

***The Effect of Mycorrhiza and PGPR Application on
Down mildew-Endemic Land on the Production of
Waxy Corn (*Zea mays ceratina*)***

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ABSTRACT

*Waxy corn is a substitute for rice and is widely consumed by the Indonesian people. However, the production of glutinous corn fluctuates every year which is caused by the main pathogen, namely bulai. Bulai is a disease caused by the fungus *P. maydis* and often interferes and has large-scale damage with rapid spread so that it can cause crop failure in corn plants. Therefore, a solution is needed to this problem, namely the use of mycorrhizal fertilizer and PGPR. This research was conducted in Kebonsari land, Summersari District, Jember Regency, East Java Province. The altitude ranges from 146 meters above sea level (masl) with an average temperature of 23°C - 34°C. This study was arranged using a non-factorial randomized block design (RBD) consisting of 4 treatments control, PGPR 250 ml, Mycorrhiza 30 g, and a combination of PGPR 250 ml + Mycorrhiza 30 g with observation parameters in the form of plant height, stem diameter, number of leaves, emergence of widow and female flowers, wet and dry stalk weight, shoot weight, cob weight, cob weight without sheath, cob length, and cob diameter. The results of the study that have been obtained are processed using analysis of variance (ANOVA) showed that the effect of mycorrhiza and PGPR administration did not affect the observed parameters such as plant height, stem diameter, cob weight, cob diameter, cob length, cob weight without husk, wet and dry stalk weight, and root weight.*

Keywords: *Mycorrhiza, PGPR, and Waxy Corn*