

ABSTRACT

Shallot (*Allium ascalonicum* L.) is one of the horticultural commodities with high economic value and considerable potential for further development. The main constraints in shallot cultivation include the availability of high-quality planting materials and proper fertilization practices. High-quality planting materials can be obtained through the selection of suitable varieties, while fertilization can be improved by applying cow urine liquid organic fertilizer. This study aimed to determine the effects of shallot varieties, cow urine LOF concentrations, and their interaction on the growth and yield of shallot plants. The experiment was conducted at the Experimental Farm of the Faculty of Agriculture, Malikussaleh University, from May to July 2026. The study employed a factorial Randomized Block Design consisting of two factors. The first factor was shallot variety, namely Bima Brebes, Bauji, and Tajuk. The second factor was cow urine LOF concentration, consisting of 0 ml/L, 250 ml/L, and 500 ml/L. The results showed that shallot variety significantly affected several growth and yield parameters, including plant height, number of leaves, leaf chlorophyll content at 40 days after planting (DAP), number of tillers, bulb diameter, fresh bulb weight per clump, air-dried bulb weight per clump, fresh bulb weight per plot, and yield per hectare. The Bima Brebes variety generally produced superior growth and yield, whereas the Tajuk variety produced the highest number of tillers and bulbs. In contrast, the application of cow urine LOF at concentrations of had no significant effect on any of the observed variables. However, a significant interaction was found between shallot varieties and cow urine LOF concentrations.

Keywords: Bima Brebes, Bauji, bulbs, leaf chlorophyll, Tajuk.