Balwinder Singh's crusade: 'Super-SMS and educating farmers come in handy in tackling farm fire in Punjab'

Courtesy: Anju Agnihotri Chhaba

At a time when the mandatory use of the Super Straw Management System (Super SMS) for managing paddy stubble through in-situ (incorporating paddy stubble in soil) method in Punjab is being widely ignored, with farmers and combine harvester operators often citing various reasons ranging from increased operational costs to reduced efficiency, 34-year-old farmer from Dod village in Faridkot district Balwinder Singh stands out as a committed advocate for sustainable farming practices. "We need to think beyond immediate profits," Balwinder emphasises: "If we want to leave behind healthy land for future generations, we must adopt sustainable practices now." Balwinder, who did away with burning stubble 16 years ago, is optimistic that the farming community in Punjab will recognise the long-term value of Super SMS and incorporate it into their harvesting practices with continued education and demonstrations. He, however, stresses the need for the government to prioritise the provision of stubble management machines to farmers like him who are committed to environmental-friendly practices and educating fellow farmers. Like Balwinder, other combine harvester owners, such as Gurwinder Singh from Kotkapura and Buta Singh from Dod village, are also encouraging farmers to opt for Super SMS-equipped machines. With his extended family owning eight combine harvesters, which will cover around 1,500 acres, Balwinder is leading by example by equipping all their machines with Super SMS attachments. A Super-SMS is an attachment made compulsory under the Crop Residue Management (CRM)

Scheme in 2018. It cuts paddy straw left behind after harvesting into small pieces and spreads evenly across the field. Once the straw is distributed, farmers can irrigate the field and plough it to mix the straw with the soil. This prepares the field for wheat sowing using machines such as Happy Seeder, Smart Seeder, or Super Seeder. The process not only eliminates the need for stubble burning but also enriches the soil with organic matter, boosting the yield of the next crop, particularly wheat, according to experts. “The cost of harvesting with a Super-SMS-equipped combine is around Rs 1,800 per acre, compared to Rs 1,400 to 1,500 per acre with a regular harvester. Although a Super-SMS-equipped harvester is slightly slower, covering about 14-15 acres per day compared to 20 acres with a regular harvester, the long-term benefits far outweigh the extra cost and time,” said Balwinder. In Punjab, the in-situ method is preferred over ex-situ, where the role of Super-SMS becomes crucial. Around 70-75 per cent of stubble is proposed to be managed through in-situ in the state. In 2018, when there were regular harvesters, the Punjab government had identified at least 7,500 harvesters that were fit with such upgrades. The target was, however, never fully achieved. Since then, many older combine harvesters have been replaced with new ones, which should have been equipped with Super-SMS. According to government records, out of the nearly 15,000 combined harvesters operating in Punjab, only about 6,142 Super SMS attachments were distributed between 2018 and 2023, and many of these have fallen into disuse. The demand for this crucial attachment has sharply declined, with distribution dropping from 3,828 units in 2018 to just 170 units last year. Even farmers having combines equipped with Super SMS are not using it. Punjab Agriculture Department Director Jaswant Singh emphasised all new combine harvesters must be equipped with Super-SMS, further highlighting the importance of this technology in preventing stubble burning. “The benefits to both the soil and the environment are undeniable,” said Faridkot Chief Agriculture Officer Dr Amrik Singh: “Faridkot Deputy Commissioner Vineet Kumar has been actively educating farmers on the importance of using harvesters equipped with Super-SMS to incorporate stubble back into the soil.” So, why has the adoption of Super SMS been alarmingly slow, despite its clear environmental and agricultural benefits? Balwinder believes the key lies in better education for farmers. “There is a strong need for officials and combine operators like us to educate farmers about the benefits of Super-SMS. I have been creating awareness in my area, teaching farmers about its advantages and demonstrating its positive impact on soil health. I’ve been cultivating paddy and Basmati on 50 acres—10 acres of my own and the rest on lease — and using

Super-SMS since 2018." His effort is paying off to a steady increase in the number of farmers opting for combine harvesters equipped with Super-SMS. This season, his eight combine harvesters — all using Super-SMS attachments — are expected to cover around 1,500 to 1,600 acres of paddy. Balwinder says his efforts are paying off gradually. "Several villages, where initially only one or two farmers were using Super-SMS, have now seen nearly 50 per cent of farmers adopting it. Every year, more farmers come to us, asking for their paddy to be harvested with Super-SMS because they've seen the results in our fields." Balwinder firmly believes the responsibility for spreading awareness to a large extent rests with combined harvester owners. "Like me, all combine harvester owners in Punjab have the potential to educate farmers. Every straw of paddy is harvested with a combine, so we are the first point of contact when it comes to managing crop residue," he added.

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