COLLABORATIVE AND MULTIDISCIPLINARY APPROACH TO DEVELOP IMPROVED RICE CULTIVARS FOR PROBLEM SOILS

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ABSTRACT

Existence of wide variability in rice germplasm for tolerance to stresses associated with problem soils suggest that production improvement opportunities through breeding are large. However, lack of prebreeding research is the constraint. Genetics and physiological mechanism of tolerance must be understood. Breeding techniques have to be developed to evaluate and select for traits. Such research demands multidisciplinary approach. Adaptability and acceptability of cultivars vary from location to location. Consequently, applied aspects of breeding must be conducted in target environments. Considering above, IRRI in 1986 established a cooperative in South and Southeast Asian region to share resources and responsibilities in problem soils research including different types of acid lowland soils. IRRI works to concentrate on prebreeding research and to strengthen cooperating national programs on varietal development. The International Rice Testing Program (IRTP) is the vehicle of exchange of improved germplasm. The IRTP has organized hot-spots for preliminary evaluation of advanced lines developed by national programs and IRRI. Promising lines are identified and distributed globally, through several nurseries.