

**THE EFFECT OF GUANO FERTILIZER AND TIME OF WATER  
SHOOTS PRUNING ON THE GROWTH AND YIELD OF TOMATO  
PLANTS (*Lycopersicum esculentum* L.)**

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**ABSTRACT**

Tomatoes productivity at some district are still quite low because of decreasing soil fertility due to continuous use of chemical fertilizers and inappropriate pruning of tomatoes. The research aims to determine the correct dosage of guano fertilizer and the correct time for pruning water shoots on the growth and yield of tomato plants. The research aims to determine the correct dosage of guano fertilizer and the correct time for pruning water shoots on the growth and yield of tomato plants. The research will be carried out in May-June 2024 in Sinduadi, Mlati, Sleman, Yogyakarta. The field experiment method will be prepared using a Randomized Complete Block Design (RCBD) with 2 factors. The first factor, 3 levels of guano fertilizer dosage, namely 25, 30, and 35 g. The second factor, 3 levels of water shoot pruning time, namely 21, 28, and 35 DAP. The data obtained was analyzed with analysis of variance. If there is a real effect between treatments the continue with DMRT at a test level of 5%. The results showed that applying 35 g of guano fertilizer/plant and pruning water shoots at 21 DAP gave the best results on fruit weight per plant and fruit weight per plot. Guano fertilizer dosage of 35 g/plant gave the best results on stem diameter at 42, 49 and 56 DAP, and number of leaves at 56 DAP. Pruning water shoots at 21 DAP gave the best results on plant height at 42 DAP, stem diameter at 42, 49 and 56 DAP, number of leaves at 56 DAP, number of fruit per plant, fruit weight per hectare and total fruit number.

**Keywords:** tomato, guano fertilizer, pruning