

Hybrid vigour for pod yield and seed protein content in cowpea [*Vigna unguiculata* (L.) Walp]

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ABSTRACT : The present study, on hybrid vigour for seed yield and its components, was carried out in a set of 21 F₁ hybrids of cowpea obtained from a diallel mating design involving seven elite parental lines at Navsari Agricultural University, Navsari during *Kharif* 2013. All hybrids exhibited significant variation among them and parents vs. hybrids significant for days to 50% flowering, plant height, seed yield per plant, test weight and protein content. The degree of heterosis varied from cross to cross for all the characters. None of the hybrid showed heterosis for all the studied characters. The economic heterosis was ranged from -45.67 to 4.15 per cent for seed yield per plant. The highest standard heterosis was recorded by cross GC-4 x Waghai local (12.45%) and followed by W-3-2 x W-5 (10.38%), CDP-108 x CDP-11 (8.30%), Phule-CP-5040 x W-5 (6.23%) and Waghi Local x W-5 (4.15%). Heterosis of yield attributes had a pre-dominance additive effect on heterosis for seed yield per plant. Heterosis for plant height, branches per plant, pods per plant and pod length are the major yield increasing attributes of the hybrids.

Key Words: Cowpea (*Vigna unguiculata* L.), diallel, hybrid vigour, seed yield and its components, pods per plant, pod length, harvest index.