

The Effect of Leaf Extract (Azadirachta indica)Biofungicide on the Intensity of Blast Attacks (Pyricularia oryzae) on Rice Plants (Oryzae sativa L.)

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ABSTRACT

The use of neem leaves as a botanical pesticide is an alternative solution to reducing the use of synthetic pesticides. This research aims to determine the effect of neem leaf extract biofungicide (Azadirachta indica) on blast disease inhibition, blast disease intensity and rice crop yields. This research was carried out from July to September 2023 on rice cultivation in Dukuh Mencek Village, Sukorambi District, Jember Regency. The research method was designed using a Completely Randomized Design (CRD) which consisted of 5 treatment levels and was repeated 3 times including P0: 0% (aquadest), P1: 5%, P2: 10%, P3: 15%, P4: 20%, and P5: 25% concentration of neem leaf extract. Data analysis used the BNT test at 5% level for inhibition power and the Wilcoxon test for disease intensity. The results of the average inhibitory power showed that the P5 treatment (25%) treatment but were not significantly different from the P4 (20%) treatment. The disease intensity variable at the third application, age 37 – 40 HST with treatment level P4 (20%) had a different effect in inhibiting the growth of the fungus that causes blast disease with an average of 32.48%. In the dry grain weight yield variable for rice fields, it shows that the neem leaf extract treatment obtained an average yield of 6.19 tonnes/ha. These harvest results show values that are close to the yields of the Inpari 32 rice variety which has an average production of 6.30 tons/ha.

Keyword : *Neem Leaves, Blast Disease, Inpari 32*