

ABSTRACT

Tomato plants (*Solanum lycopersicum* L.) are a popular fruit vegetable and have many important roles in fulfilling nutrition. Tomato plants are one type of vegetable that has high economic value. Tomato production in Aceh province in 2022 decreased to 8,846 tons/ha compared to tomato production in 2021 which reached 11,706 tons/ha, this is due to improper cultivation techniques such as applying fertilizers that are not optimal so that it can be overcome by using organic fertilizers to increase nutrients, namely utilizing chicken eggshell waste and fermented rabbit urine waste as organic fertilizer. The purpose of this study was to determine the effect of giving chicken eggshell powder and rabbit biourine on the growth and production of tomato plants. This research was conducted in East Reuleut Village, Muara Batu District, North Aceh Regency and Agroecotechnology Laboratory, Faculty of Agriculture, Universitas Malikussaleh from January to March 2024. This study used a two-factor group randomized design method and 3 replications. The first factor is chicken eggshell powder (C) consisting of 4 levels. The second factor is rabbit biourine (U) consisting of 3 levels. The results showed that the treatment of chicken eggshell powder had a real to very real effect on plant height, stem diameter, chlorophyll content, flowering age, number of fruits per plant, fruit weight per plant, fruit weight per plot, ton/ha fruit production, fruit diameter, fruit length, root length, root fresh weight and root volume. Rabbit biourine had a real to very real effect on plant height at 20-60 DAP and stem diameter at 20-60 DAP. There is no interaction between the use of chicken eggshell powder and rabbit biourine on the growth and production of tomato plants.

Keywords : Calcium, Nitrogen, pH, Organic Fertilizer, Servo F1