

Growth of dry dipterocarp forest tree species.

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Thai Journal of Forestry volume 1 number 1 July – September 1982,

ABSTRACT

Permanent plots were established in 1972 to study growth and dynamics of the undisturbed dry dipterocarp forest. Under such condition there were 31 species, 465 stems and 106.65 m.² wood volume of trees of 10 cm. dbh or more per hectare. Average diameter growth rate of all species was from 1.0 to 2.5 mm./year. The diameter growth of *Pterocarpus parvifolius* (3.0-4.5 mm./year), *Pentacme siamensis* (1.0 to 4.5 mm./year) were relatively fast when compared to other slow growing species such as *Shorea talura* (1 mm./year). Diameter growth was related to crown condition and vigor. Net volume growth was 1.86 m.³/ha/year, mortality 0.33 m.³/ha/year and ingrowth 0.46 m.³/ha/year. Survival seems to increase with diameter. Under natural condition when fire occurs frequently, the number seedling recruit growing beyond breast height was about 15 stems/ha/year. Forest fire has pronounced effect on stand structure, causing the decrease of small stems. No single species has diameter distribution following the classical L-shaped curve. Under fire protection seedlings of *Shorea talura* require 7 years to reach the height that can withstand fire.