

Pengaruh Aplikasi Kompos Kambing Dan POC Terhadap Produksi Dan Kualitas Benih Tomat (*Solanum lycopersicum* L.) (*Effect of Goat Compost and POC Application on the Production and Quality of Tomato Seeds (*Solanum lycopersicum* L.)*) Supervised by **Dr. Ir. Nantil Bambang Eko S, M. Si.**

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ABSTRACT

*This study aims to determine the effect of goat compost application and liquid organic fertilizer (POC) on the production and quality of tomato seeds (*Solanum lycopersicum* L.). The research was carried out in July-November 2025 in Glagahwero Village, Kalisat District, Jember Regency, East Java. The experimental design used was a factorial Group Random Design (RAK) with two factors that were repeated 3 times, namely the dose of goat compost (K), consisting of 8 tons/ha (K1), 15 tons/ha (K2), and 22 tons/ha (K3) and the concentration of liquid organic fertilizer (P), 2 ml/l (P1), 5 ml/l (P2), and 8 ml/l (P3). The results obtained were then analyzed using the ANOVA (Analysis of Variance) Test and continued with the DMRT Test at 5%. The results showed that goat compost treatment had a significant different effect (*) on parameters such as the weight of planting fruit 237.6 g (K2), the number of seedlings planting 368 grains (K2), the weight of seedlings of 0.77 g (K3), the potential seed production per hectare of 0.0220 tons/ha (K3) and a very real effect (**) on the germination power parameter of 94.3% (K2). The treatment of liquid organic fertilizer also has a very significant effect (**) on the germination power parameter of 95.5% (P3) and the interaction of the treatment of the two has a very real influence (**) on the parameter of the number of fruits planted which is 35 fruits (K2P1). As well as the interaction of the treatment of the two gave different intangible influences (ns) on the parameters of the weight of 1000 seeds, growth speed and growth simultaneity which indicated that the two factors did not have an interactive relationship in influencing all observation parameters.*

Keywords: *tomato, goat compost, liquid organic fertilizer, yield, seed quality*