

ANALYSIS OF GENETIC PARAMETERS IN M₂ GENERATION OF FIELDPEA (*PISUM SATIVUM* L.)

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Abstract: The Present investigation was undertaken with an objective to assess the induced genetic variability in M₂ generation. The research programme was conducted during *rabi* 2008-09 at field Experimentation center, Department of Genetics and Plant Breeding, SHIATS, Allahabad. The parent material, seeds of PUSA212 variety were irradiated with 10kR, 15kR, 20kR, 25kR and 30kR doses of gamma rays at NBRI, Lucknow. Next day after treatment, the seeds along with control were space planted for raising M₁ generation. Each M₁ plant was harvested separately. Desirable ten M₁ individual plant progenies from each treatment were bulked and laid in RCBD for raising M₂ generation. Induced mutations delivered fairly good amount of genotypic coefficient of variation, phenotypic coefficient of variation, heritability and genetic advance with respect to plant height, number of pods per plant, indicating scope for improving fieldpea yield by selection. The mutants with small pods, tall and increased number of pods per plant were isolated in M₂ generation.

Keywords: *Pisum sativum* L., Gamma rays, Induced variability, Genetic parameters, M₂ generation

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