

Cultivating innovating habit helps overcome problems

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Absence of a suitable solution to overcome a present problem or not being satisfied with existing ones makes some farmers turn innovators.

“The main reason that makes them think and innovate something new could probably be that they are the best judge about the way to tackle the problem they are facing in their area,” says Mr. Vivekanandan, Executive Director, Sustainable Agriculture and Environmental Voluntary Action (SEVA), Madurai.

Idea genesis

Mr. K.S. Jegannatha Raja, a farmer and nursery owner in Rajapalayam is one such person whose out-of-the-box thinking led him to erect a greenhouse for his nursery in Rajapalayam, Tamil Nadu.

Usually big nurseries erect a greenhouse for maintaining the health of seedlings. Mr. Raja wanted to establish a greenhouse but the price quoted for erecting was more than Rs. 40,000.

The farmer designed his own greenhouse costing Rs.1,000. He used plastic pipes instead and a plastic sheet along with some nuts, bolts and iron bars. He found that direct sunlight penetrating the plastic sheets affected the newly developed buds/ tender leaves.

“Whenever direct sunlight does not fall on the plants I observed that the seedlings are normal and healthy. So I placed some coconut fronds on the top,” he says. By seeing this model two local farmers also followed this technique.

“So far in Tamil Nadu tamarind (kodukkapuli in Tamil) seedlings have been raised only through seedlings or seeds but Mr. Raja developed cleft grafting (sorugu ottu in Tamil) technique in tamarind and commercialised it,” says Mr. Vivekanandan.

Tamarind usually takes about 20 years to yield well while the grafted ones developed by Mr. Raja come to yield in four years.

Searching for the best

The farmer spent years in Sathur region in Virudhunagar surveying to identify the best mother tree for grafting. The tamarind developed by the farmer is deep red in colour and is considered ideal for making natural dyes.

He has also installed drip irrigation for his nursery. Unlike other places where the drip lines are on top of the soil Mr. Raja has buried the lines two feet under the soil. “I advise other farmers doing drip irrigation to follow the same technique because when you bury the line under the ground, rodents like rats or wild animals like boars do not damage the drip pipes,” he explains.

Another novelty

Another novelty about his work is that he grows his seedlings in plastic containers instead of poly bags.

Usually seedlings are grown in black coloured plastic bags in nurseries or in small mud pots and later transplanted to the ground.

But Mr. Raja felt that poly bags are a waste of investment since they are not durable and get torn after some months of watering.

No mud pots

The mud pots too are not conducive since they easily break so he made a sketch of his innovation and approached a local cottage unit in his area where plastic containers are manufactured. The manufacturers were not convinced about the idea of producing the plastic pots as expected by him.

The farmer got hold of a second hand dye model and altered it to make his own plastic containers. He feels that it costs only Rs.4.10 per plastic container which is more convenient than a conventional polythene bag.

Hold more water

“The containers hold more water and reduce the quantity of water requirement for nursery seedlings. There is no wastage or spillover of water while watering and the transport of seedlings is also much easier and there is no breakage as in mudpots.

“Root piercing out of bags is also negligible. Since it is a uniquely coloured model I am easily able to spot whether my seedlings have been stolen by others,” he says. The container can be used for one and half years according to him.

Personal need

His own requirements of plastic containers alone are about 30,000 in a year. He raises mango, guava, coconut, sandal and wood apple and manila tamarind (kodukkapuli in Tamil) seedlings in the plastic containers and sells about 25, 000 seedlings in a year.

In a year he is able to earn more than Rs.5-6 lakhs from selling his seedlings to farmers from different parts of the state. Recently the Development of Humane Action (DHAN) Foundation in Madurai conferred an award on the farmer for his indigenous innovations.

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