

FOR INFORMATION AND ACTION
DA-2021-06
May 20, 2021

Subject: *Fusarium oxysporum* f. sp. *cupense* Tropical race 4 (*Foc* TR4) Import Restrictions

To: State and Territory Agricultural Regulatory Officials

Effective May 20, 2021, USDA's Animal and Plant Health Inspection Service (APHIS) will prohibit the importation of certain plant parts of all banana and plantain species (*Musa* spp.) and Abyssinian banana (*Ensete ventricosum*), to prevent the introduction and establishment of *Fusarium oxysporum* f. sp. *cupense* Tropical race 4 (*Foc* TR4) into the United States and its territories. APHIS will prohibit the imports of these species from the following countries where *Foc* TR4 is known to occur: Australia, China, Colombia, Costa Rica, India, Indonesia, Israel, Jordan, Laos, Lebanon, Malaysia, Mayotte, Mozambique, Myanmar, Oman, Pakistan, Peru, Philippines, Taiwan, Thailand, Turkey and Viet Nam.

The Federal Order applies to *Musa* spp. and *Ensete ventricosum* plant parts including rooted plants, rooted and unrooted cuttings, roots, and rhizomes known to carry *Foc* TR4 from the identified countries where the pathogen is known to occur. The Federal Order does not apply to seeds, leaves, cut flowers, fruits, and plants grown only in tissue culture or in-vitro since these are not significant pathways for *Foc* TR4.

Foc TR4 is a fungal quarantine pathogen that causes vascular wilting and death in bananas and plantains. The pathogen enters through the roots of its host, settles within the tissues of the vessels, and blocks the flow of water causing plant wilting and death. *Foc* TR4 can also establish in the soil where it can survive for decades without its host, and spread long distance through movement of infested soil, contaminated equipment, and infected plant parts. A similar strain of *Fusarium oxysporum* was responsible for the near extinction of the 'Cadenvish' cultivar in the 1930s.

APHIS has determined that it is necessary to establish prohibitions on the importation of specific regulated articles as listed in the attached Federal Order to prevent the introduction and dissemination of *Fusarium oxysporum* f. sp. *cupense* Tropical Race 4 into the United States and territories because it poses a threat to the U.S. banana and plantain industry. For Puerto Rico alone, the estimated total monetary loss and long-term economic affect is valued over three billion dollars.

For additional information regarding this Federal Order, please contact Senior Regulatory Policy Specialist Lydia E. Colon at 301-851-2302 or Lydia.e.colon@usda.gov.

A handwritten signature in blue ink, appearing to read "Osama El-Lissy". The signature is fluid and cursive, with the first name "Osama" being the most prominent part.

Dr. Osama El-Lissy
Deputy Administrator
Plant Protection and Quarantine

Attachment: Federal Order

**United States Department of Agriculture
Animal Plant Health Inspection Service
Plant Protection and Quarantine**

Federal Order

***Fusarium oxysporum* f. sp. *cubense* Tropical Race 4 (*Foc* TR4) Import Restriction**

DA-2020-22

May 20, 2021

Effective May 20, 2021, USDA's Animal and Plant Health Inspection Service (APHIS) will prohibit the importation of certain plant parts of all banana and plantain species of *Musa* spp. and one banana species, Abyssinian banana (*Ensete ventricosum*) to prevent the introduction and establishment of the harmful *Fusarium oxysporum* f. sp. *cubense* Tropical race 4 (*Foc* TR4) into the United States and its territories. APHIS will prohibit the import of these species from the following countries where *Foc* TR4 is known to occur: Australia, China, Colombia, Costa Rica, India, Indonesia, Israel, Jordan, Laos, Lebanon, Malaysia, Mayotte, Mozambique, Myanmar, Oman, Pakistan, Peru, Philippines, Taiwan, Thailand, Turkey and Viet Nam.

This Federal Order applies to *Musa* spp. and *Ensete ventricosum* plant parts including rooted plants, rooted and unrooted cuttings, roots, and rhizomes known to carry *Foc* TR4 from the identified countries where the pathogen is known to occur. This Federal Order does not apply to seeds, leaves, cut flowers, fruits, and plants in tissue culture since these are not significant pathways for *Foc* TR4.

Foc TR4 is a fungal quarantine pathogen that causes vascular wilting and death in bananas and plantains. The pathogen enters through the roots of its host, settles within the tissues of the vessels, and blocks the flow of water causing plant wilting and death. *Foc* TR4 can also establish in the soil where it can survive for decades without its host, and spread long distance through movement of infested soil, contaminated equipment, and infected plant parts. A similar strain of *Fusarium oxysporum* was responsible for the near extinction of the 'Cadenvish' cultivar in the 1930s in Panama.

Presently, *Foc* TR4 has been reported in 19 countries in eastern and southeastern Asia, the Middle East, the Indian subcontinent, and Australia. In July 2019, the Instituto Colombiano Agropecuario confirmed the pathogen for the first time in six commercial farms in Colombia, which was the first report in the Western Hemisphere (the Americas). In July 2020, Costa Rica was the second country in the Western Hemisphere to confirm *Foc* TR 4. Also, in April 2021 the Peruvian National Agrarian Health Service, Senasa, detected the *Foc* TR4 in Piura, northwestern region of Peru. The diagnosis was confirmed by PCR and sequencing tests.

The primary location for banana and plantain fruit production in the United States is in Puerto Rico where the estimated total monetary loss and long-term economic affect is valued at over

three billion dollars. Other local banana and plantain fruit production areas are found in Alabama, Arizona, California, Florida, Georgia, Guam, Hawaii, Louisiana, Maryland, Mississippi, Nevada, North Carolina, Oklahoma, South Carolina, Texas, and Virginia. Likewise, ornamental plants and tropical foliage of *Musa* spp. are also widely grown in these states and territories.

APHIS has determined that the introduction and establishment of *Foc* TR4 poses a serious threat to U.S. agriculture. The restriction to prevent the introduction and establishment of *Foc* TR4 is needed and warranted to mitigate the plant pest risks associated with this pest.

This Federal Order is issued pursuant to the regulatory authority provided by the Plant Protection Act (PPA) of June 20, 2000, as amended, Section 412(a), 7 USC 7712(a). Under the Act, the Secretary may prohibit or restrict the importation, entry, exportation, or movement in interstate commerce of any plant, plant product, biological control organism, noxious weed, article, or means of conveyance, if the Secretary determines that the prohibition or restriction is necessary to prevent the introduction into the United States or the dissemination of a plant pest or noxious weed within the United States. The regulatory authority provided by 7 USC 7754 allows the Secretary to issue orders to carry out this provision of the Plant Protection Act.

For additional information regarding this Federal Order, please contact Senior Regulatory Policy Specialist Lydia E. Colon at 301-851-2302 or Lydia.e.colon@usda.gov.