

SELEKSI KANDIDAT POHON PLUS DAN POTENSI PRODUKSI BENIH PADA TEGAKAN *Eucalyptus brassiana* DI PETAK 17 KHDTK WANAGAMA I

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INTISARI

Eucalyptus brassiana adalah pohon yang cepat tumbuh dan mampu hidup di lahan marjinal. Hingga saat ini, tidak banyak ditemukan sumber benih *E. brassiana* di Indonesia. Di KHDTK Wanagama I, terdapat tegakan *E. brassiana* yang ditanam pada tahun 1994 di Petak 17. Akan tetapi, belum pernah diadakan evaluasi terhadap kualitas fenotipik (kualitatif dan kuantitatif) serta potensi produksi benihnya. Langkah awal untuk mendapatkan kandidat pohon plus adalah dengan mengevaluasi karakter fenotipik dan menaksir potensi produksi benihnya. Penelitian ini bertujuan untuk (1) Mengevaluasi karakter fenotipik tegakan *Eucalyptus brassiana* di Petak 17 KHDTK Wanagama I, dan memilih pohon-pohon berfenotipe terbaik untuk karakter kayu pertukangan, yang akan digunakan sebagai pohon induk untuk materi propagasi vegetative; dan (2) Menaksir potensi produksi benih pohon-pohon berfenotipe terbaik untuk karakter kayu pertukangan, yang akan digunakan sebagai pohon induk untuk materi propagasi generatif.

Kandidat pohon plus diperoleh dari perankingan total skor pada karakter fenotipik yang diakumulaskan. Perhitungan potensi produksi benih dilakukan dengan menaksir total buah pada pohon berbuah. Kemudian karakter kuantitatif (diameter batang, tinggi batang, TBBC) diukur, dan dianalisis regresi untuk menentukan potensi produksi benihnya.

Hasil penelitian ini mendapatkan 18 kandidat pohon plus dengan nomor pohon 77, 105, 64, 94, 107, 111, 102, 91, 71, 100, 104, 87, 114, 90, 15, 108, 66, 86. Total produksi buah pada tegakan *Eucalyptus brassiana* di Petak 17 KHDTK Wanagama I pada periode pembungaan bulan Agustus 2020 adalah sebanyak 33.319 buah. Presentase pohon yang berbuah sebesar 51,75% dari total 114 pohon.

Kata kunci: *E. brassiana*, karakter fenotipik, potensi produksi benih, Wanagama.

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***SELECTION OF PLUS TREE CANDIDATES AND POTENTIAL SEED
PRODUCTION OF *Eucalyptus brassiana* STAND IN COMPARTMENT 17 OF
KHDTK WANAGAMA I***

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ABSTRACT

Eucalyptus brassiana is a fast growing species which is able to survive on marginal land. There are limited sources of *E. brassiana* seeds in Indonesia. The stand of *E. brassiana* was planted in Compartment 17 of KHDTK Wanagama I in 1994. However, an evaluation on the growth and performance has never been conducted on that stand. The first step in selecting a plus tree candidate is evaluating phenotypic quality (qualitative and quantitative) characters and estimating the potential of seed production. This study aims to (1) evaluate the phenotypic characters of *Eucalyptus brassiana* stand in Compartment 17 of KHDTK Wanagama I, and select the best phenotypic trees for the character of construction woods; and (2) To assess the potential for seed production of the best phenotypic trees for the character of carpentry wood, which will be used as mother trees for vegetative propagation material.

The plus tree candidates were selected from the best rank of total scores on accumulated phenotypic characters. The potential for seed production is estimated by counting the total fruit production on the selected trees. The quantitative characters (stem diameter, stem height, and the branch-free stem height) were measured, and the regression analysis was applied to determine the potential for seed production.

Results of this study found 18 plus tree candidates with tree numbers of 77, 105, 64, 94, 107, 111, 102, 91, 71, 100, 104, 87, 114, 90, 15, 108, 66, and 86. Total fruit production during August 2020 flowering period was 33,319 fruits. The percentage of trees bearing fruit was 51.75% out of the total 114 trees.

Keywords: *E. brassiana*, phenotypic characters, potential seed production, Wanagama.

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