technologies. For example, pre-packaged fresh fruits or vegetables exposed to a controlled dose of ionizing radiation as a phytosanitary measure to prevent the introduction and spread of viable regulated pests through trade in fresh produce, or the application of food irradiation to maintain food quality, prevent foodborne illness, reduce food losses, and extend product shelf-life.

The integration of nuclear techniques into food control systems can be secured by promoting awareness of the possibilities and comparative advantages of the techniques, and by encouraging dialogue and ensuring good communication between the relevant actors, including research centres, academia, regulatory bodies and industry. Nuclear technologies can also contribute in the framework of global initiatives such as 'One Health', and have a role in helping address issues such as antimicrobial resistance and mitigation of the effects of climate change on the food supply.

This symposium will provide a forum for information sharing on cutting edge research and developments in the application of nuclear technologies for food safety and control, networking between the public and private sectors and defining future research needs and directions.

B. Purpose and Objectives

The purpose of the event is to bring together experts and stakeholders in food safety and food control systems to consider the protection of the integrity of the food supply chain and measures to improve its resilience to food security challenges such as the impacts of climate change, foodborne diseases, food fraud, antimicrobial resistance. It also includes methods to address external factors that may disrupt food control systems (e.g. caused by pandemics, conflict or other catastrophic events). Contemporary and novel applications of nuclear and complementary techniques will be presented, and future perspectives and opportunities discussed. The event will provide a forum for networking, facilitate a broad understanding of food safety and food control systems, and promote the peaceful use of nuclear technologies.

C. Themes and Topics

The symposium will address the following themes and topics:

1. 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
2. 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

3. 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
4. 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)
5. 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
6. 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
7. One Health
 - Holistic approaches to human, animal and environmental health

D. Structure

The symposium programme will consist of an opening session, plenary and poster sessions, panel discussions and a closing session. The opening session will include opening statements delivered by the Symposium Chair and the Joint FAO/IAEA Centre, and presentations from invited speakers and experts. The plenary sessions will include a combination of invited keynote presentations and submitted papers addressing the themes and topics of the symposium. Each session will include presentations and panel discussions delivered by participants who will be selected based on abstracts submitted. There will be questions and answers sessions to discuss and interact with the participants. The closing session will include a summary of the main conclusions of the symposium and closing remarks from the Joint FAO/IAEA Centre.

E. Expected Outcomes

- Improved recognition of the role of nuclear and related techniques in the field of food safety and control
- Increased appreciation and uptake of nuclear and related techniques to tackle key issues affecting food safety and quality to contribute to food security
- Improved collaboration and networking between food safety and quality stakeholders, including national and inter-governmental organizations, NGOs, academia and the private sector
- Enhanced resilience to issues impacting food safety in Member States (e.g. disruption to food control systems caused by external events such as pandemics, climate change, conflict or any other event that might affect food production, supply and distribution)
- Identification of future research directions and targets for the effective integration of nuclear technologies into food safety and control systems.

F. Target Audience

Participation is solicited from scientists, researchers, laboratory analysts, policymakers, regulators, food producers and others concerned with food safety and control systems and maintaining the integrity of the food supply chain.

G. Call for Papers

Contributions on the topics listed in Section C are welcome as oral or poster presentations. All submissions, apart from invited papers, must present original work, which has not been published elsewhere.

G.1. Submission of Abstracts

Abstracts (approximately 150 to 200 words, may contain any charts, graphs, figures and references) should give enough information on the content of the proposed paper to enable the Programme Committee to evaluate it. Anyone wishing to present at the conference must submit an abstract in electronic format using the symposium's file submission system ([IAEA-INDICO](#)), which is accessible from the symposium web page (see Section Q). The abstract can be submitted through this system from **9 June 2023** until **17 November 2023**. Specifications for the layout will be available on IAEA-INDICO. The system for electronic submission of abstracts, IAEA-INDICO, is the sole mechanism for submission of contributed abstracts. Authors are encouraged to submit abstracts as early as possible. The IAEA will not accept submissions via email.

In addition, authors must register online using the InTouch+ platform (see Section H). The online registration together with the auto-generated Participation Form (Form A) and Form for Submission of a Paper (Form B) must reach the IAEA no later than **17 November 2023**.

IMPORTANT: The Programme Committee will consider uploaded abstracts only if these two forms have been received by the IAEA through the established official channels (see Section H).

G.2. Acceptance of Abstracts

The Secretariat reserves the right to exclude abstracts that do not comply with its technical or scientific quality standards and that do not apply to one of the topics listed in Section C.

Authors will be informed by **19 January 2024** as to whether their submission has been accepted, either orally or as a poster, for presentation at the symposium. Accepted abstracts will also be reproduced in an unedited electronic compilation of abstracts which will be made available to all registered participants of the symposium.

Selected authors may be asked to provide an extended manuscript after the symposium for inclusion in the proceedings.

G.3 Proceedings

Following the symposium, the IAEA will publish a summary report. The proceedings will be made available to read online.

H. Participation and Registration

All persons wishing to participate in the event must be designated by an IAEA Member State or should be a member of an organization that has been invited to attend.

Registration through the InTouch+ platform:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):

- Persons with an existing NUCLEUS account can [sign in here](#) with their username and password;
- Persons without an existing NUCLEUS account can [register here](#).

2. Once signed in, prospective participants can use the InTouch+ platform to:

- Complete or update their personal details under ‘Basic Profile’ (if no financial support is requested) or under ‘Complete Profile’ (if financial support is requested) and upload the relevant supporting documents;
- Search for the relevant event (**EVT2300038**) under the ‘My Eligible Events’ tab;
- Select the Member State or invited organization they want to represent from the drop-down menu entitled ‘Designating authority’ (if an invited organization is not listed, please contact <mailto:Conference.Contact-Point@iaea.org>);
- If applicable, indicate whether a paper is being submitted and complete the relevant information;
- If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
- Based on the data input, the InTouch+ platform will automatically generate Participation Form (Form A), Form for Submission of a Paper (Form B) and/or Grant Application Form (Form C);

- Submit their application.

Once submitted through the InTouch+ platform, the application together with the auto-generated form(s) will be transmitted automatically to the required authority for approval. If approved, the application together with the form(s) will automatically be sent to the IAEA through the online platform.

NOTE: Should prospective participants wish to submit a paper or request financial support, the application needs to be submitted by the specified deadlines (see section O).

For additional information on how to apply for an event, please refer to the [InTouch+ Help](#) page. Any other issues or queries related to InTouch+ can be sent to InTouchPlus.Contact-Point@iaea.org.

If it is not possible to submit the application through the InTouch+ platform, prospective participants are requested to contact the IAEA's Conference Services Section via email: Conference.Contact-Point@iaea.org.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. Further information can be found in the [Data Processing Notice](#) concerning IAEA InTouch+ platform.

I. Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the symposium. The IAEA has, however, limited funds at its disposal to help cover the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the symposium.

If participants wish to apply for a grant, they should submit applications to the IAEA using the InTouch+ platform through their competent national authority (see Section H). Participants should ensure that applications for grants are:

1. Submitted by **17 November 2023**;
2. Accompanied by Grant Application Form (Form C); and
3. Accompanied by Participation Form (Form A).

Applications that do not comply with the above conditions cannot be considered.

Approved grants will be issued in the form of a lump sum payment that usually covers **only part of the cost of attendance**.

J. Distribution of Documents

A preliminary and final programme will be made available on the symposium web page (see Section Q) prior to the start of the symposium. The electronic compilation of abstracts will be accessible free of charge to participants registered for the symposium.

K. Exhibitions

A limited amount of space will be available for commercial vendors' displays/exhibits during the symposium. Interested parties should contact the Scientific Secretariat by email FSC-Symposium-2024.Contact-Point@iaea.org by **1 December 2023**.

L. Working Language

The working language of the symposium will be English. All communications must be sent to the IAEA in English.

M. Venue and Accommodation

The symposium will be held at the Vienna International Centre (VIC), where the IAEA's Headquarters are located. Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Participants must make their own travel and accommodation arrangements. Hotels offering a reduced rate for participants are listed on <https://www.iaea.org/events>. Please note that the IAEA is not in a position to assist participants with hotel bookings, nor can the IAEA assume responsibility for paying fees for cancellations, re-bookings and no-shows.

N. Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria as early as three months but not later than four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

For more information, please see the Austria Visa Information document available on <https://www.iaea.org/events>.

O. Key Deadlines and Dates

Submission of abstracts through IAEA-INDICO	17 November 2023
Submission of Form B (together with Form A) through the InTouch+ platform	17 November 2023
Submission of Form C (together with Form A) through the InTouch+ platform	17 November 2023
Notification of acceptance of abstracts for oral or poster presentation	19 January 2024
Submission of Form A only (no paper submission, no grant request) through the InTouch+ platform	22 May 2024
Selected authors may be asked to provide an extended manuscript for inclusion in the proceedings	After the symposium

P. Symposium Secretariat

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretaries and correspondence on administrative matters to the IAEA's Conference Services Section.

Q. Symposium Web Page

Please visit the IAEA symposium <https://www.iaea.org/events/FSC-Symposium-2024> regularly for new information regarding this symposium.