A trunk canker disease of *Tectona grandis* induced by *Lasiodiplodia theobromae* in Brazil

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*Tectona grandis* (teak) is currently expanding as a commercial timber crop in tropical Brazil. Teak trees displaying unusual canker lesions with abundant exudation of a viscous resin were observed in field inspections in Cáceres, Mato Grosso (MT) State, Brazil. Other symptoms observed were the presence of brownish vascular tissue discoloration, heartwood rot (Fig. 1) and dieback. The incidence of affected trees ranged from 5 to 10% across all inspected commercial fields.

AFFECTED VASCULAR TISSUE SEGMENTS WERE CULTIVATED IN WATER AGAR MEDIUM AIMING TO ISOLATE THE ORGANISM POTENTIALLY ASSOCIATED WITH THESE SYMPTOMS. AGAR PLUGS OF FUNGAL MYCELIA GROWING FROM THE TISSUE WERE COLLECTED AND TRANSFERRED TO STERILE PETRI DISHES CONTAINING PAPER DISCS EXCISED FROM THE PDA PLUGS (PDA: DISSOLVED AMOUNTS OF POTATO, DEXTROSE, AGAR). ISOLATES WERE MAINTAINED AS COLD-RESISTANT STRAINS AND FOR PATHOGENICITY ASSAYS.

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Hence, to our knowledge, this is the first formal report of *L. theobromae* causing canker disease teak in Mato Grosso State, Brazil. This new disease represents a serious threat to the commercial industry, since the affected trees are unsuitable for timber purposes.

**References**


Three elite teak clones were inoculated with two *L. theobromae* isolates (RB01 and RB05) in order to fulfil Koch’s postulates. Pathogenicity assays were conducted under greenhouse conditions using an inoculation methodology essentially as described by Silveira et al. (2006). Inoculation was carried out on plants, 180 days after being transplanted, by placing 2 mm diameter mycelial plugs of the isolates grown on PDA for 14 days in artificially made wounds (2 cm diameter) in the vascular cambium tissue (5 cm above the crown region). For the control treatments, the vascular cambium was inoculated with PDA plugs free of fungal growth. All three elite clones displayed canker symptoms identical to those observed in natural infections in the commercial fields 90 days after inoculations (Fig. 3).