

PENGARUH MEDIA CAMPURAN VERTISOL, SEKAM PADI, ARANG SEKAM PADI DAN DOSIS PUPUK SP 36 TERHADAP PERTUMBUHAN SEMAI JATI (*Tectona grandis* L.f)

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INTISARI

Kayu jati (*Tectona grandis* L. f) memiliki kualitas yang tinggi ditinjau dari segi keawetan maupun kekuatan sehingga banyak digunakan untuk bahan bangunan, bahan mebel maupun barang kerajinan. Salah satu usaha memenuhi kebutuhan bibit jati adalah dengan melakukan kegiatan persemaian. Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan komposisi media campuran Vertisol, sekam padi, arang sekam padi dan dosis pupuk SP 36 terhadap pertumbuhan semai jati.

Penelitian ini menggunakan rancangan acak lengkap berblok dengan penyusunan faktorial 7 x 4 dengan 3 blok, terdiri atas 7 komposisi media berdasarkan perbandingan volume Vertisol : sekam padi : arang sekam padi yaitu 1:0:0 (M0); 1:1:0 (M1); 1:0:1 (M2); 1:1:1 (M3); 2:1:1 (M4); 1:2:1 (M5); 1:1:2 (M6) dan 4 dosis pupuk SP 36 yaitu 0 (D0), 2 (D1), 4 (D2) dan 6 g/semay (D3). Variabel yang diamati terdiri atas tinggi, diameter, kekokohan, berat kering total, *top-root ratio* dan indeks kualitas semai.

Hasil penelitian menunjukkan bahwa komposisi media M6 (perbandingan 1:1:2) memberikan pertumbuhan yang terbaik dengan hasil rerata pertambahan tinggi 36,03 cm, rerata pertambahan diameter 8,33 mm, kekokohan 4,27, berat kering total semai 12,15 gram, *top-root ratio* semai 3,52 dan indeks kualitas semai 1,538. Pemberian pupuk SP 36 dengan dosis 2 g/semay mampu diserap semai dengan baik sehingga memberikan hasil terbaik pada variabel yang bersifat morfologis maupun fisiologis (rerata pertambahan tinggi 36,55 cm, rerata pertambahan diameter 8,44 mm, kekokohan 4,33, berat kering total semai 12,02 gram, *top-root ratio* semai 3,57 dan indeks kualitas semai 1,515). Penambahan dosis lebih dari 2 g/semay justru menurunkan kualitas semai. Interaksi antara komposisi media dan dosis pupuk memberi pengaruh lebih baik dengan kombinasi M6D1 pada rerata pertambahan tinggi sebesar 44,63 cm dan berat kering total semai jati sebesar 15,07 gram.

Kata kunci: Jati, media, dosis, pupuk, pertumbuhan

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EFFECT OF VERTISOL MIXED MEDIA, RICE HELL CHARCOAL, RICE HUSK CHARCOAL, AND DOSAGE OF SP 36 FERTILIZER ON THE GROWTH OF TEAK SEEDLINGS (*Tectona grandis* L.f)

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ABSTRACT

Teak wood (*Tectona grandis* L.f) has a high quality based on its long-period utility and strength. Therefore, much been used as materials, furniture and handicraft. Doing activities of nursery is an effort in order to fulfill the demand of teak woods. This research was aim to get information about the effect of using mixed medium between Vertisol, rice husk, rice husk charcoal and dosage of SP 36 fertilizer towards the growth of teak seed.

This experiment used *Randomized Completely Block Design* (RCBD) applies with three blocks. There were two factors applied namely medium composition and dosage of SP 36 fertilizer. Medium composition consisted of 7 compositions according to the specific volume ratio of Vertisol : rice husk : rice husk charcoal that was 1:0:0 (M0); 1:1:0 (M1); 1:0:1 (M2); 1:1:1 (M3); 2:1:1 (M4); 1:2:1 (M5); 1:1:2 (M6). Meanwhile, four dosages of SP 36 fertilizer i.e. 0 (D0), 2 (D1), 4 (D2) and 6 g/seedling (D3). Variable measured were seedling height, diameter, firmness, total dry-weight, top-root ratio and index of seedling quality.

Medium composition of M6 that is composed by 1:1:2 ratios give the best growth to the seedlings. Growth value of seedling height was 36.03 cm, diameter

8.33 mm, firmness 4.27, total dry-weight 12.15 g, top-root ratio 3.52 and index of seedling quality 1.538. Optimum dosage of SP 36 fertilizer on based the result

was 2 g/seedling (growth value of seedling height was 36.55 cm, diameter 8.44 mm, firmness 4.33, total dry-weight 12.02 g, top-root ratio 3.57 and index of seedling quality 1.515). The addition of fertilizer dosage more than 2 g/seedling has decreased seedling quality instead. Interaction between medium composition

and fertilizer dosage, showed the better effect on M6D 1 combination on growth of height at 44.69 cm and total dry-weight was 15.07 g.

Keywords: teak, medium, dosage, fertilizer, growth



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