

**Test the Effectiveness of Dosage and Time of Mushroom Application  
*Trichoderma sp.* in Increasing the Growth and Yield of Tomato Plants (*Solanum  
lycopersicum L.*).**

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**ABSTRACT**

Tomatoes are one of the horticultural commodities that have the potential to be developed because they have various advantages. Obstacles that are limiting factors in increasing tomato production include infertile soil conditions. The research aims to determine the effectiveness of the dose and application time *Trichoderma sp.* in increasing the growth and yield of tomato plants. The research used was a Completely Randomized Design (CRD) with 2 factorials + 1 control. The first factor is dose *Trichoderma sp.* consisting of 40 g/plant, 60 g/plant, and 80 g/plant. the second factor is application time *Trichoderma sp.* which consists of 7 days before planting, during planting, and 7 days after planting. Controls are plants that were not treated *Trichoderma sp.* Data were analyzed using ANOVA at the 5% level. To find out the real difference between treatment and control by testing *Contras Orthogonal* at the 5% level and continued with the DMRT test at the 5% level. The research results showed that there was an interaction between dose treatment and application time *Trichoderma sp.* on the parameters of number of leaves 56 DAP, stem diameter 56 DAP, root length, number and weight of tomatoes per plant, number and weight of tomatoes per plot, and number and weight of tomatoes per harvest. The treatment dose of 40 g/plant was significantly better for the number of leaves at 56 DAP, stem diameter at 56 DAP, root length, number and weight of tomatoes per plant, number and weight of tomatoes per plot, number and weight of tomatoes per harvest and fresh weight of stover. The application time treatment 7 days before planting also showed the best results at plant height 28 DAP, number of leaves 56 DAP, stem diameter 42 DAP and 56 DAP, number and weight of tomatoes per plant, number and weight of tomatoes per plot, and number and weight tomatoes every harvest.

Keywords: Tomato Plants, *Trichoderma sp.*, Dosage, Application time.