

Growth of *Hopea ferrea* Pierre in sapling stage at sakaerat forest,

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Forest Research bulietin No. 55 October 1978., 1978.

ABSTRACT

In order to determine the age of *Hopea ferrea* sapling after 1.30 m. in height to 9.4 cm. In diameter at breast height (dbh) at Sakaerat Forest, Pakthongchai, Nakhon Ratchasima, three 17.85 m. radius circular sample plots were laid in the dry evergreen forest. Total height and dbh of all saplings in the sample plots were measured every three months from Noember 1972 to October 1974. All saplings were numbered and dead sapling were also recorded to investigate the survival percentages. This study was made in continuation with the study made by Asa Bhromboppa and Somsak Sukwong between 1960 and 1966 where the age of trees to grow from dbh 9.4 cm. to 47.7 cm. was found to be 250 years. This study was attempted to find the age from sapling hieght of 1.30 m. to dbh. 9.4 cm. to predict the age of the tree from 1.30 m. in height to cutting size (about dbh 47.7 cm.). It was found by using Misra *et al* (1974) method that in order to grow from sapling height 1.30 m. to dbh 9.4 cm. 130 years are required. So, if the curves from both studies were joined together it will take 380 years for *Hopea ferrea* to grow from 1.30 m. in height to its allowable cutting diameter of 47.7 cm. The Royal Forest Department used to assume that 100 years would be reasonable enough for *Hopea ferrea* to grow from seedling to 47.7 cm. In dbh. This study may give some idea about growth rate of *Hopea ferrea* in its natural condition for silviculturist for a better management plan in the future.