



RESEARCH ON THE FRUIT AND SEED PRODUCTION
AT THE PINE SEED ORCHARD SUMEDANG-WEST JAVA *

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ABSTRACT

Research on fruits and seeds of *Pinus merkusii* had been done at the Pine Seed Orchard Sumedang - West Java, November 1992 to April 1993. Trees for the research materials were collected from the stands with different slope aspects (West, South, East, and North) and determined by using non random sampling system. Then, location of cone on tree crowns were divided into 3 parts (upper, middle, and lower).

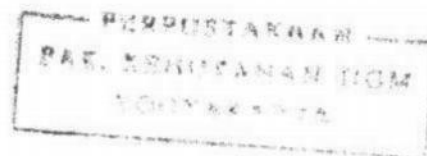
All fully ripe cones were picked for each treatment combination (slope aspect and location of cone on tree crown), to study the fruit and seed productions. In order to study the cone size, seed efficiency, seed numbers per-cone, empty seed numbers, and seed viability, fruits and seeds were sampled. Fruits and seeds production were analysed by means of least squares method. Then analysed a factorial experiment design and regression method were utilized to know the interaction and interrelation of both aspect. Finally, the seed efficiency was analysed by cone analysis method prepared by Bramlett (1976).

The results showed, that fruit collected in November and slope of Eastern gave the highest amount of the fruit and seed productions. The cone size (lengths and diameters) was not significant. However, the seed numbers per cone, seed efficiency, empty seed numbers, and seed viability were significant. There was no correlation between cone size and seed number per cone.

This was a tendency, that the parts of crown trees that received the greatest amount of light, will give the good effect on the fruit and seed productions.

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STUDI PRODUKSI BUAH DAR BERIH
DI KEBUR BERIH PIRUS SUMEDARG-JAHA BARAT*
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IRTISARI

Penelitian mengenai produksi buah dan benih *Pinus merkusii* dilakukan di Kebun Benih Pirus Sumedang-Jawa Barat dari bulan November 1992 sampai April 1993. Pengambilan pohon sampel didasarkan perbedaan aspek arah lereng (Barat, Selatan, Timur, dan Utara), dengan cara non-random sampling. Kemudian letak buah pada tajuk pohon dibagi menjadi tiga bagian (atas, tengah, dan bawah).

Semua buah yang masak diambil dari setiap kombinasi perlakuan (aspek arah lereng dan letak buah pada tajuk) untuk mengetahui produksi buah. Selajutnya untuk mempelajari ukuran kon, efisiensi benih, jumlah benih per-kon, prosentase benih kosong, dan viabilitas benihnya diambilkan dari sampel buah dan benih. Analisis data produksi buah dan benih menggunakan metode kuadrat terkecil. Untuk mengetahui pengaruh dan hubungan kedua aspek arah lereng dan letak posisi kon dilakukan dengan analisis faktorial dan regresi. Kemudian untuk efisiensi benih diolah dengan analisis kon dari Bramlett (1976).

Hasil penelitian menunjukkan bahwa pada bulan November dengan arah lereng Timur tersedia produksi buah dan benih yang melimpah. Pertgamatan ukuran buah (panjang dan diameter kon) tidak menunjukkan perbedaan yang nyata. Sedang jumlah benih per-kon, efisiensi benih, jumlah benih kosong, dan viabilitas benih meunjukkan hasil yang berbeda nyata. Hubungan antara ukuran benih dan jumlah benih per-kon tidak menunjukkan korelasi yang nyata.

Kesimpulan, ada kecenderungan bahwa pohon-pohon atau bagian tajuk yang banyak menerima sinar akan memberi pengaruh yang baik terhadap produksi buah ataupun benih.

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