

THE PROVENANCE TEST ON *Eucalyptus deglupta* Blume
AND ITS GROWTH EVALUATION
UP TO 12 MONTHS OF AGE
IN WANAGAMA I

By :
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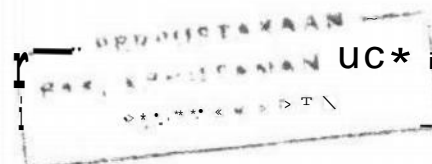
A B S T R A C T

The improvement program of *Eucalyptus deglupta* is started by selecting parent trees in Sulawesi Island for six months. Seed obtained from selected trees, then were germinated to become seedling for planting, after that selected seedlings were planted at Wanagama I, Gunung Kidul, as provenance test plantation.

The first objective of the provenance test is to study the existence of genetic variation among provenances of *E. deglupta*. Second is to find the best provenance which could grow well in the Wanagama I. Third is to see the coefficient of genetic and phenotype correlation between height and diameter of stem. The last is to recognize morphological phenomena of each provenance.

This study uses a Randomized Complete Block Design (RCBD) which is consisted of 29 provenance devida in 16 tree-plots (square plots), five replication, with spacing of 3 x 3 metres.

In fact there were distinct different among the seedlots observed on two characters namely : height and diameter. The best growth at 12 months in the Wanagama I was the provenance of Sungai Sinorang (Middle Sulawesi). The genetic and phenotype correlation of 0.21 and 0.45 were obtained at the age of 1 month there as of 0.30 and 0.91 were found at the age of 12 months. Also, there the differences on morphological phenomena have also been observed provenances.



UJI PROVENANS *Eucalyptus deglupta* Blume
DAN EVALUASI PERTUMBUHANNYA
SAMPAI PADA UMUR 12 BULAN
DI WANAGAMA I

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I N T I S A R I

Program pemuliaan *Eucalyptus deglupta* dimulai dengan pemilihan pohon induk di Pulau Sulawesi selama enam bulan. Biji-biji dari pohon induk yang diperoleh kemudian disemaikan dan semai-semai tersebut ditanam sebagai provenans di Wanagama I, Gunung Kidul.

Tujuan dari uji provenans ini adalah mempelajari adanya variasi genetik di antara provenans *E. deglupta*, mengetahui provenans yang dapat tumbuh paling baik di Wanagama I, mengetahui koefisien korelasi genetik dan fenotip antara parameter tinggi dan diameter, serta untuk mengetahui kenampakan morfologi masing-masing provenans.

Rancangan yang digunakan dalam penelitian ini adalah rancangan acak lengkap berblok dengan 29 provenans sebagai perlakuan, 16 pohon tiap plot (plot bujur sangkar), 5 blok, dan jarak tanam 3 x 3 meter.

Ternyata ada perbedaan nyata di antara seedlot-seedlot yang diamati pada dua sifat, tinggi dan diameter. Provenans Sungai Sinorang (Sulawesi Tengah) menghasilkan pertumbuhan paling baik pada umur 12 bulan di Wanagama I. Diperoleh koefisien korelasi genetik dan korelasi fenotip sebesar 0.21 dan 0.45 pada umur 1 bulan serta 0.30 dan 0.91 pada umur 12 bulan. Di samping itu ternyata ada perbedaan kenampakan morfologi di antara provenans yang diuji.