

Combining ability Analysis for Grain Yield and Quality Traits in Rice (*Oryza sativa* L.)

V Venkanna, N Lingaiah and Ch Surender Raju

Regional Agricultural Research Station, Jagtial - 505 327, Karimnagar District, Andhra Pradesh

ABSTRACT

Nine divergent parents were crossed in diallel mating design without reciprocals to generate thirty six hybrids and evaluated to know the combining ability of parents and crosses. The parents JGL 11690 and JGL 1798 were identified as good general combiners for grain yield, IR 64 and MTU 1010 for kernel length and IR 64 and Erramallelu for L/B ratio with high mean and *gca* effects. Similarly, the crosses with parents of high *x* high *gca*, high *per se* performance and high *sca* were IR 64 x Erramallelu for kernel length and IR 64 x Erramallelu and Erramallelu x JGL 11690 for L/B ratio, which can be exploited for further genetic improvement through direct selection.

Key words : Combining ability, Quality, Rice, Yield.