

SEED SOURCE VARIABILITY IN *BAUHINIA VARIEGATA* LINN. UNDER TWO DIFFERENT ENVIRONMENTS

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ABSTRACT : Thirty two different seed sources of *Bauhinia variegata* comprised from Himachal Pradesh, Uttranchal, Haryana and Jammu & Kashmir were studied for morphological and biomass traits in the experimental area of the department of Tree Improvement and Genetic Resources, Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan during the year 2004 under two different environments viz. Glasshouse and natural field conditions. In the present study high heritability with high genetic advance was associated with root fresh and dry weight, *vis a vis* seedling biomass under both the environments. This showed that characters are being governed by the additive genetic effect and simple selection for the improvement of these traits in this species will be worthwhile, whereas the traits viz. shoot dry weight, shoot/root ratio, seedling biomass and inter nodal length with high heritability but low genetic advance revealed that the gene action may probably be controlled by intra and inter allelic interactions (dominance effect).

Key Words: Heritability, genetic advance and genetic gain, phenotypic and genotypic coefficient of variation.