PENGARUH PEMBERIAN BIOCHAR SERBUK KAYU TERHADAP PERTUMBUHAN TANAMAN KELAPA SAWIT (*Elaeis guineensis* Jacq) DI *MAIN NURSERY*

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ABSTRAK

Kelapa sawit (*Elaeis guinensis* Jacq.) merupakan salah satu komoditas perkebunan yang banyak dibudidayakan oleh masyarakat dan berpotensi besar sebagai komoditi andalan untuk ekspor serta diharapkan dapat meningkatkan pendapatan petani. Teknologi budidaya tanaman kelapa sawit selalu berkembang dari waktu ke waktu, salah satu teknologinya yaitu penggunaan *biochar*. *Biochar* merupakan salah satu bahan *ameliorant* tanah yang dapat dibuat menggunakan limbah-limbah pertanian seperti kulit buah kakao, sekam padi, tempurung kelapa ataupun sisa-sisa pengolahan kayu seperti serbuk kayu hasil gergaji. Percobaan telah dilaksanakan di Kebun Percobaan Universitas Andalas Kampus III Dharmasraya dari bulan Maret – Oktober 2018. Tujuan dari percobaan ini adalah untuk mendapatkan dosis *biochar* serbuk kayu terbaik untuk pertumbuhan bibit kelapa sawit di *main nursery*. Percobaan disusun berdasarkan Rancangan Acak Lengkap (RAL) yang terdapat 5 perlakuan dan 5 ulangan dan setiap satuan percobaan terdapat 2 tanaman. Perlakuannya adalah 0 g, 200 g, 400 g, 600 g dan 800g *biochar* serbuk kayu/polybag. Parameter pengamatannya yaitu tinggi tanaman, panjang daun, jumlah daun, lebar daun, diameter bonggol, panjang akar, biomassa, dan ratio tajuk akar. Data hasil pengamatan dianalisis menggunakan sidik ragam dan apabila berbeda nyata akan dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DNMRT) pada taraf 5 %. Dari percobaan ini dapat disimpulkan, pemberian *biochar* serbuk kayu terhadap bibit kelapa sawit di *main nursery* tidak memberikan pengaruh yang sama terhadap seluruh parameter pertumbuhan bibit tanaman kelapa sawit akan tetapi mampu meningkatkan pertumbuhan tinggi tanaman bibit kelapa sawit dengan dosis yang disarankan 200 g/polybag *biochar* serbuk kayu.

Kata kunci: *kelapa sawit, biochar, serbuk kayu, main nursery*

EFFECT OF APPLICATION OF BIOCHAR SAW DUST ON THE GROWTH OF OIL PALM SEEDLING (*Elaeis guineensis* Jacq) IN MAIN NURSERY

ABSTRACT

Oil palm (*Elaeis guinensis* Jacq.) is one of the plantation commodities that is widely cultivated by the farmers and has great potential as of mainstay commodity for export and is expected to increase farmersincome. The technology of cultivating oil palm has always improve over time, one of the technologies is the use of biochar. Biochar is one of the soil ameliorant materials that can be made using agricultural wastes such as cocoa pods, rice husks, coconut shells or wood processing waste such as sawdust. Experiments was carried out at the Andalas University Experiment Garden Campus III Dharmasraya from March - October 2018. The purpose of this experiment was to obtain the best doses of saw dust biochar for the growth of oil palm seedlings in main nursery. The experiment was arranged based on a Completely Randomized Design (CRD) which contained 5 treatments and 5 replications and each experimental unit consist of 2 plants. The treatment were 0 g, 200 g, 400 g, 600 g and 800 g of saw dust biochar/polybag. The parameters of observation were plant height, leaf length, number of leaves, leaf width, hump diameter, root length, biomass, and root canopy ratio.Observation data were analyzed using variance and if significantly different it continued with Duncan's New Multiple Range Test (DNMRT) at the level of 5%. From this experiment it can be concluded that the application of saw dust biochar to oil palm seedlings in the main nursery does not have the same effect on all oil palm seedling growth parameters but can increase the growth of oil palm seedlings with a recommended dose of 200 g / polybag of saw dust biochar.

Keywords: oil palm, biochar, saw dust, main nursery