



UJI KETURUNAN $\frac{1}{2}$ -SIB $\frac{1}{2}$ -SIB PERUPUK (*Lophopetalum multineivium* Ridl.) DAN EVALUASI
PERTUMBUHANNYA

SAMPAI UMUR 6 BULAN DI WANAGAMA I

Indriani Ekasari, Oemi Hani'in Soeseno, Suhardi

UNIVERSITAS GADJAH MADA, 2001 | Diunduh dari <http://eic.repository.ugm.ac.id/>

THE PROGENY TEST OF PERUPUK (*Lophopetalum multinervium* Ridl.)

AND ITS GROWTH EVALUATION
TILL 6 MONTHS AGE IN WANAGAMA I

By :

Indriani Ekasari¹

Oemi Hani'in Soeseno²

ABSTRACT

The progeny test of Perupuk background is wood industrial demand is getting up while Perupuk yield is getting down. The aims of the progeny half sib Perupuk test research were as follows : 1) To know adaptability of Perupuk till 6 months age in Wanagama I; 2) To study the genetical variation in height and stem diametre of Perupuk examined; 3) To know in the narrow sense, the heritability of Perupuk families for height and stem diametre characteristics; 4) To identify which the best growing family of Perupuk in Wanagama I; 5) To study genetical correlation between plant height and stem diametre. The plantation purposes are to have the first Perupuk progeny trial in Indonesia and to get the genetic informations for Perupuk.

The research has done in Compartment 6, Education Forest Wanagama I, Gunung Kidul, Yogyakarta on December 1999. The research design applied in this test was Randomized Completely Block Design (RCBD) with 40 families as treatment, 4 treeplot, 3 blocks as replications and with spacing 3 x 3 meters. The parameters measured in this study was the percentage of plant survival, plant height and stem diametre, and plant disease. Data analysis applied was *Design Irregulars Experiment* and details with LSD test.

The result of the research showed as follows : 1) The adaptability achieved through this research was 86,458%, 2) Perupuk progeny trial for height on 1 month and 6 months showed significant variation for inter families, for stem diametre on 1 month showed significant variation for inter families, on 6 month showed significant variation for inter families and inter blocks. Growth added for both of height and stem diametre showed significant variation for inter blocks, 3) In the first measurement, genetical factor more dominant than environmental factor, was shown by 0,928 of heritability, and in the last measurement this percentage was decreased to 0,922 for height and 0,121 for height increment in six months of age. Likewise for stem diametre genetical factor more dominant than environmental factor in the first measurement diametre was 0,831. Later on these percentage tend to increase caused by aging, that was 0,867 for the last diametre and 0,007 for diametre growth. The genetic gain with 10% selection intensity for height growth added is 60,13% and for diametre growth added is 1,65%, 4) Family no. 110 is the best for height growth and family no. 118 is the best for diametre growth, 5) The genetical correlation between height and stem diametre of Perupuk was positive that was 0,81 in the first observation, and 0,87 in the last observation.

Key words: progeny trial, perupuk, half-sib.

Footnote : ¹ Student of the Silviculture Department Forestry Faculty.

² Lecturer of the Silviculture Department Forestry Faculty (Tree Breeding Expert).