

**ASSESSMENT OF INTRASPECIFIC VARIABILITY OF *BACOPA MONNIERI* (L.)
PENNEL IN KERALA**

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SUMMARY

Towards the desired domestication and cultivation of *Bacopa monnieri* to meet the commercial requirements of the materials, the present study was initiated to find the variations in the morphological characters of the available accessions. The aim of the study included;

1. Collection of various accessions of *Bacopa monnieri* from different regions.
2. Collecting maximum field data to evaluate the present status of its distribution
3. Planting accessions in the garden and maintaining as mother plants.
4. Monitoring the plants for its morphological characteristics
5. Dissecting the plants for morphological characterization.
6. Analysis of characteristics to find out the morphological variant.
7. To conduct statistical analysis of quantitative characters as possible.

Germplasm was collected from different agroclimatic regions of Kerala. The details about the 60 accessions were collected from the field using Global positioning System and based on observation, represented in the Plant Collection data sheet maintained in All Saints' College. The field was also photographed. The details about the 60 accessions were collected from the field and represented in the Plant Collection data sheet maintained in All Saints' College. Several plant cuttings of ten to fifty randomly sampled individual plants from each location were brought to the college and planted together in earthen shallow pots filled with soil and farmyard manure. These are maintained in the net house as mother plants. The planting was almost completed in the first year and observations were recorded in the second year after the plants had reached maturity with all accessions having entered an active flowering phase. Observations were recorded on all five plants for each replication for all the accessions. The

accessions of *Bacopa monnieri* were Qualitative and Quantitative characteristics which showed variations between the accessions. The significance of variation was tested using the Statistical tool Analysis of Variance (ANOVA). Genotypes were grouped into clusters by cluster analysis. A herbarium was prepared for all the accessions of *Bacopa monnieri* collected and a field book was also prepared. The Herbarium sheets of *Bacopa monnieri* with the field book was submitted to the herbarium of Department of Botany, All Saints' College, Thiruvananthapuram.