Response of Peanut* (*Arachis hypogaea* L.) *for Plant Growth and Production from Application of Bamboo Shoot and Banana Stalks LOF

Supervised by Ir. Rr. Liliek Dwi Soelaksini, M.P.

Jaida Jinani Firdausiyah
Food Crop Production Technology Study Prog
Department of Agricultural Production

ABSTRACT

The low productivity of peanuts (Arachis hypogaea L.) in Indonesia is partly caused by land degradation due to excessive use of inorganic fertilizer. Therefore, more environmentally friendly practices need to be implemented, such as the use of Liquid Organic Fertilizer (POC). This study aimed to test the effect of applying Liquid Organic Fertilizer combining bamboo shoots and banana pseudostem on the growth and yield of Katana 2 peanut variety. This research used a non-factorial Randomized Block Design with six POC concentration levels (0, 30, 70, 110, 150, 190 ml/L), each replicated four times. The study was conducted in Krajan Slawu Village, Patrang District, Jember Regency (146 m above sea level) from July to October 2025. The observation results showed that POC at 190 ml/L yielded the best results for plant height (50.64 cm) and number of filled pods (45.25 g). Meanwhile, the POC concentration of 150 ml/L gave the highest value for filled pod weight (80.69 g) and dry seed weight (49.06 g). These findings indicate the potential of bamboo shoot and banana pseudostem combination POC to improve peanut growth and production.

Keywords: *Banana stem, Legume, Liquid mix fertilizer, Bamboo shoots.*