GROWTH AND YIELD OF TOMATO PLANTS (*Lycopersicum esculentum* Mill.) SERVO VARIETY UPON APPLICATION OF VARIOUS ORGANIC MATERIALS AND DOSES OF *TRICHODERMA* sp.

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ABSTRACT

One of the problems in meeting the need for tomatoes is that tomato production still tends to be low and dependent on the use of inorganic fertilizers. The efforts made include improving plant cultivation, one of which is providing organic materials and *Trichoderma* sp. This study aims to determine the effect of growth and yield of tomato plants (*Lycopersicum esculentum* Mill.) Servo variety on the provision of various organic materials and doses of *Trichoderma* sp. The study was conducted at the Experimental Garden of the Faculty of Agriculture, UPNVY in December 2023 - March 2024. This study used a field experiment method with a 2 factor Completely Randomized Design (CRD), namely the provision of organic materials consisting of 3 levels, namely leaf compost, cow dung fertilizer, leaf compost + cow dung fertilizer and doses of *Trichoderma* sp., namely 0 kg/ha, 200 kg/ha, 400 kg/ha. The data obtained were analyzed using ANOVA then continued with DMRT test and Orthogonal Contrast test. The results showed that the combination of the two treatments was significantly better than the control plants in the parameters of dry weight of the shoot, dry weight of the roots, flower emergence time, root volume, number of fruits, number of clusters, fruit diameter, and fruit weight per plant, there was an interaction between the two treatments in the parameters of dry weight of the roots, number of fruits and fruit diameter, leaf compost + cow dung fertilizer and doses of *Trichoderma* sp. 200 kg/ha and 400 kg/ha gave better results on the growth and yield of tomato plants of the servo variety.

Keywords: *Tomato, Organic Materials, Trichoderma* sp.