

Category : International Rice Research Conference

Select Theme : Genetic improvement

Endorsement email :

Keyword 1 : Germplasm Enhancement

Keyword 2 : Hybrid rice

Keyword 3 : Pre-breeding

Title of Entry : Hybrid Rice-a step towards food security

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Select only one type of presentation	: 15 minute oral presentation
Abstract	: More than 90% of global rice is produced and consumed in Asia. Majority of the rice farmers are small to medium holder and in low income group. For them food security and livelihood sustainability is of prime importance. Hybrid rice by way of its higher productivity is helping in fulfilling the food requirement as well supporting livelihood improvement by getting surplus produce. But except China, hybrid rice commercialization is picking up at a slow pace owing to difficult seed production, varying grain quality requirements, less than expected heterosis in high productivity areas and slow technology dissemination. For spreading the technology fast, concerted efforts are needed at research, breeding, development, production technology and policy & extension front. The use of new breeding tools like, marker assisted breeding, genomic selection and optimized genome editing will help improving genetic gains such that hybrid fulfills the expectation of various stakeholders. Private sector has comparative advantage with target oriented breeding, geography specific development, dedicated supply chain and customized extension. But enhanced public-private collaboration will help in creating enabling environment and faster expansion of the technology. Bayer Crop Science has been in the forefront of developing and commercializing hybrid rice since 90's and brought a steady flow of successful portfolio of highly performing hybrids to varied geographies of Asia and Africa. A unique approach of pre-breeding involving germplasm enhancement and native trait improvement coupled with comprehensive artificial and natural screening of target traits at the hot-spots has been deployed. The major contribution has been in the form of products having consistent agronomic performance, resistance/tolerance to major biotic stresses like bacterial leaf blight, blast and brown plant hopper, tolerance to abiotic stresses like submergence, salinity and desired grain quality. Bayer also has been collaborating in developing technologies with various private and public sector institutes including International Rice Research Institute, Philippines. We welcome important stakeholders to come forward to collaborate and contribute in expanding hybrid rice for improving the food security and livelihood of small holder farmers.

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