

## In soybean, farmers find a gamechanger, Hoshiarpur shows the way

Courtesy: Anju Agnihotri Chhaba



In a notable shift from traditional cultivation — mostly the water-intensive paddy — in Kharif season, farmer Manpreet Singh decided to experiment and sow soybean in a small area. After witnessing its benefits, the 37-year-old from village Alam Waal in Hoshiarpur, decided to replace paddy with soybean on his entire 11-acre land. He currently farms 28 acres in total, with 17 acres dedicated to various crops, including paddy. However, he plans to gradually shift all his farming activities to soybean cultivation. Like Manpreet, Jujhar Singh of village Jandiala in Hoshiarpur too adopted soybean on his 8-acre land, replacing paddy. “I started it on a small land in the beginning but found it highly beneficial and increased the area to 8 acres,” says Jujhar. Farmers Kulwinder Singh of Bachhohi and Dharminder Singh of Jandiala have similar stories to share. They are among hundreds in Hoshiarpur who have started **cultivating soybean**, mostly courtesy the push from Bahawal-based Krishi Vigyan Kendra (KVK). Currently around 500 acres area has come under soybean in Hoshiarpur, which in a single district for a state like Punjab, is a good start, say experts. They say the crop is a boon for Kandi area, marred by lack of water and wild animal attacks. “I was not content with the wheat and paddy cycle but was not aware of viable alternatives. Paddy was taking a huge toll on ground water and I had to deepen the tubewell every few years. Then I sought guidance from scientists at the KVK Bahawal. Their scientists, particularly Dr Maninder Singh

Bons and Ajaib Singh, recommended soybean as a suitable substitute for paddy, given its similar planting and harvesting time but with significantly lower water requirements,” says Manpreet Singh. The KVK scientists also guided him on seed selection and technical know-how. Inspired by Manpreet Singh’s success, over 100 acres out of nearly 400 in his village have now been converted for soybean cultivation. Soybean requires hardly any fertilizer and limited pesticide application — with only one spray costing approximately Rs 600 per acre. The seed costs around Rs 2,000 per acre and harvesting cost is Rs 2,500 to Rs 3,100 per acre. “I am getting a yield of 7-8 quintals per acre, and after covering all costs, I earn between Rs 30,000 to Rs 40,000 per acre. I was earning nearly similar amount from paddy because of its higher input cost,” says Manpreet Singh. Soybean’s low water requirement is another significant benefit. The crop is sown at the end of June, relying largely on monsoon rains for irrigation. In contrast to paddy, which demands 25 to 32 irrigations including several flood irrigations, soybean typically needs only 4-5 waterings, even in the absence of rain. Additionally, soybean is beneficial for both human and animal consumption. The Centre this year has fixed the minimum support price (MSP) for soybean at Rs 4,600 per quintal. In Punjab, farmers sold it at rates of Rs 6,000 per quintal too. Manpreet Singh says he sold his produce at the rate of Rs 5,500 per quintal last year while Jujhar Singh sold it at Rs 5,200 per quintal. Bons, who is also associate director at KVK Bahawal, says soybean can play an important role in crop diversification. “Punjab’s economy heavily relies on agriculture, with a predominantly vegetarian population meeting its protein needs through pulses. Soybean has around 40% high quality protein and 20% oil. It is a high value crop with multiple food, feed, and industrial use,” says Bons, adding that Ludhiana-based Punjab Agricultural University (PAU) recommends the adoption of soybean varieties SL 958, SL 744, and SL 525 for cultivation in the state. Following the recommended practices for the crop, farmers can achieve greater productivity. Soybean can also be integrated into diverse crop rotation, including soybean-wheat/ barley, soybean-peas-summer moong and soybean-gobhi sarson. Ajaib Singh, also an assistant professor at KVK Bahawal, says that PAU, through KVK and department of agriculture and farmers welfare, has selected over four dozen villages to put up demonstration plots for soybean cultivation. Several farmers have already adopted soybean cultivation. In 2019 soybean cultivation was done in 80 acres in Hoshirapur, which increased to 105 acres, 210 acres, 300 acres, 400 acres, and 500 acres in 2020, 2021, 2022, 2023, and 2024, respectively. “Soybean cultivation is suitable for agro-climatic condition of

Hoshiarpur. Farmers here have not only ventured into soybean cultivation but also into seed production and sale, says Ajaib Singh. Dr Balwinder Singh Gill, Principal Soybean Breeder at PAU, reports that in the 2016-17 season, they launched a soybean cultivation scheme in 13 Punjab districts under the state's buyback scheme. "Under the scheme, 750 acres were cultivated, proving successful in Kandi areas like Hoshiarpur. The crop is safe from the damage by wild animals. Although the scheme was only for one year, some farmers continued to grow soybean, especially in Hoshiarpur," says Gill. He says soybean has also been sown in some parts of Abohar, but its results are awaited as the area, which falls under cotton belt, was under whitefly attack. Also a new variety is being tested this year and, if successful, it will be distributed to farmers next season. New Delhi-based Indian Agriculture Research Institute (IARI) too has recommended that shift from paddy to soybean in Punjab will not only save groundwater but is also a economically viable option. Experts say that it is economically viable crop and good alternative in regions facing water scarcity. Unlike paddy, soybean is a drought-resistant crop. Its plants are known for providing nitrogen to the soil, enhancing fertility. This natural process reduces the need for synthetic fertilizers and can lead to healthier, more productive soil over time. Also, the global demand for soybean has been steadily rising. Director, Department of Agriculture and Farmer Welfare, Punjab, Jaswant Singh, says that soybean cultivation is a good option against paddy. He says that Hoshiarpur is showing the way to the other districts of the state.

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