

**EFFECT OF SOME DOSAGE APPLICATION OF *Trichoderma*  
sp. ON THE GROWTH OF OIL PALM SEEDS (*Elaeis*  
*guineensis* Jacq.) VARIETY SIMALUNGUN  
IN THE MAIN NURSERY**

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***ABSTRACT***

*Oil palm (Elaeis guineensis Jacq.) is one of the important plantation crops for Indonesia. In the process of managing oil palm seedlings, it is necessary to pay attention to the things needed by the seedlings, for example the availability of sufficient nutrients and air in the metabolic process of oil palm growth. One of the efforts to optimize water and nutrient intake in maintenance is the application of Trichoderma sp.. Trichoderma sp. fungi are also known as soil biofertilizers and plant growth promoters, and are helpful as antagonistic bacteria. This research was conducted from November 2022 to February 2023 at the Plant and Field Protection Laboratory, 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 4 plants. The treatment consisted of T0 (control), T1 (Trichoderma sp. 300 ml/polybag), T2 (Trichoderma sp. 600ml/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 of each parameter, it can be concluded that the application Trichoderma sp. very significant effect on the parameters of the number of oil palm seed fronds observed main nursery at 12 WAP, 14 WAP, and 16 WAP, and had a very significant effect on root volume at 17 WAP. As for the parameters of plant height and stem diameter of oil palm seedlings main nursery unreal effect.*

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