

Study on Early Screening of *Ganoderma* Disease Susceptibility/Tolerance in Pre-nursery Pot-tray System - Part 2 (Relationship of Screened Oil Palm Progeny Towards *Ganoderma* Tolerance and Lignocellulosic Content)

SIEW S P, LIM R R, CHEW T D, HAGILAA G, NG S K AND MATHEWS J

IOI Research Centre, 2 km Gemencheh Batang Melaka Road, 73200 Gemencheh, Negeri Sembilan Darul Khusus, Malaysia

*Screening of *Ganoderma* disease tolerant oil palm progenies may provide a practical solution towards basal stem rot, a major disease affecting the oil palm industries of Malaysia and Indonesia. Through the method developed in an earlier paper (part 1), *Ganoderma* tolerant oil palm planting material was successfully identified among different oil palm progenies through pre-nursery pot-tray system. In this study, reported in the present paper (part 2), the root lignocellulosic content of 35-week-old control seedlings from 19 progenies tested in the earlier paper (part 1) were determined. Based on the results, the summation of cellulose, hemicellulose and lignin contents had a significant correlation ($p < 0.05$) with average days from first symptom to confirmed death (DTD) whereas cellulose was seen to be weakly correlated with average days from inoculation to first symptom (DTFS) at p -value < 0.10 . However, lignin content in roots were not significantly correlated with any of the parameters used to characterise tolerance and resistance of inoculated plants in *Ganoderma* tolerance. The present result indicates that the lignin content of healthy control seedlings planted without *Ganoderma* inoculation is not a dependable parameter to characterise the tolerance of a progeny towards *Ganoderma*.*

Keywords: *Ganoderma* disease, root lignocellulosic content, correlation.