ABSTRACT

The present line Giza178R, Giza179R,HR195R,Giza 181R and Giza 182R could be utilized either for producing new hybrid combinations or for developing new parental lines in brown spot resistance program.

The female line IR69925A was found to be a good combiner for many of characters for the combined data over studies and K17A was very good combiner to brown spot resistance.

Evaluation of hybrids for heterosis breeding based on four consideration, mean performance, heterobeltiosis (BP), mid-parent heterosis (MP) and combining ability effects indicated that, out of 21cross rice combinations, five hybrid combinations, namely IR69625A x Giza178R, IR69625A x Giza179R, IR69625A x GZ6296R, K17A x Giza179R and K17A x HR195R recorded significantly positive values and were most promising ones, for grain yield and most desirable characters and could be utilized as commercial hybrids.

The present line Giza 179R (new restorer) could be utilized either for producing new hybrid combinations through another CMS or for developing new parental lines.

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