Combining Ability and Heterosis For Grain Yield and its Components in Maize (*Zea mays* L.)

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ABSTRACT

Combining ability and heterosis were carried out for grain yield and its components in forty five single cross hybrids derived by crossing in a half diallel fashion along with ten diverse elite early inbreds and two checks. The material was evaluated in randomized block design with three replications at College Farm, College of Agriculture, Rajendranagar, Hyderabad during *kharif,* 1999. The general combining ability effects revealed that parents P4, P6, P7 and P10 were good general combiners for grain yield. Five single cross hybrids P3 x P6, P5 x P9, P5 x P7, P5 x P9, P7 x P9 were identified as potential cross combinations with high *SCA* effects for grain yield per plot. The cross P8 x P10 for number of kernel rows per ear, P6 x P9 for number of kernels per row and P5 x P9 for 100 kernel weight and grain yield per plot recorded highest standard heterosis. These hybrid combinations may be exploited for commercial cultivation after extensive multiplocation trials.

Key words : Combing Ability, Heterosis, Maize, Yield and yield components.