

Studies on Heterosis for Grain Yield and Yield Component Characters in Salinity Tolerant Rice Genotypes

M Sri Lakshmi, Y Suneetha, J Dayal Prasad Babu and V Srinivasa Rao
Department of Genetics and Plant Breeding Agricultural College, Bapatla, A.P.

ABSTRACT

The manifestation of hybrid vigour in 42 salinity tolerant rice hybrids for grain yield and yield component characters was investigated during *Rabi* 2016-17. The results revealed the hybrids to be high yielding with early duration with greater panicle length, compared to the parents. Among the lines, APMS 12A and among the salinity tolerant testers, MTU 1210 had recorded highest grain yield per plant and was found to be promising. Heterobeltiosis and standard heterosis more than 10 per cent was recorded for grain yield per plant, plant height, ear bearing tillers per plant, panicle length, filled grains per panicle, ill-filled grains per panicle and 100-seed weight. Among the salinity tolerant hybrids studied, APMS 12A x MTU 1153 and APMS 12A x MTU 1156 were observed to be high yielding and are therefore identified as potential hybrid combinations for further evaluation and commercial exploitation as salinity tolerant hybrids.

Key words: *Heterosis, Rice, Salinity tolerance, Yield, Yield Components*