MARCHITEZ POR *Fusarium* DE LOS BANANOS EN BRASIL: ESTADO ACTUAL Y AVANCES EN LAS INVESTIGACIONES DE EMBRAPA DIRIGIDAS AL MANEJO SOSTENIBLE DE LA ENFERMEDAD

Fusarium WILT OF BANANA IN BRAZIL: CURRENT STATE AND RESEARCH ADVANCES AT EMBRAPA TOWARDS SUSTAINABLE DISEASE MANAGEMENT

M.A. Dita, F. Haddad, E. Amorim.

Brazilian Agricultural Research Corporation, Embrapa Cassava & Fruits, Bahia, Brazil, e-mail: miguel.dita@embrapa.br; fernando.haddad@embrapa.br; edson.amorin@embrapa.br

Brazil produces about 7 million tons of bananas a year in approximately 500,000 hectares. Production value in 2014 was estimated in 6 billion US dollars. Unlike the rest of Latin America and the Caribbean, where Cavendish varieties are predominant, in Brazil the subgroup 'Prata' represents approximately 70% of the harvested area. Fusarium wilt (FW) caused by *Fusarium oxysporum* f. sp. *cubense* (Foc) is a major constraint especially for 'Maçã´ (Silk, AAB) and 'Prata´ (Pome, AAB), where reduce yield up to 100%. Considering the socioeconomic importance of banana for Brazil, the Brazilian Agricultural Research Corporation (Embrapa) prioritized in its National Banana Research Program actions to mitigate FW. Initially, research actions focused on obtaining 'Silk' and 'Prata'-type resistant hybrids. However, researches to reduce inoculum levels, to protect planting material and to improve root and soil health are also carried out as part of an integrated management strategy. Understanding the biology of populations of Foc present in Brazil and cases of FW in Cavendish were also studied, not only to support cultivar selection and deployment, but also considering the threat of tropical race 4 (R4T). During the past 30 years, Embrapa developed or recommended 17 banana cultivars: 11 hybrids, three introductions and three local selections. Within these 17 genotypes, it is worth noting two Silk-type (BRS Tropical, AAAB and BRS Princesa, AAAB) and a Prata-type (BRS Platina, AAAB) hybrids resistant to FW. Studies of population biology revealed 52 different haplotypes, none positive for TR4. Research on soil health carried out in five pilot areas highly affected by FW revealed significant disease reduction in 'Prata'. In this work we present the current state of FW in Brazil and the Embrapa's research strategy for FW management, which is mainly based on genetic resistance, root and soil health and integrated good agricultural practices including biosecurity at farm and landscape levels.

Keywords: *Musa* spp., Integrated Management; Panama disease,