

Response of Peanut (*Arachis hypogaea L.*) Production to Cow Manure and Phosphorus (P) Fertilizer. Supervised by Ir. Rr. Liliek Dwi S, MP and Iqbal Erdiansyah, SP, MP

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ABSTRACT

Based on data from the Central Bureau of Statistics in 2018, peanut production in Indonesia cannot meet the needs of the domestic market, due to the unstable increase in the amount of production. This study aim to increase peanut production by applying cow manure and phosphorus (P) fertilizer. This study aim to determine the production of peanut (*Arachis hypogaea L.*) Tala 1 variety by providing cow manure and P. fertilizer. This research was conducted in Koncer Village, Bondowoso Regency. This study used a factorial randomized block design (RBD) with 2 factors, 9 treatment combinations, and 3 repetitions. The first factor (cow manure) consists of 3 levels, namely the dose of cow manure 0 tonnes / ha, 7 tonnes / ha, and 14 tonnes / ha. The second factor (SP36) consists of 3 levels, namely fertilizer dosage SP36 0 ton / ha, 1.5 ton / ha, and 3 ton / ha. Data were analyzed using ANOVA and then tested using the DMRT level of 5% and level of 1% if the results were significantly different. The results of this study indicated that the addition of doses of cow manure had a significant effect (*) on the observed variabel of weight of pithy pods per sample, weight of wet pods, and weight of dry pods, and had a very significant effect (**) on the observed parameters of stover weight and total pithy pods. Treatment of organic fertilizer as much as 2.8 kg / plot gave the best results of 25.722 grams / sample on the weight parameters of pithy pods, weight of wet pods was 455.333 grams / plot, weight of dry pods was 326.333 grams / plot, weight of stover was 66.944 grams / sample, number of pods pithy that is 14,028 per sample. The interaction between the addition of doses of cow manure and P fertilizer did not occur in all parameters.

Keywords: Peanuts, Cow Manure, Fertilizer P