Gurdaspur farmer swaps paddy for thriving banana farming, motivates sons in Australia and Canada to return home

Courtesy: Anju Agnihotri Chhaba

It all began with planting just 3-4 banana saplings for self-consumption. But after witnessing the remarkable yield from a single plant, 61-year-old Satnam Singh decided to scale up cultivation on his farmland. In Punjab, where wheat, paddy, and Basmati dominate the agricultural lands, banana has never been considered a commercially viable crop. But Satnam, a determined farmer from Gurdaspur city, is challenging that perception. In 2023, he converted half of his 6-acre land, located along Pandori Road, into a thriving banana orchard — proving that this tropical fruit can indeed flourish and turn a profit in Punjab's soil and climate. Earlier, Singh used to run a plant nursery, which he shut in 2021–22 to settle in Australia. However, he returned and began experimenting with banana cultivation and earning around Rs 4 to 6 lakh per acre after meeting the expenses depending upon the rate and yield in the market rate. "I began this as an experiment. But when I saw how well they responded to Punjab's weather, I was encouraged. I also realised that Punjab's climate is quite similar to several parts of Uttar Pradesh, where banana is grown on a large scale. So I decided to go all in." Satnam sought advice from experts Like Navdeep Singh at the local horticulture department and PAU Ludhiana. "At PAU, Karan Bir Singh Gill, Associate Professor of Fruit Science, provided invaluable technical guidance and regular support, which is crucial for success in banana farming," he says. He initially began with three acres, planting

approximately 1,500 banana plants per acre, with 5 feet between plants and 5.5 feet between rows. Now, as more farmers seek guidance and planting material from him, he recommends a spacing of 5×5 feet between plants and 7×7 feet between rows — accommodating around 1,250 per acre. The cultivation process begins with meticulous preparation: beds are laid out 3 feet wide, with pits dug half a foot deep. As 2 to 2.5 months old saplings are transplanted. These saplings are sourced from a tissue culture lab in Maharashtra when they are 2-3 weeks old are first raised in a net house—under 80% shade initially, reduced to 40% as the plants mature. “Then a puddle is created in the prepared pits, and each plant is transplanted into the puddled water when it has 4–5 leaves and is about 6–7 inches tall,” he explains. The puddling water is prepared 10 days in advance using a mixture of bio-fungicide, jaggery, and besan (gram flour). “We use around 200 ml of this solution per plant at the time of transplanting,” he adds. After transplanting, the banana plant takes around 20 days to strengthen its internal system, including its DNA structure. During this period, to promote healthy growth, Satnam provides a mix of 16 different micronutrients, including magnesium, calcium, zinc, and others. Planted in June or July, the G-9 variety is not only high-yielding but also popular in the market for its colour and taste. The plants grow up to 8–9 feet tall within a year, start flowering by mid-May — about 10 months after transplanting — and begin fruiting by June. Harvesting of raw bananas begins in September and can continue till the end of October. If farmers opt to sell ripened bananas, harvesting can extend up to January. “Each plant produces a bunch with 7 to 10 hands, which are clusters of individual bananas, also known as fingers, growing together on the stem. Each hand carries 2 to 3 dozen bananas,” he explains. A full bunch can weigh between 14 and 16 kgs. “I have three ripening chambers of my own, but I prefer selling raw bananas because they can be sold in bulk and the harvesting is completed within one and a half months,” he says, adding, “Harvesting takes around 4–5 months if rippned bananas are to be sold. When I do ripen them, I maintain the chamber temperature at 16–18°C.” As for marketing, Satnam admits that he faced some challenges in the first year. “Buyers here initially preferred bananas from Maharashtra and doubted the colour and taste of ours. But once I ripened them in my own chambers, the colour and taste came out exceptionally well.” Each acre of banana farming requires an initial investment of about Rs 1.5 lakh, covering plant material, fertilisers, labour, and drip irrigation. But the returns are promising. “We get around 250–300 quintals of raw bananas per acre. Even at Rs 16–24 per kg for raw bananas and Rs 26–35 per kg for ripened ones, the profit margins are substantial,” says Satnam,

adding, “After expenses, we earn between Rs 4 lakh and Rs 6 lakh per acre, depending on yield and rates.” He also recommends intercropping in the first year with crops like turmeric or cauliflower to optimise land use. “In the following years, the expenditure drops to around Rs 80,000 to Rs 1 lakh per acre,” he adds. Satnam also explains the plant’s life cycle: “Technically, a plant can continue producing for 5–7 years, but I recommend replacing it after three years. As the plant ages, fruiting and harvesting become irregular, which disrupts the marketing season. After each harvest, the main stem is almost cut, and a new sucker is allowed to grow, which becomes the next fruiting plant for the following year.” Satnam also cultivates Basmati on two acres during Kharif season and uses the same land for wheat cultivation in the Rabi season. He also dedicates one acre to growing turmeric. He highlights that banana farming requires significantly less water and fewer chemicals compared to conventional crops. “There’s no flood irrigation—just drip. Banana uses 10 times less water than paddy,” he says. With both his sons settled abroad—one an IT engineer in Melbourne and the other in the trucking business in Canada—Satnam says he wanted to show them the potential of agriculture back home.

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