Poster Presentation 3

P3-28

Pathogenicity of five species of Botryosphaeriaceae isolated from *Tectona grandis* (teak); the pathogenic potential of *Lasiodiplodia* species

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Purpose: We determined the pathogenicity of botryosphaeriaceous taxa associated with stem cankers and die-back of *Tectona grandis* and also surveyed the potential for pathogenicity of saprobic Botryosphaeriaceae from teak using Koch's Postulates.
Method: An inoculation trial is conducted using five different species from four genera in the Botryosphaeriaceae viz. *Barriopsis tectonae*, *Dothiorella tectonae*, *Lasiodiplodia brasiliense*, *L. pseudotheobromae* and *Sphaeropsis eucalypticola*. Excised twigs of *T. grandis* were inoculated by placing agar plugs 5 mm3 of each actively growing colony on wound. Lesion development was recorded after 7 days of inoculation.
Result and conclusion: *Lasiodiplodia pseudotheobromae* (strains MFLUCC 12-0772 and MFLUCC 12-0796) associated with stem cankers and die-back lesions are significantly pathogenic on *T. grandis* excised twigs. *Lasiodiplodia pseudotheobromae* is however, associated with canker in only one natural forest site, and die-back in only one plantation site of the 35 sites surveyed. Thus, at this stage we concluded that *L. pseudotheobromae* is a significant pathogen causing stem cankers and die-back of teak but it is not commonly found in teak plantations. The disease caused by *Barriopsis tectonae*, *Dothiorella tectonae* and *Sphaeropsis eucalypticola* are not statistically significantly different from the control and therefore are not considered as pathogens of teak; they are likely to be endophytes and/or saprobes. *Lasiodiplodia brasiliense* (strain MFLUCC 11-0414) and *L. pseudotheobromae* (strain MFLUCC 12-0053) which are isolated from dead branches and twigs, respectively, are significantly pathogenic on *T. grandis* and are likely causal agents of lesions. *Lasiodiplodia brasiliense* (strain MFLUCC 11-0414) which was isolated as a saprobic fungus, produced the longest lesions.