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## Fusarium Wilt of Oil Palm: A Continuing Threat to South East Asian Plantations

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Fusarium wilt can be a devastating disease of the oil palm. It is endemic in several African countries where thousands of palms have been lost and yield markedly reduced. Fusarium oxysporum f. sp. elaeidis (Foe) is a soil-borne pathogenic fungus that invades intact roots then the xylem to cause water stress and hormonal imbalance, with consequent severe yield loss and even death. Unlike Ganoderma which initially infects the root cortex, internal vascular browning is diagnostic for Foe and the pathogen can easily be re-isolated from xylem. Foe can contaminate seed and pollen, which has considerable implications for importation of breeding material from the African centre of diversity for oil palm. Isolated outbreaks in South America appear to have resulted from inter-continental seed movement. Quarantine is now enforced for imported seed and pollen. A method of fungicide infiltration for eradication of Foe from seed was devised and this is used in intermediate quarantine on exported seed batches. Currently specific DNA, PCR-based probes for rapid detection of Foe from seed are being developed.

This paper will describe some key features of this disease to raise awareness in Malaysia and to consider the possible reasons why Fusarium wilt has not become established there.

**Keywords**: Fusarium oxysporum. vascular wilt, xylem, seed contamination, quarantine, disease resistance.

