

ABSTRACT

Peanut is one of the food crops that has high economic value because of its nutritional content, especially high protein and fat. The demand for peanuts continues to increase from year to year in line with the increase in population, community nutrition needs, food diversification, and increased capacity of the feed and food industry in Indonesia. Land fertility continues to decline due to suboptimal land management. To increase production can be done by adding organic and inorganic materials that can improve the physical properties of the soil so that gynophores easily enter the soil. The purpose of this study was to see the response of growth and yield of peanut plants to the application of NPK fertilizer and rice husk biochar. The research was conducted in the experimental garden and Agroecotechnology Laboratory of the Faculty of Agriculture, Malikussaleh University located in Muara Batu District, North Aceh Regency from July to October 2023. This study used a two-factor group randomized design (RCBD) with treatments with three replications. The first factor is NPK Fertilizer (N) consisting of N0 = 0 g NPK Fertilizer/plot, N1 = 20 g NPK Fertilizer/plot, N2 = 30 g NPK Fertilizer/plot and N3 = 40 g NPK Fertilizer/plot. The second factor is Rice Husk Biochar (B) consisting of B0 = Rice Husk Biochar 0 g/plot, B1 = Rice Husk Biochar 1 kg/plot, and B2 = Rice Husk Biochar 2 kg/plot. NPK (N) fertilizer treatment affected plant height, stem diameter, number of three-legged branches, number of pods, number of pods, pod weight, seed dry weight, 100 seed dry weight, and ton/ha production. Rice husk biochar (B) affected plant height, stem diameter, number of tripod branches, number of seed pods, pod weight, seed dry weight, 100 seed dry weight, and ton/ha production.

Keywords: NPK Fertilizer, Peanuts, Rice Husk Biochar