APPLICATION OF AMELIORANTS AND POTASSIUM CHLORIDE FERTILIZER ON GROWTH AND YIELD OF SHALLOTS (Allium ascalonicum L.) IN THE SAND BEACH

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ABSTRACT

Coastal soils tend to be poor in organic matter and colloidal minerals so that in order to be used for shallot cultivation, it was necessary to add ameliorant and potassium chloride fertilizer. This research used field experiment with Completely Randomized Block Design (CRBD) with various treatments of amelioran and potassium chloride fertilizer. The first factor was manure fertilizer which consists of 3 levels: chicken manure, cow manure, and goat manure. Meanwhile, the second factor was that potassium chloride fertilizer consists of 3 levels: 100kg/acre, 200kg/acre, and 300 kg/acre. The data from the research was analyzed using ANOVA at the level of 5% and further tested by the DMRT test at the level of 5%. The results of the research showed that there was an interaction, namely ameliorant manure + potassium chloride fertilizer dose of 300 kg/acre on plant height parameters, number of tillers (21 DAP, 28 DAP, and 35 DAP), number of tubers, wet weight of the tubers per sample, dry weight of the tubers per sample, and dry weight of the tubers per plot. Chicken manure ameliorant gave the best results in all observation parameters except wet weight of tubers per plot, dry weight of tubers per sample, weight loss of tubers per plant, and loss of tuber weight per plot. Potassium chloride fertilizer dose of 300 kg/acre gives the best results on the diameter of the tubers and the harvest index.

Keywords: Shallots, Ameliorant, Potassium Chloride Fertilizer, Coastal Sand Land