

**PENYUSUNAN TABEL VOLUME LOKAL KAYU KOMERSIAL JENIS  
SENGON DI HUTAN RAKYAT DESA TAMBAKSARI,  
KECAMATAN WANAREJA, KABUPATEN CILACAP,  
JAWA TENGAH**

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**INTISARI**

Potensi tegakan hutan rakyat akhir-akhir ini meningkat pesat. Besarnya potensi tegakan penting untuk diketahui oleh masing-masing pemilik lahan. Untuk menaksir besarnya potensi tegakan di hutan rakyat dapat dilakukan dengan bantuan tabel volume. Penelitian ini bertujuan untuk menyusun persamaan penduga volume serta tabel volume untuk jenis sengon di hutan rakyat.

Penelitian dilakukan pada hutan rakyat yang berada di Desa Tambaksari, Kecamatan Wanareja, Kabupaten Cilacap, Jawa Tengah. Model penduga volume pohon jenis sengon disusun berdasarkan data dari 82 pohon sampel, 55 pohon sampel digunakan untuk penyusunan model dan 27 sampel pohon lainnya digunakan untuk validasi model. Penyusunan model penduga volume dilakukan dengan regresi sederhana menggunakan satu variabel penduga volume berupa diameter setinggi dada. Uji penerimaan model menggunakan kriteria koefisien korelasi (R), koefisien determinasi ( $R^2$ ), koefisien determinasi terkoreksi ( $Radj^2$ ), uji t dan signifikansi F. Sedangkan kriteria yang digunakan dalam uji validasi model adalah simpangan agregat (SA) dan simpangan rata-rata (SR). Persamaan yang telah divalidasi digunakan untuk menyusun tabel volume lokal.

Model penduga volume kayu komersial adalah  $V = 0,000146D^{2,548}$  dengan nilai standar eror (Se) = 12,8%, koefisien determinasi ( $R^2$ ) = 97,3%, koefisien determinasi terkoreksi ( $Radj^2$ ) = 97,2%, simpangan agregat (SA) = 0,4896% dan simpangan rata-rata (SR) = 0,3% pada rentang diameter 10 - 33,6cm. Berdasarkan kriteria uji penerimaan dan validasi model, maka persamaan ini dapat digunakan untuk menyusun tabel volume lokal dan menaksir besarnya potensi tegakan hutan rakyat.

Kata kunci : pendugaan, volume, sengon, model penduga volume, tabel volume, hutan rakyat

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COMPOSING LOCAL VOLUME TABLE OF MERCHANTABLE VOLUME  
FOR SENGON SPECIES IN COMMUNITY FOREST  
TAMBAKSARI VILLAGE, WANAREJA SUB DISTRICT,  
CILACAP REGENCY,  
CENTRAL JAVA

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*ABSTRACT*

Standing stock of community forest is increasing rapidly and potential of standing stock is important for landowner. The standing stock of community forest can be estimated by local volume table. The objective of this research was to develop tree volume estimation model and local volume table for sengon in community forests.

The research was conducted in community forests at the Tambaksari village, Wanareja sub district, Cilacap regency, Central Java. The tree volume estimation model of sengon was based on collected data from 82 trees sample, 55 trees sample was used in model fitting and the remain 27 trees sample in model validation. The tree volume estimation model was constructed by using a simple regression with diameter at breast height as independent variable. The following criteria were applied to evaluate the model i.e. correlation coefficient (R), the coefficient of determination ( $R^2$ ), adjusted R square ( $R_{adj}^2$ ), t test and F significant. Aggregate deviation (SA) and average deviation (SR) were applied for test validation model. The equation was validated used to construct local volume table.

The merchantable volume estimation model was  $V=0.000129D^{2,587}$  with a standart error of estimate (Se) =12,8%, the coefficient of determination ( $R^2$ ) = 97.3%, adjusted  $R^2$  ( $R_{adj}^2$ ) = 97.2%, the aggregate deviation (SA) = 0.4896% and the average deviation (SR) = 0.3% in the range of diameters 10 - 33,6cm. Based on these criteria, the equation could be used to construct local volume table and estimate the standing forest potential at community forest.

Keywords : estimation, volume, sengon, volume estimation model, volume table, community forest

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