

KVK Transforming Rice Production in Kathua: A Journey of one Kilogram Pusa 1121 seed



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KVK Transforming Rice Production in Kathua: A Journey of one Kilogram Pusa 1121 seed

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The low yield of basmati rice and consequently low economic benefit has restricted farmers of the district to grow basmati on a larger scale. KVK Kathua serving the farmers of the district by enhancing their farm income identified Pusa 1121 basmati seed as a potential source for increasing the farmres income, keeping in view the high price of basmati at national and international markets in the recent past. After standardization and refinement of Pusa 1121 rice variety procured from IARI, New Delhi, KVK has engaged in popularisation of variety through FLDs and trainings. The economics of introducing the intervention has resulted in additional income amounting to Rs.

2416.64 lakhs till the year 2015 through enhancement of area under Pusa-1121.

Rice production in Kathua

Rice is the most significant kharif crop of Kathua district of Jammu and Kashmir State, cultivated over an area of 33,000 ha with an average production of 10112.10 tonnes. Traditionally, district Kathua was known to be the producer of coarse varieties of rice viz., Jaya, PR-118, K-343, IR-8 and PHB-71 etc. The cultivation of basmati rice was very limited and was confined only to the Hiranagar tehsil and the variety Basmati-370 was solely under cultivation in the name of fine and basmati rice. The low yield of basmati rice varieties and consequently less economic benefits, restricts their adoption on a larger scale. Basmati rice varieties, therefore, produced by the farmers only for home consumption and there was a very little marketed surplus available. As a consequence of the changed liberalized trade related polices of the Govt. of India and at State level, basmati rice of Jammu province has got recognition in national and international level. Farmers perceived the importance of cultivating basmati varieties for higher returns. A significant number of farmers approached Krishi Vigyan Kendra (KVK), Kathua for guidance on the issue and KVK helped them to choose the right path.

Problem Statement

The cultivation of basmati rice was very limited and was confined only to the Hiranagar tehsil and the variety Basmati-370 was solely under cultivation in the name of fine and basmati rice. The low yield of basmati rice varieties and consequently less economic benefits, restricts their adoption on a larger scale. Basmati rice varieties, therefore, produced by the farmers only for home consumption and there was a very little marketed surplus available. As a consequence of the changed liberalized trade related polices of the Govt. of India and at State level, basmati rice of Jammu province has got

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Programmes and Activities (KVK Interventions)

After ascertaining the demands of local farmers, Krishi Vigyan Kendra (KVK), Kathua carried out following works:

Standardizing, Refinement and extension of technology

Krishi Vigyan Kendra (KVK), Kathua procured seed of high yielding Pusa basmati-1121 from IARI, New Delhi in the year 2009. After conducted several On-farm trials, KVK standardized and refined the recommended technology for farmers of Kathua district. Through well framed annual action plans, KVK Kathua conducted Front Line Demonstrations, imparted specialized farmers training programmes to impart knowledge as well as skills involved in the production of basmati rice with the apparent objective to prepare the farmers of the district to produce quality basmati rice which can compete at international level.

Production of seed of Pusa – 1121 basmati rice

An important factor in restricting the horizontal expansion of agricultural technology, especially of field crops is the non-availability of seed. Therefore, under a systematic plan, KVK, Kathua after the year 2010, concentrated its farm activities towards production of seed of Pusa basmati-1121 in kharif season for distribution to the farmers of the district.

To start with, KVK concentrated its activities in Hiranagar, Barnoti and Kathua blocks of the district. The blocks traditionally have maximum area under rice and therefore, were purposely selected, for achieving greater impact of proposed intervention in transforming traditional coarse rice belt to basmati producing belt. Farmer'-Scientist Interaction, field days, film shows, radio talks and frequent print media coverage were also employed to get the maximum impact.

EVALUATION

KVK Kathua has giving major thrust on Pusa-1121 by continuously increasing area under Frontline demonstrations. The area for conducting Frontline demonstrations on Pusa-1121 has increased from 8.0 ha in 2010-11 to 40.0 ha in 2013-14. In 2010 only, fifteen farmers' were covered under frontline demonstrations but in the subsequent years their number rose to 49 till 2013-14. This subsequent increase in area as well as farmers' coverage triggered the further dissemination of Pusa basmati-1121 in Kathua district. The performance of Pusa basmati 1121 in comparison to traditional rice varieties over the years is presented in the Table 1.

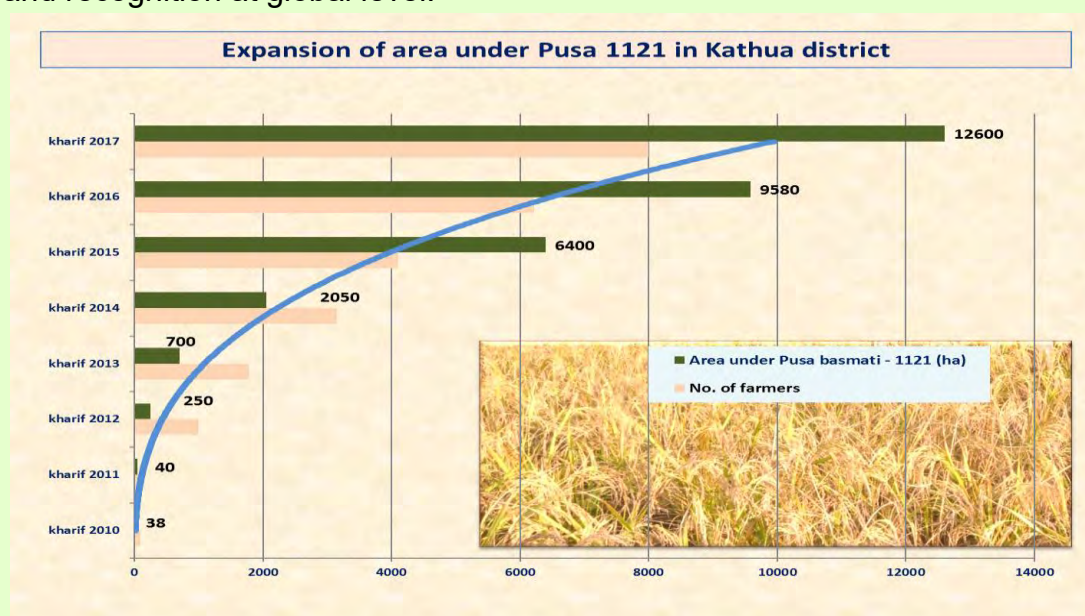
Table 1. Economics of Pusa basmati – 1121 in comparison to coarse varieties of rice

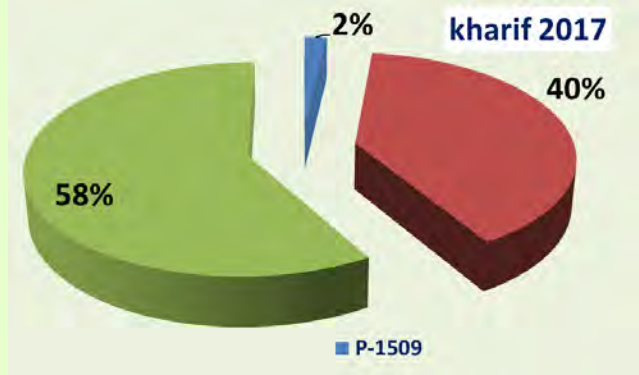
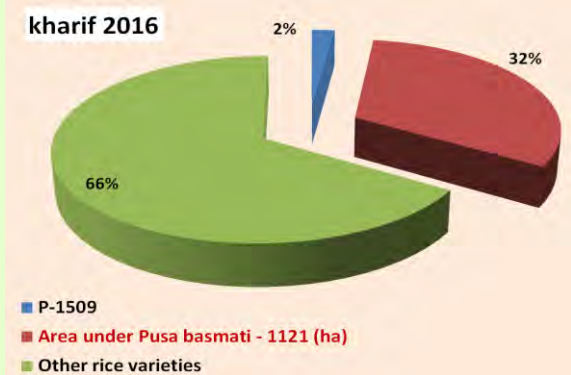
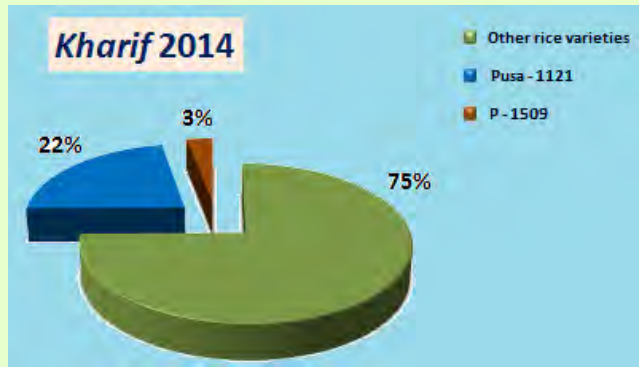
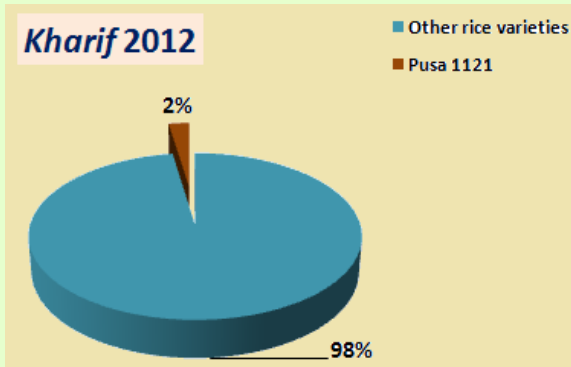
Year	Coarse varieties (Jaya, PR-113 and IR-8)				Pusa – 1121			
	Yield (q/ha)	Price (Rs./q)	Net income	B:C Ratio	Yield (q/ha)	Price (Rs./q)	Net income	B:C Ratio
2013-14	48.6	1300	43265	2.86	39.8	4000	1,35,000	6.58
2014-15	48.1	1160	32648	2.39	41.3	1990	57,687	3.35
2015-16	49.2	1200	37695	2.57	40.5	2240	66,070	3.68
Average of 3 years	48.63	1220.00	34889	2.43	40.53	2743.33	86,252	4.54

The field performance of Pusa basmati – 1121 under frontline demonstrations strongly narrate its superiority, in terms of higher net returns and B:C ratio (4.54) over coarse varieties viz., Jaya, PR-113 and IR-8 (B :C ratio of 2.43). This leads to the sharing of farm saved seed of Pusa basmati – 1121 among the farmers and it further lead to the speedy spread of Pusa basmati – 1121 in non-traditional basmati growing pockets of district Kathua.

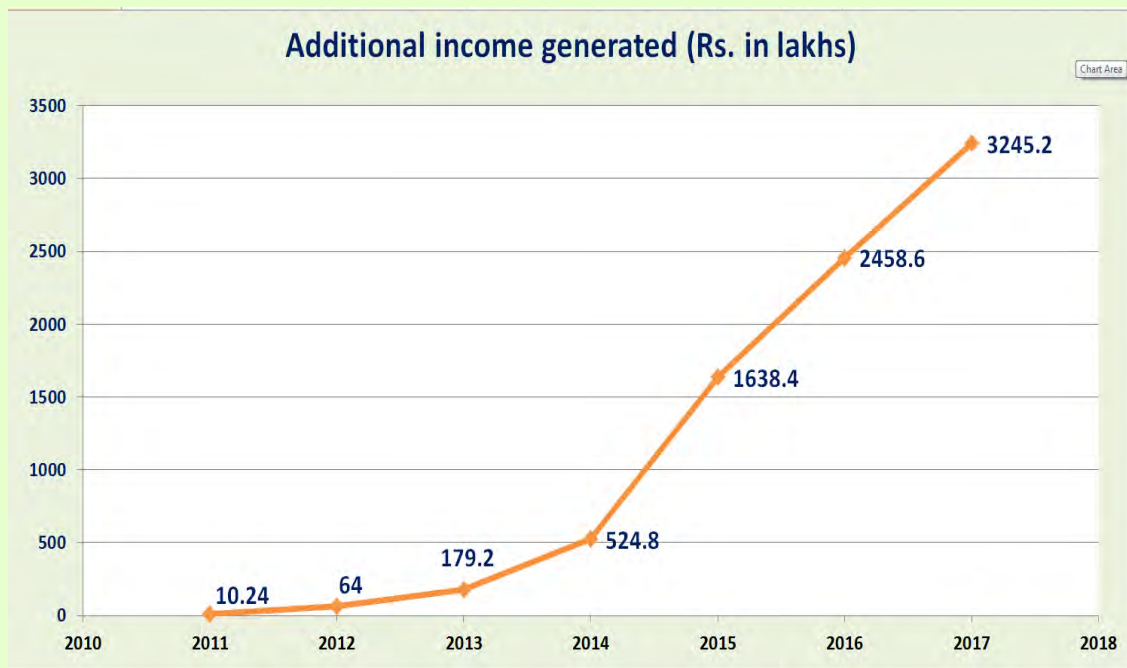
Outcome and Impact

The transformation of rice production in Kathua district is depicted in Figure 1, which shows that area under Pusa – 1121 has been increased from mere 40 hectares in the year 2010 to more than 6400 hectares in 2015 and 12600 ha in Kharif 2017. KVK, Kathua is still striving hard by way of regularly organizing extension activities with the strong intention to popularize Pusa basmati – 1121 in the district and to establish its name and recognition at global level.





The economics of introducing the intervention has resulted in huge monetary benefit for the farming community in the last few years. The additional income generated through enhancement in area under Pusa-1121, as compared to the existing varieties of rice has been depicted in Figure 2, and it amounts to Rs. 3245.20 lakhs till the year 2017.



Inspired by
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