EFFECT OF APPLICATION *Trichoderma* sp. ON THE GROWTH OF THE (*Elaeis guineensis* Jacq.) SIMALUNGUN VARIETY IN PRE-NURSERY

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ABSTRACT

Nursery is a stage that needs to be considered in oil palm to get good quality oil palm plants, because the nursery phase is a crucial stage to produce the best seeds to be used to replace unproductive plants. One way of biological control is to use Trichoderma sp. which can be used as an environmentally friendly pathogen control option. In addition, the power of Trichoderma sp. as a biocontroller also has a positive effect on roots, plant growth and crop yields. This research was conducted from July to November 2022 at the Plant and Field Protection Laboratory of the Department of Agricultural Production. This study used a non-factorial randomized block design (RBD) consisting of 3 treatments with 9 replications, each treatment consisting of 5 plants. The treatment consisted of T0 (control), T1 (Trichoderma sp. 150 ml/polybag), T2 (Trichoderma sp. 300 ml/polybag). The research data were analyzed using anova and continued with a 5% BNT follow-up test. Based on the results of the analysis and discussion, it can be concluded that the application of Trichoderma sp. significant effect on plant height, stem diameter and number of leaves and had no significant effect on root volume of pre nursery oil palm seedlings at 11 MST.

***Keywords**: Oil palm nursery, Pre nursery, Trichoderma* sp.