

THE EFFECT OF KNO_3 AND KIESERITE FERTILIZATION ON THE GROWTH OF PALM OIL SEEDLINGS (*Elaeis guineensis* Jacq.) AFFECTED BY LEAF SPOTS IN MAIN-NURSERY

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ABSTRACT

Quality seeds can be met if during their growth can take place well and produce healthy plants. One of the obstacles in maintenance activities is the recovery of seedling growth after a severe attack of leaf spot disease at the age of 5-6 months in the main nursery. The way that can be done is to test the effectiveness of nitrogen and magnesium fertilization on the recovery of seedling growth. This study aims to obtain the best concentration of nitrogen fertilizer and magnesium fertilizer in optimizing the growth of oil palm seedlings that have been attacked by diseases in the main nursery. The research will be carried out at the State Polytechnic of Lampung's Oil Palm Nursery Unit. The experimental design used was a factorial randomized design (RAF) 2 x 3 with 3 replications. The first factor of treatment was KNO_3 fertilization and the second factor was Kieserite fertilization. The first factor is KNO_3 fertilization with a concentration of 1% and 2%. The second factor is Kieserite fertilization which consists of dose of 0 g, 5 g, and 10 g. The observed variables were seedling height, seedling diameter, number of midribs, level of greenness of leaves, and leaf area of tillers. Observational data will be analyzed by F test at level = 5%. If the results of the analysis of variance are significant, it will be continued with the further test of the smallest significant difference (BNT) at the level of = 5%. The results showed that the application of 2% KNO_3 fertilizer with the addition of 10 g of Kieserite was able to produce the best growth recovery on all observed variables.

Key words: Leaf spot, KNO_3 , Kieserite