Substrate Hydroponics of Cucumber Plants (Cucumis sativus L.) with the Addition of Liquid Organic Fertilizer

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ABSTRACT

Hydroponic cultivation of cucumber (Cucumis sativus L.) has been widely developed by using substrate media and AB mix nutrition formula. This study aims to obtain a formula for the use of liquid organic fertilizer (POC) as an addition to AB mix nutrition and the type of substrate in an effort to get maximum cucumber yields. The research was conducted from September to November 2022 at the Practice Garden of the Faculty of Agriculture UPN "Veteran" Yogyakarta, Wedomartani, Ngemplak District, Sleman Regency, Yogyakarta. This research used a field experiment method with a two-factor RAL (Completely Randomized Design) environmental design with three replications. The first factor is the concentration of Liquid Organic Fertilizer which consists of 4 levels, namely 0 ppm; 200 ppm; 400 ppm; 600 ppm. The second factor is the type of substrate which consists of 3 levels, namely husk charcoal; Cocopeat; husk charcoal + Cocopeat (1:1). To determine the effect of treatment, Analysis of Variance was used, to test the differences between treatment means, Duncan Multiple Range Test (DMRT) was used with a real level of 5%. The treatment of the addition of liquid organic fertilizer and the type of substrate did not give a significant effect on all observation parameters.

Keywords: Cucumber, Planting Media, Hydroponic Substrate, POC