

Pengaruh Komposisi Media dan Dosis Pupuk NPK terhadap Pertumbuhan dan Kualitas Semai Jabon Putih (*Neolamarckia cadamba*) sampai Umur 3,5 Bulan

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INTISARI

Jabon putih (*Neolamarckia cadamba*) merupakan tanaman *fast-growing species* yang memiliki nilai ekonomi tinggi dan merupakan salah satu spesies alternatif untuk tanaman sengon yang produksinya berkurang karena serangan hama dan penyakit. Informasi budidaya tanaman jabon putih masih terbatas, oleh karena itu tujuan penelitian ini adalah untuk mengetahui pengaruh media dan dosis pupuk NPK terhadap pertumbuhan dan kualitas semai jabon putih selama 3,5 bulan di *glasshouse*.

Rancangan penelitian yang digunakan adalah (*Randomized Complete Block Design* (RCBD) dengan 3 blok sebagai ulangan. Terdapat dua perlakuan yaitu komposisi media (*topsoil* : arang sekam : pupuk kandang = 1:1:1; 2:1:0; 2:1:1) dan dosis pupuk NPK (0; 3; 6; 9 g/l). Parameter yang diukur yaitu tinggi dan diameter semai, jumlah daun, biomassa semai, dan kekokohan semai.

Hasil penelitian menunjukkan bahwa perlakuan komposisi media berpengaruh nyata terhadap pertumbuhan diameter, biomassa daun, biomassa batang, biomassa akar, dan biomassa total, namun tidak berpengaruh nyata terhadap tinggi semai. Perlakuan dosis pupuk NPK berpengaruh nyata terhadap biomassa total, namun tidak berpengaruh nyata terhadap tinggi, diameter, biomassa daun, biomassa batang, dan biomassa akar. Interaksi kedua perlakuan tidak berpengaruh nyata terhadap seluruh parameter. Nilai kekokohan semai dari semua perlakuan relatif sama yaitu 1,9 – 2,9. Semai pada komposisi media 2:1:1 memiliki nilai pertumbuhan yang tertinggi diduga karena media memiliki kandungan nutrisi yang lebih banyak. Dosis pupuk 3 g NPK/l mengindikasikan dosis pupuk yang optimal untuk pertumbuhan semai jabon putih sampai umur 3,5 bulan.

Kata kunci: *Neolamarckia cadamba*, media sapih, pupuk NPK, pertumbuhan, kualitas semai.

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Effects of Media and NPK Fertilizer on the Growth and Quality of *Neolamarckia cadamba* Seedlings up to 3,5 Months of Age

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ABSTRACT

(*Neolamarckia cadamba*) is a fast-growing species that has high economic value and is an alternative species to substitute sengon which is decreasing its productivity. Information on the growth of the seedlings is still limited, therefore this research aimed to determine the effect of media and doses of NPK fertilizer on the growth and quality of *N. cadamba* seedlings up to 3,5 months of age in a glasshouse.

The experiment design was a Randomized Complete Block Design (RCBD) with 3 blocks as replications. There were two treatments, namely media composition (topsoil: husk charcoal: manure = 1:1:1; 2:1:0; 2:1:1) and fertilizer dose (0; 3; 6; 9 g NPK/l). The parameters be measured were seedling height and diameter, number of leaves, seedling biomass, and sturdiness quotient of seedlings.

The results showed that the media composition treatments had significant effects on diameter, leaf biomass, stem biomass, root biomass and total seedling biomass. However, there was no a significant effect on seedling height. The treatment dose of NPK fertilizer had a significant effect on total biomass. However, there was no significant effects on height, diameter, leaf biomass, stem biomass, and root biomass. The interaction between the two treatments had no significant effects on all parameters. The sturdiness quotient of the seedlings for all treatment ranged from 1.9 to 2.9. Seedlings grown on a media composition of 2:1:1 had the highest growth value, presumably because the media contained more nutrients. The addition of a fertilizer dose of 3 g NPK/l indicates the optimal dose for the growth of seedlings *N. cadamba* up to 3,5 months of age.

Keywords: *Neolamarckia cadamba*, media composition, NPK fertilizer, plant growth, seedlings quality.

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