

**APPLICATION OF SUNN HEMP (*Crotalaria juncea*) LIQUID ORGANIC FERTILIZER  
ON THE GROWTH AND PRODUCTION OF GROUND NUTS (*Arachis hypogea* L.)**

Supervised by Ilham Muhklisin, S.St., M.Sc.

**Muhammad Ali Ghufron**

Study Program of Crops Production Technology  
Department of Agricultural Production

**ABSTRACT**

The use of synthetic fertilizers can reduce the productivity of ground nuts through land degradation, therefore the use of organic fertilizers is needed. The purpose of this research was to examine the effect of sunn hemp liquid organic fertilizer and urea on the growth and production of ground nuts. This research was conducted in the Antirogo village, Jember county from October 2022 to January 2023 using a Randomized Block Design with two factors. The first factor was the concentration of sunn hemp liquid organic fertilizer (0 ml/l, 30 ml/l, 60 ml/l, and 90 ml/l) while the second factor was the dose of urea fertilizer (25 kg/ha, 50 kg/ha, and 75 kg/ha). The results showed a significant interaction in almost all parameters except the number of branches. On dry biomass weight, the combination of liquid organic fertilizer 60 ml/l with urea fertilizer 50 kg/ha showed the highest number (315.60 g) while in the application of liquid organic fertilizer 90 ml/l with urea fertilizer 50 kg/ha the largest number of dry pod weight (53.31 g) was recorded. Possibly, the application of sunn hemp liquid organic fertilizers improves soil quality which then helps the absorption of nutrients both naturally and synthetically (urea).