

ABSTRACT

The purpose of this research is to understand the influence of Azolla Ekastrak and mixed media on Wick hydroponics system to Caisin plant and to find the best combination of organic nutrient of Wick hydroponics system on Caisin plant. This research was held in February - March 2016, the research was done in the Green House of Agricultural Faculty Muhammadiyah Yogyakarta University. This research uses an experiment with Single Factor Experimental design in Completely Randomized Design consisting 5 treatments combination of Azolla extract nutrient solution and various media mixture, as follows A: Azolla extract 200 ml/l + Coal husk 10 g + Vermicompost 94 g, B: Azolla extract 200 ml / l + Charcoal husk 10 g + Compos Azolla 86 g, C: Azolla extract 200 ml / l + Charcoal husk 10 g + Vermicompost 47 g + Compos Azolla 43 g, D: Azolla extract 200 ml/l + Charcoal husk 20 g, E: AB MIX + Charcoal husk 20 g. The observation was taken for 5 weeks including higher plants and number of leaves measurement. At the end of the research period was including poriferation of roots, long root, weight of fresh root, weight of dried root, weight dry plant, weight dry plant, broad leaves and the color of leaves measurement. The results of the research showed the same results between commercial nutrition and organic nutrition. The best combination of natural nutrients was C: Azolla extract 200 ml / + Charcoal husk 10 g + Vermicompost 47 g + Compos Azolla 43 g compound than other treatments for plant height parameters (25.50 cm), fresh weight of plants (32.83 grams), Plant dry weight (2.1 grams), number of leaves (9.7 strands) and leaf area (397cm²).

Keywords: Azolla extract, Mixed media, Hydroponics Wick System and Caisin.