

HALF-SIB PROGENY TEST OF HINDI

(*MelIs szedsrsch* L.)

AND THE EVALUATION OF ITS GROWTH

AT 16 MONTHS AGE

IN WANAGAMA I

by :

JOKO TRIYONO

A B S T R A C T

Establishment of half-sib progeny test of mindi (*MelIs szedsrsch* L.) in Wanagama I, was started from exploration and collection seeds of plus tree from Sleman district of Yogyakarta. The seeds were grown in the green house of Faculty of Forestry, UGM. Plantation was made in Wanagama I and growth was measure at 16 months age in the field.

The objective of this experiment are : 1) to study the growth variation in tree height and in stem diameter, 2) to estimate the narrow sense heritability value, 3) to identify the best family among 41 families observed.

Randomised Complete Block Design (RCBD) with 41 family as a treatment, 4 tree plot, 5 replication, and 3 x 3 meters spacing were used.

There was a significant different in the genetic variation on tree height and stem diameter. At 16 months age observation the estimate of its heritability value for height and for stem diameter were 0,572 and 0,451.

Family number 050 was shown to be the best in height and 092 to be the best in stem diameter.

UJI KETURUNAN HALF-SIB HINDI

(*Melia azedarach* L.)

SAMPAI UMUR 16 BULAN DI WANAGAMA I

GUNUNG KIDUL, YOGYAKARTA

oleh :

JOKO TRIYONO

I N T I S A R I

Uji keturunan half-sib mindi di Wanagama I, dimulai dengan pencarian dan pengumpulan benih-benih dari pohon plus di daerah Sleman, Yogyakarta. Penyemaian benih-benih terseleksi dilakukan di Kampus Fakultas Kehutanan UGM, sedangkan penanamannya di Wanagama I, serta diamati pertumbuhannya hingga tanaman berumur 16 bulan di lapangan.

Tujuan dari penelitian ini adalah : 1) mempelajari variasi pertumbuhan tinggi dan diameter batang, 2) menaksir nilai heritabilitas dalam arti sempit, serta 3) mengetahui famili terbaik yang tumbuh di Wanagama I.

Rancangan penelitian yang digunakan adalah Rancangan Acak Lengkap Berblok (RCBD), 41 famili sebagai perlakuan, 4 tanaman tiap plot, 5 blok sebagai ulangan, dan jarak tanamnya 3 x 3 meter.

Ternyata ada variasi genetik yang nyata pada parameter tinggi maupun diameter batang. Pada umur 16 bulan, taksiran nilai heritabilitas tinggi tanaman sebesar 0,572 dan 0,451 untuk diameter batang.

Famili nomor 050 menunjukkan nilai tinggi rata-rata terbaik dan 092 untuk nilai diameter rata-rata terbesar.