

## SHORT FEATURE

# NOT FAD BUT TO FEED A Millennial Trains to Spruce up Farming Skills, be a Change Agent

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**T**WENTY-seven-year-old progressive woman farmer Ranjana Kukreti is ecstatic with the fresh produce from her 1.5-acre farm and greenhouse in the Himalayan foothills in Uttarakhand.

In the climate-controlled and meticulously monitored environment of her polyhouse in Dehradun plains, the rice cultivator's painstaking efforts yield a steady supply of vegetables such as tomatoes, cucumber, bright green spinach and chillies.

While a section of Indian millennials, driven by food safety and sustainability concerns, takes on urban farming with gusto, aided by agri-tech start-ups, Kukreti, a post-graduate in rural development, has resolved to be a farmer, to feed the country's growing population.

Unlike many urban agriculturalists, farming is Kukreti's primary source of income.

Guided by her familial ties to agriculture, Kukreti has diversified from rice, pulse and maize cultivation to growing finger millets, vegetables and mushroom, driven by innovations, in her family-owned agricultural plot in Shuklapur village, nestled amid Dehradun's scenic hills.

"My father was in the defence but was also involved in agriculture. My mother too is active in the field. I have been into it since I was a child. If people from our generation do not take up farming then how do we produce grains for our growing population," stressed Kukreti.

She rues that the involvement of youth in farming is low, as many of her peers now prefer an urban lifestyle and working in a corporate set up.

"Land area and water availability are shrinking and weather patterns have changed. There are thorns and roses in agriculture and more challenges for us hill farmers. We need more youth participation in farming," said Kukreti.

"More importantly, women have been an integral part of the agricultural workforce but there is a need to recognise more women as professionals, especially now when we are willing to experiment and bring about innovations in this sector," noted Kukreti.

### Encouraging Women in Professional Farming

According to the Census 2011, 55 per cent of women workers were agricultural labourers and 24 per cent were cultivators. However, only 12.8 per cent of the operational



Ranjana Kukreti and her parents

holdings were owned by women, which reflect the gender disparity in ownership of landholdings in agriculture. Moreover, 25 percent of this land belonged to the "marginal and small holdings categories."

In Uttarakhand, 75 to 85 per cent of the population make their living from agriculture, a sector that is pressuring the government to come up with a hill-centric policy.

Situated in one of the most hazard-prone belts in Asia, Uttarakhand is susceptible to earthquakes, landslides and floods that often make headlines. Sheet erosion and landslides contribute substantially to soil loss resulting in the decline of productivity of agricultural land. In addition, the hill-dwelling communities have been hit hard by climate change.

Which is why Kukreti is keen to dabble in different techniques to use the available resources to their best potential on her small landholding.

In her constant endeavour to learn something new and experiment with the latest science-based techniques, Kukreti picked up new rice farming skills, at the International Rice Research Institute's (IRRI) headquarters in the Philippines last year (2018) as part of an initiative by the Department of Biotechnology (DBT). She was one among a group of eight participants from across the country.

"Before that, I received training in Odisha where I learnt a great deal about the time-specific nuances of rice planting such as the right time to prepare a nursery. In the Philippines, learning to use the crop calendar was very interesting. Among other subjects, we were taught to fabricate a pipe-based tool for optimising water use during paddy cultivation. It tells you when to add water," explained Kukreti.

A cropping calendar is a schedule of the rice-growing season from the fallow period and land preparation, to crop establishment and maintenance, to harvest and storage. Using a crop calendar allows better planning of all farm activities and the cost of production.

Kukreti plans to put her freshly gained insights to use in this year's paddy growing season starting in July.



Tomatoes growing in the greenhouse



Ranjana tends to her livestock on the farm. Photo from Ranjana Kukreti

“Water availability has dwindled in the hills and we are dependent on the monsoon rainfall. Earlier I used to add more water than what was necessary for paddy. I plan to install the pipe-based tool for better water use. I also want to apply the crop calendar for improved planning of farm activities,” she said.

“We do not use too much chemical fertiliser but I am trying to reduce it still, thanks to the training,” she said.

### **Empowerment through Training, Finance and Technology**

When not busy getting her hands dirty in the paddy field, Kukreti is immersed in potting mushrooms.

“There is a high market demand for mushrooms. I grow oyster mushrooms in the rainy season and the button variety in winter. These are basically six-month crops and they supplement my income from the farm,” she beamed.

Kukreti is now trying to think out-of-the-box to commandeer unused spaces into potential farming plots.

“My recent focus has been on using spaces that go to waste for planting purposes. For example, rooftop planting is something I am experimenting with now. After meeting farmers from other parts of India during workshops I have realised that I could do a lot if I had a bit more space,” Kukreti said.

Kukreti hopes to develop her plot into a model farm so she can train her peers.

“Now that my father has retired, he has more time to spend with me on the farm and we have planned to get more technological tools and combine them with the traditional knowledge that we have in farming,” said Kukreti.

“But for any kind of intervention and sustainability, I need financial support which is difficult to access as an individual but I can access credit as part of a group,” she said.

Poornima Ravi Shankar, a senior specialist with IRRI’s Knowledge Management and Outreach, who looks after the IRRI-DBT training project, explained that women farmers like Kukreti, who do not have ownership over land, are unable to secure collateral for loans.

“The land is in her father’s name and she can’t pledge assets to avail loans. The loan has to be through her father. Even recognition is an issue – women are seen as workers on farms. It is easier for them if they are part of a group or federated. There is a certain safety in numbers,” Shankar told *Mongabay-India*.

India’s Economic Survey 2017-18 that underscores “the feminisation of agriculture” in the country with an increasing number of women in multiple roles as cultivators, entrepreneurs, and labourers, also emphasised that women farmers should have enhanced access to resources like land, water, credit, technology and training.

Technology and training, like those provided by the institute to Kukreti and her select peers, is a means to empowerment, points out Shankar.

“Our ultimate aim is to build the capacity of women farmers so they can go back to their villages and be change agents. As our trainees are associated with self-help groups and federations, they can train their peers,” Shankar said.

While affiliation to a group or federation was one of the selection criteria for the trainees, Shankar said the willingness to learn and freedom to implement solutions on farms were extremely important yardsticks to gauge the potential of the farmers to be considered for the training.

“Ranjana has a lot of freedom to experiment and she is very keen to try out new things. A lot of women in her position will not have the same freedom. Further, they were also coached in leadership skills and how to handle male workers. It is a challenge, to command respect from male workers and assert yourself in a different way to manage your farm,” said Shankar.

“She could have done anything else but she chose to be a farmer and we need to support such efforts by building capacities,” added Shankar.

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