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HETEROSIS FOR SEED YIELD, ITS COMPONENTS AND WILT RESISTANCE OVER ENVIRONMENTS IN CASTOR (RICINUS COMMUNIS L.)

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ABSTRACT

Investigation of 56 genotypes including 10 parents, 45 hybrids (develop by diallel mating design excluding reciprocal) and 1 standard check GCH 7 to determine the extent of heterosis for seed yield, its components and wilt resistance over environments. The data on heterobeltiosis revealed that, cross SKI 341 x GC 3 and SKI 341 x SPS 43-3 were give consistence performance for seed yield per plant in all the environments. The cross MCI 108 x SKI 341 and SKI 341 x SPS 43-3 were exhibited significant positive standard heterosis in all the environments for seed yield per plant. The cross which found significant for seed yield per plant were also found resistance to wilt. Magnitudes of heterosis vary from character to character and cross to cross. In general, for seed yield/plant across the locations magnitude of desirable heterosis was high over better parent but low over standard checks. For developing high yielding and earlier maturing genotypes, selection of crosses on the basis of per se performance with considerable per cent heterobeltiosis and standard heterosis would be more desirable.

KEYWORDS: Castor, Diallel, Heterosis, Ricinus Communis L

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