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NATURAL REGENERATION OF MAHOGANY (SWIETENIA MACROPHYLLA KING) IN TWO SEMI-EVERGREEN FORESTS OF SRI LANKA

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We investigated the success of natural regeneration of mahogany (Swietenia macrophylla King) and effect of overstorey tree characteristics on it

This study was conducted in two semi-evergreen forests (Gannoruwa forest and Udawatta Kale) enriched with mahogany in the past. Under growth was studied by 660, 25 m^2 plots and overstorey by 330, 100 m^2 plots.

Average seedling density of mahogany varied from 1990/ha (Udawatta Kale) to 14830/ha (Gannoruwa forest). Density also decreased with increasing height from 8000/ha (below 25 cm) to 1600/ha (over 150 cm). There was a positive correlation between the mahogany seedling density and the total basal area of overhead trees, total basal area of mahogany trees and the average size of a mahogany tree. This implies the need of overhead shade for successful regeneration of mahogany and the necessity of a shelterwood type management in such areas. Seedling density decreased and the occurrence was sporadic beyond 150 m from the mahogany enriched area. This indicates that the natural expansion of a mahogany enrichment is limited to a small area.