

Mid Term Review Meeting of the ACIAR Australia Funded Project

A Mid Term Review Meeting of the India - Australia joint Project on Wheat Improvement for Waterlogging and Element Toxicity was held at the Central Soil Salinity Research Institute (CSSRI), Karnal over two days from 30th Jan. 2012. This ACIAR funded project has special relevance for the Indo-Gangetic Plains of northern India where 2.5 M ha of sodic/saline soils planted with wheat are waterlogged yearly with another 2.0 M ha affected by seepage in many canal command areas nationally. In addition, waterlogging occurs each time



most sodic soils are irrigated thus hampering their productivity. The meeting was attended by all the project partners from India and Australia and ACIAR Program Coordinator. Dr. Tim L. Setter, Dr. D. Marshall, Dr. Richard Brettell, Dr. Tony Rathjen, Dr. P. Rengasamy from Australia; Dr. S. Nagarajan, Former Chairperson, Protection of Plant Varieties and Farmers Rights Authority, New Delhi; Dr. D. K. Sharma, Director, CSSRI, Dr. S.K. Sharma, Dr. Neeraj Kulshreshtha, and Dr. N.P.S. Yaduvanshi from CSSRI, Karnal; Dr. Indu Sharma, Project Director, DWR, Dr. Gyanendra Singh and Dr. M.S. Saharan from Directorate on Wheat Research (DWR), Karnal; Dr. B. N. Singh and Dr. S.P.Singh from Narendra Dev University of Agriculture and Technology (NDUA&T), Kumarganj, Faizabad. Dr. Tim L. Setter, Department of Food and Agriculture, Western Australia, Perth the Programme Leader presented the research activities of the project carried out in Australia and India in brief since July 2009. All the delegates presented their results on improvement of wheat germplasm for waterlogging and various elements toxicities occurring in these situations. The project has Central Soil Salinity Research Institute, Karnal and Directorate of Wheat Research, Karnal and ND University of Agriculture & Technology, Kumarganj, Faizabad as the Indian partners. Department of Food & Agriculture Western Australia (DAFWA), Perth and University of Adelaide, South Australia as the Australian partners. Both the Indian and Australian scientists are working to combine the salt and waterlogging tolerance from their own materials. Dr. S. K. Sharma, Head, Crop Improvement at CSSRI informed that the project aims at development of elite wheat germplasm for waterlogging and salinity tolerance and identification of robust screening protocols based on physiological and soils research and has provided good leads and opportunities in this area. The project has highlighted the importance of element toxicities of sodium, aluminum, iron and boron due to waterlogging in sodic / alkaline soils and the natural variability in plant responses to these stresses in the wheat varieties and germplasms collections from all over the world and the possibilities for their utilization to improve grain yield and productivity. In this two days meeting, various breeding and molecular assisted selection strategies using molecular markers to understand and overcome these complex abiotic stress problems were discussed and the devised strategies are expected to provided better and effective solutions for future efforts in these areas where problems are expected to increase with higher areas affected by secondary salinisation, and threats due to environmental and pollution problems.