

**EVALUATION OF THE PATHOGENICITY OF *Pseudomonas fuscovaginae*
TOWARDS MALAYSIAN RICE VARIETY**

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ABSTRACT

EVALUATION OF THE PATHOGENICITY OF *Pseudomonas fuscovaginae* TOWARDS MALAYSIAN RICE VARIETY

Paddy or *Oryza sativa L.* is one of the most important crops in the world. Many countries are concerned about to increase the rice productivity such as the quality and quantity of rice production because human population continuing grows. Bacterial sheath brown rot disease caused by *Pseudomonas fuscovaginae* is considered one of the new diseases and it is becoming widespread worldwide. The effect of the sheath brown rot, which reduces the quality and quantity of rice production. Nowadays, most of the farmers had a problem on crop disease infection. By doing a research on the recent Malaysian rice variety against the disease, may help farmers to improve their production as they can choose the variety that are resistance towards sheath brown rot. Therefore, a study to evaluate the disease severity of Sheath brown rot on different Malaysian rice variety and evaluation the effect of Sheath brown rot towards different Malaysian rice variety's chlorophyll content was implemented. The bacteria pathogen that was inoculated to MR 220CL2, MR 219 and MARDI Siraj 297 in the greenhouse using spraying method. After one week, the data on disease severity were recorded by using standard disease index published by IRRI and chlorophyll content was recorded using SPAD meter device with standard procedure. The results obtained from the pathogenicity test showed disease severity for MR 219 is 51.85%, followed with MARDI Siraj 297 which 48.15%. The lowest percentage of disease severity was MR 220CL2 with 29.63%. The result for SPAD meter reading showed for MR 219 is lowest 15.48, followed with MARDI Siraj 297 which 20.48. The highest SPAD meter reading was MR 220CL2 with 25.15. This study conclude MR 220CL2 is the highest resistance recorded compare to MARDI Siraj 297 and MR 219.

Keywords: MR 220CL2, MR 219, MARDI Siraj 297, *Pseudomonas fuscovaginae*, sheath brown rot, disease severity