

Title: Distribution, Growth and above ground Biomass of Teak (*Tectonagrandis* L.) Plantation in Mullaitivu District of Sri Lanka.

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Abstract: Teak plantation was established in Northern Province of Sri Lanka since 1960's and it is widely used for the purpose as timber in Sri Lanka. Among the districts of the Northern region, Mullaitivu is a potential district for teak plantation. However, no scientific studies were done regarding teak plantation and its distribution pattern in Northern region. Therefore, a study was carried out to assess the distribution patterns, growth conditions and aboveground biomass in Mullaitivu district during the period of February to May, 2015. Plant height, diameter (dbh), crown height and canopy diameter were measured from selected teak plants in four locations such as Mulliyawalai, Mankulam, Karripattammuripu and Theravil. The measurements were taken with square plot of the size 15m × 15m and findings from the Mulliyawalai and Theravil sites had same aged plantation of 22 years, highest average height and dbh value had observed in Theravil site as 19.80±0.28 m and 20.10±0.24 cm, respectively. The highest aboveground biomass of 410.37t/ha and tree volume of 579.58m³ /ha was found in Mulliyawalai. Among the four locations, the highest average aboveground biomass (1,301.49t/ha) and tree volume (2,043.77m³ /ha) were observed in Karripattammuripu plantation. From this study Theravil site was selected as the best site for the plantation of teak.

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