Heterosis studies for grain yield with yield contributing characters in kharif sorghum (*Sorghum bicolor* (L.) Moench)

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An investigation was taken to decipher the magnitude of heterosis in sorghum with respect to grain yield and its components. The material was sought through a line x testers. A total of 83 genotypes (9 lines, 7 testers, 63 hybrid and 4 checks) were sown in randomized block design with two replications. The hybrid and their parents were evaluated to assess the heterosis governing the quantitative traits. An analysis of variance for yield and yield components showed significant differences among the genotypes which indicated the substantial variability in the materials under study. Among the hybrid PMS 37A x RS 29 recorded maximum grain yield with heterosis over the mid parent, better parent and standard check respectively. This cross found to be superior in terms of days to maturity, plant height and grain yield. It was followed by PMS 29 x KR 200, PMS 9A x KR 191, PMS 6A x KR 199 and PMS 28A x KR 192.

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