



COMMISSION ON PHYTOSANITARY MEASURES

EIGHTEENTH SESSION

UPDATE ON FUSARIUM OXYSPORUM TROPICAL RACE 4 (TR4) GLOBAL COORDINATION

AGENDA ITEM 14.5

(Prepared by the IPPC Secretariat)

Background

- [1] CPM-17 (2023) requested the IPPC Secretariat to coordinate global action on TR4, using the proposal presented by the Latin American and Caribbean Group (GRULAC) to CPM-17 (2023)¹ as an initial framework.
- [2] The IPPC Secretariat drafted a document proposing activities to coordinate the global action on TR4, which was presented to the 2023 October Bureau meeting,² the Strategic Planning Group (SPG)³ and the Implementation and Capacity Development Committee (IC)⁴. The detailed list of activities is presented in Appendix 1.

Feedback from the various IPPC bodies

- [3] The global coordination of TR4 was discussed during the May 2023 IC meeting, the October 2023 Bureau Meeting, the 2023 Strategic Planning Group, the November 2023 IC Meeting and the December 2023 Bureau meeting.
- [4] **Appreciation of undertaken activities.** Overall, these bodies noted and appreciated the efforts made by the IPPC Secretariat to fully comply with the CPM-17 (2023) request and to create synergies for optimizing resources. They also acknowledged the enormity and complexity of the task, particularly given budgetary constraints.
- [5] **Governance of the global coordination of TR4 activities.** An IC Team on TR4⁵ was created in 2021 and its membership was reinforced in 2023⁶ through a call and an IC e-Decision, to ensure that the IC team is fully functional in early 2024. Additionally, it was added that the global coordination of TR4 is to be embedded into the Steering Group on Pest Outbreak Alert and Response Systems (SG POARS), to be fully operational as of 2024. As necessary, other IPPC bodies will be involved, such as the Technical

¹ CPM 2023/CRP/08: <https://www.ippc.int/en/publications/92066/>

² CPM Bureau October 2023 meeting report:
https://assets.ippc.int/static/media/files/publication/en/2023/11/FINAL_Report_Bureau-2023-Oct_2023-11-27..pdf

³ Strategic Planning Group (SPG) October 2023 meeting report:
https://assets.ippc.int/static/media/files/publication/en/2023/11/Report_SPG-2023-Oct_2023-11-28.pdf

⁴ Implementation and Capacity Development Committee November 2023 meeting report:
https://assets.ippc.int/static/media/files/publication/en/2023/12/FINAL_IC_November_2023_Meeting_2023-12-12.pdf

⁵ Terms of Reference of the IC Team on *Fusarium oxysporum* f. sp. *cubense* Tropical Race 4 (TR4):
<https://www.ippc.int/en/publications/89830/>

⁶ IC Team on *Fusarium oxysporum* f. sp. *cubense* Tropical Race 4 membership list:
<https://www.ippc.int/en/publications/91986/>

Consultation of Regional Plant Protection Organization (TC-RPPO), IPPC Regional Workshops, the IPPC Focus Group on Research Coordination, as outlined in Appendix 1.

- [6] **Capacity development activities on TR4.** The IC Team on TR4, together with the IPPC Secretariat, undertook the following activities:
- Contributed resources: A call for technical resources on TR4 resulted in 12 contributed resources posted on the IPP in 2022.⁷
 - Series of webinars: A three-part virtual workshop series on *Fusarium TR4 diagnostic, surveillance, inspection and simulation exercises* was delivered in 2022.⁸
 - Guidelines: The *Prevention, preparedness, and response guidelines for Fusarium TR4* were published in 2023 in English and French and are available on the IPP.⁹ Translation into Spanish is in progress.
- [7] The IC Team on TR4 will be tasked to provide a technical support in the production of a priority 1 package of materials in the ICD List of Topics:
- The revision of the TR4 tabletop simulation exercise;
 - The setting of a virtual surveillance course on TR4;
 - The setting of a face-to-face diagnostic course on TR4;
 - The setting of a face-to-face simulation exercise on TR4.
- [8] These capacity development activities on TR4 will be funded through the project *FAO Support to Common Market for Eastern and Southern Africa (COMESA) Trade Facilitation Programme (GCP/INT/387/COM)* until May 2024, and revised by the IC team.
- [9] **Focus on the TR4 Tabletop simulation exercise.** The tabletop simulation exercise on TR4, developed and delivered by the IPPC Secretariat in a face-to-face format during the 2023 IPPC Regional Workshop for Africa, was highly appreciated by participants.¹⁰ The participants from the 2023 IPPC Regional Workshop in the Caribbean and in Europe and Central Asia regions specifically requested the inclusion of such tabletop simulation exercises on emerging pests relevant to the region, in the following years' IPPC regional workshop agenda. Reflecting on the success of the exercises, during its November 2023 meeting, the IC proposed adding a dedicated agenda item to the global agenda for the 2024 IPPC Regional Workshops to promote these exercises across the regions.
- [10] **Support to field activities.** The CPM Bureau recognized the importance of practical activities (simulations), in addition to the technical documents.
- [11] The following on-the-ground activities were held in 2023.

⁷ Contributed Resources: <https://www.ippc.int/en/about/core-activities/capacity-development/guides-and-training-materials/contributed-resource-list/>

⁸ Workshop Series: *Fusarium TR4 Diagnostic, Surveillance, Inspection and Simulation Exercises*

<https://www.ippc.int/en/news/workshops-events/webinars/workshop-series-fusarium-tr4-diagnostic-surveillance-inspection-and-simulation-exercise/>

⁹ IPPC Secretariat. 2023. *Prevention, preparedness and response guidelines for Fusarium Tropical Race 4 (TR4) of banana*. Rome, FAO on behalf of the Secretariat of the International Plant Protection Convention. <https://www.fao.org/documents/card/en/c/cc4865en>

¹⁰ IPPC Spotlight: building resilience against *Fusarium* Tropical Race 4 (TR4) in Africa: <https://www.ippc.int/en/news/spotlight-building-resilience-against-fusarium-tropical-race-4-tr4-in-africa/>

- [12] In March 2023, the IPPC Secretariat participated in a field mission held to monitor the measures undertaken in the Bolivarian Republic of Venezuela and to support the country in implementing the new FAO emergency project to contain TR4.¹¹
- [13] In April 2023, the IPPC Secretariat participated in the Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) regional simulation exercise on TR4 held in Nicaragua.¹² All nine OIRSA countries and countries from other regions, such as Colombia, Ecuador, Peru, and Venezuela, participated in this event. The simulation exercise consisted of general presentations on measures taken in other countries, information on the available IPPC guides and training materials, and different simulation exercises against TR4 at the airport, at the diagnostic laboratory, at a frontier point of entry, and in the field.
- [14] Furthermore, as mentioned above, the IPPC Secretariat will deliver a face-to-face simulation exercise in Africa in 2024.
- [15] **Collaboration.** The CPM Bureau, SPG, and IC highlighted the need to liaise with existing institutions, including within FAO and externally, to avoid duplication of work. Recognizing that TR4 is not eradicable and underscoring the importance of integrated pest management, initial discussions took place with the World Banana Forum (WBF), the joint FAO- IAEA Center of the United Nations, the FAO office for emergency (OER) and the FAO Plant Production and Protection Division (NSP). The IPPC Secretariat also held a meeting with GRULAC in July 2023,¹³ and the topic was further discussed at the 2023 TC-RPPO. Additionally, the CPM Bureau representative coordinated discussions with RPPOs in the Americas.
- [16] As outlined in Appendix 1, the following activities are planned to ensure thorough collaborations with other relevant institutions, among others:
- Mapping all partners and activities related to TR4: NSP, IAEA, WBF, IICA, CGIAR, Bioversitas, etc (resources necessary) by end of 2024;
 - Setting regular coordination meetings with these institutions by early 2025;
 - Liaising with the FAO Soil unit to define activities, by end of 2024;
 - Defining long-term management plans with NSP and WBF and FAO offices, by mid 2025.
- [17] **Public-Private Partnerships.** The SPG noted that there was an opportunity for a public-private partnerships in relation to the global coordination on TR4. National agricultural research centres may also be able to look for solutions, such as breeding new varieties or finding ways to manage TR4. Additionally, in countries with banana production, partnerships can be formed with FAO Regional Offices. Linkages with the Standards and Trade Development Facility (STDF) practitioner group on public private partnerships will be considered by mid-2024, as indicated in Appendix 1.
- [18] **Communication and advocacy.** Easily achievable communication and advocacy activities are planned under Appendix 1:
- Delivering a presentation during the 4th Global Conference of the World Banana Conference in March 2024.
 - Organizing and delivering a streamed side session on TR4 at CPM-18 (2024), promoting the content of the tabletop simulation exercise, and sharing experiences from countries.

¹¹ IPPC to support Venezuela in managing Tropical Race 4 presence that threatens banana plantation: <https://www.ippc.int/en/news/ippc-to-support-venezuela-in-managing-tropical-race-4-presence-that-threatens-banana-plantation/>

¹² IPPC Spotlight: Better safe than sorry: Nicaragua's emergency plant protection efforts to curb Fusarium Tropical Race 4 (TR4) of banana: <https://www.ippc.int/en/news/spotlight-better-safe-than-sorry-nicaraguas-emergency-plant-protection-efforts-to-curb-fusarium-tropical-race-4-tr4-of-banana/>

¹³ IPPC and Group of Latin America and the Caribbean strengthen collaboration against Fusarium Tropical Race 4: <https://www.ippc.int/en/news/ippc-and-group-of-latin-america-and-the-caribbean-strengthen-collaboration-against-fusarium-tropical-race-4/>

- Developing a TR4 communication strategy by the end of 2024.
- Implementing the communication strategy at the national level in collaboration with NPPOs, RPPOs and FAO offices (pending).

[19] **Resources.** Concerns were expressed by various CPM bodies over how the activities presented in the table would be carried out without compromising other IC resources. It is estimated that at least a full-time consultant would be needed within the IPPC Secretariat to deliver the activities on the global coordination on TR4. Therefore, in addition to the public-private partnership efforts listed above, a resource mobilisation plan should be established by the end of 2024. The need for resources to implement certain activities is also clearly indicated in bold in Appendix 1.

Recommendations

[20] The CPM is invited to:

- (1) *note* the update of activities for the TR4 global coordination;
- (2) *provide* comments on the activities as provided in appendix 1 (Table 1);
- (3) *identify* financial and/or in-kind resources and partnerships (including public-private partnerships) to implement the global coordination on TR4 efficiently and ensure the sustainability of the IPPC Secretariat efforts.

Appendix 1

Table 1: activities to be undertaken by the IPPC Secretariat to ensure a global coordination on TR4, ordered according to the GRULAC recommendations, with priority level and timeline. Activities that require resources indicate "resources necessary" in bold.

Overall Activity	Priority level and activities	Timeline
1. Manage before the FAO, international organizations related to agriculture and marketing, as well as other sources of financing, a program for the prevention, containment and management of banana wilt through the implementation and facilitation unit led by Sarah Brunel and in full compliance with the IPPC Development Agenda implementation on Pest Outbreak Alert and Response Systems.	<u>Priority 1</u>	
	Create a TR4 webpage on the IPP with all relevant information.	By mid 2024
	Map all partners and activities related to TR4: NSP, IAEA, WBF, IICA, CGIAR, Bioversitas, etc (resources necessary).	By end of 2024
	Liaise with the STDF practitioner group on PPP to get guidance.	By June 2024
	Activate the POARS Steering Group and consider the best governance to coordinate activities on TR4.	By June 2024 (anticipated)
	Set regular coordination meetings with identified partners (resources necessary).	By early 2025
	Bring the topic to the TC-RPPO and IPPC Regional Workshops.	By June 2024
	Develop a resource mobilization plan (resources necessary).	By December 2024
	Create a network of TR4 experts to be actualized on the IPP (in simulation exercises, in diagnostic, in surveillance, etc.) (resources necessary).	By mid-2025
	Develop risk maps according to production zones (resources necessary).	By end of 2025
Promote liaison with the private sector in relation to international banana trade and for better awareness raising and mobilization of resources (resources necessary).	By end of 2025	
2. Carry out a communication and awareness raising campaign for authorities of the banana and plantain producing countries.	<u>Priority 1</u>	
	Deliver a presentation during the 4 th Global Conference of the World Banana Conference.	By March 2024 By April 2024

	<p>Organize a CPM side session on TR4 during CPM-18.</p> <p>Set and implement a TR4 communication strategy (resources necessary).</p>	By June 2024
<p>3. Implement at the emergency level action simulacrums for the prevention, containment and management of the pest under the governance of the IPPC Secretariat and RPPOs from different parts of the world.</p>	<p><u>Priority 1</u></p> <p><i>Tabletop simulation exercise on TR4 to be developed and held during 2023 IPPC Regional Workshops.</i></p> <p>Face-to-face Simulation exercises to be prepared and held in Africa in 2024.</p> <p>Tabletop simulation exercise for TR4 to be developed and delivered during 2024 IPPC Regional Workshops in other interested regions.</p> <p>Simulation exercises to be replicated in other regions upon request and following resource mobilization (resources necessary).</p>	<p>Completed</p> <p>By May 2024</p> <p>By September 2024</p> <p>Pending requests and resources</p>
<p>4. Promote an international center for the improvement of bananas and plantains in homology to that of corn and wheat (CIMYT) or that of potatoes (CIP), in compliance with the IPPC development Agenda on Research Coordination</p>	<p><u>Priority 2</u></p> <p>Establishment of the IPPC Focus Group on Research Coordination to consider the topic, <i>no further action planned from IPPC Secretariat side.</i></p>	By May 2024
<p>5. Strengthen capacities in:</p> <p>a. Detection and integral diagnosis --- as a target pest: TR4, in addition to other soil pathogens and those of viral and bacterial etiology, which are or will be the intermediate epidemics before the collapse due to R4T.</p>	<p><u>Priority 1</u></p> <p>Identify national, regional and international research organizations and encourage the research of rapid diagnosis protocols on TR4.</p> <p>Develop training material on the diagnostic of TR4.</p> <p>Deliver the diagnostic training course in person in Africa by 2024 in collaboration with IAEA.</p> <p>Deliver the training course in other regions upon request and following resource mobilization (resources necessary).</p>	<p>By May 2024</p> <p>Pending requests and resources</p>
<p>5. Strengthen capacities in:</p>	<p><u>Priority 1</u></p>	

<p>b. Surveillance or monitoring for an early warning system with an early warning reaction capacity for TR4. It includes satellite detection, the use of drones, specific canine units, among others that allow the rapid location of the presence of the pest.</p>	<p>Gather all innovative research and technologies for the surveillance of TR4.</p> <p>Identify national, regional and international research organizations and encourage research on the surveillance for early detection of TR4 for Africa.</p> <p>Develop training material on TR4 surveillance with the latest technologies.</p> <p>Deliver training courses on innovative TR4 surveillance virtually or face-to-face for Africa.</p> <p>Introduce the topic to the IPPC Focus Group on Research coordination.</p>	<p>By May 2024</p>
<p>5. Strengthen capacities in:</p> <p>c. Containment of existing outbreaks for TR4 in the affected countries, which implies eradication strategies and biosecurity cordons between affected areas and those that are free of TR4.</p> <p>d. Biosafety measures and actions for TR4, at the level of entry or cross-border points, of wide areas, farms and affected areas.</p>	<p><u>Priority 1</u></p> <p>Provision of a standard emergency project to eradicate or contain TR4 to NPPOs, in coordination with the POARS Steering Group.</p>	<p>By May 2024</p>
<p>5. Strengthen capacities in:</p> <p>e. Management or health of the soil that implies the conservation and increase of beneficial organisms or biological controllers.</p>	<p><u>Priority 2</u></p> <p>IPPC Secretariat to liaise with the FAO Soil unit to define activities (resources necessary).</p>	<p>By end of 2024</p>
<p>5. Strengthen capacities in:</p> <p>f. Development of tolerant or resistant varieties to TR4, involving plantains and not just bananas.</p>	<p><u>Priority 2</u></p> <p>Liaise with and provide support to IAEA as the leader on the topic (resources necessary).</p>	<p>By end of 2024</p>
<p>5. Strengthen capacities in:</p> <p>g. Training and dissemination, for all levels or publics involved with an emphasis on virtual and face-to-face courses, field schools, simulation</p>	<p><u>Priority 2</u></p> <p>Implementation at the national level of the communication strategy in collaboration with NPPOs, RPPOs and FAO offices (resources necessary).</p>	<p>Pending</p>

exercises for the prevention or containment of TR4.		
<p>5. Strengthen capacities in:</p> <p>h. Development of a phytosanitary extension plan for TR4, for the transfer of knowledge and adoption by producers as soon as possible.</p> <p>i. Support for research and specific product proposals to support the integrated management of R4T.</p> <p>j. Promote survival or sustainability strategies for affected producers, such as crop substitution or agricultural insurance for small producers.</p> <p>l. Studies and projects for the implementation of alternative production systems to banana cultivation in regions affected by the plague.</p>	<p><u>Priority 2</u></p> <p>Define long-term management plans with NSP and WBF and FAO offices (resources necessary).</p>	By mid 2025
<p>5. Strengthen capacities in:</p> <p>k. Support the mobilization of the TR4 phytosanitary commando led by OIRSA as a specialized technical group to deal with outbreaks or in actions to contain and prevent Fusarium wilt.</p>	<p><u>Priority 2</u></p> <p>Bring the topic to get further advice to the TC-RPPO, Regional Workshops and the POARS Steering Group.</p>	Pending