

International Symposium on Food Safety and Control

‘Safe Food for a Better Life’

27–31 May 2024

PROGRAMME

Organized by the
Food and Agricultural Organization of the United Nations (FAO) and the
International Atomic Energy Agency (IAEA)

Through the Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture

IAEA Headquarters Vienna, Austria

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Symposium Chairperson: J. Sasanya, Joint FAO/IAEA Centre
Scientific Secretaries: C. Blackburn, Joint FAO/IAEA Centre
C. Vlachou, Joint FAO/IAEA Centre
Event Organizer: J. Zellinger, MTCD
Administrative Support: H. Kenny, Joint FAO/IAEA Centre
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Location of the Event:

International Atomic Energy Agency
Vienna International Centre (VIC)
Building M, BRB/M1

Wagramer Strasse 5
A-1400 Vienna, Austria
Tel.: (+43 1) 2600 21330

Working Language: English

Resolutions: No resolutions may be submitted for consideration on any subject; no votes will be taken.

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Participate in voting during sessions



Raise questions to speakers during session



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TIMETABLE

MONDAY, 27 MAY 2024

Time	Session No.	Session Title / Break	Venue
08:00–16:00		Collection of Entry Badge	VIC Gate 1
09:30–11:20		Opening Session	
09:30–09:35		Welcome Remarks	
09:35–10:15		Opening Remarks by IAEA and FAO Directors General	
		Scene Setting Keynote Speech	
10:15–10:45		High Level Panel Discussion: “Joining Hands for Safer Food, a Healthier and Prosperous People”	M–Plenary
10:45–11:15		Group photo (High level panel)/ Coffee/Tea Break	
11:20–12:00	Session 1	Opening Technical Session	
12:00–13:00		<i>Group photo (all participants) and Lunch Break</i>	
13:00–14:15	Session 2	Chemical Residues & Contaminants in Food & Feed	
14:15–14:55		<i>Poster Session 1A (Chemical Residues & Contaminants in Food & Feed)</i>	
14:55–17:05	Session 2	Chemical Residues & Contaminants in Food & Feed (cont'd)	
17:05–17:45		<i>Poster Session 1A (Chemical Residues & Contaminants in Food & Feed) (cont'd)</i>	
18:00–20:00		Welcome Reception	M-Building – Ground Floor

TUESDAY, 28 MAY 2024

Time	Session No.	Session Title / Break	Venue
08:30–9:30	Session 3	Public-Private Partnerships; Funding Agencies; the Food Industry; Policy Making	M–Plenary
09:30–10:10		Safe Food in Africa (SAFA) – A new FAO-IAEA-UNIDO Tripartite Food Safety Programme	
10:15–11:00	Session 4	Preparing for and Responding to Emergencies and Incidents Affecting the Food Supply; Measurement of Radionuclides	
11:00–11:20		<i>Coffee/Tea Break</i>	
		<i>Poster Session 1B (Chemical Residues & Contaminants in Food & Feed) and Poster Session 2 (Preparing for and Responding to Emergencies and Incidents Affecting the Food Supply; Measurement of Radionuclides)</i>	
11:20–13:05	Session 4	Preparing for and Responding to Emergencies and Incidents Affecting the Food Supply; Measurement of Radionuclides (cont'd)	
13:05–14:05		<i>Lunch Break</i>	
14:05–14:30	Session 4	Preparing for and Responding to Emergencies and Incidents Affecting the Food Supply; Measurement of Radionuclides (cont'd)	
14:40–15:40	Side Event	Women in Nuclear, IAEA	
15:40–18:10	Side Event	Exhibitor Presentations	

WEDNESDAY, 29 MAY 2024

Time	Session No.	Session Title / Break	Venue
09:00–10:15	Session 5	Food and Phytosanitary Irradiation	M–Plenary
10:15–10:55		<i>Coffee/Tea Break</i> <i>Poster Session 3 (Food and Phytosanitary Irradiation)</i>	

Time	Session No.	Session Title / Break	Venue
10:55–12:15	Session 5	Food and Phytosanitary Irradiation (cont'd)	
12:15–13:15		<i>Lunch Break</i>	M–Plenary
	Side Event	Vienna Centre for Disarmament Non-Proliferation (VCDNP)	
13:15–15:00	Session 6	Food Authenticity and Fighting Food Fraud	
15:00–15:40		<i>Poster Session 3 (Food and Phytosanitary Irradiation) (cont'd)</i>	
15:40–17:35	Session 6	Food Authenticity and Fighting Food Fraud (cont'd)	

THURSDAY, 30 MAY 2024

Time	Session No.	Session Title / Break	Venue
09:00–10:15	Session 7	Standard Setting, Regulations, Metrology, Risk Assessment	M–Plenary
10:15–10:55		<i>Coffee/Tea Break Session 4 (Food Authenticity and Fighting Food Fraud)</i>	
10:55–12:25	Session 7	Standard Setting, Regulations, Metrology, Risk Assessment (cont'd)	
12:25–13:25		<i>Lunch Break</i>	
13:25–14:20	Session 7	Standard Setting, Regulations, Metrology, Risk Assessment (cont'd)	
14:20–15:05	Session 8	Detection and Characterization of Pathogens in Food, AMR	
15:05–15:45		<i>Poster Session 4 (Food Authenticity and Fighting Food Fraud) (cont'd)</i>	
15:45–17:45	Session 8	Detection and Characterization of Pathogens in Food, AMR (cont'd)	

FRIDAY, 31 MAY 2024

Time	Session No.	Session Title / Break	Venue
09:00–10:15	Session 9	One Health	M–Plenary
10:15–10:55		<i>Coffee/Tea Break Poster Session 5 (Standard Setting, Regulations, Metrology, Risk Assessment) Poster Session 6 (Detection and Characterization of Pathogens in Food, AMR) Poster Session 7 (One Health)</i>	
10:55–12:25	Session 9	One Health (cont'd)	
12:25–13:25		<i>Lunch Break</i>	
13:25–13:50	Session 9	One Health (cont'd)	
13:50–14:00		Award of Poster Presentations	
14:00–14:10		Conclusion and Recommendations	
14:10–14:50		Closing Session	

ORAL PRESENTATIONS/ LECTURES

MONDAY, 27 MAY 2024

09:30–11:20

OPENING SESSION

Moderator:

N. Mokhtar, DDG-NA

Time	Name	Designation	Title
09:30–09:35	N. Mokhtar	Deputy Director General and Head of the Department of Nuclear Sciences and Applications, IAEA	Film
			Introductions
09:35–09:55	R.M. Grossi	IAEA Director General	IAEA Director General
	QU Dongyu	FAO Director General	FAO Director General
09:55–10:15	K.E Baipoledi	Permanent Secretary, Ministry of Lands and Water Affairs, Republic of Botswana	Global Food Safety Situation in Relation to Climate Change, Trade and One Health Approach

HIGH LEVEL PANEL DISCUSSION:

“JOINING HANDS FOR SAFER FOOD, A HEALTHIER AND PROSPEROUS PEOPLE”

Time	Name	Designating Member State/Organization	
10:15–10:45	R.M. Grossi	Director General, IAEA	
	A. Alkhalifa	President, OPEC Fund for International Development	
	K.E. Baipoledi	Permanent Secretary, Ministry of Lands and Water Affairs, Republic of Botswana	
	D. Aguemon	Director, Cabinet of the Minister of Agriculture, Livestock and Fisheries, Republic of Benin	
	G. Beger	Managing Director, United Nation Industrial Development Organization	
	J. Pleiner-Duxneuner	Managing Director, Austrian Agency for Health, and Food Safety	
10:45–11:15	<i>Group Photo (high level panel) & Coffee/Tea Break</i>		
11:15–11:20	C. Vlachou & C. Blackburn	Joint FAO/IAEA Centre	Secretaries Administrative Remarks

11:20–12:00

**SESSION 1:
OPENING TECHNICAL SESSION**

M–Plenary

Chairperson:

A. Strasser, France

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper/Presentation
11:20–11:35		S. Pillai	USA	Irradiation, Microbiology, Public Health, and Trade - the Interconnectedness
11:35–11:50		M. Lipp	FAO	Diet Vs Food - Safeguarding Consumer Health
11:50–12:00		Discussion		
12:00–13:00		<i>Group photo (all) & Lunch Break</i>		

13:00–17:45

SESSION 2:

M–Plenary

CHEMICAL RESIDUES & CONTAMINANTS IN FOOD & FEED

Chairperson: M. V. Cesio, Uruguay

Co-Chairperson: C. Vlachou, Joint FAO/IAEA Centre

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper/Presentation
13:00–13:15		V. Bartkevics (Keynote)	Latvia	Advances in Testing and Monitoring Residues and Contaminants in Food
13:15–13:30	70	T. Chigiya	Zimbabwe	An Assessment of Veterinary Drug Residues in Beef and Chicken from Zimbabwe: National Monitoring Program
13:30–13:45	160	G. Liftingner	Austria	Heavy Metals and Arsenic in Residue Control of Animals in Austria - an Overview and Interesting Results
13:45–14:00	154	B.S.N. Al Salhi K. Alfarsi B. Alrawahi	Oman	Determination of Heavy Metals in Selected Fruits and Vegetables Collected from Local Market in Muscat, Sultanate of Oman
14:00–14:15	150	U. Maqbool J. Sasanya S. Shah I. Chughtai M. Mumtaz M. Yasin G. Hussain	Pakistan	Nuclear Techniques to Enhance Mixed Contaminants Analysis in Food and Feed
14:15–14:55		<i>Poster Session 1A (Chemical Residues & Contaminants in Food & Feed)</i>		
14:55–15:10	206	B. R. Fernando K.G.A.D. Abesooriya B.C.J. Fernando A.R.C. Gunasena P.W. Jayasooriya R.M.S.K. Karunaratne M.M.A.W.P. Mudannayake	Sri Lanka	Safety Concerns of Animal Originated Food in Sri Lanka due to Antimicrobial Residues and Aflatoxins
15:10–15:25	303	S. Panigrahi C. V. Srinivas S. N. Bramha M. Margret L. Srivani S. Chandrasekaran B. Venkatraman	India	Food and Radiological Safety Assessment Based on the Activity Concentration of Radionuclides in Seafood from Klapkkam, India
15:25–15:40	282	S. Herrera A. Montenegro R. Cabanzo E. R. Sánchez Y.R. Giraldo C. A.Vargas García	Colombia	Quantification of Cadmium in Cocoa Beans by Laser Ablation coupled with Inductively Coupled Plasma Mass Spectrometry (LA-ICP-MS) via Pressed Pellets
15:40–15:55	151	Md. H. Islam D. Chakma M. J. Islam Md. Nazrul Islam P.M. Billah A.S.M. Saifullah K. S. Chironjit	Bangladesh	Screening Antimicrobial Residues in Chicken Muscle in Bangladesh Using Charm II Radio-Receptor Assay Technique
15:55–16:10	177	K. Nasr Ep Kachroudi M. Samaali C. Tissaoui Z. A.Berriche L. Chouba F. Boujelbane	Tunisia	Evaluation of Polonium-210 and Dose Assessment in the Bivalve Venerupis Decussate from Tunisian Coastline
16:10–16:25	29	B. Katati	Zambia	Prospecting the BioControl of Fusarium's Fumonisin from Maize Phyllosphere
16:25–16:40	33	G. García C. M. A. Hernández L.C. Longoria	Mexico	Microplastics Extraction and Identification from Commercial Samples of Edible Mussels (<i>Mytilus Galloprovincialis</i>)

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper/Presentation
16:40– 16:55	42	S. Y. Fazaeli Hosseininezhad G. Shahhosseini A. Neisi J. J. Sasanya P. Ashtari S. F. Zenjanab	Iran	Depletion Imaging using Radionuclides; a Novel Method for Evaluation of Depletion of Veterinary Pharmaceuticals using Radioisotopes
16:55–17:05		Discussion		
17:05–17:45		<i>Poster session 1A (Chemical Residues & Contaminants in Food & Feed) (cont'd)</i>		
18:00–20:00		<i>Welcome Reception</i>		M-Building – Ground Floor

TUESDAY, 28 MAY 2024

M–Plenary

08:30–09:30 **SESSION 3:
PUBLIC-PRIVATE PARTNERSHIPS; FUNDING AGENCIES; THE
FOOD INDUSTRY; POLICY MAKING**

Chairperson: **G. Molnar, UNIDO**

Co-Chairperson: **E. Dupouy, FAO**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper/Presentation
08:30–08:45		D. Ihedioha (Keynote)	African Development Bank (AfDB)	The African Development Bank and Food Safety in Africa
08:45–09:00		G. Molnar (Keynote)	United Nations Industrial Development Organization (UNIDO)	Modernizing Food Control Systems through Innovative Public-Private Partnerships

PANEL DISCUSSION, Q& A

Time	Name	Designation	
09:00–09:30	D. Ihedioha	AfDB	
	G. Molnar	UNIDO	
	K. Onul	The International Finance Corporation (IFC)	
	Y. Siddiqi	Asian Development Bank (ADB)	
	N. El-Haj	IAEA- Nuclear Sciences and Applications	
09:30–10:10	E. Dupouy	FAO	Safe Food in Africa (SAFA) – A new FAO-IAEA-UNIDO Tripartite Food Safety Programme Proposal Presentation and discussion
	J. Sasanya	Joint FAO/IAEA Centre	
	G. Molnar	UNIDO	
	Partners	Stakeholders	

10:15–14:30 **SESSION 4:
PREPARING FOR AND RESPONDING TO EMERGENCIES
AND INCIDENTS AFFECTING THE FOOD SUPPLY;
MEASUREMENT OF RADIONUCLIDES** **M–Plenary**

Chairperson: **R. Newkirk, WHO**

Co-Chairperson: **D. Ihedioha, AfDB**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper/Presentation
10:15–10:30		E. Dupouy (Keynote)	FAO	Comprehensive Food Safety Emergency Preparedness for Rapid Response and Effective Management
10:30–10:45	240	M. Sanad	Bahrain	Investigation on Food Poisoning Outbreak Caused by Staphylococcus aureus Enterotoxin A and Incidence of Staphylococcal Food Poisoning in the Kingdom of Bahrain

10:45–11:00	242	S.S. Hosseini A. Attarilar F. Keshavarz E. Mirrezaei M. Nazmabadi M. Salehi	Iran	Determination of Po-210 in Iranian foodstuff
11:00–11:20	<i>Coffee/Tea Break</i> <i>Poster Session 1 B (Chemical Residues & Contaminants in Food & Feed) and</i> <i>Poster Session 2 (Preparing for and Responding to Emergencies and Incidents Affecting the Food Supply; Measurement of Radionuclides)</i>			
11:20–11:35	219	E. Makufa	Zimbabwe	Preparing for Emergencies and Incidents Affecting the Food Supply-Coal Mining Towns in Zimbabwe
11:35–11:50	2	S. Alnaaimi A. Aishah A. Omar	Kuwait	Estimation of Committed Effective Dose of Radioactivity in Plant-Based Milk Available in Kuwait Markets Using Gamma and Alpha Spectrometry System
11:50–12:05	78	J. Lubbe M. Van Rooy	South Africa	NMISA Supports Food Safety through Radioactivity Testing of Food, Feed & Water
12:05–12:20	97	P. Pavlenko V. Kashparov	Ukraine	Testing Various Countermeasures to Reduce Radioactive Contamination of Freshwater Fish
12:20–12:35	171	M. Samaali K. N. Ep Kachroudi W. Leghribi Z.A. Berriche F. Boujelbane	Tunisia	Uranium Natural Levels in Bottled Mineral Water Produced in Tunisia
12:35–12:50	67	J. A. Guerrero Dallos	Colombia	Pesticide Residue Analysis Laboratory an Example of Collaboration between Member States and IAEA
12:50–13:05	128	V.K. Gouws M. Madhuk M. Mathuthu R. D. Mavunda	South Africa	Assessment of Norm in Fruits and Vegetables from Hartbeespoort, Mafikeng and Pretoria Markets
13:05–14:05	<i>Lunch break</i>			
14:05- 14:20		O. Guzman Lopez Ocon	IAEA	Management of Exposures Due to Radionuclides in Food other than during a Nuclear or Radiological Emergency: New IAEA-FAO-WHO Guidance
14:20–14:30	Discussion			

14:40–18:10

SIDE EVENTS

Time				
Moderator:	R. Attia, Joint FAO/IAEA Centre			
14:40–15:40	Women in Nuclear, IAEA			
Moderators:	B. Maestroni, Joint FAO/IAEA Centre A. Mihailova, Joint FAO/IAEA Centre			
15:40–18:10	Exhibitor Side Event			

WEDNESDAY, 29 MAY 2024**09:00–12:15****SESSION 5:
FOOD AND PHYTOSANITARY IRRADIATION****M–Plenary****Chairperson:****A. Strasser, France****Co-Chairperson:****C. Blackburn, Joint FAO/IAEA Centre**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper/Presentation
09:00–09:15	05	M. Lacroix (Keynote)	Canada	Cross-Linked Gelatin–Riboflavin-Based Film Incorporated with Essential Oils and Silver Nanoparticle by Gamma-irradiation: A novel Approach for Extending Shelf-Life of Meat
09:15–09:30	302	A.M. Benita H. Widyastuti	Indonesia	Effect of Gamma Irradiation and Vacuum-Packaging on Shelf-Life Extension of Ethnic Food “Gudeg
09:30–09:45	143	I. Hewajulige M. Jayasinghe R. Pitipanaarachchi N. Gunsekara M. Samarananayake G. Madurakanthi H. Mahanama	Sri Lanka	Development of Granola Bars using Locally Available Raw Material as an Emergency Food and Evaluating the Effect of Gamma Irradiation (Co 60) on Nutrition and Sensory Attributes
09:45–10:00	21	F. Ocloo J. Agyei-Amponsah S. Fiadey U. Gryczka	Ghana	Comparative Effects of High Energy Electron Beam and Gamma Irradiation on Microbial Quality African Nutmeg (<i>Monodora Myristica</i>) Powder
10:00–10:15	161	F. Kuntz A. Strasser F. Van der Stappen A. V. Rivadeneira	France	Low, Medium and High Energy X-rays or Electron Beam, which is the Optimal Irradiation Technology for Phytosanitary Application? A Dosimetry and Monte Carlo Simulation Approach
10:15–10:55	<i>Coffee/Tea Break Poster Session 3 (Food and Phytosanitary Irradiation)</i>			
10:55–11:05	212	S. Stutchbury P. Dethier	Canada	Industrial E-beam and X-ray Systems for Food Irradiation – Mevex Latest Developments
11:05–11:20	273	O. Acuna J. Elster S. Pillai	USA	Ensuring Food Security and Food Safety by Examining the Feasibility of Implementing E-Beam/X-ray Technologies
11:20–11:35	318	V. Simoes Dias C. Caceres G. Hallman M.J. B. Vreysen S. Myers I.V. Gomes	FAO/IAEA	Harmonization of Phytosanitary Irradiation Treatments
11:35–11:50	192	G. Diano G. Abrera C. Deocaris D. R. Montefalcon E. Sabado K. M. Tardecilla	Philippines	Exploring the Gut Microbiome of Mass-Reared Super Worm (<i>Zoophobas Morio</i>) in the Philippines: Insights into Bioactivity and Radiosensitivity
11:50–12:05	153	S. Cabo Verde B. Pinheiro J. Madureira U. Gryczka	Portugal	Extraction of Bioactive Compounds from Food using Low Energy E-Beam
12:05–12:15		Discussion		
12:15–13:15	<i>Lunch Break</i>			

12:15–13:15**SIDE EVENT**

Paper No.	Organization	Title
	Vienna Centre for Disarmament Non-Proliferation (VCDNP)	The Future of Food: Globalizing Access to Technologies

Chairperson: C. Elliott, United Kingdom

Co-Chairperson: M. Lees, France

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper/Presentation
13:15–13:30		G. Marechal (Keynote)	Belgium	EU Activities in the Fight Against Agri-Food Fraud
13:30–13:45	213	C. Terro N. E. Amenzou L. Bontempo M. Eddabdouby M. J. Hudobivnik B. K.Seljak D. Mazej R. Modic B. Moncef M. Ogrinc N. Ogrinc D. Potočnik A. Simčič	Slovenia	IsoFoodTrack– Stable Isotope and Multi-Elemental Tool for Determination of Saffron Traceability as Selected Commodity
13:45–14:00	104	J. Geist A. Gadelmeier	Germany	Development of a Database with Stable Isotope Data sets for Egg Authenticity at the National Reference Centre for Authentic Food (NRZ-Authent)
14:00–14:15	144	A. Li A. Abraham X. Yang S. Kelly	China	Potential of Non-exchangeable Hydrogen Stable Isotopic Fingerprint for Honey Authenticity
14:15–14:30	252	M. O. Varrà L. Husáková P. Iacumin J. Patočka M. Rossi A. Ianieri E. Zanardi	Italy	Detecting Fraud in Cephalopods using Decision Rules based on Carbon and Nitrogen Isotope Ratios and Rare Earth Elements
14:30–14:45	193	S. Pianezze N. Barilaro L. Bontempo S. Carpino V. D. Martino D. Masuero M. Perini	Italy	Stable isotope Ratio Analysis to detect synthetic citric acid addition to Italian tomato sauce
14:45–15:00	311	A. Kambikkanath B. Bharath N. Karunakara	India	Quantification of Natural and Synthetic Constituents in Edible and Essential Oils through Determination of ¹⁴ C Specific Activity by Liquid Scintillation Counting
15:00–15:40	<i>Poster Session 3 (Food and Phytosanitary Irradiation) (cont'd)</i>			
15:40–15:55	274	D.A. Werner	France	Exploring the equivalence of high and low Field NMR Instruments to Assess Pepper Authenticity
15:55–16:10	328	G. P. Sabin P. G. Celso D.L. Dantas de Freitas L. Ferreira de Aguiar H. Vitória de Oliveira Silva	Brazil	Enhancing Coffee Sector Integrity through Multispectral Microscopy
16:25–16:40	203	R. Duft J. Griffin	United Kingdom	Development of LC-MS/MS Proteomics and Lipidomics Methods to Differentiate Meat Species for Food Authenticity

16:40–16:55	87	D. Pavlidis S. Balafas A. Mallouchos G.J. Nychas	Greece	Volatilomics for Authenticity Assessment of Raw Red Meats
16:55–17:10	105	R. M. H. Raja Nhari N. F. K. Mokhtar A. M. Hashim J. H. Soh	Malaysia	Detection of Pork Adulteration Using Lateral Flow Immunoassay Targeting Porcine-Specific IgG
17:10–17:25		P. Xiao	China	China's Food Fraud Regulation in the Digital Age: A Close Look at a Landmark Case During the Pandemic
17:25–17:35		Discussion		

THURSDAY, 30 MAY 2024

09:00–14:20 **SESSION 7:
STANDARD SETTING, REGULATIONS, METROLOGY,
RISK ASSESSMENT** **M–Plenary**

Chairperson: **S. Cahill, CAC**

Co-Chairperson: **H. Heinzen Gonzalez, Joint FAO/IAEA Centre**

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper/Presentation
09:00–09:15		S. Wearne (Keynote)	Codex Alimentarius Commission	You have a Stake in Setting and Implementing International Food Safety Standards and Guidelines.
09:15–09:30	155	M. Hachinohe K. Kubo M. Ogihara M. Yoshiyama T. Hirayama H. Matsuoka T. Sato Y. Urashima	Japan	Research on Honey Production to Reduce the Risk of Radiocesium Contamination in Decontaminated Farmland in Fukushima
09:30–09:45	186	G. Gajski A. Domijan K. Hercog M. Štampar M. Gerić M. Sokolović B. Žegura	Croatia	Toxicity of Mycotoxins Deoxynivalenol and Zearalenone alone and in a Binary Mixture
09:45–10:00	121	M. L. Pareja C. Pérez S. Pereyra A. Pérez	Uruguay	Winter Cereals Production Status in the Northwestern Part of Uruguay regarding Food Safety
10:00–10:15	204	X. Xu L. Huang Y. Pan L. Wang L. Wen	China	Disposition of Tritium Labeled Diaveridine in Pigs, Broilers and Rats
10:15–10:55		<i>Coffee/Tea Break</i> <i>Poster Session 4 (Food Authenticity and Fighting Food Fraud)</i>		

10:55–11:10	130	J. Cornejo E. Pokrant P. Cortés B. Pinto F. Suazo M. Maturana A. Flores C. Vergara A. Maddaleno	Chile	Amoxicillin Evaluation in Broiler Chickens: Public-Academic Collaboration in the Framework of an International Project to Provide Data for the MRLs Establishment
11:10–11:25	141	A.S.M. Saifullah Md. J. Islam C. K. Shaha Md. H. Islam Md. N. Islam D. Chakma Md. M. B. Prince	Bangladesh	Residue Depletion Kinetics and Withdrawal Time Estimation of Doxycycline in Tissues of Sonali Chicken following Multiple Oral Administrations
11:25–11:40	22	R. Ismail	Egypt	The Importance of Black Seed Oil and the Challenges to the Establishment of International Standards
11:40–11:55	335	H. Heinzen Gonzalez N. Gérez M. V. Cesio Cesconi	Uruguay	Monitoring for Risk Assessment Studies of Cucurbitaceae Species Sold in the Uruguayan Market
11:55–12:10	57	S. Issaka A. Asamoah A. Gibrilla	Ghana	Risk Assessments of Polycyclic Aromatic Hydrocarbons (PAHs) in Repeated Use Vegetable Oils and Finger Foods in Ghana
12:10–12:25	194	T. G. Angeles B.J. Barba C.G. Causapin M. Cebujano P. Gonzales A. Mendoza A.Y. Salen	Philippines	Cyanotoxin Risk Assessment (CRA): Preliminary Study on Utilizing Isotopic Techniques for Food Safety and Water Quality Management of Freshwater Lake Systems in the Philippines
12:25–13:25		<i>Lunch break</i>		
13:40–13:55		D. Marko (Keynote)	Austria	Data gaps in the risk assessment of mycotoxins
13:55–14:10		J. LeJeune	FAO	Microbiological Risk Assessment and JEMRA
14:10- 14:20		Discussion		

14:20–17: 45

**SESSION 8:
DETECTION AND CHARACTERIZATION OF
PATHOGENS IN FOOD, AND ANTIMICROBIAL
RESISTANCE (AMR)**

M–Plenary

Chairperson:

P. Ellitson, Namibia

Co-Chairperson:

J. Sasanya, Joint FAO/IAEA Centre

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper/Presentation
14:20–14:35		J. Nakavuma (Keynote)	Uganda	The Beauty and Hustle of Pathogen Detection in the Face of Global or Hitherto Ignored Challenges
14:35–14:50	261	S. Pillai S. V. Patchametla S.K. Singamneni K. Narayanan	USA	Rapid Screening of Viral Food Pathogens using a Single Stage Pooling Method
14:50–15:05	66	B. M. Ondieki	Kenya	Detection And Characterization of Pathogens in Food
15:05–15:45		<i>Coffee/Tea Break</i> <i>Poster Session 4 (Food Authenticity and Fighting Food Fraud) (cont'd)</i>		

15:45–16:00	228	E. Wagner	Austria	Did a Shortage of Knowledge on Cronobacter Sakazakii Lead to a Shortage of Infant Formula?
16:00–16:15	64	J. Klinsoda	Thailand	Application of 16S Ribosomal RNA Gene Sequencing Microbiome Innovation in Food Safety and Quality Assurance
16:15–16:30	36	P. Mafirakureva J. Mbanga B. Saidi	Zimbabwe	Antimicrobial Resistance of Escherichia Coli Isolated from Chickens with Colibacillosis in and around Harare, Zimbabwe
16:30–16:45	347	M. Mataragas	Greece	Comparative Genomic Analysis and Antimicrobial Resistance Profile of Enterococci Strains Isolated from Raw Sheep Milk
16:45–17:00	101	A. O. Obadina I. E. Martins	Nigeria	Global burden of Antimicrobial Resistance: Monitoring and Evaluation of Ready-to-Eat Vegetables
17:00–17:15	348	N. Andritsos	Greece	Characterization and Antimicrobial Resistance of Listeria Monocytogenes Isolated During Microbiological Testing of Various Foods
17:15–17:30	180	X. Mkhize	South Africa	Detecting Microbial Levels and Food Environment Management for Indigenous Crops sold by Informal Traders in the Central Market of Durban, South Africa
17:30–17:45	90	P. Katsande	Zimbabwe	An Investigative into Contamination Sources, Biofilm Formation Ability and Biocide Resistance of Listeria Monocytogenes Recovered from a Nile Crocodile (Crocodylus niloticus) Meat Processing Facility

FRIDAY, 31 MAY 2024

09:00–14:10

**SESSION 9:
ONE HEALTH**

M–Plenary

Chairpersons:

S. Darkaoui, Morocco

Co-Chairperson:

J. LeJeune, FAO

Time	Paper No.	Name	Designating Member State/Organization	Title of Paper/Presentation
09:00–09:15		W. Markotter (Keynote)	South Africa	What the Transdisciplinary Nature of One Health Means: Opportunities and Challenges
09:15–09:30	277	J. Kwon	Republic of Korea	Management of Antimicrobial Resistance for Food and Environmental Safety: Complementary Approach beyond Gaps between Research and Regulation
09:30–09:45	187	Y. Harntaweessup S. Mhudmah S. Wajazit	Thailand	Surveillance of Antimicrobial Residues in Aquatic Animals in Central River Basin in Thailand – a One Health Approach
09:45–10:00	190	V. Ntuli	South Africa	Quantitative Risk Assessment of Shigatoxin Producing Escherichia Coli Associated with Consumption of Contaminated Lettuce: A Case Study in South Africa
10:00–10:15	327	K. Morgan	USA	Risk-informed Approach to One Health Resilience
10:15–10:55		<i>Coffee/Tea Break/ Poster Session 5 (Standard Setting, Regulations, Metrology, Risk Assessment) Poster Session 6 (Detection and Characterization of Pathogens in Food, AMR) Poster Session 7 (One Health)</i>		
10:55–11:10		V. Owino	IAEA	Characterizing Exposure to Food-Borne Contaminants and Potential Link to Nutrition
11:10–11:25	264	B. Aslam	Pakistan	Tracing Antimicrobial Resistance in the Food Supply Chain: From Farm to Fork
11:25–11:40	227	K.E. N’Goran N.B. Aboly H.K.G. Sonan U. Bahi	Cote D’Ivoire	Chemotherapy and Contamination Risks in Livestock Production Systems in the West, North-West and North regions of Côte D’Ivoire: How the One-Health Approach can Contribute to Anticipating the Contamination Risks

11:40–11:55	173	W.Y.N. Syahfitri N. Adventini D. P. Dwi Atmodjo E. Damastuti S. Kurniawati I. Kusmartini D. D.Lestiani M. Santoso D.K. Sari P. Wardhani	Indonesia	Heavy Metal Content and Risk Assessment in Breast Milk and Complementary Food from Tangerang, Banten
11:55-12:10	132	W Rumbleiha M. Clapham F. Lima B. McNabb S. Radke D. Schrunk L. Tell K. Watson	USA	Tissue Bromide Residues in Cows and Calves Experimentally Exposed to Inorganic Bromide in Feed
12:10–12:25	233	W. Awad D. Ruhnau	Austria	Co-exposure to Deoxynivalenol (DON) and Campylobacter Jejuni Increases Intestinal Permeability and Bacterial Translocation in Broiler Chickens
12:25–13:25		<i>Lunch</i>		
13:25–13:40	257	W. Al-Baker N. A. Alabdulmalik	Qatar	The Impact of International Standards on Food Safety Emergencies - Qatar Experience for FIFA 2022
13:40–13:50		<i>Discussion</i>		
13:50–14:00		C. Vlachou C. Blackburn	Scientific Secretaries Joint FAO/IAEA Centre	Award of Poster Presenter winners
14:00–14:10		J. Sasanya	Symposium Chairperson, Joint FAO/IAEA Centre	Conclusion and Recommendations

14:10–14:50

CLOSING SESSION

Moderator:

D. Feng, A/Director Joint FAO/IAEA Centre

Time	Name	Designating Member State/Organization	Title of Paper/Presentation
14:20–14:35	H. Liu	DDG and Head of the Department of Technical Cooperation, IAEA	Final remarks and official closure of the symposium
14:35–14:50	N. Mohktar	DDG and Head of the Department of Nuclear Sciences and Applications, IAEA	Final remarks and official closure of the symposium

POSTER SESSIONS

MONDAY, 27 MAY 2024

14:15–14:55

**POSTER SESSION 1A:
CHEMICAL RESIDUES & CONTAMINANTS IN FOOD & FEED**

M Building M01

17:05–17:45

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
7	I. M. Fernández Gómez M. Valdes Ramos	Cuba	CONRADALIM: Cuban Database of Radioactive Contaminants in Food
31	M. Oueslati F. Gharbi	Tunisia	Measurement of Radioactivity in Tunisian Drinking Waters
32	A. S. Traore A. Traore	Mali	Assess the Contamination of Milk Imported into Mali by Radionuclides, Aflatoxin M1 and Melamine
34	J. Kateregga P. Waiswa E. Wampande	Uganda	Abamectin and Dichlorvos Residues in Meat, Tissues and Milk of Cattle from Selected areas of Gomba District, Uganda
40	P.A. Gatti O. Acosta F. Raco S. Rillo M. Simon	Argentina	Development of Certified Reference Materials (CRMs) in Food Matrices using Nuclear Techniques
60	M. Zarkawi	Syria Arab Republic	Detection of Tetracycline, Chlortetracycline, Doxycycline and Oxytetracycline Veterinary Residue Levels in Syrian Chicken Meat, Skin and Liver Using HPLC
72	F. Nikiema	Burkina Faso	Incidence of mycotoxins in maize sold in Ouagadougou.
74	T. Randriamparany N. De Borgia Randriamora	Madagascar	Evaluation of Veterinary Drug Residues in Milk in Madagascar
81	B.K. Kassaye	Ethiopia	Prevalence and Concentration Level of Aflatoxin B1 and Total Aflatoxin in Animal Feed in and around Shegar City, Oromia, Ethiopia.
84	L. Miheso V. Gikera	Kenya	Detection Techniques for Microplastics and Nanoplastics in Food and Feed.
94	M. Ahmadi M. Abdollahi M. Mahrougi A. Naserian	Iran	Reduction of Antibiotic Residue in Waste Milk by Cold Plasma Method.
98	A. Husen	Ethiopia	Aflatoxin in Ethiopia and Current Global Trends of Combating Aflatoxin Contamination Level in Foods with the help of Gamma Irradiation and Other Physical Methods
108	S. Thantar M. Naing	Myanmar	Determination of Elements in Milk and Dairy-Products by ICP-OES Method for Food Safety
110	A. Hassan	Sudan	The Role of the IAEA in Establishing National Network for Food Safety; Lesson Learnt and Success Story
111	J. V. F. Nsoga J. C.M. Koule M. Ndomou	Cameroon	Human Health Risk Assessment of Polycyclic Aromatic Hydrocarbons in Selected Fish Smoked Using Various Kilns in Douala, Cameroon
113	N. Randriamora T. Randriamparany	Madagascar	Detection of Veterinary Drug Residues in Foods of Animal Origin and Animal Feed in Antananarivo, Madagascar
115	D. Javangwe	Zimbabwe	Determination of Lead (Pb) Concentrations in Drinking Water at Child Day Care Centers in and Around Harare, Zimbabwe
116	L. Mukani	Zimbabwe	Qualitative Analysis on Antimicrobials in Milk Collected from Harare
125	E. Matema	Zimbabwe	Determination of Heavy Metals in Fish from Harare Peri-urban Dams using Atomic Absorption Spectrometry
127	N.N. Andriamahenina N. N. F.Andrianirinamanantsoa M. Harinoely N. Rabesiranana L.V. Rakotozafy E.O. Rasoazanany H.N. Ravoson	Madagascar	Assessment of Heavy Metal Levels in Beef Meat from Antananarivo City Markets, Madagascar.

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
131	E. Salazar	Costa Rica	Development of a Novel Methodology for Detecting Dithiocarbamates in Vegetables Intended for National Consumption in Costa Rica utilizing GC/MS-MS
134	A. Coulibaly A.A. Dicko O. Camara	Mali	Radioactivity Measurement in Various Types of Rice Cultivated in Three Localities in Mali
136	W. Barrantes	Costa Rica	Six Years of Progress in Antimicrobial Residue Monitoring in Animal-Derived Foods in Costa Rica.
139	Md. S. Rahman	Bangladesh	Characterization, Source Identification and Hazard Level Assessment of Ingested Microplastics in one of the Most Important Fish Species in South Asia: Oreochromis Niloticus
149	F. Nurhaini D. D. Lestiani M. Santoso S. Kurniawati D. P. D. Atmodjo W. Y.N. Syahfitri E. Damastuti I. Kusmartini	Indonesia	Application of Nuclear Analytical Techniques for Nutrient and Heavy Metal Characterization in Local Food Commodities: A Strategy for Stunting Prevention
183	Z. Azzouz Berriche K. N. Ep Kachroudi M. Samaali	Tunisia	Validation of Charm II test as Radioimmunoassay for Screening of Sulfonamide Residues in Meat
205	X. Xu L. Huang M. Huo Y. Ou L. Sun	China	The Residue Elimination of Diclazuril in Eggs
209	M. Mumtaz I. Chughtai U. Maqbool J. Sasanya M. Yasin	Pakistan	Prevalence of Chemical Contaminants in Feed and Food Samples, collected from Different Regions of Pakistan
245	A. Kileo	United Republic of Tanzania	The Role of Digitalization in Regulatory Control of Radioactivity Level in Food Stuffs in United Republic of Tanzania.
248	A. Babiker	Sudan	Screening of Oxytetracycline Residues in Animal Products Collected from Some States in the Sudan
253	P. Nimbona	Burundi	State of Aflatoxin Contamination in Burundi
254	W. Attyaallah Amna Babiker	Sudan	Animal Production Sector Practices in Sudan in Relation to Drug Usage: Overview
255	G. Ramadan N. Al-Abdulmaalik A. S. Mohammed	Qatar	Monitoring of Pesticide Residues in Common Cultivated Vegetables in State of Qatar and Assessment of their Associated Health risks
263	C. Kusena	Zimbabwe	Qualitative Analysis of Antimicrobials in Bovine Products Collected from Masvingo and Manicaland, Zimbabwe
266	A. Mohamed H. Abdulredha M. Alghawas E. Jassim A. M. M. Mohamed F. S. Hashem	Kingdom of Bahrain	Evaluation of Critical Pesticides Residues in Local and Imported Food Samples in Bahrain
278	J. Naouli H. Ait Bouh A. Benkdad A. Laissaoui R. Saadi	Morocco	Biomonitoring of Molluscs along the Northwest Moroccan Coast – Radiological Risk Assessment and Human Health Risk Analysis
280	G. Medoua Nama G. Kansci F. D. Paul Tatfo Keutchatang	Cameroon	Occurrence of Mycotoxins in Chicken and Eggs in Some Urban Areas of Cameroon and Population Dietary Exposure
285	M. L. Montiel Leguizamon B. Michajluk L. B. Chaparro	Paraguay	Determination of Cesium-137 as a Radioactive Contaminant in Yerba Mate (Ilex paraguariensis), Cooked Mate and Coffee in Asunción-Paraguay
292	W. Ali K. Omar S. Suleiman	United Republic of Tanzania	Safety Analysis of Animal Food Products in Zanzibar
296	Y. Salazar Chacon	Costa Rica	Beginning of the Implementation of the Database of the Data Sharing Committee of the Latin American and Caribbean Analytical Network (RALACA)
297	D. Kerekes Y. S. Chacón	Uruguay	The Future of Food Safety Data through Latin American and Caribbean Cooperation - Initiative to Establish a Regional Food Safety Data Exchange Network

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
304	A. Osman N. Ashkanani M. Hasan	Qatar	First Radionuclides Data and Associated Health Risks in Local Qatari Vegetables
313	M. Gonzalez Zeledón	Costa Rica	Multiclass and Multi-Matrix Method for the Analysis of Residues of Antibiotics in Foods of Animal Origin
314	J.C. España Amórtegui J. A. Guerrero	Colombia	Tiered Development of a PAH Analysis for Roasted Coffee: A Mini-Method Approach
317	D. Shao R. J. Mwamahonje W. D. Ruseruka P. W. Shirima	United Republic of Tanzania	Food Control Systems in the United Republic of Tanzania: The Regulatory Framework and the Role of the National Nuclear Regulator for the Detection and Control of Radionuclide Contaminants in the Food Chain During Importation and Exportation in the United Republic of Tanzania.
326	M. Moe Thein W. War Oo N. P. Thwin P. P. San	Myanmar	Screening of Selected Drug Residues and Mycotoxin in Milk and Feed in Myanmar
330	E. Vieira R. C. Batista Ferreira C. M. Barbosa	Brazil	Fipronil Risks to Bees

TUESDAY, 28 MAY 2024

11:00–11:20

POSTER SESSION 1B:

M01

CHEMICAL RESIDUES & CONTAMINANTS IN FOOD & FEED (CONTINUED)

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
331	C. Abdelkader M. Moutaly A. Beyit	Mauritania	Study of the Prevalence of Antibiotic Residues in Red Meat Produced and Marketed in Mauritania
334	A. Reyes Hernández B.C. Orrego H. F. Ávila Z. Ng Chinkee	Panama	QuEChERS Method Optimization for Mycotoxins extraction Aflatoxins and Ochratoxin A, in Green Coffee Beans
337	F. Baroudi	Algeria	Determination of Lead and Cadmium in Food Supplements Commercialized in Algeria by Graphical Furnace Absorption Spectrometry
339	M. Azouz	Algeria	Pesticide Residues Analysis in Fresh Fruit Case of Strawberry in the Central and Eastern Region of Algeria
340	M. Mokhtari	Algeria	Pesticide Residues in Tomato and Pepper, and their Risk Assessment on Algerian Consumer
343	H. Hussan	Sudan	Simultaneous Determination of Fluopyram, Tebuconazole, Trifloxystrobin and their Metabolite Residue in Cucumber (<i>Cucumis sativus</i>) and Soil by a Modified QuEChERS with LC-MS/MS
349	O.A. Lucas Aguirre	Peru	Development, Validation and Application of Multiclass Isotope-Based Methods for Simultaneous Analysis of Mycotoxins, Pesticide Residues and Related Contaminants in Quinoa, Grapes and Other Selected Matrices
351	D. Mwalwayo S. Kuyeli	Malawi	Aflatoxin Contamination of Selected Mostly Consumed Commercial Products in Malawi
354	R. El Moustaid Alaoui	Morocco	The ONSSA Laboratory Network: Unyielding Guardian of Food Safety in Morocco

11:00–11:20

**POSTER SESSION 2:
PREPARING FOR AND RESPONDING TO EMERGENCIES AND
INCIDENTS AFFECTING THE FOOD SUPPLY; MEASUREMENT OF
RADIONUCLIDES**

M01

Screen No.	Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
		P. Mafirakureva		
	35	J. Mbanga B. Saidi	Zimbabwe	Incidence and molecular characterization of lumpy skin disease virus in Zimbabwe using the P32 gene
	357	A. Petchkongkaew	Thailand	IJC-FOODSEC: The New International Joint Research Center on Food Security for ASEAN region

WEDNESDAY, 29 MAY 2024

M01

10:15–10:55

**POSTER SESSION 3:
FOOD AND PHYTOSANITARY IRRADIATION**

15:00–15:40

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
28	M.A. Etoom	Jordan	Food Irradiation in Jordan
45	A. F. Abdull Razis	Malaysia	Gamma Irradiation Affects Tropomyosin Allergen, Nutritional Value, and Mineral Elements of Giant Tiger Prawn (<i>Penaeus Monodon</i>).
46	S. P. Shirmardi S. Y. F. Hosseininezhad M. Yeganeh	Iran	Disinfestation of Beans and Cereals Utilizing Novel Gamma Irradiators in Iran
53	V. Tenishev	Russia	High Quality Radiochromic Film Dosimeters Development
56	E. Güllüoğlu	Türkiye	Food Irradiation Technology and Application in Türkiye
61	Md. M. Hasan Md. A. Hossain	Bangladesh	Comet assay: A Novel Technique for Determining the Radiation Induced DNA Damage in Insect Pests Infesting Food Grains
75	M. Al- Bachir	Syria Arab Republic	Microbiological Safety of Irradiated Food in Syria
76	O. Turan	Türkiye	Conceptual Evaluations for Low-Energy Electron Beam (LEEB) and Comparison with Gamma Irradiation of Citrus Fruits
83	F. Hmaied W. Zernadji S. Jebri F. Rahmani I. Amri D. Aissaoui M. H. Trabelsi M. Yahya I. Amri	Tunisia	Effect of Gamma Irradiation and Bio preservation to Minimize Pathogens in Packaged Ready-to-Eat Salads
85	L. Villanueva Jiménez	Peru	Banana Improvement by Mutations
91	M. Y. Mansour	Syria Arab Republic	Low Energy X-Rays as a Possible Alternative to Gamma Radiation in Phytosanitary Treatments of Agricultural Products
114	U. Gryczka A. Nasreddine F. Kuntz S. Bułka	Poland	Development of Control Requirements for the Process of Low Energy Electron Beam Food Irradiation
122	A. Raad M. Constanza Cova	Argentina	Gamma Radiation Effects on the Physicochemical Characteristics of Fine cut Salamin (Argentinian Dry Fermented Sausage)

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
	M. S. Guerrero Martínez S. R. Vaudagna M. V. Vogt		
124	I. W. Setya Andani A.R. Kumaraningrum I. D. Junianto	Indonesia	The Development of Irradiated Food in Indonesia: Opportunities for Using Irradiated Traditional Ready-to-Eat Food as Emergency Food and Food for the Hajj
137	E. Mejías T. Garrido C. Gomez	Chile	Effect on the Antioxidant Properties of Native Chilean Endemic Honeyes Treated with Ionizing Radiation to Remove American Foulbrood Spores
152	R. J. Mwamahonje R. Suleiman	United Republic of Tanzania	Physico-Chemical Properties of Fresh Irradiated Tomatoes During Storage
164	Z. Khalilov E. Muradov	Azerbaijan	Enhancing Pet Food Safety and Shelf Life
165	D. Ariyanti E. Fakhrurozi A. I. Christian	Indonesia	Characterization of Activated Chitosan Edible Coating Film Using Cobalt Gamma Irradiation Exposure and Its Effect on Pempek (Traditional Sumatran Food) Preservation
169	A. I. Christian D. Ariyanti A. I. Christian E. Fakhrurozi	Indonesia	Effect of Cobalt Gamma Irradiation on Shelf-Life Extension of Pempek Preservation (Qualitative Physical Appearance, Refer to Time needed of Expedition Intercity and/or Interisland) in Indonesia
170	R. Vazirov S. Sokovnin A. Krivonogova	Russia	Surface Irradiation of Food and Agricultural Products by Low-Energy Electron Beam at the Urt-1 and Urt-0.5 Accelerators
178	D. T. Vu	Viet Nam	Advancing Food Safety and Control: The Landscape of Food Irradiation in Viet Nam
182	Y. Dalto C. Barrenechea V. Vogt	Argentina	Analysis of Radiotolerance in the Developmental Stage of Diatraea Saccharalis
184	M. Byambajav M. Gunaajav C. Radnaabazar N. Enkhgerel T. Amgalan J. Tserendorj L. Baasansuren	Mongolia	Shelf-life Extension of Potatoes by Low Energy X-rays
195	U.O. Madu O. Chukwu C. A. Okolo	Nigeria	Functional Properties and Proximate Composition of Vegetable Cowpea (Vignasesquipedalis) Seeds after Irradiation
198	U. O. Madu O. Chukwu P. A. Idah K. U. Isah G. N. Nwachukwu	Nigeria	Predicting the Effect of Radiation Dose on Nutritional Composition of Nigeria Colocasia esculenta Using Response Surface Methodology
202	F. Boujelbane Ep Atta M. Samaali K.N Ep Kachroudi	Tunisia	Radioactivity Determination and Transfer Factor from Soil to Opuntia Ficus Indica in Selected Areas in Tunisia
211	Md. F. Mortuza Md. A. Hoque Md. K. Hossain Md. H. Kabir M. Khan A. Nahar Md. T. I. Samsad Md. T. I. Tanim	Bangladesh	Calibration of Radiation Dosimetry System and Optimization of Dose Delivery Process for Phytosanitary Irradiation and Food Preservation in Bangladesh
218	G. Guzik	Poland	European Intercomparison Studies as a Tool for Perfecting of Irradiated Food, White and Cane Sugar Detection Methods
225	J. Ellis O. Acuna J. Elster S. Pillai	USA	Sustaining Alternative Source Radiation Technology for Food Irradiation Services in Grid Challenged Environments

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
229	M. Sinche-Serra V. Ciobota L. Ramos-Guerrero E. Vera-Calle	Ecuador	Water-Soluble Keratin Hydrolysates Obtained from Chicken and Turkey Feathers Treated with Ionizing Radiations
238	A. W. Betga K. Cieřła G. Wfojciech	Poland	Biodegradable Packaging Materials with Antioxidant Activity Based on Polysaccharides –PVA System and Obtained with the Use of Radiation Methods
262	T. S. Lara-Ramos D. Mulyana S. Pillai	USA	An Attenuation Study for Optimizing Low Dose Delivery using 10-MeV Electron Beam for Food Processing Applications
268	K. Howie W. Yang R. Nayga	USA	Study Investigating the Dynamics of Consumer Response to Food Labeling
269	D. Mulyana S. Chirayath Aaron Tarone J. Welch P. Phillips J. Elster S. Pillai	USA	Engineering Pre-design Study of Low Energy Electron Beam Irradiation System for Sterile Insect Technology
270	A. Tomac M. P. Cenci M. C. Cova A. B. Garcia Loredo	Argentina	Valorization of Argentine Fish Resources Through Ionizing Radiation
271	A. Zauouak C. Belgacem S. Jebali	Tunisia	Assessing the Impact of E-Beam Irradiation on Diclofop Methyl Herbicide Residue in Wheat Samples and Aqueous Solutions
276	Y. Mabrouk I. Amri K. Khemissi H. Kouki	Tunisia	Combination of Gamma Radiation and Essential Oils from Two Eucalyptus Species in Managing Fungal Contamination of Stored Wheat Seeds
279	V. Ipatova U. Bliznyuk P. Borshchegovskaya T. Bolotnik A. Chernyaev E. Kozlova A. Oprunenko I. Rodin	Russia	Volatile Organic Compounds as Indicators of Oxidative and Microbial-Enzymatic Processes in Irradiated Meat and Fish
283	A. Shik M. Beklemishev U. Bliznyuk I. Doroshenko T. Podrugina Y. Zubritskaya	Russia	Kinetic-Based Method for the Estimation of Irradiation Doses Absorbed by Raw Chicken
294	A. L. Casañas Haasis Villavicencio L. Ronda-Flores B. Guimaraes-Negrao	Brazil	Application of Radiation Processing in Food for Food Safety Purposes: Maintaining Food Quality and Prolonging the Shelf Life of Products
300	R. B. Saragih	Indonesia	Food Irradiation in Indonesia: Integrated Approach to Ensure Security for Future Prospects in the Amid of Climate Change
305	E. Kozlova U. Bliznyuk A. Braun P. Borshchegovskaya A. Chernyaev V. Ipatova I. Mezhetova P. Ukhina I. Rodin	Russia	Quantitative Assessment of Structural and Functional Changes of Proteins in Irradiated Biological Objects

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
306	I. Zubritckaia U. Bliznyuk P. Borschegovskaya A. Chernyaev N. Chulikova V. Ipatova A. Malyuga A. Nikitchenko I. Rodin D. Yurov S. Zolotov	Russia	Inhibition of Phytopathogens and Crop Growth Stimulation Using Low Energy E-Beam and X-Ray Irradiation
307	S. Zolotov U. Bliznyuk P. Borschegovskaya A. Chernyaev V. Ipatova V. Khankin A. Nikitchenko I. Rodin F. Studenikin	Russia	Reconstruction of Electron Beam Energy Spectrum to Increase the Precision of Irradiation Dose Uniformity Estimate
308	I. Viana Gomes Lima J. Andrade C. Caceres V. S. Dias S. W. Myers J. Sanchez A. Sobreira M. J. B. Vreysen	IAEA	Evaluation of Drosophila Suzukii Female Fertility After Phytosanitary Irradiation Treatment Application
309	U. Bliznyuk F. Studenikin A. Chernyaev V. Ipatova A. Nikitchenko S. Zolotov	Russia	E-beam Spectrum Modification Method for Improving Dose Uniformity in Irradiated Objects
319	H. Widayastuti S. A. Safitri R. Fitriana N. Lailyshofa M. A. E. Putri A. H. Saputro	Indonesia	Is Gamma Irradiation an Effective Method to Apply to Rice Grains? Study of Amylose and Anthocyanin Contents in Native Indonesian Rice
323	A. Nikalayenka E. Fedorenko L. Rozdylouskaya	Belarus	Belorussian Experience in Food Irradiation
332	A. Raad M. Constanza Cova M. Cingolani M. Ciávaro M. Díaz J. I. Garrido M. G. Martínez C. Lires	Argentina	Coriander and Black Pepper Decontamination by Ionizing Radiation and its Impact on their Antioxidant Capacity and Aroma
350	S. Ayari	Tunisia	Evaluation of Electron Beam Treatments on Microbial and Chemical Properties of Sesame Seeds

10:15–10:55

POSTER SESSION 4:
FOOD AUTHENTICITY AND FIGHTING FOOD FRAUD

15:05–15:45

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
11	L. Owaoade I. Sambo	Nigeria	Assessments of Some Common Food Products in Nigeria to Determine their Authenticity and Mitigate Food Fraud: A Basic Component of Food Control
68	R. Huque R. Frew K. McComb Y. Suzuki Mst. A. khatun	Bangladesh	Food Authentication of Milk and Rice using Isotopic and Elemental Composition
80	B. Deya	Kenya	Advancing Food Safety through Isotopic Analysis for Verification of Production and Geographical Origin
82	N. Haider	Syria Arab Republic	Qualitative Detection of Adulteration of Some Plant-Based Spices with Materials of Plant Origin Based on DNA Barcoding
88	I. Miguez Á. Otero G. Moyna F. Rivas H. Heinzen	Uruguay	Evolution of the Metabolomic Profile (1H NMR) of the Mandarin Ovary under Different Pollination Conditions
89	S. Thantar M. M. Aye N.Z. T. Naung	Myanmar	Determination of Authenticity and Safety for SHWEBO PAWSAN RICE by ICP-OES Method and CAFÉ Software
92	R. Kocia M. Miłkowska G. Liśkiewicz	Poland	Detection of Irradiation in Dietary Supplements in the form of Effervescent Tablets using the TL Thermoluminescence Method
118	I.D. Junianto I.W. S. Andani D. Intaningrum M. A. Rahmadani Y. M. Sari	Indonesia	Enhancing Food Authenticity and Combatting Food Fraud through Nuclear Knowledge Management
123	Y. Tanjaoui S. Dahani H. Karib R. Khatouf	Morocco	Comparison between Milk Analyzer and Conventional Tests to Detect Some Milk Frauds
145	S. Kongsri C. Kukusamude R. Picha	Thailand	Identification of Geographical Origins in Thai Local Rice Base on Stable C, N, O Isotopes and Multi-Elements with Chemometrics
146	C. Kukusamude S. Kongsri	Thailand	Nuclear Analytical Techniques for Verifying the Geographical Origin of Thai GI rice
168	L. Bontempo M. Paolini L. Cucinotta A. Roncone D. Sciarrone F. Camin S. Mose R. Larcher	Italy	Moscato Giallo: First Exploratory Aromatic Characterization of by GC-MS/MS and Stable Isotopic Ratio Analysis of the Major Volatile Compounds
175	L. Bontempo	Italy	Promedlife: Novel Food Products for the Promotion of Mediterranean Lifestyle and Healthy Diet."
172	M. Perini S. Pianezze	Italy	Influence of the Equilibration Time and the Bath Temperature on the Oxygen Isotopic Values of Different Matrices analyzed through Continuous-Flow Isotope Ratio-Mass Spectrometry

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
188	K.M. Binduhewa C. K. Dissanayake B. A. T. Amalka S. M. N. K. Thilakarathne K. G. Nelum P. Piyasena M. A. B. Ranatunga E. N. U. Edirisinghe C. J. Ratiyala R. Chandrajith L. S. K. Hettiarachchi L. Suriyagoda	Sri Lanka	Stable Isotope and Multi-Element Profiling for Discriminating the Regional Tea in Sri Lanka
200	Z. Giannioti	Italy	Geographic Authentication of Rice Originating from Four Different Countries in Asia by Isotope Ratio Mass Spectrometry (C, N, S, O, H) and ICP-MS Multi-Element Analysis
221	G.P. Sabin P.G. Celso F.L.F. Soares M.A.T Volochen L.F. Aguiar	Brazil	Adulterated Coffee Visualization with Hyperspectral Image in UV-Visible Region
224	G.P. Sabin P.G. Celso F.L.F Soares L.F. Aguiar M.A.T Volochen	Brazil	Ground Roasted Coffee: A Study of its Specie and Possible Adulterants with NIR
231	E. Soares Lins R. B. Nazareno D. N. Sifuentes	Brazil	Challenges on Accommodating the Monitoring Testing Routine with Urgent, Unplanned Investigation Testing in an Official Laboratory
241	E. Mejías A. Abraham A. Li S. Kelly	Chile	Tools for Determination of Authenticity in Chilean honey: Stable Isotopic Techniques and its Relationship with Botanical Origin and Bioactive Compounds
256	N. A. Abdulmalik G. R. Gouda A. A. Yossouff	Qatar	Modern Analytical Methods for the Detection of Food Fraud and Adulteration using Statistical Methods Over Isotope Ratios in Honey and Olive Oil Using IRMS Technique
298	L. Hoo Fung J. Antoine	Jamaica	Evaluation of Trace Elements in Turmeric and Turmeric Products on the Jamaican Market
299	A. Rivera Mondragón Y. Christopher A. De Lora H. H. F. Marín S. Hernández G. Navas	Panama	Detecting Adulteration of Commercial Honey Samples from Panama by using two HPLC methods
301	H. Widyastuti A. M. Benita D. Lasmawati T. R. Mulyaningsih I. M. Pratama B. Pratikno A. Sumartono R. P.Tanhindarto	Indonesia	Geographical Identification of Rice Cultivars in Different Regions in West Java using Stable Isotopes and Elements Analysis with Unsupervised Learning
338	F. Baroudi	Algeria	Detection of Prohibited Substances Fraudulently Used in Several Food in Algeria
353	V. Puravankara	India	A Wettability contrast SERS Droplet Assay for Multiplexed Detection of Food Adulterants
355	A. Alnuaimi	UAE	Efforts of Sharjah City Municipality in Unveiling Fraud in Protein Content of Milk Powder Products
356	R. Hochegger	Austria	Metabarcoding for the Simultaneous Detection of Species in Foods

FRIDAY, 31 MAY 2024

10:15–10:55

**POSTER SESSION 5:
STANDARD SETTING, REGULATIONS, METROLOGY, RISK
ASSESSMENT**

M01

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
55	B. Sharma Khanal	Nepal	Regulatory System on Food Safety and Quality Control in Nepal
181	M.O. Varrà G.T. Lanza L. Husáková J. Patočka M. Piroutková S. Ghidini E. Zanardi	Italy	Risk Characterization of Toxic Elements Through the Consumption of Botanical Preparations Across the European Population
167	J. Lubbe D. Prevoo-Franzsen L. Quinn M. Linsky M. Fernandes-Whaley	South Africa	The Importance of Proficiency Testing in Food Safety: An African perspective
215	J. Tinarwo B. Jackson S. Chimuti	Zimbabwe	Food Safety in Zimbabwe - An Overview
352	B. I. Checa Orrego L. Aparicio D. Gordón G. Hernández	Panama	Establishment of Risk- Based Surveillance Program of Pesticide Residue for Crop Production in Panama

10:15–10:55

POSTER SESSION 6:

M01

**DETECTION AND CHARACTERIZATION OF PATHOGENS IN
FOOD (AMR)**

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
48	A. Hammad A. Eid W. F. Khalil S. A. El-Nour	Egypt	Prevalence of Sulfonamides, β -lactam, Salmonella, Staphylococcus Aureus in Raw Milk: Irradiation Effect on Antibiotic-Resistant bacteria and degradation of antibiotic residues
51	A.F.D.S. Sumbana	Mozambique	The risk of introduction E. coli in Mozambique through the importation of meat sausages from South Africa
73	S. Chimuti, D. T. Mugadza P. Kamau, V. Ntuli	Zimbabwe	Contribution of Farm Level Hygiene Practices to Microbial Safety Profiles in the Informal Dairy Sector in Zimbabwe
65	B. Jackson R. S. Masunga	Zimbabwe	Determination of Pesticide Residues in Honey from Small Scale Producers in Harare Zimbabwe
93	H. Suseno	Indonesia	Analysis of Saxitoxin Content in Various Freshwater Biota Originating from JATILUHUR using 3H-RBA Methods
96	M. Muslim	Indonesia	Determination of Saxitoxin Concentrations in Various Biota on Tegal Beach, Indonesia using Nuclear Applications Techniques (3H-RAB)
106	N. Ziyate Z. Soubai S. Darkaou I. Iharch D. Abislim N. Aujjar	Morocco	Antimicrobial Susceptibility of Salmonella spp Isolated from Poultry Samples in Morocco
112	J. V. F. Nsoga J. C. Manz koule M. Ndomou	Cameroon	Isolation and Identification of Fungal Strains during Storage of Fish Smoked by Various Kilns in the City of Douala, Cameroon
159	G. Nijimbere	Burundi	Street Food Sales and Food Safety in the Cities of Burundi

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
	F. Nitereka C. Uwizeyimana		
163	A. Mahin Md. K.Pramanik Md. A. K.Sarker Md. S. Hossain N. Nahar	Bangladesh	Simultaneous Detection of Salmonella spp., Escherichia Coli, and Listeria Monocytogenes by Multiplex PCR
166	S. Wongsrichai	Thailand	Antimicrobial Resistance Surveillance in Livestock Sector, Thailand
208	I. S. Beia	Romania	Enhancing Food Safety and Quality of Consumer Protection in Romania
234	W Awad D. Ruhnau	Austria	Contrary Effect of Deoxynivalenol (DON) and Deepoxy-Deoxynivalenol (DOM-1) on Campylobacter Jejuni Resolved in Vitro
249	L. Alteio F. Spiege K. Kober-Rychli M. Wagner	Austria	FoodSafeR: Disentangling Factors Supporting Persistence of Listeria Monocytogenes in Food Processing Environments
260	S. Pillai A. Anderson S. Dixon S. Ruggles K. Narayanan	USA	A Single Stage Pooling Scheme for Large-Scale Bacterial Pathogen Detection in Food Matrices
324	M. Garba Hima P. Sessou	Niger	Qualité Hygiénique Du lait Local Au Niger Et Facteurs de Risques
333	C. T. Dedah C. Abdelkader D. Diop A. B. El Mamy A. Beyit M. Sid'Ahmed	Mauritania	Evaluation of Antibiotic Resistance of Salmonella Strains Isolated from Red Meat in Mauritania
336	G. Omarch	United Republic of Tanzania	Insights of Antimicrobial Resistance and Antimicrobial Susceptibility Testing Performed at the Central Veterinary Laboratory, Dar es Salaam

Paper No.	Author(s) [presenting author in bold]	Designating Member State/Organization	Title of Paper
9	B. Atanasovska	North Macedonia	Exploring the Nexus between Climate, Microplastics, Radionuclides and Foodborne Illness in North Macedonia "A Pathway to Ensuring Food Safety"
49	M. Gerić L. Bendix S. Božičević J. Bošnjir S. Cvijetić L. Delić A. M. Domjan G. Gajski V. G. Vrhovac V. Gluščić G. Jurak J. Jurasović K. Matković T. Orct M. Peraica L. Nanić I. Rubelj D. Rašić M. V. Lovrenčić N. Š. Vidaček	Croatia	Is the Future of the Human Diet Green? – A Case of Vegetarian Diet in Croatia
54	R. Albakain S. A. Mualla	Jordan	Control of Chemical Contents of Jordanian Guava: Application on Different Geographical Origins of Jordanian Guava
58	B. K. Kassaye	Ethiopia	A systematic review and meta-analysis on aflatoxin M1 prevalence, concentration, and Analytical Techniques in Raw Cow Milk in Africa
86	C. Galdhar A. Kakad P. Alone J. Kawade P. Sapkal M. Shinde V. Mote R. Gaikwad S. Patankar V. Patrawale S. Basagoudanavar M. Hosamani A. Sanyal B.P. Sreenivasa	India	Studies on the Disposition of Technetium-99m Labeled Foot-and-Mouth Disease Vaccine in Guinea pigs
120	G. Güngör	Türkiye	Production of New Boron Ester Compounds As Nutritional Supplementation Agents
230	E. Ghoniem	Egypt	Impact of Whey Protein a Protective Natural Antioxidants in Cisplatin Ototoxicity
258	G. Kadziyanike	Zimbabwe	Analysis of the Antifungal Potential of Crude Extracts of Lactarius Kabansus Mushroom
259	H. Pouraram A. Mohammadi	Iran	Comparative Analysis of the Water Footprint of Plant-Based and Common Iranian Diets: An Environmental Impact Perspective

IAEA PUBLICATIONS RELATED TO THE SUBJECT OF THE EVENT

Exposure due to Radionuclides in Food Other than During a Nuclear or Radiological Emergency. Part 1: Technical Material Safety Reports Series No. 114. IAEA, Vienna (2023).

FAO and IAEA. (2021). Manual of Standard Operating Procedures for Selected Chemical Residue and Contaminant Analysis. Vienna.

IAEA. (2022) Development of Electron Beam and X Ray Applications for Food Irradiation, IAEA-TECDOC-2008, IAEA, Vienna (2022).

IAEA (2022): Accessible Technologies for the Verification of Origin of Dairy Products as an Example Control System to Enhance Global Trade and Food Safety, IAEA-TECDOC-2002, IAEA, Vienna (2022). Accessible Technologies for the Verification of Origin of Dairy Products as an Example Control System to Enhance Global Trade and Food Safety | IAEA.

IAEA (2024): Development and strengthening of Radioanalytical and Complementary Techniques to Control Residues of Veterinary Drugs and Related Chemicals in aquaculture Products, IAEA-TECDOC-2024, IAEA, Vienna (2024). Development and strengthening of Radioanalytical and Complementary Techniques to Control Residues of Veterinary Drugs and Related Chemicals in aquaculture Products | IAEA.

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7 – 11 October 2024, Vienna, Austria

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21 – 25 October 2024, Vienna, Austria

International Conference on Research Reactors: Achievements, Experience and the Way to a Sustainable Future
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