

SAFIN MAULUDI MUHAMMAD. Growth and Yield of Lettuce (*Lactuca sativa* L) on Non-Circulated Floating Raft Hydroponic System with Age Transplanting Seedlings and Fe Enrichment. Under the guidance Endah Budi Irawati, SP., MP and Ir. Ellen Rosyelina Sasmita, MP.

ABSTRACT

Lettuce (*Lactuca sativa* L) is one of high economic valued horticulture commodity. The demand of horticulture commodity constantly rising with the rising of society's welfare and human population. One of methode that produce high quality vegetable continuously with high quantity is by hydroponic. The purpose of this research was to find out the interaction between age transplanting seedlings and addition of Fe in the nutrient solution on growth and lettuce yield by non-circulated floating raft hydroponic system, determine the best of age transplanting seedling for growth and lettuce yield and to determine the best contents number of Fe in nutrient solution for growth and lettuce yield. This research used split plot experimental design. Main plot was Fe enrichment in nutrient solution which consist three treatments of Fe doses and three replications. The treatments were Fe 3 ppm (F1), Fe 6 ppm (F2) and Fe 9 ppm (F3). Sub plot was variation of age transplanting seedlings which consist three treatments and three replications. The treatments were 6 days (U1), 10 days (U2) and 14 days (U3). The result showed that there is no interaction between Fe enrichment and age transplanting seedlings on growth and lettuce yield. There was no significant different on variation 6 days (U1), 10 days (U2) and 14 days (U3) of age transplanting seedlings. Fe analysis in plant tissue showed that adding 3 ppm of Fe in nutrient solution is more well absorbed than the other treatments.

Key words : lettuce, non-circulated floating raft hydroponic, age transplanting seedlings, Fe