

Effect of Liquid Organic Fertilizer and NPK on Growth and Production of Edamame (*Glycin max* (L.) Merrill)
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ABSTRACT

Edamame is a type of legume that originates from Japan. Fertilization is a major effort to increase crop yields in the form of both organic and inorganic fertilizers. The purpose of this study was to determine the effect of liquid organic fertilizer and inorganic NPK fertilizer on the growth and yield of soybeans. This research was conducted from February 2023 to April 2013, on land in Baratan Village, Patrang District, Jember Regency. The research design used was a factorial randomized design (RBD) with 2 factors and 3 replications. The first factor was the concentration of POC (0, 7.5, 15 ml/l) and the second factor was the dose of NPK fertilizer (70, 80 and 90 g/plot). The results showed that the application of liquid organic fertilizer with a concentration of 15 ml/l had a significant effect on fruit weight in the sample (79.33 g) and plot (2945 g). NPK fertilization at a dose of 90 g/plot had a significant effect on stem diameter (3.86 mm) and the number of branches produced (6.31 branches). While the interaction between liquid organic fertilizer and NPK fertilizer in the combination treatment (POC concentration of 7.5 ml/l + NPK dose of 90 g/plot) had a significant effect on the number of pods per sample (34, 27 pods). This confirms that plants will grow and develop optimally if they get nutrients through liquid organic fertilizer or inorganic NPK fertilizer.

Keywords: *Edamame, NPK, Liquid Organic Fertilizer*