



## COMMISSION ON PHYTOSANITARY MEASURES

### NINETEENTH SESSION

#### UPDATE ON COORDINATION OF FUSARIUM TROPICAL RACE 4 ACTION

##### AGENDA ITEM 14.4

*(Prepared by the IPPC Secretariat with input from lead of IC Team on Fusarium TR4)*

#### 1. Governance and financial considerations

- [1] The Seventeenth Session of the Commission on Phytosanitary Measures (CPM-17) in 2023 requested the IPPC Secretariat (hereafter referred to as “the secretariat”) to coordinate global action on *Fusarium oxysporum* f. sp. *cubense* Tropical Race 4 (Fusarium TR4), using the proposal presented by the Latin American and Caribbean Group (GRULAC) to CPM-17 (2023) as an initial framework.<sup>1</sup> CPM-18 (2024) recognized the need for resources to progress the global coordination and collaboration on Fusarium TR4 activities. Additionally, during CPM-18 (2024), GRULAC requested a renewed commitment to the coordination of Fusarium TR4 action and resource mobilization, with the European Union reaffirming its commitment to support Fusarium TR4 activities through scientific and financial contributions, as part of the development agenda item (DAI) Pest Outbreak Alert and Response Systems (POARS) framework.
- [2] Between January and May 2024, the secretariat, with technical support from the Implementation and Capacity Development Committee (IC) Team on Fusarium TR4 and FAO Mesoamerica, delivered three (3) capacity development activities to representatives from Common Market for Eastern and Southern Africa (COMESA) countries. These activities were delivered under the European Union project “FAO support to COMESA trade facilitation programme” (GCP/INT/387/COM). The project concluded on 30 May 2024.
- [3] A detailed table with proposed activities to contribute towards global coordination, as per the GRULAC recommendation, was presented during CPM-18 (2024).<sup>2</sup> This table has been updated with remaining activities and is presented in Appendix 1. Progress on these remaining activities is dependent on the availability of resources.
- [4] During its November 2024 meeting, the IC requested to merge global coordination on Fusarium TR4 with POARS, earmarking USD 50 000 for related activities. The European Union project "Support to the IPPC Strategic Framework and Work Plan" also allocated limited funds over three years to POARS and synergistic Fusarium TR4 activities, though resources remain insufficient for planned Fusarium TR4 initiatives.

---

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

<sup>2</sup> CPM 2024/30: <https://www.ippc.int/en/publications/93083/>

## 2. Summary of activities completed in 2024

[5] Between January–May 2024, under the European Commission project “FAO support to COMESA trade facilitation programme” (GCP/INT/387/COM), the secretariat, with technical support from the IC Team on Fusarium TR4, delivered the following capacity development activities:

- (a) **delivery of hands-on Fusarium TR4 diagnostic training course** – The course was co-organized by the secretariat and the Joint FAO-International Atomic Energy Agency (IAEA) Centre of Nuclear Techniques in Food and Agriculture. The training provided representatives from nine (9) COMESA countries on diagnostic techniques to detect Fusarium TR4. This was a train-the-trainer course, and a subsequent follow up to assess knowledge sharing and uptake within the countries is being undertaken by the African Union Inter-African Phytosanitary Council (AU- IAPSC);
- (b) **delivery of virtual Fusarium TR4 surveillance course** – This was a virtual knowledge sharing session with experts from around the globe that either undertake research on Fusarium TR4, or are members of national plant protection organizations (NPPOs) or regional plant protection organizations (RPPOs) undertaking preparedness activities or managing spread of Fusarium TR4 in their countries. Each of the five (5) sessions were attended by up to 50 participants;
- (c) **delivery of first hands-on simulation exercise on Fusarium TR4 in Africa** – This exercise was delivered in Nairobi, Kenya in May 2024 with knowledge transfer from FAO Mesoamerica to COMESA countries. The exercise focused on emergency preparedness and developing contingency plans prior to quarantine pest outbreaks. Participants from thirteen (13) COMESA countries participated in the exercise. AU-IAPSC is following up with participants to ensure that NPPOs are progressing on developing their contingency plans on Fusarium TR4 and that knowledge gained on emergency preparedness is shared; and
- (d) **review of the table-top simulation exercise on Fusarium TR4** – Ecuador, New Zealand and Peru responded to the secretariat’s call for experts to review the table-top simulation exercise on Fusarium TR4 that had been delivered to the 2023 IPPC Regional Workshop in Africa. The IC Team on Fusarium TR4 also reviewed the table-top simulation exercise<sup>3</sup> The feedback received will be incorporated.

[6] In addition to the above activities, to raise awareness of Fusarium TR4 and promote the importance of preparedness activities and knowledge sharing, the secretariat undertook:

- (e) **communications and awareness:**
  - i. The secretariat created a Fusarium TR4 webpage<sup>4</sup> on the IPPC website. The webpage includes a number of capacity development materials available to NPPOs including relevant IPPC guides, [a series of new downloadable posters and banners](#), and a [series of communication planning recommendations](#) to support NPPOs when developing national communication strategies.
  - ii. The secretariat published several news articles and spotlights, including on the CPM-18 (2024) side session on Fusarium TR4,<sup>5</sup> [diagnostic training course](#), [simulation](#)

<sup>3</sup> 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/>

<sup>4</sup> IPPC *Fusarium oxysporum* f. sp. *cubense* Tropical Race 4 (TR4) webpage: <https://www.ippc.int/en/core-activities/capacity-development/programmes/ippc-global-coordination-on-fusarium-oxysporum-f-sp-cubense-tropical-race-4-tr4/>

<sup>5</sup> IPPC news – CPM-18 delegates share country experiences: <https://www.ippc.int/en/news/cpm-18-delegates-share-country-experiences-in-preventing-the-introduction-and-spread-of-banana-fusarium-wilt-disease/>

- [exercise](#) and [FAO feature story](#) on the IPPC activities on Fusarium TR4. All news pieces are further supported through posting on IPPC social media channels.
- iii. The secretariat prepared a presentation<sup>6</sup> on global coordination of Fusarium TR4 activities, which was delivered by relevant IC Team members during the IPPC Regional Workshops in 2024.
- (f) **liaison and knowledge sharing:**
- i. The Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) presented its programmes on emergency response during the Thirty-sixth Technical Consultation among Regional Plant Protection Organizations from 1–4 October 2024 in Panama. This included OIRSA’s Fusarium TR4 programme, which incorporates satellite monitoring and artificial intelligence (AI) to assist in preventing outbreaks.
  - ii. The secretariat hosted a side event during COAG-29 (2024) titled *Plant Health – Why is it crucial for the success of One Health*.<sup>7</sup> Experts from FAO Mesoamerica and OIRSA shared their experiences with conducting face-to-face simulation exercises and innovative improvements to simulations, including the use of AI simulation rooms with immersive techniques.

### 3. Next steps

- [7] With the completion of the European Union project “FAO support to COMESA trade facilitation programme” (GCP/INT/387/COM), the secretariat faced a resource and funding gap for Fusarium TR4 activities. However, the IC Team on Fusarium TR4 has continued to meet on a bi-monthly basis to share knowledge and identify additional activities that can contribute to the secretariat’s efforts towards global coordination on Fusarium TR4 action. All pending activities are captured in Appendix 1.
- [8] During its meeting in November 2024, the IC requested the secretariat to invite representatives from the private sector to the IC May 2025 meeting to demonstrate the work completed to date on Fusarium TR4, and to promote public-private partnerships for ongoing work. The IC had requested that the secretariat merges Fusarium TR4 activities with the DAI on POARS. The IC had also requested the Financial Committee to ensure that core activities, such as POARS, which embed activities on emerging pests such as Fusarium TR4, are sustainably funded. This is further discussed in **agenda item 12.5**.
- [9] As noted above, under the new EU project “Support to the IPPC Strategic Framework and Work Plan” (GCP/GLO/1304/MUL), up to USD 140 000 will be available annually for three years for POARS, of which USD 60 000 will be available for hiring staff to advance POARS activities and, where there is synergy and sufficient funds, Fusarium TR4 activities. Limited funding is therefore available in 2025 to advance some of the Fusarium TR4 activities listed in Appendix 1, while other activities require further resources.

### Recommendations

[10] The CPM is invited to:

- (1) *note* the update on activities for Fusarium TR4 global coordination;
- (2) *note* the pending activities towards global coordination on Fusarium TR4, as noted in Appendix 1; and

<sup>6</sup> Regional workshop presentation: [https://assets.ippc.int/static/media/files/publication/en/2024/07/7.3\\_Update\\_on\\_TR4\\_Global\\_Coordination\\_FIN\\_AL.pdf](https://assets.ippc.int/static/media/files/publication/en/2024/07/7.3_Update_on_TR4_Global_Coordination_FIN_AL.pdf)

<sup>7</sup> COAG 29 side event on plant health: <https://www.ippc.int/en/events/webinars/coag-29-side-event-plant-health-why-is-it-crucial-for-the-success-of-one-health/>

- (3) *recognize* the strategic importance of encouraging contracting parties and the private sector to contribute to financial and/or in-kind resources and partnerships (including public-private partnerships) to progress these remaining activities and ensure the sustainability of secretariat efforts.

## Appendix 1: Updated table of remaining global coordination activities for Fusarium TR4

[1] The following activities are planned by the secretariat for 2025 to ensure an efficient global coordination on Fusarium TR4 activities, with designated priority level and timeline. To progress on these activities, additional resources are required.

Overall activity	Priority level and activities	Timeline
Manage (on behalf of FAO, international organizations related to agriculture and marketing, as well as other sources of financing) a programme 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 DAI implementation on Pest Outbreak Alert and Response Systems (POARS).	<p><u>Priority 1:</u></p> <ul style="list-style-type: none"> <li>- Work with FAO's Anticipatory Action Unit and Global Information and Early Warning System to develop a joint early warning and anticipatory action framework for Fusarium TR4 outbreak.</li> <li>- Map all partners and activities related to Fusarium TR4: Plant Production and Protection Division (NSP), International Atomic Energy Agency (IAEA), World Banana Forum (WBF), Inter-American Institute for Cooperation on Agriculture (IICA), Consultative Group on International Agricultural Research (CGIAR), Bioversitas, etc.</li> <li>- Recommendations from POARS Steering Group on the best governance to coordinate activities on Fusarium TR4.</li> <li>- Set regular coordination meetings with identified partners.</li> <li>- Develop a resource mobilization plan.</li> <li>- Create a network of Fusarium TR4 experts to be actualized on the International Phytosanitary Portal (in simulation exercises, in diagnostic, in surveillance, etc.).</li> <li>- Develop risk maps according to production zones.</li> <li>- Promote liaison with the private sector in relation to international banana trade and for better awareness raising and mobilization of resources.</li> </ul>	Pending resource
2. Carry out a communication and awareness-raising campaign for authorities of the banana- and plantain-producing countries.	<p><u>Priority 1:</u></p> <ul style="list-style-type: none"> <li>- Set a bulletin board on the IPPC Fusarium TR4 webpage for knowledge sharing and updates on activities in regions.</li> <li>- Develop a communications plan to support the Fusarium TR4 workplan beyond 2024 with the possibility of including further news items, case studies, promotions of the bulletin board, additions to the International Phytosanitary Portal page and an</li> </ul>	<p>Pending resource</p> <p>Pending resource</p>

Overall activity	Priority level and activities	Timeline
	awareness-raising video on simulation exercises.	
3. Implement at the emergency-level action simulacrum for the prevention, containment and management of the pest under the governance of the secretariat and RPPOs from different parts of the world.	<p><u>Priority 1:</u></p> <ul style="list-style-type: none"> <li>- Follow-up with countries that participated in the simulation exercise on the development of their contingency plans for Fusarium TR4 through AU-IAPSC.</li> <li>- Complete review of tabletop simulation exercise document.</li> <li>- Tabletop simulation exercise for Fusarium TR4 to be developed and delivered during next IPPC regional workshops in other interested regions.</li> <li>- Simulation exercises to be replicated in other regions upon request and following resource mobilization.</li> <li>- Create a data map on completed, ongoing and planned Fusarium TR4-related projects and capacity development activities globally.</li> </ul>	<p>Ongoing</p> <p>Ongoing</p> <p>NA <i>Upon request</i></p> <p>Pending requests and resources</p> <p>By end of 2025</p>
4. Promote an international centre for the improvement of bananas and plantains in homology to that of corn and wheat (CIMYT) <sup>8</sup> or that of potatoes (CIP) <sup>9</sup> , in compliance with the IPPC development agenda on research coordination.	<p><u>Priority 2:</u></p> <ul style="list-style-type: none"> <li>- Consideration of the Fusarium TR4 topic by the CPM Focus Group on Research Coordination. <i>No further action planned from the secretariat.</i></li> </ul>	Pending establishment of the CPM Focus Group on Research Coordination.
5. Strengthen capacities in:  a. Detection and integral diagnosis – as a target pest, Fusarium 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><u>Priority 1:</u></p> <ul style="list-style-type: none"> <li>- Identify national, regional and international research organizations and encourage the research of rapid diagnosis protocols on Fusarium TR4.</li> <li>- Follow-up through AU-IAPSC with countries that participated in the diagnostic training course on their development of training programmes to transfer knowledge to other NPPO staff.</li> <li>- Deliver the training course in other regions upon request and following resource mobilization.</li> </ul>	<p>Pending resources</p> <p>Ongoing</p> <p>Pending requests and resources</p>
5. Strengthen capacities in:  b. Surveillance or monitoring for an early warning system, with an early warning reaction capacity for Fusarium TR4. This includes satellite detection, the use of drones and specific canine units, among others, which allow the rapid location of the presence of the pest.	<p><u>Priority 1:</u></p> <ul style="list-style-type: none"> <li>- Gather all innovative research and technologies for the surveillance of Fusarium TR4.</li> <li>- Identify national, regional and international research organizations and encourage research on the surveillance for early detection of Fusarium TR4 for Africa.</li> </ul>	<p>Ongoing</p> <p>Pending resources</p>

<sup>8</sup> International Maize and Wheat Improvement Center (CIMMYT)

<sup>9</sup> International Potato Center (CIP)

Overall activity	Priority level and activities	Timeline
<p>5. Strengthen capacities in:</p> <p>c. Containment of existing outbreaks for Fusarium TR4 in the affected countries, which implies eradication strategies and biosecurity cordons between affected areas and those that are free of Fusarium TR4.</p> <p>d. Biosafety measures and actions for Fusarium TR4, at the level of entry or cross-border points, of wide areas, farms and affected areas.</p>	<p><u>Priority 1:</u></p> <ul style="list-style-type: none"> <li>- Provision of a standard emergency project to eradicate or contain Fusarium TR4 to NPPOs, in coordination with the POARS Steering Group.</li> <li>- Develop an online Plant Pest Emergency Simulation tool using Fusarium TR4 as an example pest (along with other types of pests, e.g. more mobile pests) as a capacity development tool in preparedness.</li> </ul>	<p>Pending resources</p> <p>By mid-2025</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> <ul style="list-style-type: none"> <li>- Secretariat to liaise with the FAO Soil Unit to define activities.</li> </ul>	<p>Pending resources</p>
<p>5. Strengthen capacities in:</p> <p>f. Development of tolerant or resistant varieties to Fusarium TR4, involving plantains and not solely bananas.</p>	<p><u>Priority 2:</u></p> <ul style="list-style-type: none"> <li>- Liaise with and provide support to the International Atomic Energy Agency as the leader on the topic.</li> </ul>	<p>Pending resources</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 and simulation exercises for the prevention or containment of Fusarium TR4.</p>	<p><u>Priority 2:</u></p> <ul style="list-style-type: none"> <li>- Implementation at the national level of communications strategy in collaboration with NPPOs, RPPOs and FAO offices.</li> </ul>	<p>Pending resources</p>
<p>5. Strengthen capacities in:</p> <p>h. Development of a phytosanitary extension plan for Fusarium 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 Fusarium TR4.</p> <p>j. Promote survival or sustainability strategies for affected producers, such as crop substitution or agricultural insurance for small producers.</p> <p>k. 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> <ul style="list-style-type: none"> <li>- Define long-term management plans with NSP and WBF and FAO offices.</li> </ul>	<p>Pending resources</p>
<p>5. Strengthen capacities in:</p> <p>l. Support the mobilization of the Fusarium 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> <ul style="list-style-type: none"> <li>- Bring the topic to get further advice to the TC-RPPO, regional workshops and the POARS Steering Group.</li> </ul>	<p>Ongoing (topic was brought to TC-RPPO and regional workshops; further work is needed with POARS Steering Group).</p>