

INCIDENCE OF RED ROOT DISEASE IN *HEVEA* CAUSED BY *GANODERMA PSUEDOFERREUM*: A FIRST REPORT FROM NIGERIA

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A field survey was conducted on 14,720 rubber trees in 32 ha clonal garden of Rubber Research Institute of Nigeria (RRIN) in July- September 2011, to evaluate the status of new root diseases by visual examination. The infection of red root rot was 0.02 per cent. Two varieties of red root rot were encountered; large one that caused infection on living rubber tree termed 'infective red root rot' and the second seen only on dead rubber trunk and subterranean or on dead rubber stumps already killed by white root rot termed as 'non-infective' red root rot. The size of the fruiting bodies of the 'infective red root rot' ranged from 27-30 cm by 17.5-19 cm (length x breadth) with shining dark red upper surface with narrow white margin and ash-light-yellow under surface and a prominent creamy-white fringe. The size of the 'non-infective' fructification ranged from 5.3 to 5.7 cm by 3.1 to 4.2 cm (length x breadth) with dark brownish red upper surface and wide white margin and white under surface and a prominent creamy-white fringe. This study confirms the incidence of red root disease in rubber plantations in Nigeria and report the existence of two varieties of *Ganoderma psuedoferreum*. The study also suggests further regular field inspection of plantations and adequate control measures to forestall epidemic outbreak of the pathogen in plantations in Nigeria.

Keywords: Disease incidence, *Ganoderma psuedoferreum*, Occurrence and diversity, Red root disease

The most important root rot pathogens of *Hevea brasiliensis* are the Basidiomycetes (*Rigidoporus lignosus* (Klotzsch) Imazeki, *Phellinus noxius* (Corner) G. H. Cunn., *Ganoderma psuedoferreum* (Wakef.) Over and Steinm.) and Ascomycetes (*Ustilina zonata* (Lév.) Sacc., *Sphaerostilbe repens* (Berk. & Br.) and *Poria hypobrunnea* (Petch). Of these six, *R. lignosus*, *P. noxius* and *G. psuedoferreum* are of economic importance causing white, brown and red root diseases, respectively, each capable of killing the trees directly

(Rao, 1975). Their relative economic impacts vary considerably from one country to the next. *G. psuedoferreum* is less common than white root, being localized in areas where carry-over of infective material is substantial or deep seated (Rao, 1975). It has become an important root pathogen which brings about die-back of mature trees (Rao, 1975). The distribution of red root rot disease is worldwide and is especially serious in China and is reported as being the second most significant root disease in Malaysia and