ABSTRACT

Microgreens are young vegetables harvested 7–14 days after planting. Although harvested at a very early growth stage, microgreens contain essential nutrients such as folate, vitamin C, vitamin K, iron, and are rich in potassium. They also contain antioxidant compounds, including sulforaphane. This research aimed to evaluate the effect of different growing media combined with NPK fertilizer and eco-enzyme on the growth and characteristics of several microgreen vegetables. The experiment was conducted using a Completely randomized design in a factorial arrangement with two factors: growing media (cocopeat; cocopeat + rice husk charcoal + eco-enzyme; cocopeat + compost + NPK) and vegetable types (water spinach, spinach, mustard greens, and pakcoy), resulting in 12 treatment combinations with 4 replications. The observed parameters included plant height, number of leaves, root length, fresh weight, and root weight. The results showed that both growing media and vegetable types significantly affected most growth parameters. Cocopeat provided the best growth performance, water spinach produced the highest plant height and root length, while spinach produced the highest fresh and root weights. A significant interaction between growing media and vegetable types was observed, where the combination of cocopeat
× water spinach (M0J1) and cocopeat + compost + NPK × spinach (M2J2) resulted in optimal growth and yield of microgreens.

Keywords: Microgreens, Growing Media, Vegetable Types, Growth.