

**Identifying the Early Visible Symptoms of the Ganoderma-Infected Oil Palms:  
A Case Study on the Infected Palms Which Collapsed Within Twelve Months  
after Disease Census**

**ABSTRACT**

In the region of Southeast Asia especially in Malaysia and Indonesia, Ganoderma Basal Stem Rot (BSR) disease is considered as the most devastating disease in oil palm industry. The objective of this study is to identify the important early visible symptoms which can give early signal that the palms infected by Ganoderma BSR disease will collapse within 12 months after the disease census conducted. The visible external symptoms of the disease considered were presence of bunch, presence of rotting trunk, presence of more than three unopened spears, and the number of active fruiting bodies Ganoderma species. A binary logistic regression was employed with the parameters of the model were estimated using maximum likelihood method. This study found that the infected palms which have more than five active fruiting body of Ganoderma species and did not produce any fruit bunch during the census most probably will collapse within 12 months after the census. This result suggests that the priority for curative action should be given to the infected palms which show these two visible symptoms during the census.