

**GROWTH RESPONSE OF PALM PALM (*Elaeis guineensis* Jacq.)
SEEDLINGS IN PRE-NURSERY TO INTERVAL AND CONCENTRATION
OF LIQUID ORGANIC FERTILIZER**

Supervisor Ir. Titien Fatimah, M.P

Firman Mulana

*Plantation Plant Cultivation Study Program
Departement of Agricultural Production*

ABSTRACT

*The oil palm plant (*Elaeis guineensis* Jacq.) is Indonesia's leading commodity on the international market, not only because of its strong competitiveness but also because of its high nutritional content which is beneficial for human health. Apart from being a food source, palm oil also has potential as biodiesel fuel. The use of fertilizer in oil palm cultivation is crucial considering that fertile land is increasingly difficult to obtain. Liquid organic fertilizer, such as Supermes liquid organic fertilizer, is an alternative choice because of its ability to be easily absorbed by plants and its effect is more environmentally friendly than chemical fertilizers. The goal of this study is to determine the response of oil palm (*Elaeis guineensis* Jacq.) seedlings to the interval and concentration of liquid organic fertilizer in pre-nursery. The study was conducted at Jember State Polytechnic Land from September to December 2024. The experimental design used was factorial RAK (Randomized Block Design) with two factors. The interval of administration (H1) was administered once every five days and once every ten days, and the second factor was the dose of Supermes liquid organic fertilizer (P0) with concentration (P1) of 3 milliliter per liter giving NPK according to SOP. Research was conducted using eight treatment combinations and four replications with three experimental samples. Parameter yang diamati dalam penelitian berikut ialah seed height, number of leaves, seed diameter, fresh seed weight, and dry seed weight. The results of the study showed that while the interval and concentration of Supermes liquid organic fertilizer did not have a significant impact on the growth of oil palm seedlings, it did affect the weight of both fresh and dry seedlings by giving air at 6 milliliter per liter and 9 milliliter per liter at intervals of five days.*

Key words: *palm oil, liquid organic fertilizer, pre-nursery, supermes*