RESISTENCY *Pyricularia oryzae* TO ACTIVE FUNGICIDES WITH DIPHENOCONAZOLE-PROPICONAZOLE, FLUOPICOLID-PROPINEB, AND PHENOXANIL- ISOPROTHIOLANE

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ABSTRACT

Blast caused by the fungus *Pyricularia oryzae* is a disease that attacks rice plants and is quite widespread in Indonesia. The use of fungicides continuously over a long period of time, supports the emergence of fungicide-resistant fungal strains. This study aims to determine the resistance of *P. oryzae* to the fungicide active ingredients difenoconazole-propiconazole, fluopicollid-propineb, and fenoxanil-isoprothiolane. The study was conducted *in vitro* at the Plant Protection Laboratory, UPN "Veteran" Yogyakarta from March to October 2022. The *P. oryzae* carried out using a random purposive method on rice fields showing symptoms of broken neck blast disease. Morphology *P. oryzae* was identified that the color of the upper part of the colony was green in the middle and black on the edges, while the color of the bottom of the colony was solid black. The shape or pattern of the colony is in the form of a ring with smooth colony edges, a thin mycelium shape without air mycelium, and with sideways growth of hyphae. The fungicide resistance test was carried out using the poison feeding technique using fungicides. *Pyricularia oryzae* is not show resistance to fungicides with the active ingredients difenoconazole-propiconazole and fenoxanil-isoprothiolane. A fungicide with the active ingredient fluopicollid-propineb can be used as a chemical control of rice blast disease at a recommended dose of 1 g/L which can inhibit the growth of *P. oryzae* almost 50%.

Keywords: *Pyricularia oryzae*, Rice Blast, Difenoconazole-propiconazole, Fluopicolide-propineb, Fenoxanil-isoprothiolane