

ABSTRACT

Peanuts have high economic value due to their nutritional content, especially high protein and fat. Demand for peanuts in Indonesia continues to increase while peanut production in 2023 decreased by 7.87% compared to peanut production in 2022. Increasing peanut production can be done by applying water hyacinth compost and cow manure. This study aims to determine the effect of growth and yield of peanut plants due to the application of water hyacinth compost and cow manure and the interaction on peanut plants. This research was conducted at the Experimental Garden and Agroecotechnology Laboratory of the Faculty of Agriculture, Malikussaleh University, North Aceh Regency from June to August 2023. The research method used a factorial Randomized Block Design (RBD) with 3 replications. The first factor was water hyacinth compost fertilizer, namely: E0 = 0 tons/ha (control), E1 = 5 tons/ha (1 kg/plot), E2 = 10 tons/ha (2 kg/plot). The second factor is the treatment of cow manure, K0 = 0 tons/ha (control), K1 = 10 tons/ha (2 kg/plot), K2 = 20 tons/ha (4 kg/plot). The results showed that the application of water hyacinth compost fertilizer affects the growth and yield of peanut plants. The application of water hyacinth compost fertilizer gives the best results on the growth and yield of peanut plants, the application of cow manure affects the growth and yield of peanut plants. The provision of cow manure gives the best results on the growth and yield of peanut plants, There is no interaction between the provision of water hyacinth compost and cow manure.

Keywords: Seed, Pod, Organic Fertilizer.