



Foliar, Shoot, Stem and Rust Diseases of Trees

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Detection of species of the *Colletotrichum acutatum* complex in *Khaya* spp. through molecular markers in Brazil

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African mahogany is the popular name for trees belonging to the genus *Khaya*. In Brazil, *K. senegalensis*, *K. grandifoliola*, *K. anthoteca* and *K. ivorensis* are the most cultivated species, due to their exceptional wood quality. *Khaya* wood is used mainly in civil construction and furniture industry, being considered an alternative to the South American mahogany (*Sweetenia macrophyla*), an endangered species. The African mahogany planted area has been growing in Brazil in recent years, resulting in an increased demand for seedlings. The occurrence of symptoms like leaf spot and apical necrosis in some plantations in Brazil, prompted isolation and culturing studies in order to identify the fungal pathogens associated with these symptoms in the tree species *K. senegalensis*, *K. grandifoliola* and *K. ivorensis*. Based on micromorphological traits (culture and conidia characteristics), the resulting isolates were ascribed to the *Colletotrichum acutatum* complex. Isolates were tested for their pathogenicity in inoculation assays, by spraying a spore suspension of 2×10^4 on five replicates of 8 months-old seedlings of *Khaya*. Symptoms were confirmed after 10 days. In order to identify the fungal taxa at a species level, DNA was extracted from pure cultures and the three genic/intergenic regions ITS, b-tubulin and chitin sintetase were sequenced. Comparison of the resulting sequences in public databases revealed high percent similarity (greater than 98.5%) with *C. acutatum*. This is the first report of members of the *Colletotrichum acutatum* complex species related to infection in *Khaya*.