

**THE EFFECT OF GUANO FERTILIZER AND KCl FERTILIZER
APPLICATION ON GROWTH AND YIELD OF PEANUTS**

(Arachis hypogaea L.)

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ABSTRACT

This study aims to examine the effect of guano and KCl fertilizer applications, as well as to examine the effect of effective applications on the growth and yield of peanut plants. The study was conducted from June 2025 to October 2025 in Krajan, Slawu, Patrang District, Jember Regency, East Java. The study used a Factorial Randomized Block Design consisting of two factors and three replications. The first factor is the dose of guano fertilizer without treatment (0 tons/ha), 5 tons/ha, 10 tons/ha, 15 tons/ha. The second factor is the dose of KCl 75 kg/ha, 100 kg/ha. The results showed that the guano treatment dose of 15 tons/ha had a very significant effect on the number of branches 28 days after planting producing the highest number of branches as many as 6.31 branches, and the number of branches 42 days after planting producing the highest number of branches as many as 8.39 branches. Meanwhile, the treatment of KCl dose of 100 kg/ha significantly affected the number of full pods producing the highest number of 23.53 g, and dry biomass producing the highest weight of 38.31 g. Furthermore, the interaction of guano fertilizer and KCl doses of 0 tons/ha and 75 kg/ha was significantly different on plant height 28 HST with the highest yield of 14.80 cm, the number of leaf stalks 28 HST produced the highest number of stalks of 34.89 stalks and the weight of 100 seeds per plot produced the highest weight of 80.00 g. It can be concluded that the effect of guano fertilizer and KCl can increase the growth of peanut plant yields.

Keywords: *Legumes, Base Fertilizer, Organic Fertilizer*