

**PERMUDAAN ALAM CENDANA (*Santalum album* Linn.)  
PADA TAHAPAN SUKSESI SEKUNDER  
DENGAN BERBAGAI FISIOGNOMI  
DI WANAGAMA I, GUNUNGKIDUL**

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**Intisari**

Cendana merupakan tanaman berkayu dari Famili Santalaceae yang diintroduksi ke Wanagama I, Gunungkidul sejak 1968. Potensi cendana semakin menurun karena adanya tanaman merambat, persaingan tajuk dan pemangkasan pucuk sehingga perlu diketahui potensi cendana saat ini pada berbagai tahapan suksesi sekunder berbagai fisiognomi. Indeks Keanekaragaman Jenis, Kekayaan Jenis dan Indeks Dispersi juga perlu dihitung untuk mengetahui persebaran permudaan alam cendana. Tanaman cendana mempunyai sifat parasit akar yang membutuhkan inang pada awal pertumbuhannya, sehingga perlu diketahui tanaman yang berpotensi sebagai inang cendana.

Analisis vegetasi dilakukan dengan membuat petak ukur *nested sampling* pada ketiga tipe suksesi sekunder berbagai fisiognomi. Dari data tersebut dihitung Indeks Nilai Penting (INP), Indeks Keanekaragaman Jenis ( $H'$ ), Indeks Kekayaan Jenis ( $R$ ) dan Indeks Dispersi (ID) dengan uji lanjut Chi-square ( $\chi^2$ ).

Perhitungan INP cendana menunjukkan hasil bahwa pada suksesi sekunder fisiognomi satu, tidak dijumpai permudaan alam cendana. Pada suksesi sekunder fisiognomi dua, permudaan alam cendana pada tingkat semai dan sapihan memiliki nilai INP 4,62 dan 41,7. Sedangkan, pada suksesi sekunder fisiognomi tiga, cendana memiliki nilai INP untuk semai 6,37 dan sapihan 24,81. Indeks Dispersi cendana tingkat semai pada tahapan suksesi sekunder fisiognomi dua, berpola acak sedangkan tingkat sapihan mengelompok. Pada tahapan suksesi sekunder fisiognomi tiga, tingkat semai dan sapihan berpola mengelompok. Tanaman yang berpotensi sebagai inang bagi cendana adalah *Leucaena glauca*, *Acacia villosa*, *A. auriculiformis*, *Eupatorium odoratum*, *Dalbergia latifolia*, *Podocarpus neriifolius*, *Melaleuca leucadendron*, *Eugenia aquea* dan *Cassia timorensis*.

Kata kunci : Cendana, permudaan, suksesi sekunder berbagai fisiognomi, tanaman inang dan potensi.

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**NATURAL REGENERATION OF SANDALWOOD (*Santalum album* Linn. )  
AT SECONDARY SUCCESSION STAGE WITH VARIOUS PHYSIOGNOMY  
IN WANAGAMA I, GUNUNGKIDUL**

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**Abstract**

Sandalwood is woody plant from Santalaceae Family which was introduced in Wanagama I, Gunungkidul since 1968. Sandalwood potency decreases progressively caused by liana, light competition and leaf cutting so it is important to know sandalwood potency in this time at secondary succession stage with various physiognomy. Diversity Index, Richness Index and Dispersion Index need to be accounted for knowing the natural regeneration of sandalwood. Sandalwood has root parasite characteristic that require other plant in its early growth, it is necessary to perceive potential plants as host plant for sandalwood.

Analysis of vegetation has been done by making check measurement using the nested sampling at area of secondary succession level with various physiognomy. Based on data, the Important Value Index (IVI), Diversity Index (H'), Richness Index (R) and Dispersion Index (ID) can be counted with the continue test of Chi-Square ( $\chi^2$ ).

The result of calculation of sandalwood's IVI show that in secondary succession level on physiognomy one, natural regeneration can't be found. At physiognomy two of secondary succession, natural regeneration of sandalwood's at IVI seedling stage and sapling stage were 4,62 and 41,7. Where as, IVI for sandalwood physiognomy three, has 6,37 of seedling stage and 24,81 of sapling stage. Dispersion Index of sandalwood with seedling stage at physiognomy two, was in random pattern while sapling stage was in group pattern. At physiognomy three, seedling stage and sapling stage were in group pattern. Plants which have potency as host plant for sandalwood were *Leucaena glauca*, *Acacia villosa*, *A. auriculiformis*, *Eupatorium odoratum*, *Dalbergia latifolia*, *Podocarpus neriifolius*, *Melaleuca leucadendron*, *Eugenia aquea* and *Cassia timorensis*.

Keyword : Sandalwood, regeneration, secondary succession with various  
physiognomy, potency and host plant.

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