

Research progress, challenges, future perspectives on the management of fusarium wilt of banana in Malaysia: a review

ABSTRACT

The global banana production is threatened by Fusarium wilt, a fungal soil-borne disease caused by *Fusarium oxysporum* f. sp. *cubense* (Foc). In Malaysia, Foc Tropical Race 4 (Foc-TR4) is the most devastating disease that has completely wiped out the Cavendish plantations in 1990s. The TR4 strain attacks a diverse range of bananas and plantains, making disease management challenging. In this review, we have summarized the current status of Fusarium wilt in Malaysia, current knowledge on the epidemiology of Foc and recommended control measures outlined by the Department of Agriculture (DOA) in preventing and/or avoiding spread of the disease. The research progress on the control of Foc-TR4 in Malaysia was also presented to highlight the current findings and knowledge gaps in each approach. Recommendations for future studies were included to improve the current disease management approaches while possible challenges were provided for researchers, farmers and policy makers to consider.

Keyword: Banana; Disease management; Epidemiology; Fusarium wilt, *Fusarium oxysporum* f. sp. *cubense*