



Tree-ring Width of Teak (*Tectona grandis* L. F.) and Its Relationship with Rainfall and Temperature

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Abstract: Tree-ring chronologies of teak (*Tectona grandis* L.) at two sites, Mundagod and Shimoga, in Western Ghats of Karnataka were established. Both sites are influenced by climate varying with altitude and proximity to the Arabian sea and the equator. Mundagod is a dry deciduous forest area in North Karnataka where the south-west monsoon is crucial for the main rainy season. Shimoga is a moist deciduous forest area in Central Karnataka dominated by both south-west and north-east monsoon. According to our comparison of the tree-ring chronologies with the respective climate data, teak growth at Mundagod is negatively correlated with October rainfall of previous year and positively correlated with June to August rainfall of current year. At Shimoga, however, teak growth is positively associated with December rainfall of previous year and May to August rainfall of current year. Temperature during the pre-monsoon season, plays an important role for the onset of cambium activity at both sites.

Key Words: South-West monsoon, Tree ring, North-East monsoon, Teak
