INTISARI

Struktur tegakan hutan Jati dapat digambarkan oleh distribusi diameternya. Distribusi diameter diduga dapat diwakili model matematik fungsi Beta, yang parameter-parameternya dapat ditaksir melalui model atau persamaan regresi berdasarkan hubungan antara Diameter maksimum, minimum, rata-rata dan varian dengan peubah bebas umur (U), indek tempat tumbuh (S) dan kerapatan tegakan/jumlah pohon (N) atau jarak rata-rata antar pohon dalam luasan per hektar (Sm).

Data penelitian berupa data hasil pengukuran diameter setinggi dada (Dbh) di dalam petak coba (pc) hutan tanaman jati pada berbagai kombinasi umur dan bonita yang dikelompokkan kedalam kelas-kelas diameter dengan lebar kelas 2 s/d 5 cm. Kemampuan parameter-parameter fungsi Beta dalam menampung berbagai bentuk distribusi diameter ditentukan oleh uji statistik Kolmogorov-Smirnov.

Hasil penelitian menunjukkan bahwa distribusi diameter tegakan hutan jati dapat ditampung dengan baik oleh parameter-parameter fungsi Beta. Persamaan regresi yang dihasilkan yaitu Dmak, Dmin, Drt dan Var.D secara bersama-sama kurang mampu untuk menaksir distribusi diameter empiriknya namun demikian, persamaan Dmin dan Drt relatif cukup akurat.

ABSTRACT

The structure of Teak stands can be effectively described by their diameter distributions.Mathematical distribution function, i.e, Beta function, is proposed to depict the the diameter distribution. While Beta parameters are to be determined from several variables, namely Maximum Diameter (D), Minimum D, Mean D and Variance D, their dynamics shall be estimated by other stand characteristics such as age (U), site index (S), stand density or number of trees per hectar (N) or average distance of trees in forest area per hectar (Sm).

The data used in this study were taken from measurements in sample plots of various combinations of age and site. The data were tabulated in diameter class with interval of 2 cm up to 5 cm. The capability of the predicted Beta functions in illustrating the actual diameter distributions were tested by Kolmogorov - Smirnov technique.

The result of study proved that the diameter distribution of teak stand can sufficiently be presented by Beta function. The proposed regression equations on the necessery variables (Max.D, Min.D, Mean D and Var.D) turned out not to be significant. However, it can be noted that equation on Min.D and Mean D were considered sufficient.