[P4] Crop Genetics and Physiology

2021年9月9日(木) 12:15 〜 14:00 Room 4 (Poster) (Crop Genetics and Physiology)

12:15 〜 13:00

[P4-15]Pyramiding of Disease Resistance Genes into Popular Rice Varieties of Bangladesh

*Nominated for Presentation Awards

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Rice is the major staple food of Bangladesh, contributing to 65-70% of the daily caloric intake. Its stable production is essential to meet the food and nutritional demands. However, rice production is affected by several biotic constraints such as bacterial blight, blast and tungro. Most of the popular rice varieties released during the last two decades are becoming susceptible to major diseases, so pyramiding disease resistance genes by marker-assisted backcrossing is a fast-track approach to address biotic stresses. We introgressed bacterial blight (*Xa5*, *Xa13* and *Xa21*) and blast genes (*Pi9*, *Pita2* and *Pi35*) into BRRI dhan28, BRRI dhan63 and BRRI dhan81 rice varieties. We also introgressed tungro resistance gene tsv1 into BRRI dhan71 rice variety. Materials have been advanced to BC_3 generation and homozygous lines selection is in progress using gene-specific markers. While twenty-three BC_3F_3 tungro resistance homozygous lines phenotypically similar to recipient parent have been selected and field evaluated. The overall results of the work will be presented during the conference.