

**PENGARUH KONSENTRASI DAN INTERVAL PEMBERIAN PUPUK
ORGANIK CAIR TERHADAP PERTUMBUHAN BIBIT KELAPA
SAWIT (*Elaeis guineensis* jacq.) DI PRE-NURSERY**

Dosen Pembimbing Ir. Titien Fatimah, M.P.

Choirul Ahmad

Program Studi Budidaya Tanaman Perkebunan
Jurusan Produksi Pertanian

ABSTRAK

Produktivitas tanaman kelapa sawit (*Elaeis guineensis* Jacq.) sangat berpengaruh oleh kualitas bibit, untuk mendapatkan bibit yang baik dapat ditingkatkan dengan pemupukan yang tepat jenis, waktu, dosis, dan cara. Penggunaan pupuk anorganik berlebihan dapat merusak tanah, sehingga perlu diimbangi dengan pupuk organik cair (POC). Penelitian ini bertujuan untuk mengetahui pengaruh konsentrasi dan interval pemberian POC terhadap pertumbuhan bibit kelapa sawit di tahap pre-nursery. Penelitian dilaksanakan pada bulan September - Desember 2024 di Lahan Penelitian Politeknik Negeri Jember. Rancangan percobaan pada penelitian ini menggunakan RAL (Rancangan Acak Lengkap) Faktorial menggunakan 2 faktor, faktor pertama konsentrasi POC NASA yaitu, (N0) Kontrol, (N1) 4 ml/0,5 liter, (N2) 6 ml/0,5 liter, (N3) 8 ml/0,5 liter dan faktor kedua interval pemberian (P1) Pemberian satu Minggu sekali, dan (P2) Pemberian dua Minggu sekali. Parameter pengamatan pada penelitian meliputi presentase benih tumbuh, tinggi bibit, diameter bibit, jumlah daun, berat segar bibit dan berat kering bibit. Hasil penelitian perlakuan konsentasi POC NASA 4 ml/0,5 liter, (N1) berpengaruh nyata terhadap parameter tinggi bibit, umur 12 MST, dan berpengaruh sangat nyata terhadap parameter diameter batang bibit, dan jumlah daun umur 12 MST. Perlakuan interval pemberian, menunjukkan hasil pemberian dua minggu sekali (P2) menunjukan berbeda nyata dengan nilai rata-rata 5,4 pada umur bibit 12 MST. Interaksi antara konsentrasi POC NASA dan Interval Pemberian menunjukan hasil berbeda nyata pada parameter tinggi bibit dan diameter batang bibit umur 8 MST dan 12 MST, interaksi 4 ml/0,5 liter + Pemberian 2 Minggu sekali (N1P2) menunjukan hasil rerata tertinggi.

Kata kunci : Kelapa Sawit, Konsentasi POC NASA dan Interval Pemberian.

**THE EFFECT OF CONCENTRATION AND INTERVAL OF LIQUID
ORGANIC FERTILIZER APPLICATION ON THE GROWTH
OF OIL PALM SEEDLINGS (*Elaeis guineensis* Jacq.)
IN THE PRE-NURSERY**

Supervisor Ir. Titien Fatimah, M.P.

Choirul Ahmad

*Study Program of Plantation Crop Cultivation
Department of Agriculture Production*

ABSTRACT

*The productivity of oil palm plants (*Elaeis guineensis* Jacq.) is greatly influenced by the quality of the seedlings, to obtain good seedlings can be increased by fertilizing the right type, time, dose, and method. Excessive use of inorganic fertilizers can damage the soil, so it needs to be balanced with liquid organic fertilizer (POC). This study aims to determine the effect of concentration and interval of POC administration on the growth of oil palm seedlings in the pre-nursery stage. The study was conducted in September - December 2024 at the Jember State Polytechnic Research Land. The experimental design in this study used RAL (Completely Randomized Design) Factorial using 2 factors, the first factor is the concentration of NASA POC, namely, (N0) Control, (N1) 4 ml / 0.5 liters, (N2) 6 ml / 0.5 liters, (N3) 8 ml / 0.5 liters and the second factor is the administration interval (P1) Administration once a week, and (P2) Administration once every two weeks. Observation parameters in the study included the percentage of seedling growth, seedling height, seedling diameter, number of leaves, fresh weight of seedlings and dry weight of seedlings. The results of the study showed that the treatment of NASA POC concentration of 4 ml/0.5 liters, (N1) had a significant effect on the parameters of seedling height, age 12 MST, and had a very significant effect on the parameters of seedling stem diameter, and number of leaves at age 12 MST. The treatment of the administration interval showed that the results of administration once every two weeks (P2) showed a significant difference with an average value of 5.4 at the age of seedlings 12 MST. The interaction between the concentration of NASA POC and the Administration Interval showed significantly different results on the parameters of seedling height and seedling stem diameter at the ages of 8 MST and 12 MST, the interaction of 4 ml/0.5 liters + Administration Once Every 2 Weeks (N1P2) showed the highest average results.*

Keywords: Oil Palm, NASA POC Concentration, and Application Interval