



Food and Agriculture  
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United Nations



International  
Plant Protection  
Convention

## IPPC WORKSHOP SERIES

# Fusarium TR4 Diagnostic, Surveillance, Inspection and Simulation Exercises

### The second session of the workshop series on *Fusarium* TR4 Diagnostic, Surveillance, Inspection and Simulation Exercises

19 April 2022

Questions & Answers

#### Session on *Fusarium* TR4 surveillance

This document compiles Questions & Answers from the second session of the workshop series on ***Fusarium* TR4 Diagnostic, Surveillance, Inspection and Simulation Exercises** held on 19 April 2022, 11:00 – 13:30 (CET). About one hundred thirty (130) participants from around 100 countries worldwide attended the session.

Questions are organized by technical topic: Phytosanitary condition and surveillance, and remote sensing

The speakers' profile, agenda, presentations, recording of the sessions can be found [here](#).

#### **Phytosanitary condition and surveillance**

1. Which countries in the Pacific region had already encountered *Fusarium* TR4?

*Answer:* Most Pacific countries, except for Australia, are TR4 free. Yet, it is a priority transboundary pest for the region, particularly in view of the importance of bananas for domestic trade and food security. The Australian NPPO is unique within the Pacific Region to officially report *Fusarium* TR4 through official pest reporting (12 July 2017).

2. If most of the Pacific region is free from *Fusarium* TR4, how could we differentiate *Fusarium* TR4 from other banana diseases? Is there any training or hands-on practice provided?

*Answer:* There are a number of important and internationally relevant banana diseases present in countries throughout the Pacific region (reported both officially and through other sources such as CABI, scientific papers). These diseases have been detected and identified through field surveillance and diagnostic confirmation by highly trained and experienced plant pathologists (often validated by confirmatory PCR testing through plant diagnostic laboratories in Australia or New Zealand).

3. How did *Fusarium* TR4 emerge in Mozambique?

*Answer:* Several means may allow the entry or spread of *Fusarium* TR4 through international trade and movement of plant, plant products, or other regulated articles. This kind of information is obtained by conducting Pest Risk Analysis, and the implementation of phytosanitary measures reduces the risk of pathogen emergence and dissemination. However, so far, no country where *Fusarium* TR4 is present has been able to confirm the pathway through which the pathogen was introduced.

4. Is plantain AAB susceptible to *Fusarium* TR4?

*Answer:* - Race 1 is known for causing the disease in Gros Michel (AAA), Silk (AAB), Pisang awak (ABB), Abaca (AA), "Maqueño" (AAB), and Pome (AAB). Race 2 affects ABB cooking bananas, such as "Bluggoe" (ABB). Cavendish, the main commercial variety, is resistant to races 1 and 2. Race 4 attacks nearly all varieties of bananas, including Cavendish.

5. Which Cavendish clone got the TR4 in 2013? Which Cavendish clones are mostly cultivated in Mozambique?

*Answer:* Grand Nain AAA is the Cavendish clone that got TR4 in 2013. Dwarf Cavendish is the most cultivated clone in Mozambique.

### Remote sensing

6. Do you have any experience in applying remote sensing tools for surveillance of *Fusarium* TR4 in banana crops in Colombia?

*Answer:* The panelist noted that this tool is handy in any crop. Currently, there is no available published information on the use of remote sensing tools for *Fusarium* TR4 detection in Colombia. However, Guatemala in Central America is testing satellite images to support the surveillance process.