

## **ABSTRACT**

### **THE EFFECT TRICHOCOMPOST DOSAGE ON SOIL PHYSICAL PROPERTIES, GROWTH, AND YIELD OF SHALLOTS (*Allium ascalonicum* L.)**

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The increase and decrease in the production of shallots (*Allium ascalonicum* L.) are influenced by various factors, one of which is the plant production factor and land productivity. Improvement efforts are necessary through fertilization with organic fertilizers, one of which is trichocompost, made from animal manure, foliage, *Trichoderma* sp. fungi, and others. This study aims to determine the appropriate dosage of trichocompost that influences soil physical properties, growth, and yield of shallots (*Allium ascalonicum* L.). The research was conducted on experimental land located in Cihorang Village, Cihideung District, Tasikmalaya City, West Java, from January to April. The study used a non-factorial Randomized Block Design (RBD) consisting of 6 treatments: T0: Control (without trichocompost), Trichocompost 0.5 kg/m<sup>2</sup>, Trichocompost 1 kg/m<sup>2</sup>, Trichocompost 1.5 kg/m<sup>2</sup>, Trichocompost 2 kg/m<sup>2</sup>, and Trichocompost 2.5 kg/m<sup>2</sup>, with each treatment repeated four times. The results showed that the trichocompost dosage affected soil physical properties such as bulk density, particle density, and porosity. The treatment with a trichocompost dosage of 1.5 kg/m<sup>2</sup> had the best effect on bulk density and porosity. In contrast, the dosage of 2 kg/m<sup>2</sup> had an optimal effect on particle density but did not significantly differ from the trichocompost dosage treatment on growth (plant height and number of leaves) and yield (fresh and dry bulb weight).

Keywords: Organic fertilizer, shallot, trichocompost.