

ABSTRACT

This study aims to determine the effect of growth and yield of several soybean genotypes due to the application of biological fertilizers. . This research was conducted in Reulet Timur Village, Muara Batu District, North Aceh Regency with an altitude of 1,000 meters above sea level and at the Agroecotechnology Laboratory, Faculty of Agriculture, Malikussaleh University. This research was conducted from July 2023 to September 2023. This study used a factorial Randomized Group Design (RAK) with 3 replications. The genotype factor consists of Anjasmoro variety, M.1.1.8 line, M.5.2.1 line. Petrobio biofertilizer with each treatment dose, namely: H0 = without petrobio, H1 = 10.8 grams/beds, H2 = 21.6 grams/beds. The results showed that genotype influenced the growth and yield of soybean. The highest plants are found in Anjasmoro varieties but the best yield character is V3 M.5.2.1. The use of petrobio biofertilizer concentration affects the variables of plant height at 6 and 8 weeks of planting, number of branches at 6 and 8 weeks of planting, number of leaves at 2, 6, and 8 weeks of planting, flowering age, harvest age, root length, number of pods per plant, weight of 100 seeds per plant, and dry seed weight per plant. The best concentration is found at 10.8 grams/beds. And there is no interaction between soybean genotype and petrobio biofertilizer.

Keywords: Anjasmoro variety, M.1.1.3 line, M.5.2.1 line, biofertilizer.