

**GROWTH AND PRODUCTION RESPONSE OF GROUNDNUT
(*Arachis hypogaea* L.) TO THE APPLICATION OF
BANANA PEEL LIQUID ORGANIC FERTILIZER**

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ABSTRACT

Peanuts have nutritional content, especially protein and fat. Increasing the production of these plants needs to be done to meet the needs of the community. Increasing peanut productivity using Liquid Organic Fertilizer (LOF) banana peel can minimize the use of inorganic fertilizers because excessive use can harm the environment, and utilize banana peel which contains macro nutrients such as N, P, K. This study aims to determine the response of peanut growth and production to the application of banana peel LOF. This research was conducted in Antirogo, Sumbersari District, Jember Regency. The experiment was arranged using a Randomized Group Design (RGD) with 6 treatments and 4 replications. The treatments were 100% inorganic fertilizer, 50% and banana peel LOF + 100% inorganic fertilizer with concentrations of 150 ml/L, 300 ml/L, 450 ml/L, 600 ml/L. The observation variables consisted of the number of pods, fresh pod weight per plant, dry biomass weight per plant, dry pod weight per plant, dry seed weight per plant, dry pod weight per-plot, dry seed weight per-plot, and 100 seed weight. Data were analyzed using ANOVA and if the results of the analysis showed significantly different or very significantly different then further tested using the DMRT test at the 5% level and 1% level. The results of this study on several variables showed that the concentration (600 ml/L) of banana peel LOF gave better results, which were significantly different from the weight of fresh pods (65.3 g), the weight of dry pods per plant (38.05 g), and significantly different from the number of seeds with the highest concentration treatment (600 ml/L) (38.5 pieces), the weight of dry seeds per plant (28.3 g).

Keywords: *Peanut, Banana Peel LOF, Concentration*