

**EFFECTIVENESS OF DIFFERENT TRADE PRODUCTS
OF HEXACONAZOLE AND TEBUCONAZOLE AGAINST
Rigidoporus microporus
CAUSATIVE AGENT OF WHITE ROOT DISEASE OF
*Hevea brasiliensis***

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ABSTRACT

Among the diseases of rubber white root disease is the most destructive and serious root disease. The causative agent of white root disease (WRD) of rubber is *Rigidoporus microporus*. Integrated management methods such as cultural practices, biological control and chemical control are practiced for manage the WRD. Among them chemical method is common method managing white root disease. Two systemic fungicides named hexaconazole and tebuconazole are recommended to control the disease. During the recent past plant pathology and microbiology department of the RRISL received several complaints about the bio efficacy of different commercial products of the above fungicides. Therefore, this study was conducted to explore the different commercial products of two fungicides hexaconazole and tebuconazole to evaluate their bio-efficacy in controlling the *Rigidoporus microporus* isolate under laboratory conditions. White root disease infected root samples were collected from Dartonfield estate and mycelia of *R. microporus* were prepared using them in MEA. Morphological and microscopic characters of *R. microporus* were observed. For fungicide screening test seven commercial products used were Folicur (tebuconazole 250 EW), Orius (tebuconazole 250 EW), Ceypetco (tebuconazole 250 EW), Heyleys (hexaconazole 50g / l), Century (hexaconazole 50g / l), Hero (hexaconazole 50g / l) and Agstar (hexaconazole 50g / l). Mycelial growth inhibition was evaluated by the Poisoned Food Technique (PFT) at different concentrations. *R. microporus* isolate was white in colour, flat in form and powdery and fine in texture. Mycelia of *R. microporus* were branched and septate. Spores were round in shape. In fungicide screening test, Folicur (tebuconazole 250 EW) is the only one fungicide achieved EC₁₀₀ at 5ppm level. At 25 ppm concentration, Orius (tebuconazole 250 EW), Ceypetco (tebuconazole 250 EW) and Heyleys (hexaconazole 50g / l) achieved EC₁₀₀. Century (hexaconazole 50g / l) achieved EC₁₀₀ at 100 ppm level and Hero (hexaconazole 50g / l) and Agstar (hexaconazole 50g / l) does not achieved EC₁₀₀ within the tested concentration range. Five fungicides out of seven tested such as Folicur, Orius, Ceypetco, Heyleys and Century were found to be more effective in checking the growth of *R. microporus* under laboratory conditions using the techniques employed.

Key words: *Hevea brasiliensis*, *Rigidoporus microporus*, White root disease, Hexaconazole, Tebuconazole, Poisoned Food Technique