

## Application of Molecular Markers for Crop Improvement

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**Abstract :** Use of molecular markers for selecting plants with desired traits has been started long back. Due to their heritable characteristics, they are useful for identification and characterization of specific genotypes. The study involves various types of molecular markers used to select multiple desired characters in plants, their properties, and advantages to improve crop productivity in adverse climatological conditions for the purpose of providing food security to fast-growing global population. The study shows that genetic similarities obtained from molecular markers provide more accurate information and the genetic diversity can be better estimated from the genetic relationship obtained from the dendrogram. The information obtained from markers assisted characterization is more suitable for the crops of economic importance like sugarcane.

**Keywords :** molecular markers, crop productivity, genetic diversity, genotype

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