



**COMMISSION ON PHYTOSANITARY MEASURES
SIDE SESSION: INNOVATIVE RESEARCH AND TOOLS TO PREVENT AND
CONTAIN FUSARIUM TR4 SPREAD**

Wednesday 19 March, 2025, 13-14.45 PM, FAO Red Room

Hybrid session: <https://www.fao.org/webcast/home/en/item/6973/icode/>

Translation available: French and Spanish

Concept Note

1. Background

The Commission on Phytosanitary Measures (CPM) 17 (2023) requested the IPPC Secretariat to coordinate global action on the growing threat of Fusarium TR4, a soil-borne pathogen affected banana production. As part of this initiative, at the request of the CPM Bureau, the IPPC secretariat organized a knowledge-sharing side session during CPM-18 (2024) to share experiences from various countries that have experience in undertaking preparedness and/or response activities to prevent the entry and spread of this pathogen. Countries such as Australia, Ecuador, Madagascar, Mozambique, Nicaragua, and the Republic of Venezuela, along with experts from the FAO Office in Mesoamerica and the Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) shared their valuable experiences and insights. Given the strong interest and attendance at the session, the CPM Bureau has requested a follow-up session at CPM-19 (2025) focusing on innovations in research, prevention, and containment tools for Fusarium TR4.

This CPM-19 side session is an opportunity to demonstrate innovative tools and research, and to further raise awareness on the risk of Fusarium TR4. It also seeks to bring together key stakeholders, including the private sector, to discuss the role of Public-Private Partnership in actionable solutions and resource mobilization. This concept note outlines the expected outcomes of the session and provides a draft programme in Table 1 below.

2. Objectives

The CPM side session on Fusarium TR4 is expected to achieve the following objectives:

- (1) **Foster awareness and collaboration:** Contribute to the on-going efforts of FAO and IPPC Secretariat in addressing Fusarium TR4, promote increased awareness of its risks and impact on global banana production. and collaboration.
- (2) **Showcase innovative tools and need for solutions:** Highlight some of the innovative research, and preparedness tools that can assist countries and stakeholders in preparing for and managing the spread of Fusarium TR4 effectively.
- (3) **Engage stakeholders:** Engage appropriate stakeholders, particularly the private sector, to strengthen collaboration and support efforts such as in resource mobilization to improve preparedness, response and prevention activities against Fusarium TR4.

Table 1 Draft programme for the side session on Fusarium TR4 during Commission on Phytosanitary Measures (CPM)- 19, 2025

Modality: Hybrid (in person and online)		
Venue: Red Room, FAO Headquarters, Rome, Italy		
Online: https://www.fao.org/webcast/home/en/item/6973/icode/		
Facilitator: Preet Parmar		
Time	Description	Proposed speakers
13:00-13:10	Opening	FAO Deputy Director General <i>Beth Bechdol</i>
13:10-13:25	Introduction of challenges with global coordination on Fusarium TR4 activities, FAO and IPPC activities and of speakers	<i>Sarah Brunel</i> IPPC Secretariat
13:25-13:35	Innovative capacity development tool: virtual 3D simulation room	<i>Carlos Ramón Urías Morales</i> OIRSA
13:35- 13:43	Innovative research: new varieties of banana	<i>Mónica Betancourt Vásque</i> AGROSAVIA
13:43-13:50	Innovative research: Point-of-care molecular detection in the field, new control measures and resistant breeding	<i>Chunyu LI</i> GDAAS ¹ China
13:50-14:00	Role of public-private partnerships in management of Fusarium TR4 spread: private sector	<i>George Kporye</i> Golden Exotics Ltd Ghana
14:00-14:07	Update on innovation on Fusarium TR4 activities in Latin America and Caribbean region	<i>Raixa Llauger</i> FAO Mesoamerica
14:07-14:14	Simulation exercise in Kenya and response capacities strengthened through the Phytosanitary Capacity Evaluation	<i>Florence Munguti</i> NPPO of Kenya
14:14-14:35	Q & A session	<i>Preet Parmar</i> IPPC Secretariat
14:35-14:45	Closing from the Office of Innovation (OIN)	<i>Vincent Jean Martin</i> FAO

¹ Guangdong Academy of Agricultural Sciences

Information on speakers

FAO Deputy Director General Beth BECHDOL



Beth BECHDOL is the Deputy Director-General of the Food and Agriculture Organization of the United Nations (FAO), where she leads global efforts on food security, emergency agricultural assistance, and sustainable agriculture. She oversees FAO's work on Emergencies and Resilience, Resource Mobilization, South-South and Triangular Cooperation, and key technical programs on land, water, and plant production and protection. She also manages FAO's Committee on Agriculture (COAG) and the International Plant Protection Convention (IPPC) Secretariat.

Beth's dedication to public service in agriculture has been a driving force throughout her career. Before joining FAO, she was President and CEO of AgriNovus Indiana, advancing the agbioscience sector. She also held leadership roles at Ice Miller LLP and the Indiana State Department of Agriculture. Her expertise in agriculture policy and trade began in Washington, D.C., where she served as Chief of Staff at the U.S. Department of Agriculture and Economist on the Senate Agriculture Committee.

Raised on a multi-generation grain farm in Indiana, Beth holds a bachelor's degree from Georgetown University in international law and international affairs and a master's degree from Purdue University in agricultural economics.


Director of Office of Innovation Vincent Jean MARTIN



Dr. Vincent Martin is the Director of the FAO Office of Innovation (OIN), where he leads the Organization's science and innovation agenda as part of the FAO Science and Innovation strategy. With 28 years of experience in science, research, and policy, Dr. Martin has dedicated his career to transforming agrifood systems and addressing global development challenges through science and innovation.

Before his current role, Dr. Martin served as UN Resident Coordinator in Guinea, overseeing 24 UN agencies and driving efforts toward the Sustainable Development Goals. He led humanitarian initiatives and tackled complex issues in development, peace, and security by integrating innovation into UN programs.

As FAO Representative to China and DPR Korea, Dr. Martin shaped strategies for food security, global

	<p>health, and nutrition, fostering innovative agricultural policies and developing tools to address complex development challenges. Earlier in his career, as FAO Representative in Senegal and Head of the Regional Hub for humanitarian interventions in the Sahel, he was honored as a "Knight of the Order of the Lion" for his exceptional contributions.</p> <p>Dr. Martin's career began with CIRAD in Zimbabwe and the French Government before joining FAO in 1998. Since then, he has led development and emergency programs in epidemic prevention, control and global health policy across Africa, the Middle East, and East Asia.</p> <p>His academic achievements include a Doctorate in Veterinary Medicine, a Diploma in Medical Epidemiology and Statistics, an MSc in Livestock Production, and a Ph.D. in Agronomic Sciences and Biological Engineering.</p>
<p>Sarah BRUNEL</p> 	<p>Sarah Brunel leads, within the IPPC Secretariat, the Implementation and Facilitation Unit (IFU), which coordinates implementation, facilitation and capacity development activities such as the production of IPPC guides and training materials, phytosanitary capacity evaluations and capacity strengthening activities to address emerging pests. Her focus is on the coordination of implementation projects and management of the IFU's workplan, including staffing, budgeting, resource mobilization and strategies. She is the IPPC Secretariat's lead on One Health.</p> <p>She is also the secretariat's liaison with organizations such as the Standards and Trade Development Facility (STDF), Centre for Agriculture and Bioscience International (CABI), Comité de Liaison Entreprenariat – Agriculture – Développement (COLEAD), the European Union and the European Food Safety Authority (EFSA). She is an agricultural engineer from the Institut Supérieur d'Agriculture Rhône-Alpes (ISARA). She has a master's degree in international affairs and another in anthropology from Sorbonne University and the French Museum of Natural History, respectively.</p> <p>She has more than 20 years of national, regional and international experience in plant protection, pest and disease control policies and legislation,</p>

	<p>implementation of standards for phytosanitary measures, environmental protection and capacity development.</p>
<p>Mr. Carlos Ramón Urías MORALES</p> 	<p>Carlos Ramón Urías MORALES, an agronomic engineer and professional parasitologist with a postgraduate degree in Phytopathology, brings a wealth of expertise in academics, research, and management within Mexico's public and private sectors related to Plant Protection.</p> <p>Currently serving as the Plant Health Regional Director at the Regional Plant Protection Organisation, Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA), he leads initiatives encompassing plant pests early warning systems, technological innovations in plant protection, simulation drills for pest outbreak prevention and management, capacity assessments for addressing phytosanitary threats, and rapid response to phytosanitary emergencies.</p> <p>Carlos oversees these initiatives across Mexico, Central America, and the Dominican Republic, contributing significantly to safeguarding regional agriculture and promoting sustainable plant health practices.</p>
<p>Mónica BETANCOURT VÁSQUE</p> 	<p>Mónica Betancourt VÁSQUE is an Agronomist Engineer with a Diploma in Advanced Studies in Biotechnology and Associated Microorganisms and PhD in Agricultural Sciences from the Polytechnic University of Madrid.</p> <p>She has more than 20 years of experience in diagnosis and biological and molecular characterization of plant pathogens, with an emphasis on epidemiology, evolution of plant viruses and integrated disease management in banana and plantain crops. Since 2019, she has been responsible for the research strategy from Colombian Agricultural Research Corporation (AGROSAVIA) to address the Fusarium TR4 emergency. She has University teaching and research experience in phytopathology, microbiology, and molecular biology. Currently, she is a senior PhD researcher at AGROSAVIA.</p>

<p>Chunyu LI</p> 	<p>Chunyu LI a professor at the Institute of Fruit Tree Research, Guangdong Academy of Agricultural Sciences, China. The institute is working on breeding new banana varieties, developing novel cultivation technologies, prevention and control of major pests and diseases of tropical fruits, and other research. He has worked on the evolution, virulence, control measures of Fusarium TR4 for 20 years. Chunyu Li is the Chief Scientist of the Guangdong Banana Industry Innovation Group, and the leading Scientist of China's Key Research and Development Program on Fusarium Wilt of Banana. He is also a Member of the IPPC's Implementation and Capacity Development team on Fusarium TR4. He provided expertise for the FAO project on Workshop on Capacity Development on Diagnostic and Surveillance System of Banana Fusarium Wilt Disease Project (TCP/RAS/3619) from FAO for Mekong Sub-region countries in 2018, and collaborated with IPPC Secretariat and the Joint FAO-IAEA Centre of Nuclear Techniques in Food and Agriculture to deliver a hands-on training course on Fusarium TR4 diagnostic to COMESA countries in 2024.</p>
<p>George KPORYE</p> 	<p>George Mensah KPORYE is one of the pioneers of the horticulture industry in Ghana and has won several national awards in the sector for his initiatives and efforts. He is currently the Sustainability and Corporate Affairs Advisor for Golden Exotics Limited Ghana, a major producer and exporter of conventional and organic Fairtrade bananas in West Africa and a subsidiary of the Compagnie Fruitiere Group.</p> <p>George is an ardent advocate for the agriculture sector generally and the banana industry in Africa, in particular. He is a Trustee of Fairtrade Foundation UK, a Vice-President of AFRUIBANA (umbrella organization of African banana and fruit producers) and an active member of the World Banana Forum of the FAO.</p> <p>As the Vice-President of the Banana Producers Association, Ghana, George is active in various initiatives by the banana industry in Ghana and in Africa to control the spread of the Fusarium TR4 disease to protect livelihoods and investments.</p>

Dr Raixa LLAUGER

Raixa LLAUGER holds an academic background in Plant Protection and Biotechnology, specializing in agronomic crop diagnosis and management. With over 30 years of experience, she has contributed significantly to research at the Tropical Fruit Research Institute of the Ministry of Agriculture of Cuba. Initially, she served as a researcher, progressively advancing to the role of General Director, focusing on agronomic management and disease diagnosis in fruit trees. Presently, she serves as the Agriculture Officer (Tropical Fruits) at the Subregional Office of the Food and Agriculture Organization of the United Nations (FAO) for Mesoamerica (SLM). In this capacity, she coordinates the Better Environment program and the One Health Program in FAO-SLM, facilitating collaboration with regional organizations. Within FAO, Raixa provides technical assistance in crafting public policies, enhancing plant protection measures, and designing and implementing agrifood system programs tailored to climate change resilience and sustainability. Her work directly contributes to advancing the Sustainable Development Goals (SDGs).

Florence MUNGUTI

Florence Munguti is the Acting Director of Laboratory Services at Kenya's National Plant Protection Organization (NPPO) – Kenya Plant Health Inspectorate Service (KEPHIS), where she leads food safety, analytical chemistry, plant health, and seed quality laboratories. With nearly 15 years of experience, she has significantly contributed to agricultural sustainability, plant biosecurity, pest diagnostics, surveillance, quarantine regulations, and capacity building.

Previously, as Deputy Director at KEPHIS Plant Quarantine & Biosecurity Station, she coordinated pest diagnostics, pest surveillance, and achieved ISO/IEC 17025 accreditation for the Quarantine Laboratories. Under her leadership, the laboratory maintained the status of regional reference for plant health in COMESA. Florence also represents the NPPO in the Operational Coordination Group (OCG) for the Africa Phytosanitary Program. She was also the key contact point to the IPPC Secretariat for the coordination of the successful *Fusarium oxysporum* f. sp. *cubense* Tropical Race 4 (*Fusarium*-TR4) simulation in 2024.

She holds a master's in molecular biology & bioinformatics and is pursuing a doctorate in Plant Pathology at the University of Nairobi, Kenya.