

RESEARCH ARTICLE

To identify and select superior M_3 progenies and estimate the magnitude of various genetic parameters in respect of yield and yield attributes in guar [*Cyamopsis tetragonoloba* (L.) Taub.]

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SUMMARY

A study was conducted during *Kharif* 2002 to assess induced variation among 131 (80 selected and 51 bulk) M_3 progenies of guar variety RGC-197 in respect of yield and yield attributes. Analysis of variance revealed significant differences between the progenies and non-significant differences within the progenies for all the characters studied. Based on 't' test, a considerable number of M_3 progenies were significantly different for their mean values from the parent RGC – 197 in respect of all the traits. Progenies, showing significantly lower values of a trait were more frequent than those showing superior values than the control except for 100- seed weight. Variations in respect of various characters were induced to different magnitudes. Based on significantly higher mean values than control and bulk progenies, five selected progenies namely 31-7, 41-6, 78-2, 81-6 and 128-5 were identified as superior ones. The characters *viz.*, plant height, seed yield per plant, pods per plant and 100- seed weight were relatively more heritable than the other character studied.

Key Words : Guar, Progenies, GCV, PCV, Population, C. V., Heritability, RGC-197

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