

# WHAT IS TROPICAL RACE 4?

## TR4 GLOBAL NETWORK - an initiative of the World Banana Forum -

*Fusarium oxysporum* f. sp. *cubense* tropical race 4 (Foc TR4) also known as **Tropical race 4 (TR4)** is the latest strain of the fungus known as ***Fusarium oxysporum* f. sp. *cubense* (Foc)**



It causes the Banana Fusarium Wilt **transboundary** disease that affects **bananas** and other Musacea like **plantains**



It penetrates and blocks the vascular system of the plant, **cutting off the supply of water and nutrients**



It causes wilting and death of plants and can cause **complete yield loss once established** in a field<sup>1</sup>



The fungus lives in the soil and forms resistance structures that allow it to survive for **+30 years<sup>2</sup>**

**TR4 is NOT HARMFUL TO HUMANS and DOES NOT AFFECT THE FRUIT<sup>3</sup>**

**50% OF GLOBAL SUPPLY**

It infects most banana and plantain varieties, including the Cavendish, which provides around **50 percent of the global banana supply** and almost all the exported bananas

In banana-producing countries, around **400 million people** rely on the fruit for **food security and livelihoods**

**400 million**



**TR4 HAS BEEN REPORTED across three continents**

**21 countries**



**BANANAS AND PLANTAINS are produced in more than**

**135 countries**

## ARRIVAL OF TR4



**1970.**  
ASIA



**2013**  
AFRICA

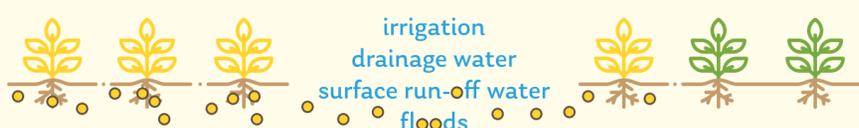


**2019**  
LATIN AMERICA

## ANYTHING THAT CAN MOVE SOIL



## CAN CARRY AND SPREAD TR4



At the moment, there is **NO WAY OF GETTING RID** of TR4 once it is in the soil

## CLEANING PROCESS TO ENSURE DECONTAMINATION



SCRUB



WATER RINSE



FOOTBATH



DISINFECT



RECORD



**FUNGICIDES and SOIL FUMIGANTS are NOT EFFICIENT IN CONTROLLING OR ERADICATING TR4 FROM INFESTED SOIL**

## THE MOST EFFECTIVE APPROACH TO

# COMBAT

## TROPICAL RACE 4



IS THE **PREVENTION OF ITS SPREAD INTO NON-INFESTED AREAS**



AND **IMMEDIATE CONTAINMENT WHEN IT IS DETECTED**

## SUPPORT IS NEEDED for DISEASE MANAGEMENT

and recovery in affected countries



**INTERNATIONAL COLLABORATION and LOCAL ACTIONS ARE ESSENTIAL**

<sup>1</sup> FAO. 2019. Banana fusarium wilt disease. In: FAO Food Chain Crisis [online]. Rome. [Cited 15 September 2019]. <http://www.fao.org/food-chain-crisis/how-we-work/plant-protection/banana-fusarium-wilt/en/>

<sup>2/3</sup> Instituto Colombiano Agropecuario (ICA). 2019. Todo sobre fusarium R4T. Fusarium R4T [online]. Bogotá. [Cited 27 September 2019]. <https://www.ica.gov.co/icomunica/ppp/fusarium-r4t>

If you think you may have seen soil, water or plant material entering or exiting the farm, or if you have any questions, contact the phytosanitary authorities!

Become part of the TR4 Global Network!

TR4GN@fao.org | [www.fao.org/TR4GN](http://www.fao.org/TR4GN)

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