

Study on Early Screening of Ganoderma Disease Susceptibility/Tolerance in Pre-nursery Pot-tray System - Part 1

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

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

This paper presents a methodology for early screening of Ganoderma disease susceptibility/tolerance in pre-nursery pot-tray system. The controllable parameters for the screening method were tested in the experiment to optimise the data collected and standardise the methodology prior to broadening the scale of testing. Evaluation of the disease was based on external symptoms and included destructive sampling to assess internal symptoms at the end of the trial. From the initial experiment, the effect of the rubberwood block (RWB) inoculum size was considered to be not significant in relation to the pot-tray size and the estimated medium inoculum size of 4.5 x 3 x 3 cm was selected. Subsequently, during the second experiment, through differentiation of resistance and tolerance as distinctly separate traits, the screening method was able to distinguish highly susceptible and less susceptible progenies. Overall, the pot-tray screening method seems adequate in allowing breeders and researchers to characterise the planting material's response towards Ganoderma infection.

Keywords: *Ganoderma disease, basal stem rot, early screening, pre-nursery, pot-tray.*