

On the propagation of ganoderma boninense infection of basal stem rot in oil palm with the aid of acoustics computed assisted tomography

ABSTRACT

Ganoderma boninense (GB), a causal agent of basal stem rot (BSR) disease, remains as a threat in oil palm plantation as it caused a considerable amount of yield losses especially in South East Asia. Studies related to spread and transmission of the disease through roots and airborne have been reported by researchers but, knowledge on the propagation inside the oil palm however are still very limited. This paper is a hypothesis on the infection propagation of GB in oil palm with the help of acoustics computed tomography system. Three different characteristics of oil palm which consist of healthy, asymptomatic and severely infected palm were selected and tested using an acoustic device for tomogram image construction. Result of the acoustics tomography image from each samples obtained from the experiment have revealed the possibility of infection propagation in oil palm stem. Hypothesis of Ganoderma boninense infection mechanisms are outlined and concluded.