

**GROWTH PERFORMANCE OF OIL PALM SEEDLING ON DIFFERENT
AGE OF EMPTY FRUIT BUNCH (EFB) COMPOST**

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ABSTRACT

GROWTH PERFORMANCE OF OIL PALM SEEDLING ON DIFFERENT AGE OF EMPTY FRUIT BUNCH (EFB) COMPOST

Nowadays the production of oil palm is increased due to increasing world food demand. Thus the production of palm oil was produce abundance waste product particularly empty fruit bunch (EFB). Currently most of the EFB from mill had been compost and return back into the soil. EFB compost can be used as planting media for oil palm seedling instead of top soil which currently limited. The compost can be used provided that the properties can support the growth performance of oil palm seedling. Therefore, the objective of this study to determine the age of EFB compost and to evaluate selected chemical properties of compost that suitable for optimum growth of oil palm seedling especially on pre nursery stage. There are five treatment constructed in this study which consists of control treatment and four different level of compost age. The treatments are T0 (control), T1 (30 days), T2 (60 days), T3 (90 days) and T4 (120 days). Treatments were arranged in Randomized Completely Block Design (RCBD). The growth performances of oil palm seedlings were measured including plant height, leaf number, leaf width, leaf length and plant and roots biomass. T1 (30 days) shows less growth performance due to less mineralization process occur during composting. ANOVA showed that, there were significant difference in all parameters except for leaves number ($p \geq 0.05$). The result shows, 60 days' age of EFB composting show the optimum growth of oil palm seedling throughout the study. EFB compost that have been fully decompose can be substitute for top soil as planting media in oil palm nursery.

Keyword: oil palm seedling, empty fruit bunch (EFB) compost, growth performance, chemical properties