

Effects of culture media on growth and spore occurrence of *Fusarium oxysporum* Schlecht. f. sp. cubense (E.F. Smith) W.C. Syd. & H.N. Hans

ABSTRACT

Panama disease or *Fusarium* wilt disease of banana has been recorded to be a major disease caused by *Fusarium oxysporum* f. sp. cubense. This study was undertaken to study the effect of culture media on the growth and spore occurrence of *Fusarium oxysporum* f. sp. cubense (FOC) isolated from infected banana plants in Sarawak, Malaysia. Seven types of carbon sources, namely: potato dextrose agar (PDA), rose bengal agar (RBA), corn meal agar (CMA), water agar with glucose (WAG), water agar with starch (WAS), inoculation media (IM) and sporulation media (SM) were evaluated. In general, FOC grew best in CMA (8.5 cm), followed by SM (8.2 cm), RBA (7.9 cm), WAS (5.9 cm), IM (5.4 cm), PDA (4.9 cm) and WAG (3.7 cm). The findings also showed that different types of media or carbon sources influenced the occurrence and formation of macroconidia, microconidia and chlamydo-spores of FOC. For the effect on morphology, UPMKB1, the microconidia and macroconidia size were 12.94 and 57.45 μm in length, respectively. However, for UPMKB2, the size of microconidia and macroconidia were 15.13 and 53.05 μm , respectively.

Keyword: Panama disease; *Fusarium* wilt disease; *Fusarium oxysporum* f. sp. cubense; Carbon sources; Banana cultivars; Microconidia; Macroconidia; Chlamydo-spore; Spore morphology.