

PENGARUH WAKTU PEMBERIAN NUTRISI PADA PRODUKSI BENIH KENTANG SECARA AEROPONIK DENGAN APLIKASI ROOT ZONE COOLING DI DATARAN RENDAH TROPIS

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Abstract	<p>Planting potatoes in the tropical lowlands as an effort to reduce the adverse effects of planting in the highlands such as erosion, pests and plant diseases has been carried out and the tubers have been successfully obtained. Planting of potato seeds was carried out with an aeroponic system and climate modification in the root zone cooling environment. Climate modification is carried out at an altitude of 250 m asl and <125 m asl. The stability of the temperature in the aeroponic chamber can be maintained by regulating the time of spraying cold nutrients through the nozzles to the root area. However, the importance of the time to provide nutrition in order to maintain the optimal temperature of the root area in aeroponic systems in the lowlands has not been widely reported scientifically. The purpose of this study was to obtain the appropriate time for nutrition in order to maintain optimal chamber temperature and to have an effect on the growth and yield of potato seeds. The research was conducted in the greenhouse of the Faculty of Agriculture, Jenderal Soedirman University, Purwokerto, Central Java, Indonesia. Height of place <125 m above sea level. The study was conducted from July to September 2017. The factors that were tried in the study were as follows: 1. Length of time for nutrition (T): T1: 2.5 minutes OFF and 15 minutes ON; T2: 5 minutes OFF, 15 minutes ON, T3: 10 minutes OFF, 15 minutes ON, T4: 15 minutes OFF, 15 minutes ON, 2. Varieties (V): V1 (Atlantic), V2 (Granola). Growth parameters observed: plant height, number of leaves, number of tubers, tuber weight. Experiment using a randomized block design with 3 replications. The data were analyzed by F test and continued with Duncan's Multiple Range Test of 5% level. The results showed that the duration of nutrient administration by setting a timer gave different results on the growth and development of aeroponic plants of potato seeds in the lowlands 125 m above sea level. The duration of nutrition administration 2.5 minutes OFF gave the highest number of tubers and tuber weight compared to the duration of nutrition 5 minutes, 10 minutes and 15 minutes OFF. The number of tubers obtained is 7.3 tubers / plant with an average of 2 mg. The duration of nutrition is 5 minutes, 10 minutes and 15 minutes OFF does not produce tubers.</p>
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Author	Dr Ir NOOR FARID, M.Si