

**PENGARUH PEMBERIAN KOMPOS KULIT JENGKOL DAN  
PUPUK ORGANIK CAIR (POC) LAMTORO TERHADAP  
PERTUMBUHAN BIBIT TANAMAN AREN (*Arenga pinnata* Merr.)**

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# **PENGARUH PEMBERIAN KOMPOS KULIT JENGKOL DAN PUPUK ORGANIK CAIR (POC) LAMTORO TERHADAP PERTUMBUHAN BIBIT TANAMAN AREN (*Arenga pinnata* Merr.)**

## **ABSTRAK**

Tanaman aren merupakan komoditas perkebunan bernilai ekonomi tinggi, namun pengembangan budidayanya masih terbatas. Ketersediaan bibit unggul menjadi faktor penting dalam menunjang keberhasilan budidaya, sehingga diperlukan media tanam yang mampu memenuhi kebutuhan hara di pembibitan aren seperti dengan penambahan kompos kulit jengkol dan POC lamtoro. Penelitian ini bertujuan untuk mengetahui interaksi pemberian kompos kulit jengkol dan POC lamtoro, pengaruh tunggal kompos kulit jengkol dan POC lamtoro terhadap pertumbuhan bibit aren serta menentukan dosis terbaiknya. Penelitian menggunakan rancangan acak lengkap (RAL) faktorial dengan dua faktor, yaitu kompos kulit jengkol (0, 100, 200, dan 300 g/polybag 10 kg) dan POC lamtoro (0, 75, 100, dan 125 ml/tanaman/aplikasi). Hasil penelitian menunjukkan bahwa terdapat interaksi nyata antara kompos kulit jengkol dan POC lamtoro terhadap pertambahan tinggi bibit dan bobot kering akar, dengan kombinasi terbaik pada dosis kompos kulit jengkol 300 g/polybag 10 kg dan 100 ml/tanaman/aplikasi POC lamtoro. Secara tunggal, pemberian kompos kulit jengkol berpengaruh signifikan terhadap hampir semua parameter yang diamati, meliputi pertambahan tinggi tanaman, pertambahan diameter bonggol, pertambahan jumlah daun, luas daun, volume akar, bobot kering tajuk, bobot kering akar, serta rasio tajuk akar. Sementara itu, aplikasi POC lamtoro secara tunggal berpengaruh nyata terhadap pertambahan tinggi tanaman dan bobot kering akar. Dosis terbaik diperoleh pada dosis kompos kulit jengkol 300 g/polybag 10 kg dengan 100 ml/tanaman/aplikasi POC lamtoro. Kombinasi dosis tersebut terbukti mampu meningkatkan pertumbuhan bibit aren secara optimal dibandingkan perlakuan lain. Dengan demikian, penggunaan kompos kulit jengkol yang dipadukan dengan POC lamtoro dapat menjadi alternatif pemupukan organik yang efektif dalam mendukung pertumbuhan bibit aren.

Kata kunci: Aren, bahan organik, media tanam, pembibitan, pupuk cair

# **THE EFFECT OF DOGFRUIT PEEL COMPOST AND LIQUID ORGANIC FERTILIZER (LOF) FROM RIVER TAMARIND ON THE GROWTH OF SUGAR PALM (*Arenga pinnata* Merr.) SEEDLINGS**

## **ABSTRACT**

Sugar palm is a high-value plantation commodity, but its cultivation still limited. The availability of quality seedlings is a crucial in supporting successful cultivation, thus required a growing medium which is able to fulfill the nutrient of sugar palm nurseries, such as by adding dogfruit peel compost and LOF of river tamarind. The objectives of this study were to determine the interaction between dogfruit peel compost and LOF of river tamarind, the single effect of dogfruit peel compost and LOF of river tamarind on the growth of sugar palm, and to determine the optimal dosage of it. The research was designed by a Completely Randomized Design (CRD) factorial consisted of two factors, namely dogfruit peel compost (0, 100, 200, and 300 g/polybag 10 kg) and LOF of river tamarind (0, 75, 100, and 125 ml/plant/application). The results showed that there was a significant interaction between dogfruit peel compost and LOF of river tamarind on the seedling height increase and root dry weight, the best combination at a dose of 300 g/polybag 10 kg dogfruit peel compost and LOF of river tamarind 100 ml/plant/application. On the single effect, the application of dogfruit peel compost gave a significant effect on almost all observed parameters, including the increase in plant height, stem diameter, leaves number, leaf area, root volume, shoot dry weight, root dry weight, and the shoot root ratio. Meanwhile, the application of river tamarind LOF gave a significant effect on the plant height increase and root dry weight. The best dosage was 300 g/polybag 10 kg of dogfruit peel compost and 100 ml/plant/application of river tamarind LOF. There were shown optimally enhance the growth of sugar palm seedlings compared to other treatments. Therefore, the use of dogfruit peel compost combined with LOF of river tamarind could be an effective alternative organic fertilizer to support the growth of sugar palm seedlings.

**Keywords:** Sugar palm, organic material, planting medium, seedlings, liquid fertilizer