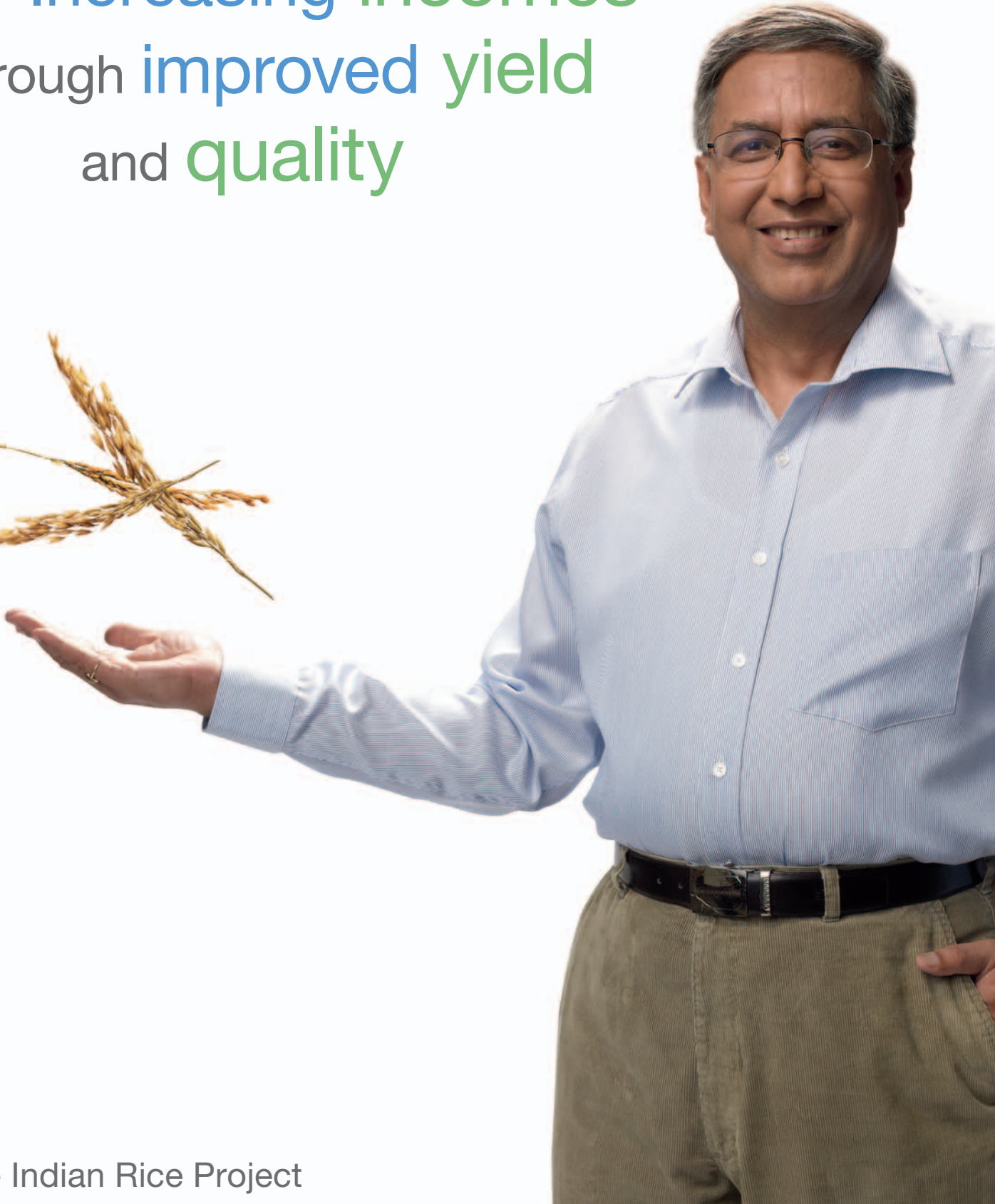




Increasing incomes
through improved yield
and quality



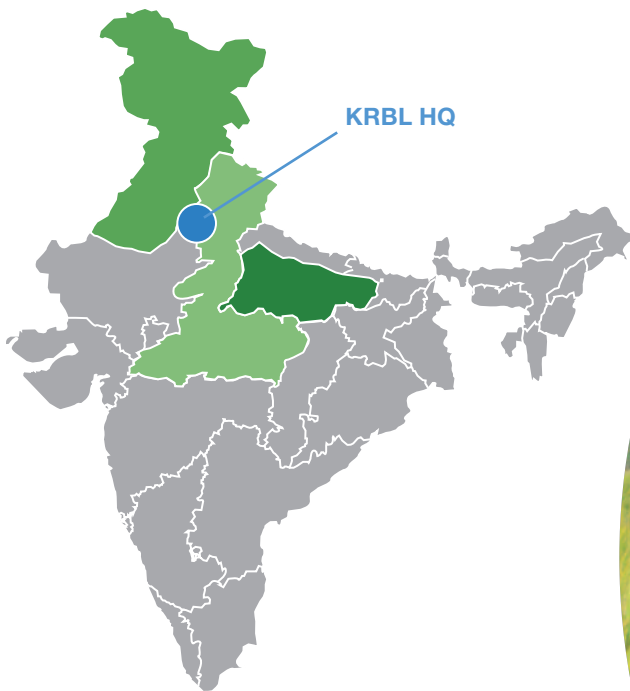
The Indian Rice Project



How it all started

Basmati, a variety of long-grain rice grown in India and Pakistan, is notable for its fragrance and delicate nuanced flavour. India is the world's largest grower and exporter of basmati rice. Traditionally, Indian basmati was produced in the Himalayan foothills, but now production has expanded to Haryana, Punjab, Uttar Pradesh and Madhya Pradesh. In 2009/10, India produced around 4.5 million tons of basmati rice from an area of approx. 1.7 million hectares. Nearly half of the basmati harvest was exported and valued at more than 108 billion rupees in 2009/10 (approx. €1.7 billion). The countries importing most basmati rice are Saudi Arabia, the UAE, Iran, Kuwait, the UK and the USA. Along with exports, domestic consumption of basmati is also growing fast, particularly in the branded basmati segment.

Basmati growing areas:



Basmati rice growers are challenged in producing high-quality rice through higher broken grain percentages, grain discoloration, relatively low yields and the residue management of crop protection products. Last but not least, food safety management in general is getting more and more important for rice.

What we aimed to achieve

It was agreed to develop and implement effective solutions that improve the yield and quality of basmati rice and manage the level of residues. Implementing good agricultural practices and respecting the principles of sustainable agriculture were natural prerequisites for this project. Furthermore, the aim was to raise awareness at a farm level about food safety as a focus area.



Who is involved

About 500 progressive farmers cultivating a total area of about 1,000 hectares in various districts of Western Uttar Pradesh joined this programme.

Founded by two enterprising brothers (**Khushi Ram** and **Behari Lal**) in 1889, **KRBL Ltd.** is India's first integrated rice company. Today, KRBL is the leading exporter of basmati rice from India – mainly of India Gate, which is a premium basmati brand in India and abroad. Further major brands marketed by KRBL are Doon, Nur-Jahan, Lotus, Unity, Aarati and Bemisal. KRBL operates three processing units in Western Uttar Pradesh, Haryana and Punjab.

With more than 100 years of experience in the Indian market, **Bayer CropScience** provides not only innovative crop protection products but also integrated crop solutions that aim to support farmers in the selection of appropriate products and their safe use. Sustainable production of rice is one of Bayer CropScience's core competencies in India.



The confidence-building solution

When Bayer proposed to KRBL an integrated approach within a Food Chain Partnership, it was met with a highly positive response. In order to serve and support the large number of basmati rice growers, Bayer CropScience and KRBL agreed to work together closely. Since the field teams complemented each other in an efficient way, the Food Chain Partnership agreement was signed in 2010.

Quality seed – better crop

Good-quality seed is the prerequisite for a bumper crop. Keeping this in mind, KRBL provides growers with quality seeds of the variety Pusa 1121 and Pusa basmati -1. The seed production programme is run on approximately 1,214 hectares (3,000 acres) in Western Uttar Pradesh. It was agreed to support rice growers with seed-to-harvest solutions in these seed production areas. Over the years, KRBL has developed expertise in the production practices of basmati rice.

Customised Plant Protection Kits

With its innovative product portfolio and global expertise, Bayer CropScience supported KRBL in developing the plant protection programme. Rice production was mainly affected by weeds, stem borer, leaf folder, brown plant hopper, sheath blight and blast. The rice solution applied, comprising products such as Topstar®, Fame®, Confidor®, Folicur® and Nativo®, managed the pest and disease infestation as well as the weeds. In order to raise efficiency and effectiveness, it was decided to put together a Plant Protection Kit for the rice growers. The objective here was to provide the right products at the right time and in adequate quantities for their sustainable use. In addition, the Plant Protection Kit also protects growers from counterfeit chemicals.

Training programmes

Training was one of the focus areas for this Food Chain Partnership project. Before the sowing season started, KRBL and Bayer CropScience field staff were trained by Bayer experts in the identification of pests and diseases and how to manage them. The subsequent training courses for farmers aimed at creating awareness about quality improvement, disease and pest management as well as the safe use and handling of crop protection products. Bayer CropScience's Food Chain Partnership team provided technical support to the KRBL farmers while, at the same time, field teams from Bayer and KRBL regularly visited the basmati rice growers to monitor and guide them through the pest and disease management and spraying programmes.

Implementing the Passport

As the targeted market for basmati is an export market, traceability plays a major role. In order to ensure produce traceability from the farm onwards, the Passport approach was implemented. Passport is a tool developed by Bayer CropScience for record management and documentation at a farm level. All the growers involved in the project were issued a passport and supported by the field teams.

As a result, KRBL was able to purchase basmati rice from well-trained and equipped growers and pay them a premium price because the required quality parameters, such as grain shining, less broken percentage and moisture levels, were fulfilled.





What we achieved

This Food Chain Partnership and KRBL's willingness to constantly support rice growers increased their good reputation among the basmati growers. Bayer CropScience's innovative portfolio and global expertise, as expressed in the Food Chain Partnership, brought added value to each stakeholder. What's more, the integrated approach achieved an overall residue management and quality improvement for basmati. In addition to all partners benefiting from this win-win solution, the rice was produced according to the principles of sustainable agriculture.

The rice growers increased their yield by 8–10% thanks to training courses, monitoring and guidance throughout the crop cycle by Bayer CropScience and KRBL. Not least, the improved quality brought a higher net income of 12–15% for the growers. Importantly, an increased awareness about the safe use of crop protection products has been observed among these basmati rice growers.

KRBL was able to purchase good-quality basmati rice and contributed to the overall well-being of the rice growers by paying incentives based on the improved quality parameters. Moreover, KRBL was able to further strengthen their relations with the growers. Ultimately, it is consumers of basmati rice the world over who benefit from the good taste of Indian basmati.

Next steps

The convincing results within the first year of implementation boosted the confidence of those involved that they can achieve even higher levels of productivity, quality and profitability in years to come.

left:
Yogesh Mohite
Senior Manager – Food Chain
and Technical Support
of Bayer CropScience India

right:
Ashok Chand
Director of KRBL Ltd.





Consumers are becoming increasingly conscious of the need for healthy nutrition. Food Chain Partnerships help to supply consumers with high-quality fresh produce, which forms the basis of a healthy diet. But such partnerships can only succeed if they involve every player in the food chain – from the farmer and processor to the exporter or importer and retailer. Bayer CropScience has the global experience and cutting-edge expertise to create a successful partnership at every level.



WORLD'S LARGEST RICE MILLERS
& BASMATI RICE EXPORTERS

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