

ABSTRACT

Shallots (*Allium ascalonicum* L.) are one of the most important crops that have been intensively cultivated by farmers for a long time. Shallot cultivation has spread to almost all provinces in Indonesia because the crop serves as a source of income and employment, and its high economic value greatly contributes to the development of the local economy. Although farmers' interest in shallots is very high, the cultivation process still faces various technical and economic challenges.

This study aimed to determine the effect of coffee husk compost and chicken eggshell powder, as well as their interaction, on the growth and yield of shallots. The research was conducted at the experimental field and laboratory of the Faculty of Agriculture, Malikussaleh University, from March to June 2025. The study used a factorial randomized block design (RBD) consisting of two factors: coffee husk compost (K) and chicken eggshell powder (T). Factor K consisted of three levels: K0 = 0 g/plant, K1 = 100 g/plant, and K2 = 130 g/plant. Factor T also consisted of three levels: T0 = 0 g/plant, T1 = 10 g/plant, and T2 = 20 g/plant, resulting in 9 treatment combinations with 3 replications.

The results showed that coffee husk compost significantly affected several parameters, including plant height, number of leaves per clump, and root volume. Chicken eggshell powder also significantly affected parameters such as plant height, number of leaves per clump, and root volume. There was an interaction between coffee husk compost and chicken eggshell powder on plant height, number of leaves per clump, and soil pH. The best treatment was obtained from the combination of 130 g/polybag of coffee husk compost (K2) and 20 g/polybag of chicken eggshell powder (T2). This treatment provides new insights for improving the growth and yield of shallots.

Keywords: shallots, coffee husk compost, chicken eggshell powder.