

POTENSI PERMUDAAN ALAM JATI DAN MAHONI PADA HUTAN RAKYAT POLA PEKARANGAN DI DUSUN KUNDEN, DESA SENDANGSARI, PAJANGAN, BANTUL

INTISARI

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Jati dan mahoni merupakan jenis kayu pertukangan dengan permintaan dan harga jual yang tinggi. Kedua jenis tersebut telah dibudidayakan di hutan rakyat pola pekarangan di Dusun Kunden sejak tahun 1970 melalui program penghijauan dari pemerintah. Akan tetapi budidaya tanaman jati dan mahoni dengan permudaan alam di hutan rakyat Dusun Kunden belum maksimal, sehingga keberhasilan permudaan alam sangat terbatas. Untuk itu kajian tentang potensi dan faktor pendukung permudaan alam jati dan mahoni sangat diperlukan untuk menunjang peningkatan produktivitas dan kelestarian pengelolaan hutan rakyat.

Penelitian dilakukan dengan metode *purposive sampling*, dimana faktor penunjang keberhasilan permudaan alam adalah luas lahan dan tingkat naungan. Lahan pekarangan dibagi menjadi tiga luasan, yaitu sempit ($1.000 < 2.000 \text{ m}^2$), sedang ($2.000 < 3.000 \text{ m}^2$) dan luas ($3.000 < 4.000 \text{ m}^2$) dimana setiap luasan diambil tiga sampel. Pengambilan data tingkat tiang dan pohon dengan sensus 100%. Tingkat pancang dengan petak ukur $5 \times 5 \text{ m}^2$ dan tingkat semai dengan petak ukur $2 \times 2 \text{ m}^2$, dibedakan berdasarkan tingkat naungan terbuka (20-35%), cukup ternaung (50-65%) dan ternaung (>65%). Masing-masing petak ukur pancang dan semai sebanyak 5 ulangan tiap tingkat naungan di tiap lahan pekarangan. Pendugaan pohon induk dilakukan di tiap lahan, serta pengukuran faktor *seedbed* dan *environment* dilakukan di tiap petak ukur pancang dan semai. Jumlah individu dan kerapatan tegakan (N/ha) yang diperoleh dianalisis dengan Anova untuk mengetahui pengaruh luasan lahan dan tingkat naungan terhadap keberhasilan permudaan.

Hasil penelitian menunjukkan semai jati signifikan ditemukan di areal terbuka yaitu 50 batang/ha dan pancang jati pada areal terbuka yaitu 63 batang/ha. Semai mahoni paling banyak pada areal cukup ternaung yaitu 102 batang/ha dan pancang mahoni pada areal ternaung yaitu 204 batang/ha. Faktor *seed supply* untuk jenis mahoni adalah tidak ditemukan pohon induk di pekarangan. Faktor *seedbed* yang mempengaruhi adalah tingkat naungan, kelembaban udara, suhu dan ketebalan seresah. Perlakuan silvikultur yang disarankan adalah dengan memindahkan anakan jati yang ternaung ke areal terbuka dan untuk anakan mahoni yaitu melakukan pembukaan tajuk dengan pemangkasan cabang (*pruning*).

Kata kunci: Potensi, permudaan alam, jati, mahoni, hutan rakyat, Dusun Kunden

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The Natural Regeneration Potential of Teak and Mahogany at Homegardens Area in Dusun Kunden, Sendangsari Village, Pajangan, Bantul

Abstract

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Teak and mahogany were construction timber species that have high demand and expensive price. Both species had been cultivated in Kunden Orchard's homegardens since 1970 through Reforestation Program from government. Seedlings from natural regeneration were used but still not maximal hence limited the success of natural seedlings. Therefore, study about potential and supporting factors of teak and mahogany natural regeneration were needed to increase productivities and support private forest's sustainable management.

This research used purposive sampling method, where the size of homegardens and shading level as factors to support success of natural regeneration. The homegardens were divided into three categories, i.e. narrow homegardens (1.000-<2.000 m²), moderate homegardens (2.000-<3.000 m²) and wide homegardens (3.000-<4.000 m²) where each category consist of three samples as replications. Data for pole and tree were conducted by census (100%). For sapling, data collection were done in 5x5 m² plot, and 2x2 m² plot for seedling. The plots for seedling and sapling were divided based on shading level, i.e. open shade (20-35%), intermediate (50-65%) and heavy shade (>65%), each level consist of five plot. The assesment of seed trees were done in each land while the measurement of seedbed and environment factor were done in each seedling and sapling plot. Data of number of individuals and stand density (N/hectare) were analysed using ANOVA to understand the effects of homegarden's sizes and shading level toward success of natural regeneration.

The research result showed that teak's regeneration significantly found in open shade area with 50 seedlings/hectare and for saplings with 63 saplings/hectare. Mahogany's seedlings mostly found in intermediate shade area with 102 seedlings/hectare and saplings found in heavy shade area with 204 saplings/hectare. Seed supply factor affecting mahogany was no seed tree could be found in any homegardens. Seedbed factor that affecting teak and mahogany's natural regeneration the most were shade level, air humidity, temperature and litter's thickness. The recommended silviculture treatment were to move teak's seedlings that sheltered to open area and for mahogany's seedlings to do the opening of canopy by pruning.

Keywords: Potential, natural regeneration, teak, mahogany, private forest, Kunden Orchard

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