

**GROWTH AND YIELD OF SHALLOTS (*Allium ascalonicum* L.) IN
VARIOUS EC VALUES OF NUTRITIONAL SOLUTIONS AND TUBER
WEIGHT BY HYDROPONIC NFT**

By : Rafi' Ammar Nugrahanto

Supervised by : Ari Wijayani and Ellen Rosyelina Sasmita

ABSTRACT

Hydroponics can be a solution to meet the high demand for shallot commodities. It is crucial to use the correct tuber weight and electrical conductivity (EC) value to support the growth of shallots. The research aims to determine the interaction between tuber weight and the EC value of the nutrient solution. Additionally, the research aims to determine the most suitable tuber weight and EC value for the nutrient solution. The research methodology involves a field experiment with a split plot design. The main plot is the EC value, with three different treatments: 1 mS/cm³ and 2 mS/cm³, 1.5 mS/cm³ and 2.5 mS/cm³, and 2 mS/cm³ and 3 mS/cm³. The subplot is the tuber weight, with three different treatments: 3-5 g, 6-8 g, and 9-11 g. The results showed that there is no interaction between the EC value treatments and tuber weight. EC values of 2 mS/cm³ and 3 mS/cm³ had a better effect on the parameters of plant height, number of tillers, plant fresh weight per hill, and tuber diameter. Tuber weight of 9-11 grams had a better effect on the parameters of the number of tillers, tuber size, and tuber diameter.

Keywords : *Shallots, the weight of tuber, and EC value in nutrient solution.*