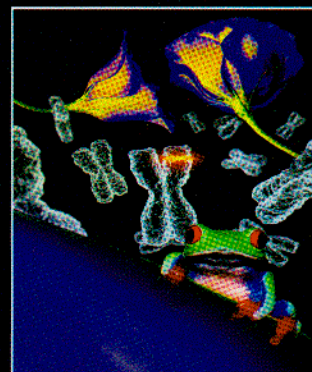


# Biometrical Genetics

## Analysis of Quantitative Variation

Darbeshwar Roy



**Biometrical Genetics: Analysis of Quantitative Variation** describes the genetic analyses for working out the genetic architecture of quantitative traits. The book provides brief description of both univariate and multivariate statistics. The genetic analyses include study of basic generations and the use of multiple mating designs such as BIPs, NC1, NC2, Diallel, NC3 and TTC. Variation arising due to linkage, epistasis, environment, maternal effect and sex linkage are also described. Models of  $G \times E$  interaction and competition and biometrical genetics of polyploids and haploid are discussed in detail. Biometrical genetics of heterosis and inbreeding depression and the method for calculation of inbreeding coefficient are given. Methods for estimation of heritability and number of effective factors are completely described. H-W equilibrium and the evolutionary forces are described in detail. Selection theory including path coefficient analysis is fully described. QTL analysis and models for estimating genetic parameters are also fully described. This book also includes a chapter on matrix and biometrical problems which will help in carrying out practical in this course.

This book will be helpful to undergraduate and post-graduate students as well as teachers and researchers in the field of quantitative genetics and practical plant breeding.



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