



SEBARAN DAN EVALUASI MUTU KAYU JATI HUTAN RAKYAT BERSERTIFIKAT SEBAGAI BAHAN MEBEL EKSPOR

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INTISARI

Kayu jati hutan rakyat merupakan salah satu produk sumber daya hutan yang akan selalu digunakan industri mebel. Kebutuhan kayu jati hutan rakyat oleh industri mebel bahkan cenderung meningkat saat ini dan masa yang akan datang. Penelitian ini bertujuan mengetahui : 1) perbedaan tempat tumbuh (lokasi tanaman) dan umur tanaman terhadap sifat pertumbuhan, sifat anatomi, mutu kayu dan sifat pemesinan, 2) sifat perekatan dan sifat finishing kayu jati hutan rakyat sebagai bahan mebel ekspor.

Penelitian dilakukan di jati hutan rakyat bersertifikat lokasi Nglipar, Playen dan Dlingo umur 6, 8 dan 10 tahun. Penelitian menggunakan rancangan acak kelompok dan acak lengkap dengan analisis varian menggunakan Program SPSS 20.0 dengan uji Tukey. Paramater yang diamati sifat pertumbuhan, sifat anatomi, mutu kayu, sifat pemesinan, sifat perekatan dan sifat finishing kayu.

Hasil penelitian menunjukkan jati hutan rakyat di lokasi Nglipar, Playen dan Dlingo umur pohon 6, 8 dan 10 tahun menghasilkan sifat pertumbuhan diameter, volume kayu, persentase kayu gubal dan persentase kayu teras yang berbeda sangat nyata. Berdasarkan nilai rata-rata diameter batang jati hutan rakyat di lokasi Dlingo sebesar 20,66 cm termasuk ke dalam kelas diameter AII, sedangkan di lokasi Playen 16,27 cm dan Nglipar 13,57 cm termasuk ke dalam kelas diameter AI. Jati hutan rakyat mempunyai proporsri serabut yang berbeda sangat nyata, sedangkan untuk proporsi pembuluh, parenkim dan jari-jari lokasi Nglipar dan Playen tidak berbeda nyata. Mutu kayu dengan cacat gabeng, cacat gubal dan cacat mata kayu berbeda sangat nyata, sementara cacat kelurusan di lokasi Dlingo dan pada usia 10 tahun tidak berbeda nyata. Mutu kayu jati hutan rakyat memenuhi persyaratan Standar Nasional Indonesia (SNI) SNI 7534.2:2010 dan SNI 7535.2:2010 sehingga dapat digunakan sebagai bahan mebel ekspor. Jati hutan rakyat menghasilkan sifat pemesinan yang berbeda sangat nyata dengan kualitas kelas mutu I dan sifat pemesinan sangat baik, kecuali di lokasi Dlingo dan umur 6 tahun dengan kelas mutu II dan sifat pemesinan baik. Tingkat hubungan antara mutu kayu dengan sifat pemesinan berkorelasi sangat kuat, sifat pertumbuhan berkorelasi kuat dan sifat anatomi kayu berkorelasi cukup kuat terhadap sifat sifat pemesinan. Keteguhan rekat (kg/cm^2) dan kerusakan kayu (%) kondisi kering udara dan basah jati hutan rakyat pada penyusunan komponen mebel ekspor *existing industry* berbeda nyata dengan kayu teras dari lokasi Nglipar umur 10 tahun, pada jumlah perekat labur *existing industry* berbeda nyata dengan perekat labur 70 #/MSGGL dan perekat labur 50 #/MSGGL Sifat finishing jati hutan rakyat pada warna kayu teras muda berbeda nyata dengan kayu teras warn tua. Sifat finishing jati hutan rakyat pada macam bahan finishing nitro cellulose, melamin dan *waterbased* menghasilkan nilai rata-rata *cross cut test*, *glossy test*, *coin test*, *delaminasi test* berbeda nyata.

Kata kunci: Jati hutan rakyat bersertifikat, mebel ekspor, sifat pertumbuhan, sifat anatomi, mutu kayu, sifat pemesinan, sifat perekatan dan sifat finishing kayu



DISTRIBUTION AND EVALUATION OF QUALITY OF CERTIFIED COMMUNITY FOREST TEAK WOOD AS AN EXPORT FURNITURE MATERIAL

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ABSTRACT

Community teak wood is one of teak wood needed by the furniture industry. The demand of this type of wood has been predicted to be increasing in the future. Objective of the research is to know ; 1) the effect of location, age of community teak plantation on its growth, wood anatomy, and machining, 2) adhesion and finishing properties related to exportable furniture quality.

The study was conducted in certified community teak locations of Nglipar, Playen and Dlingo (6, 8 and 10 years). This study used a group randomized and randomized design complete with variance analysis from the SPSS 20.0 Program with the Tukey test. Observed paramaters include growth properties, anatomical properties, wood quality, machining, adhesion and finishing properties.

The results showed that community teak at the Nglipar, Playen and Dlingo locations aged 6, 8 and 10 years resulting in very noticeable growth properties in diameter, volume of wood, percentage of sapwood and percentage of heartwood. Based on the average value of the diameter of the community teak trunk at the Dlingo location of 20.66 cm, it is included in the AII diameter class, while at the Playen location 16.27 cm and Nglipar 13.57 cm are included in the AI diameter class. Community teak has very noticeable differences in fibers, while for the proportions of vessels, parenchyma and radius of Nglipar and Playen locations do not differ markedly. The quality of the wood with gabeng defects, sapwood defects and wood eye defects differed very markedly, while the straightness defects at the Dlingo site and at the age of 10 did not differ markedly. The quality of community teak wood meets the requirements of the Indonesian National Standard (SNI) SNI 7534.2: 2010 and SNI 7535.2: 2010 so that it can be used as an export furniture material. Community teak produces very noticeable different machining properties with quality grade I quality and excellent machining properties, except at the Dlingo location and aged 6 years with quality class II and good machining properties. There is a very strong correlation between wood quality and machining properties, growth properties are strongly correlated and wood anatomical properties have a fairly strong correlation with machining properties. The adhesive strength (kg/cm^2) and wood damage (%) in air-dry and wet conditions of community forest teak in the preparation of existing industry export furniture components were significantly different from the terrace wood from the 10-year-old Nglipar location, the amount of adhesive for the existing industry was significantly different from the adhesive melt 70 #/MSGL and on the amount of adhesive 50 #/MSGL The finishing properties of community forest teak on the color of young heartwood are significantly different from those of old heartwood. The finishing properties of community forest teak on various finishing materials such as nitro cellulose, melamine and water-based resulted in significantly different average values of the cross-cut test, glossy test, coin test and delamination test.

Keywords: Certified community teak, export furniture, growth properties, anatomical properties, wood quality, machining properties, adhesive properties and wood finishing