Entry No. IRRC-0076

Category	: International Rice Research Conference
Select Theme	: Genetic improvement
Endorsement email	:
Keyword 1	: Breeding for future markets/novel products
Keyword 2	: Germplasm Enhancement
Keyword 3	: Marker-assisted selection
Title of Entry	: Current status and development in Basmati Rice Production and Research in Pakistan
Presenting author	: Dr. Muhammad Akhtar
Presenting author email	: director_rice@yahoo.com
Co author 1	: Muhammad Sabar
Co author 2	: Tahira Bibi, Zulqarnain Haider
Affiliation presenting author	: Rice Research Institute, Kala Shah Kaku, Punjab, Pakistan
Affiliation 1	: Ayub Agricultural Research Institute, Faisalabad, Pakistan
Affiliation 2	: Agriculture Department, Punjab, Pakistan
Select only one type of presentation	: 15 minute oral presentation
Abstract	: Historical and scientific evidences clearly show that traditional Basmati quality is ecology specific and can only be achieved at the best when Basmati cultivars are grown in the traditional Basmati area viz; 'Kallar Tract' of Punjab. Pakistan is earning about 1 billion US$ through its export annually. Since 1926, 15 Basmati rice varieties have been released for general cultivation First ever Basmati variety ‘Basmati 370’ was released for general cultivation from ‘Rice Farm’ Kala Shah Kaku in the year 1933 that was proved to be the mother either directly or indirectly of almost all Basmati varieties released hereafter. In1968, another famous Basmati variety ‘Basmat Pak’ with extra-long grain length was released from Rice Research Institute, Kala Shah Kaku using conventional hybridization technique. The world famous ‘Super Basmati’ rice variety was released in 1996 that ruled in the International market for two decades and is still being grown in Punjab. Concerted research efforts resulted in yield potential improvement from 3.0 t/ha to 7.5t/ha, reduction in plant height from 170cm to 115cm, increase in grain length from 6.5mm to 8.1mm and reduction in maturity period from 130 days to 105 days. In a study, economic benefit due to Basmati varieties were recorded as PKR 25.7 billion (Pak Rupees) each year during the period from the year 2000-01 to 2013-14. New modern molecular approaches like Marker Assisted Selection (MAS) were deployed for the development of new Basmati rice varieties for biotic (bacterial leaf blight) and abiotic (submergence and salinity) stresses. Hybrid rice technology is also one of the main focus in R&D for Basmati hybrid varieties.

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