

## **The rule of the green thumb: innovation and sustainability**

*By Sarah Berry*

As a rule, the “how” of a matter weighs more than the “what” of the matter? Confusing? Not really. An example in agriculture will illustrate. Agriculture is an important sector of the Indian economy wherein creative, innovative, and cost-effective solutions to the challenges this sector faces are of paramount importance. Some of these solutions are the result of painstakingly long research and development processes, some are applications of traditional methodologies handed over across generations, and some are an amalgamation of both the traditional and the modern.

Farmers in East Champaran, Bihar, have been cultivating traditional crops such as wheat and paddy, alternated with vegetables and mustard, for as long as they remember. The reason is simple: This is what they have always done. However, challenges have sprung up over time, such as weather changes with flooding on one hand and long dry spells on the other, depletion of soil quality due to monoculture, and an unorganized trade market, that have resulted in the need to make a change. The need for diversification, for example, was strongly felt.

Arvind Rana, program leader, Agriculture Interventions, Sehgal Foundation says, “Understanding the emerging challenge led us to propose the use of banana cultivation, a special kind—the G9 variety, under a partnership project *Samagra Krishi* (holistic agriculture) supported by Bayer CropSciences. The G9 variety boasts good shape and size, is heavy on productivity, responds well to tissue culture, and can be easily removed from the field if so required. The latter is important as this prevents the growth of unwanted new plants that interfere with the existing sowing pattern of crops. Moreover, this variety can be grown easily with other crops and has a good return on investment. Usually, the variety costs INR 15 per plant. The yield stands at twenty–thirty dozen bananas per tree, with prices slotted at INR 20–30 INR/dozen.”

The initiative, which began as a demonstration, now sees many farmers readily contributing toward the procurement of the sapling, which was not the case a few months ago. The eighteen-month cycle of yield is practical and adds to the list of benefits for farmers. A simple intervention can enhance the profit for the farmers significantly with almost no additional or new production cost.

Jokhu Sah, village Sitakund, describes his experience with the intervention: “I learned about this intervention for the first time during one of the meetings organized by Sehgal Foundation. Constant handholding, at the initial stages, helped us resolve challenges that cropped up. Usually, I cultivate peas and cauliflower on my field, however, alternating it with banana helped procure extra

income that I will be using to expand the area under banana cultivation. This is not all—the success has inspired others to reap benefits too; the initial doubt has changed to a curiosity and openness to try something new.”

The long-term objective of the intervention is sustainability. “When an intervention is introduced, it is important that it comes with the sustainability tag. Handholding [with farmers] is an important aspect, but this has to mature into a self-standing, independent, and beneficial long-term model. Otherwise, the point is understandably lost,” adds Rana.

It is also important to understand the apprehensions that come with suggested change. Dinesh Kushwaha, village Amwa, explains, “I did not know about this specific variety of banana, the ‘tissue banana,’ or the G9 variety, as it is called. Based on the suggestion of the foundation’s field members, I did plant the variety on half an acre of my land, but I was nervous about the outcome, which is why I cultivated potato and cauliflower alongside. The result, however, was very satisfying. I could sell the fruits for about INR 250–300 per plant, which resulted in additional earnings of around 1.5–2 lakhs rupees. This, of course, has encouraged me to expand the cultivation, besides helping me buy machinery. In fact, this option is a great solution for small land owners, as different types of vegetables can also be grown alongside the banana crop.”

Sometimes, innovation is as simple as alternating things that are stuck in a certain pattern and trying a better “how.” After all, the human mind has a unique ability to learn, unlearn, relearn, and apply—the essence of innovation.

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