

ABSTRACT

Ali Mohamed Mo'alim Hussein. 2018. Effect of Various Electric Conductivity on Growth and Yield of Pakchoy plant (*Brassica rapa* L.) With Hydroponic NFT System. **Supervised by Cecep Hidayat and Sofiya Hasani .**

Nutrient film technique is one of the hydroponic method that is widely used. Hydroponic vegetable cultivation requires a balanced and adequate nutrition for plants. The accuracy concentration of nutrition can be determined with EC regulation. This study aimed to determine the effect of electric conductivity by regulating the EC levels in the nutrient solution and its effect on growth and yield of pakchoy plant. This research was conducted in a rooftop in Kebon Jeruk, West of Jakarta, from October to November of 2017. The method used was randomized block design (RBD) with one factor namely electric conductivity (EC 1.5; EC 2.0; EC 2.5; EC 3.0) repeated 6 times,. The result showed that electric conductivity treatment in hydroponic formulation with 250 ppm nitrogen (N) effected on parameters of wet weight, height of the plant, width of leaf, shoot root ratio. The highest wet weight was obtained from level e3 (EC 2.5), and this was consistent with most parameters that EC 2.5 showed the best result of all parameters. Therefore it's clear that by regulating the EC a change will occur for the better or for otherwise.

Keywords: Electric conductivity, hydroponic nutrient formulation, NFT, Pakchoy.