

ABSTRAK

Penelitian ini bertujuan untuk mengkaji pengaruh aplikasi pupuk kandang kambing pada lubang tanam kelapa sawit (*Elaeis guineensis* Jacq.) fase belum menghasilkan (TBM) terhadap pertumbuhan vegetatif dan kemampuan bibit mengatasi transplanting shock di lahan masam Kabupaten Banyuasin. Lahan penelitian didominasi oleh tanah Ultisol dan Inceptisol dengan pH rendah serta kejenuhan aluminium tinggi, sehingga berpotensi menghambat pertumbuhan awal bibit kelapa sawit. Metode penelitian menggunakan Rancangan Acak Kelompok (RAK) dengan lima perlakuan dosis pupuk kandang kambing (0 kg, 1 kg, 1,5 kg, 2 kg, dan 2,5 kg per lubang tanam) serta delapan ulangan, sehingga total terdapat 40 bibit kelapa sawit varietas Bah Lias 1 (BL-1). Parameter yang diamati meliputi tinggi tanaman, diameter batang, jumlah pelepah, luas daun, pH tanah, serta indikator *transplanting shock* berupa penguningan dan kerontokan daun. Data dianalisis menggunakan ANOVA dan uji lanjut BNJ/LSD untuk mengetahui pengaruh perlakuan, serta analisis korelasi antar parameter vegetatif dan pH tanah. Hasil penelitian menunjukkan bahwa aplikasi pupuk kandang kambing dosis 1,5 Kg berpengaruh nyata terhadap pertumbuhan vegetatif bibit kelapa sawit baik dari tinggi tanaman, diameter batang, jumlah pelepah dibandingkan kontrol. Pupuk kandang kambing juga berperan sebagai amelioran tanah dengan meningkatkan pH tanah meskipun perubahan relatif kecil. Selain itu, bibit yang diberi pupuk kandang kambing menunjukkan pemulihan lebih cepat dari *transplanting shock*, ditandai dengan berkurangnya gejala penguningan dan kerontokan daun.

Kata Kunci: Kelapa Sawit, Transplanting Shock, Vegetatif, pH Tanah, Bah Lias 1, Pupuk Kandang Kambing.

ABSTRACT

*This study aimed to examine the effect of goat manure application to oil palm (*Elaeis guineensis* Jacq.) planting holes in the immature phase (TBM) on vegetative growth and the seedlings' ability to cope with transplantation shock in acidic soils in Banyuasin Regency. The study area is dominated by Ultisol and Inceptisol soils with low pH and high aluminum saturation, potentially inhibiting the initial growth of oil palm seedlings. The research method used a Randomized Block Design (RBD) with five goat manure dosage treatments (0 kg, 1 kg, 1.5 kg, 2 kg, and 2.5 kg per planting hole) and eight replications, resulting in a total of 40 oil palm seedlings of the Bah Lias 1 (BL-1) variety. Observed parameters included plant height, stem diameter, number of fronds, leaf area, soil pH, and indicators of transplantation shock, such as yellowing and leaf shedding. Data were analyzed using ANOVA and a follow-up BNJ/LSD test to determine the effect of the treatments, as well as a correlation analysis between vegetative parameters and soil pH. The results showed that the application of 1.5 kg of goat manure significantly affected the vegetative growth of oil palm seedlings, including plant height, stem diameter, and number of fronds, compared to the control. Goat manure also acted as a soil ameliorant by increasing soil pH, although the changes were relatively small. Furthermore, seedlings treated with goat manure showed faster recovery from transplantation shock, indicated by reduced yellowing and leaf drop symptoms.*

Keywords: *Oil Palm, Transplantation Shock, Vegetative, Soil pH, Bah Lias 1, Goat Manure.*