Heterosis for Yield, Components and Quality Traits in Rice (*Oryza sativa* L.)

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ABSTRACT

Ninety six hybrids derived from crossing four CMS lines with 24 testers were evaluated for the extent of heterosis over mid-parent, better parent and standard hybrid check for yield, components and quality traits in rice. Twenty crosses out of 96 exhibited highly significant standard heterosis for grain yield plant $^{-1}$. Heterosis for seed yield was due to the significant and positive heterosis for components like panicle length, number of fertile spikelets, number of panicles and harvest index.The top heterotic combinations identified for grain yield plant $^{-1}$ were, PMS10A X MTU II 161-28-1-1, PMS3A X MTU II 178-20-2-2-1, PMS10A X MTU II 178-20-2-2-1, PMS10A X MTU II 193-23-1, APMS6A X MTU 1064 and IR58025A X MTU 1064, exhibiting more than 50% standard heterosis.

Key words : CMS lines, Harvest Index, Heterosis, Rice