

## RESPON PEMUPUKAN TERHADAP PERTUMBUHAN SEMAI MATOA (*Pometia pinnata* Forst) DI PERSEMAIAN DAN DI LAPANGAN

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### INTISARI

Matoa (*Pometia pinnata* Forst) merupakan salah satu jenis pohon asli Papua yang mempunyai prospek sebagai penghasil kayu dan buah, namun eksploitasi berlebihan mengakibatkan kelestariannya terancam punah, padahal teknik silvikultur matoa masih terbatas. Tujuan penelitian adalah untuk mengetahui pengaruh media tumbuh dan pengaruh pemupukan serta interaksinya terhadap pertumbuhan semai matoa di persemaian dan di lapangan.

Penelitian tentang kesesuaian tempat tumbuh dengan pemupukan di persemaian Klebengan dilaksanakan selama 4,5 bulan dan dilanjutkan pengujian lapangan di Kebun Pendidikan, Penelitian dan Pengembangan Pertanian UGM selama 2,5 bulan. Rancangan penelitian di persemaian menggunakan Rancangan Acak Lengkap (CRD) faktorial 3 media tumbuh (tanah lempungan, tanah pasiran, dan tanah organik) dan 3 jenis pupuk (pupuk kandang, NPK, dan tanpa pupuk). Pengujian lapangan menggunakan Rancangan Acak Lengkap Berblok (RCBD) faktorial 3 media tumbuh (tanah lempungan, tanah pasiran, dan tanah organik) dan 3 jenis pupuk (pupuk kandang, NPK, dan tanpa pupuk) dengan media tumbuh tanah pasiran yang sama.

Hasil penelitian menunjukkan bahwa semai matoa dapat tumbuh baik pada semua jenis media tumbuh (tanah lempungan, tanah pasiran, dan tanah organik) dan setelah ditanam pada tanah pasiran (di lapangan) ternyata perlakuan tanah organik meningkatkan pertambahan diameter semai sebesar 0,4 cm. Pemupukan NPK meningkatkan pertumbuhan tinggi semai umur 5,5 bulan di persemaian sebesar 35,8 cm dan diameter sebesar 0,56 cm. Secara statistik pemupukan tidak memberikan pengaruh nyata terhadap pertumbuhan semai di lapangan, akan tetapi pemberian pupuk organik mengakibatkan pertambahan tinggi sebesar 11,6 cm dan diameter sebesar 0,35 cm. Interaksi antara media tumbuh dengan jenis pupuk memberikan pengaruh nyata terhadap pertumbuhan diameter semai di persemaian untuk perlakuan tanah pasiran dengan NPK, yaitu 0,61 cm, namun tidak berpengaruh nyata terhadap pertumbuhan semai di lapangan.

Kata Kunci : matoa, pupuk kandang, NPK, media tumbuh, dan pertumbuhan.

THE FERTILIZATION RESPONSE TOWARDS GROWTH THE MATOA  
(*Pometia pinnata* Forst) SEEDLING IN NURSERY AND FIELD

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ABSTRACT

The matoa (*Pometia pinnata* Forst) is one kind of indigeonus trees from Papua that has prospects as purveyor of woods and fruits, but the overloaded exploitation caused the extinction of the species, whereas the silviculture technic about matoa is still limited. The purpose of the research is to know the response of grow medium and the response of fertilization along with the interaction towards the growth of matoa seedling in nursery and field.

The research about site maching with fertilization in the Klebengan Nursery was held during 4,5 month and continued to field trial in the Education, Research, and Developing of Agriculture Garden UGM during 2,5 month. The research scheme in nursery used Completely Randomized Design (CRD) factorial consist of 3 grow medium (clay, sand, and organic soil) and 3 kind of fertilizers (stable fertilizer, NPK, and unfertilizer). Field trial used Randomized Complete Block Design (RCBD) factorial consist of 3 grow medium (clay, sand, and organic soil) and 3 kind of fertilizers (stable fertilizer, NPK, and unfertilizer) with the same type of sand as the grow medium.

The result of the research shows that matoa seedlings grow well in all grow medium (clay, sand, and organic soil) and after planted in to the sand (in the field) appear that the treatment of organic soil increase the diameter of seedling valued 0,4 cm. Fertilization of NPK increase the height of seedling age 5,5 month in nursery valued 35,8 cm and increase the diameter valued 0, 56 cm. The statistics method of fertilization didn't give significant response towards the growth of seedling in the field but of organic fertilizer caused the increasing of the height as much as 11,6 cm and diameter as much as 0,35 cm. The interaction between grow media and fertilizers gives significant response towards the diameter growth of seedlings in nursery to sand treatment with NPK which is valued 0,61 cm, but doesn't have significant response towards the seedling growth in the field.

Keywords : matoa, stable fertilizer, NPK, grow medium, and growth.

PERPUSTAKAAN  
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