APPLICATION OF MEDIA COMPOSITION AND MYCORRHIZAL BIOFERTILIZER DOSAGE ON THE GROWTH AND YIELD OF KAILAN PLANTS (BRASSICA OLERACEA L.)

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ABSTRACT

Kailan plants are vegetable plants with nutritional content that is beneficial for health. The purpose of this study was to determine the composition of planting media and the right dose of mycorrhizal fertilizer for the growth and yield of kailan plants. This study used a field research method of Complete Randomized Block Design (CRBD) with two factors and one control repeated 3 times. The first factor is the composition of planting media soil, goat manure fertilizer, husk charcoal consisting of (1:2:2), (2:1:2), and (2:2:1). The second factor is the dose of mycorrhizal fertilizer, which consists of 3 levels, namely 5, 10, and 15 g/plant. Data were analyzed with variance analysis at the 5% level followed by Duncan's Multiple Range Test (DMRT) at the 5% level, and to compare the treatments with the control, an Orthogonal Contrast Test was conducted. The results showed that there were interactions between treatments on plant height at 14 HST and root volume. The treatment of soil planting media: goat manure fertilizer: husk charcoal (2:2:1) was significantly better in plant height 14 HST, 28 HST, number of leaves 21 HST, stem diameter 21 HST, 35 HST, economic weight, conversion weight per hectare, and harvest index. The mycorrhiza dose treatment of 15 g/plant was significantly better on the number of leaves 14 HST, 21 HST, stem diameter 14 HST, fresh weight per plant, economic weight, and conversion weight per hectare. The treatment combination was significantly better than the control in the parameters of plant height 21 HST and number of leaves 35 HST.

Keywords: Kailan, Planting Media, Mycorrhizal Biofertilizer