

## ABSTRACT

Shallots (*Allium ascalonicum* L.) are one of the horticultural commodities that have a high economic level and are good to be developed. The obstacles faced in cultivating shallots today are the availability of quality seeds and fertilization. Provision of quality seeds can be done by selecting the right varieties and fertilization that can be done using inorganic fertilizer KCl. This study aimed to determine the effect of varieties and KCl fertilizers on the growth and production of shallots. This research was conducted in the experimental garden of the Faculty of Agriculture, Malikussaleh University from October to December 2024. This study used a two factor Randomized Block Design (RBD) with three replications. The first factor was Variety (V) consisted of (V1) Bima Brebes Variety, (V2) Tajuk Variety, (V3) Gayo Variety. The second factor was KCl fertilizer (K) consisted of (K0) 0 g/plot, (K1) 10 g/plot, and (K2) 20 g/plot. The results showed that the use of varieties had a significant effect on all observation variables except tuber weight loss per plant. The best treatment was the Bima Brebes Variety. KCl fertilizer treatment had a significant effect on the observation variables of plant height 21 days after planting (DAP), number of tillers 14 DAP, fresh tuber weight per plot, dry tuber weight per plot, production per hectare, and tuber weight loss per plot. The best treatment was KCl fertilizer dose of 10 g/plot. There was an interaction between variety treatment and KCl fertilizer on the observation variables of plant height 21 and 42 DAP, number of leaves 35-49 DAP, number of tillers 28 DAP, fresh tuber weight per plant, dry tuber weight per plant, production per hectare and tuber weight loss per plot. The best treatment was (V1K1) Bima Brebes Variety which was given 10 g/plot of KCl fertilizer.

Keywords: Tubers, Inorganic, and Dosage