

## ABSTRACT

Tomatoes (*Solanum lycopersicum* L.) are plants from the Solanaceae family and have great potential for development. However, tomato production has declined due to problems such as inappropriate fertilization. This study aimed to determine the effect of tofu dregs compost and KCl fertilizer on tomato growth and production. This study was conducted in the experimental garden of the Faculty of Agriculture, Malikussaleh University, North Aceh, from July to October 2025, using a two-factor Randomized Block Design (RBD). The tofu dregs compost dosage (K) consisted of three levels: K0 (0 kg/plot), K1 (1.6 kg/plot), K2 (3.2 kg/plot), and the second factor, KCl dosage (P), consisted of three levels: P0 (0 g/plot), P1 (24 g/plot), and P2 (40 g/plot). The results showed that the provision of tofu dregs compost had a significant effect on stem diameter at 21 days after planting, flowering age, fruit weight per plant, and production. The best treatment was indicated by the K1 level, which was 1.6 kg/plot. The application of KCl fertilizer had a significant effect on fruit length. The best treatment was indicated by the P2 level, which was 40 g/plot. There was no interaction between the application of tofu dregs compost and KCl fertilizer on the growth and yield of tomato plants.

**Keywords** : Tofu, Dregs compost, KCl, Servo F1