

**LEAF TRAIT AND GROWTH PARAMETER RELATIONSHIP OF  
THREE GREENHOUSE GROWN DRY ZONE TREE SPECIES AT  
SEEDLING STAGE**

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Various plant traits are used to determine plant growth and development. Variation in plant traits and their associations within and among species, is associated with many important ecological processes at a range of scales. These traits could be used in restoration ecology to determine the competition and performance of introduced plant species. Leaf traits are among the widely used. This study was performed to compare the different leaf traits of three dry zone tree species i.e. *Berrya cordifolia*, *Ficus racemosa* and *Terminalia arjuna* to be used as performance indicators in restoration. Leaf parameters (leaf number, area and dry weight) and root and shoot dry weights were recorded of eight month old seedlings, in triplicates per species, grown under greenhouse conditions and required traits i.e. LMA (leaf mass per unit area), SLA (specific leaf area – leaf area per unit leaf mass) and LMF (Leaf Mass Fraction, fraction of plant biomass allocated to leaves) were derived. Data were analysed using one way ANOVA and Turkey's pair wise comparison and regression analysis. No significant difference was found among species in their growth status apparently due to lack of competition among them. However, tested leaf traits, both raw and derived, showed significant differences among the species and a particular pattern was observed between leaf trait versus growth parameter relationships. The correlation shifts from raw leaf parameters to derived leaf parameters and from LMA and SLA of mature leaves to those of composite leaves with increase of LMA. Further studies using mature plants and plants from different environments are underway to test the behaviour of these traits.

**Keywords:** *Dry zone tree species, growth performance, LMA, SLA, LMF*

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