ABSTRACT

RICE RESISTANCE OF LOCAL VARIETY TO SHEATH BLIGHT .

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Sheath blight (ShB) is one of the most important rice disease caused by soil borne pathogen *Rhizoctonia solani* Kuhn. ShB in rice can cause high yield loss, it is causing economic losses. Planting resistant varieties is effective and efficient control technique of ShB. Local rice varieties are known to have a broad genetic background until the necessary research to determine their resistance to pests and diseases. This study was aimed to find out the resistance of local rice varieties to ShB.

This study was conducted in 500 m^2 paddy field area in the village of Joho, Mojoban, Sukoharjo, Central Java, on April to September 2016. This study used Randomized Completely Block Design (RCBD) one factor, as a factor is local varieties of rice. There are nine varieties of rice locally tested of this study, there are Padi Hitam, Mentik Susu, Rojopusur, Beras Merah Klaten (BMK), Srikiti, Rojolele, Mentik Wangi, Segreng Wonogiri, Padi Merah Karanganyar, Rati Rahayu dan Pandan Wangi, and 3 varieties as compared variety Inpari13, IR64S and IR64PP. The results showed that the tested local variety of rice had better resistance to ShB than compared variety. This is indicated by the value of the disease incidence, disease severity, the rate of infection and AUDPC lower than compared variety. Padi Hitam is the most resistant varieties to ShB that indicated by the disease incidence, disease severity and AUDPC which is the lowest value of the tested local varieties of rice. The variety performed the lowest disease intensity and higher yield than the others.

Based on the category of resistance to BLB, local variety of rice were tested belong to category of Moderate (Padi Hitam), category of Moderately Susceptible (Rojolele, Srikiti, mentik Wangi, Mentik Susu, Rati Rahayu and Sumatera) and category of Highly Susceptible (Segreng Wonogiri, Pandan Wangi, Beras Merah Klaten, Padi Merah Karanganyar dan Rojopusur).