

GENE ACTION STUDIES FOR SEED YIELD AND OTHER QUANTATIVE CHARACTERS IN FIELD PEA (*PISUM SATIVUM* L.)

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Abstract: In the present study, generation mean analysis were undertaken to estimate the nature and magnitude of gene action for yield and its component traits in two crosses of field pea viz IM 9214-10 X Rachna (C-1) and IM 9214-10 X Ambika (C-2). Scaling tests revealed the presence of one or more kinds of epistatic effects for almost all the agro-morphological traits. The selection of elite lines from delayed generations and subsequent inter mating might be useful approach to recover/ develop the high yielding field pea lines. The elite lines recovered from crosses IM 9214-10 X Rachna might be superior in terms of early maturity with more number of clusters per plant and seed yield per plant. Likewise, crosses *i.e.* IM 9214-10 X Ambika for plant height, number of clusters per plant and seed yield per plant; may give opportunity to isolate transgressive segregants in advanced generations.

Keywords: Epistasis, GMA, Gene effect, Inheritance, Field pea, Transgressive segregants

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