Bitter harvest

A small farmer in Maharashtra, whose high-yielding rice variety is popular in five States, is denied the benefits of his research. BY LYLA BAYADAM RECENTLY IN CHANDRAPUR

Dadaji Khobragade shared his seed varieties with other farmers and did not think of patenting them. Now seeds derived from his first successful variety, HMT, are sold by others under different names.

TWENTY-SEVEN years ago, Dadaji Khobragade of Nanded Fakir village in Chandrapur district of Maharashtra noticed yellow seeds in three spikes of a paddy stalk in his field. Intrigued by the freak harvest, he preserved the grains. He subsequently planted them in a six-foot square plot, which he covered with thorny branches to keep foraging animals away.

As the plants began to mature, he noticed that they had a firm kom, or ear, with straight grains. His doubts were confirmed when he harvested 250 grams of the paddy. “The grains were plentiful in each kom,” he recalls. Realising that he had chanced upon a special rice variety, he continued the experiment, and this time he got 10 kilogramms of paddy. The family cooked the rice and marvelled at its taste. In 1988, Khobragade sowed 4 kg of seeds in a 10-foot square plot and harvested 400 kg of paddy. The following year, he sowed about 100 kg of seeds and got 90 bags of paddy. He shared the harvested paddy with other farmers, and they too began sowing the new-found rice variety.

AT THE AGRICULTURE Produce Market Committee’s yard in Nagbhid town, Dadaji Khobragade inspects sacks of rice brought in by farmers. He says his DRK variety comes to the market with another name.
After five years of research, Kho- bragade developed a variety of short- grained paddy that had an average yield of 40-45 quintals a hectare with a recovery rate of 80 per cent. The rice was aromatic and had a high cooking quality in comparison with the parent stock, the Patel 3 variety developed by Dr J.P. Patel of the JNKV Agriculture University, Jabalpur. Kho bragade named the new variety HMT, on an impulse, after the brand of wristwatch he was wearing when he went to sell the first bag of paddy in the market.

HMT went on to become one of India’s most popular varieties and is sown across five States on at least one lakh acres (one acre = 0.4 hectare). It was an instant success with farmers, traders and consumers. HMT is considered superior to Patel 3 because of its better pest resistance and finer grain. In fact, the thinness of the grain has been included as a standard reference for thinness by the Protection of Plant Variety and Farmers’ Right Authority (PPVRA).

Kho bragade was 45 years old when he developed HMT. He is now 72. In the intervening years, he developed eight more varieties of paddy. He likens the rice varieties to his children. As such he has named successive varieties after his village and his grandsons. In 1987, Nanded Chinur was born, followed by Nanded 92 in 1992, Nanded Heera in 1994, Vijay Nanded in 1996, Deepak Ratna in 1997, DRK (or Dada ji Ramaji Kho bragade) in 1998, Katey HMT in 2002 and DRK Sugandhi (aromatic) in 2003.

Kho bragade’s work got him some recognition. The governments of Chhattisgarh, Gujarat and Maharashtra have honoured him for his contribution to paddy development. The Maharashtra government gave him the Krishi Puraskar.

Kho bragade is happy with these honours, but he does not have any land today. The three acres he had owned were sold in parts to pay for the medical treatment for his son, who suffers from sickle cell anaemia.

Anil Gupta of the National Innovation Foundation (NIF), which is under the Department of Science and Technology, said, “It is unbelievable that a man of this calibre, a man who should be recognised as a scientist, has received so little recognition or reward. He does not even own land.”

In November, the NIF recommended the name of Kho bragade for listing in Forbes magazine as one of the seven most powerful Indian rural entrepreneurs. Anil Gupta said, “I nominated him because he has undoubtedly had one of the most significant impacts on the lives of people. HMT is grown on almost one lakh acres in five States, and in several districts of Chhattisgarh it is the paddy variety sown on the largest area. If we assume that the average size of a holding is about one hectare and the average size of a family is five, then he has touched the lives of about two lakh people. More importantly, he has been com-
mnitarian in his outlook by freely sharing his seed with other farmers.”

After the list was published, the State government made a welcome announcement in the winter session of the Assembly in Nagpur that it had been decided to award Kho bragade 1.5 acres of land. On December 14, 2010, he was formally handed the rights to the land he was already tilling. Kho bragade had asked for 10 acres of land so that he could “continue developing new rice varieties”. Five more acres are expected to be given to him in January. The Nationalist Congress Party has promised to use party funds to buy the remaining 3.5 acres.

Ownership of land was just one of Kho bragade’s problems. He faces other, more serious ones.

In 1998, Kho bragade developed DRK, a high-yielding, superior rice variety. It was an instant hit in the mar-
DRK as Jai Sriram is reducing brand equity but I do not think it is happening because he is a Dalit. The fact is that Jai Sriram became popular in the market just when HMT began to lose. Traders are exploiting the existing consumer preference for Jai Sriram. He feels what is more important than the caste factor is Khobragade’s “status as a very small farmer”. This makes him vulnerable, and the NIF is helping him tackle this aspect.

The primary concern of a farmer is to sell the produce, not to get the sale receipt in the name of the variety he grows. Shankar Hari Choudhary grows DRK on 1.5 acres of land but sells it as Jai Sriram. He told his correspondent that DRK was of better quality and gave higher yield than Jai Sriram, but traders would not buy the rice if it was sold as “DRK”. “So they prefer to sell DRK in the name of Jai Sriram.”

Nilesh Poshattiwar, director of Prabhakar and Company Pvt Ltd and owner of Prabhakar Rice Mill, said Khobragade was largely responsible for the rebranding of DRK as Jai Sriram. He denied that traders were responsible for the misrepresentation of DRK. He said, “At some point farmers got it into their heads that if they called the variety DRK it would not sell.” Prabhakar Rice Mill in Talodi, is one of the largest rice mills in the region.

In an effort to break the hold of traders over small farmers, the NIF is trying to “support Dadaji Khobragade’s efforts in different ways”, but Anil Gupta says “we must acknowledge our limitation in influencing market behaviour.”

Some people do agree with Khobragade that caste plays a role at least at the first level of paddy purchase. At the Agriculture Produce Marketing Committee’s (APMC) yard in Nagbhaid, there is intense activity. It is the last rice harvest of the season and sacks of paddy are being offloaded, sorted, weighed and stored. Khobragade, a familiar figure in the market yard, wanders around, scoops paddy, feels its texture, squints at it and lets it trickle back into the sack before pronouncing it as DRK. “The paddy has been ruined by excess rain. See, the grain is too dry,” he explained.

The Nagbhaid APMC did not rebrand DRK, Khobragade said. J.V. Chillum, secretary of the APMC, said he was aware that DRK was rebranded and sold as Jai Sriram rice in other places. “The farmers themselves call it Jai Sriram because otherwise it is not picked up,” he said.

Srihari Amburkar, a farmer who grows DRK, said if he did not sell DRK as Jai Sriram he would get Rs.10 less a quintal in other APMCs. Khobragade said rice mills bought DRK at a lower rate and repackaged it as Jai Sriram to sell at a higher rate.

Prakash Meshram, a trader at the Nagbhaid APMC, is even more forthcoming about the discrimination Khobragade is facing. “He is poor, uneducated and has no power. Add to that his caste. If Dadaji had not been a Dalit, the rice would have sold in his name.” He said most of the paddy in the market yard was DRK: “The Jai Sriram variety is less in quantity but if you check sale receipts, you will find more sales in the name of Jai Sriram because farmers sell it as such.”

Khobragade said even Vijay Nand, Nanded Heera and Deepak Ratna were sabotaged in the market. All the three varieties are mixed and sold under the brand name of Om Shanti. “I can tell each grain apart and I have opened bags of Om Shanti and seen all three varieties mixed in one bag. Farmers have stopped sowing these three varieties as there is no demand for them separately.”

Anil Gupta said these varieties were fading out of the market because their quality was not as high as that of HMT or DRK. But Khobragade insists that Deepak Ratna and Nanded Heera are better than HMT. “It is true that the harvesting time is longer than other paddy varieties, and this may be the reason why some farmers do not sow it, but the extended duration adds to the quality and weight of the grain. It is also true that the seeds are more expensive, but farmers don’t mind paying if they are assured of returns,” he
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said. Khobragade's other problem relates to HMT. After HMT proved successful in the market, officials from Dr Panjabrao Deshmukh Krishi Vidyapeeth (or PKV) in Akola visited his farm. In 1996, HMT was certified by the university, and a year later a variety called PKV-HMT was on offer. The university said it had "purified" HMT and created PKV-HMT. To add to the complication, the son of the then director of the university worked for a seed company called Ankur. The company picked up HMT seeds and started to sell them under the brand name of HMT Sona (deriving its name from the yellowish colour of the grain and the immense profits its fetches, like 'sona', or gold). Khobragade did not benefit from all this commercial activity. He had always given seeds free to farmers and to the agricultural university.

Anil Gupta said: "There is absolutely no doubt that HMT Sona, or PKV-HMT, or Best Sona, essentially derives from HMT. There has been practically no breeding and only cleaning and recurrent selection may have been done." At the request of the NIF, Dr Ramesh Aggarwal, Deputy Director of the Centre for Cellular and Molecular Biology (CCMB) in Hyderabad, carried out a DNA test of multiple samples of these varieties. About 16 genetic markers were used.

Anil Gupta said: "They did not find any genetic difference through the markers they used among these varieties." Despite efforts by the NIF, "none of the seed companies, be it Ankur or Prabhakar Rice Mills, shared their benefits with Dadaji. He deserves a great deal although legally there was no plant variety protection law when these varieties were developed and diffused," he said.

Poshattiwar said: "There is no such rice variety as PKV-HMT. There is no difference between Dadaji's HMT and HMT-PKV. The university sells Dadaji's HMT and we buy from it. The PKV has not purified it or done any such thing." Despite his defence of Khobragade, Poshattiwar profits from the fact that HMT is not patented. He sells property. We have lots of germ plasm, old germ plasm in India. This needs to be safeguarded. Dadaji Khobragade could have registered his varieties. So could we, but we did not. We are yet to decide it."

Anil Gupta said, "The rights of Dadaji's varieties remain unaffected by local distortions in the market place. Ideally, the agricultural university should release these varieties under his label only."

While there is no way to reclaim HMT for Khobragade, the NIF has registered an application under the PPVFR Act. Dr Vinip Kumar, Chief Innovation Officer, NIF, explained, "The PPVFR Act not only upholds farmers' rights to save, use and exchange seeds and propagate material but also attempts to enable farmers to claim special forms of intellectual property rights over their varieties. The nine rights under the Act include rights to save, exchange and (to a limited extent) sell seeds and propagate material; register varieties; recognition and reward for conservation of varieties; benefit sharing; and protection from infringement."

The NIF filed an application under the PPVFRA to register HMT in 2008 and DRK in 2009. It is carrying out trials on DRK Sugandhi to see if it is different from DRK.

Vijay Waghmare, Collector of Chandrapur district, told Frontline that the Department of Agriculture was assisting Khobragade with developing his latest variety so that he followed certain procedures that would enable him to patent the variety. "Without institutional support it is difficult for farmers to protect their rights," Anil Gupta said. The NIF has initiated a small scheme to ensure some financial stability for Khobragade. "We have sanctioned a micro venture innovation fund investment for a sum of Rs 4.6 lakh so that Dadaji can buy the seeds from the farmers, package them under his label and sell them as fruitful seeds." Apart from this, Khobragade has been getting money from the NIF for continuing his research in rice varieties.