

Category : International Rice Research Conference

Select Theme : Genetic improvement

Endorsement email :

Keyword 1 : Germplasm Enhancement

Keyword 2 : Germplasm Enhancement

Keyword 3 : Abiotic stress tolerance

Title of Entry : Rice genetic resources in Bangladesh: BRRI perspectives

Presenting author : Mohammad Khalequzzaman

Presenting author email : zamanmk64@yahoo.co.uk

Co author 1 : Mir Sharfuddin Ahmed

Co author 2 : Md Abubakar Siddique

Co author 3 : ESMH Rashid

Co author 4 : Md Zahidul Islam

Co author 5 : Nadia Aktar

Co author 6 :

Co author 7 :

Co author 8 :

Co author 9 :

Co author 10 :

Co author 11 :

Co author 12 :

Co author 13 :

Co author 14 :

Affiliation presenting author : Bangladesh Rice Research Institute

Affiliation 1 :

Affiliation 2 :

Affiliation 3	:
Affiliation 4	:
Affiliation 5	:
Affiliation 6	:
Affiliation 7	:
Affiliation 8	:
Affiliation 9	:
Affiliation 10	:
Affiliation 11	:
Affiliation 12	:
Affiliation 13	:
Affiliation 14	:
Select only one type of presentation	: 15 minute oral presentation

Abstract : Bangladesh is abundant with rice genetic resources from time immemorial since secondary origin of crop diversity. The importance of rice genetic resources for its improvement is well recognized by the researchers. Hence systematic conservation of rice genetic resources was started at Bangladesh Rice Research Institute (BRRI) since its establishment. As of now a total of 8223 rice germplasm have been conserved at BRRI genebank of which 5030 indigenous indica, 1382 indica breeding & pure lines, 1382 exotic indica, 266 exotic Japonica, 73 wild rice and the rest is unidentified varietal group. Morphological characterization of all conserved germplasm has been completed but only few of those have molecularly characterized. Moreover, 93 samples of wild rice of 11 species including *Portacea coarctata* were also conserved in rice garden at BRRI. Morphological characterization and DNA fingerprinting of conserved wild rice have been done using SSR markers. A total of 907 germplasm were found moderate to highly resistant against different diseases and pests. Among those, 108 for blast, 76 for sheath blight, 9 for stem rot, 638 for bacterial blight, one for bacterial leaf streak, two for bakanae, 13 rice tungre and 52 for ufra diseases; 16 for BPH, 14 for GLH, 33 for WBPH, 5 for rice gall midge and 7 for stem borer insects and 110 found tolerant against abiotic factors like submergence (20), tidal submergence (2), salinity (54), water logged condition (2), heat (15), cold (6) and drought (11). Every year around two thousand rice germplasm are distributed to different researcher for rice varietal improvement. So far, thirteen modern rice varieties have been released utilization of rice germplasm as a parentage. To meet the future challenge of food security for growing population, high yielding, disease and insects resistant and adaptable germplasm for cultivation in world climatic change is urgently needed.

[Read Less](#)

Uploaded Files

No files found.