

FARMER'S NOTEBOOK

Sowing the seeds of success by innovation

The farming sector has become a commercial hub for foreign companies

M.J. PRABU

EVEN SIX decades after attaining Independence, the country's agriculture is plagued with numerous problems.

Though many experts are meeting, talking, and drawing several plans for the farmers, a farmer's daily life continued to be a perpetual struggle.

A farmer knows best

But even amidst this struggle for survival, the grit and determination of a few who discover something new, becomes an important lesson that a farmer knows best, and if left undisturbed, he can not only overcome his problems (nature induced) but also teach others how to do the same.

Mr. Prakash Singh Raghuvanshi, a small farmer in Varanasi, Uttar Pradesh despite being visually impaired is showing the way to a number of farmers across the country. In his three and a half acres he cultivates wheat, paddy and pigeon pea.

Not market dependant

"Agriculture should not be market dependant, especially for its input.

"As a small drive to infuse awareness among others about this, I distributed a number of seeds of crop varieties developed by me to several hundreds of farmers of many states," says Mr. Prakash.

"His efforts were acknowledged by the nation when he was honoured by the then President Dr A.P.J. Abdul Kalam, with a national award under the National Innova-



PERSEVERANCE: The Varanasi farmer, Prakash Singh, with his newly developed wheat plants. — PHOTO: SPECIAL ARRANGEMENT

tion Foundation," says Prof Anil Gupta, Vice Chairman, National Innovation Foundation (NIF), Ahmedabad.

"Farmers must become self-reliant. Only then villages can become self-sufficient. This in turn will make the nation achieve record production in food grain. When we have all the necessary resources here why should we import?"

"Today there are several seed companies which are trying to market their seeds to poor and gullible farmers with a promise of a high yield.

Commercial hub

"The farming sector has become a commercial hub for foreign companies which leave no stone unturned to market their seeds and other inputs," stresses Mr. Prakash.

"Many of these companies

depend on farmers and fields to multiply their seeds, proving that seeds are produced in a farmer's field and not in any factory or laboratory," emphasises Mr. Gupta.

Varieties developed

More than 100 varieties of wheat, 10 of paddy, besides those of several other fruit and vegetables have been developed by the farmer.

These crop varieties are getting increasingly popular in Haryana as well, with a number of farmers coming forward to adopt them.

The crops are quite good and yield well and are often resistant to common pests and infestations," says Dinesh Kumar, a farmer from Manoli village in Sonapat district. Mr. Prakash distributes his wheat seeds to farmers of

Varanasi and Allahabad in U.P.; Jabalpur, Narsinghpur, Khargaon, Indore, Bhopal, Ujjain in Madhya Pradesh; Raipur, Bilai, Dhamtari in Chattisgarh; Jalgaon, Yawamal, Amrawati, and Pune in Maharashtra; and Kota, Bharatpur, Jaipur, and Sikar in Rajasthan.

Good appreciation

His new crop varieties have received appreciation in a Kisan mela (Farmer fair), and from Banasthali Vidyapith, Rajasthan, which tested his wheat varieties.

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Organic farming makes inroads into Rajasthan heartland

Mohammed Iqbal

AJITGARH (RAJASTHAN): Organic farming taken up in a big way here in Ajitgarh and half-a-dozen adjoining villages in Sikar district of Rajasthan has improved the quality of fruits and vegetables, increased the farm yield with lesser quantity of water and strengthened bio-diversity in the region, drawing the attention of agricultural experts who perceive it as a useful experiment at the grassroots.

Nearly 80 farmers of the region have formed a group to generate awareness among rural communities about the advantages of organic farming and develop market linkages. The members of the informal group regularly share among themselves indigenous methods to get better results and develop seeds for providing a stable crop pattern. Distinguished agricultural economist Prof. V. S. Vyas, Member of the Prime Minister's Economic Advisory Council, interacted with small and marginal farmers engaged in bio-farming here over the weekend to identify the difficulties confronting them and find out their preparedness for this year's rabi crop season.

Farmer Jagdish Prasad Pareek, who initiated the organic farming movement in this backward village 80 km from Jaipur

three decades ago, told Prof. Vyas that though the output in his two-hectare field had convinced other farmers, the initial high investment, slow results and lack of remunerative prices for the farm produce were acting as "inhibiting factors".

Mr. Pareek has been growing vegetables such as cauliflower, brinjal, chillies, round-gourds, sweet-gourds and lemons as well as several fruits with impressive weight and size on his farm. Having started drip irrigation for the papaya and pomegranate plants grown this year, he plans to cultivate more vegetables in the space left between the fruit-bearing trees.

Prof. Vyas, accompanied by the Director of Jaipur-based Kumarappa Institute of Gram Swaraj, Awadh Prasad, J. S. Mishra of Rajasthan Agricultural University's Horticulture Department and Kalyan Singh Kothari of One World-South Asia, evinced a keen interest in the techniques applied to increase the yield and save water.

The farmers told the visiting experts that they themselves prepare the organic compost and introduce earthworms in the soil while taking care not to allow the chemical fertilisers to pollute the land. "Our productivity has increased manifold, while the agricultural produce have a high nutritive value," said Madanlal



TOP CROP: Farmers of Ajitgarh village in Sikar district showing an improved variety of 'lauki' (gourd) grown by organic farming. - PHOTO: ROHIT JAIN PARAS

Gujjar of Jugrajpura village.

Farmers such as Mali Ram Raigar, Banwari Lal, Pooran Mal and Dhuda Ram drew Prof. Vyas' attention to the issue of financial support for the agriculturists go-

ing in for organic farming, saying the huge amounts of subsidy on chemical fertilisers were saved following the gradual shift to bio-farming. The money saved in this manner should be paid as an in-

centive to the farmers, they felt.

The farmers also highlighted the difficulties in purchasing seeds, high investment on water and power for irrigation and lack of infrastructure for marketing

of organic farm produce. They said they had imported seeds from as far as Taiwan and Jordan and were also preparing their improved varieties.

Prof. Vyas observed that the financial lot of farmers had deteriorated over the years because of factors such as division of land, lack of remunerative prices, constant escalation in prices of agricultural resources and a fragile agricultural marketing network.

The key

The eminent economist said the organic farming initiative in Ajitgarh had shown that even one-hectare agricultural land could be self-sufficient for the small farmers and produce enough foodgrain for one family if the farming was done in a methodical way. "Investment at the initial stage and technical guidance to farmers for various activities hold the key to an impressive agricultural production."

Dr. Awadh Prasad said the Kumarappa Institute would shortly provide space to farmers on its campus in Bapu Nagar opposite Rajasthan University in Jaipur to directly sell their organic fruits, vegetables and crops to consumers. The institute will also help out the farmers in standardisation, grading, marketing and technical inputs of agricultural experts.

Enhancing plant growth using organic inputs

The father used conventional methods while the son favoured organic practices

M.J. PRABU

Organic farmers and those practising conventional farming are mostly at loggerheads regarding cultivation practices, and are in mutual disapproval.

The battle now seems to have entered within a family at Theni, Tamil Nadu as the father Mr. S. Pandiaraj practises conventional methods, while his son Jeya Prakash, who has an MSc in Bio technology, seems to favour organic methods.

"Several farmers in Uthamapalayam (Ambasamuthuram) Theni district, Tamil Nadu, grow vegetables in conventional way using chemicals.

Not effective

"And as usual these methods fail to effectively control the pests, especially root grubs, thereby reducing yield," says Dr. Sultan Ahmed Ismail, (mob: 93848-98358) Head, Department of Biotechnology, The New College, Chennai.

"I am growing cabbage in my 47 cent land and regularly use chemical sprays to prevent white grub infestation. I have regularly followed this practice for several years.

"But I notice that these sprays instead of controlling the pests, either seem to increase their numbers or fail to suppress them," says Mr. Pandiaraj.

His son Mr. Jeya Prakash, who used to help his father in his field work, took up a project to work on an organic alternative to control the white grub problem.

"Since chemicals failed to



ALL SMILES: Jeya Prakash in his field at Theni, Tamil Nadu. - PHOTO: SPECIAL ARRANGEMENT

control the problem I thought why not try using locally available resources.

"After several permutations and combinations I discovered that a combination of ginger, garlic, asafoetida, cow's urine and water, mixed every day bio-dynamically for about 15 days and applied with recommended dilution did wonders on my cabbage field.

Foliar spray

"The spray accompanied with foliar sprays enhances plant growth, and makes the plants resistant to pest attacks," explains Mr. Jeya Prakash.

Giving details on its preparation, he says: About 100gms of ginger, garlic each, 10 gms of asafoetida, one litre of cows urine and nine litres of water are the necessary inputs.

Ginger, garlic and asafoetida are crushed. The urine and water is poured into a clay pot and the crushed ingredients are mixed along with it. The mouth of the pot is tied with a

clean cloth. This preparation is thoroughly mixed once a day for 15 days. After 15 days, the fermented solution is filtered and diluted with 10 per cent water and sprayed onto the plants and field.

"The spray has been named NCBT-01 (New College Bio-Technology) and is effective in controlling the grubs," says Mr. Jeya Prakash.

"In the beginning I did not believe my son when he said this locally made solution could control the pest. I am into vegetable cultivation for more than 40 years and used to spray only chemicals.

Experimental area

"But I did not want to discourage him and allotted about 7 cents of my 40 cent land for his experiments. While I continued my conventional methods, my son started using his finding (named NCBT-01) on his crops.

"My father harvested 175 bags in his 40 cents and I harvested 35 bags from my 7

cents. I harvested my crops in 80-85 days (usual time is 90-100 days) and sold it for Rs.9 a kg. I also noticed that my cabbages weighed half a kg more than my father's," says Mr. Jeya Prakash.

"The notion that crops grown through organic methods fetch a better price is not true as far as our local markets are concerned.

Lack of awareness

"The buyers do not possess any knowledge on organic crops or methods and view everything as equal. All they are interested in is the appearance of the vegetable. It must be glossy and shining for them to fix a price. They are not bothered how you grow your crops," reasons Mr. Pandian.

"It is true that traders are not bothered about the cultivation methods and simply do not care about their customers. To them it is money and not consumers," adds Mr. Jeya Prakash.

Mr. Jeya Prakash has started a group called V5, which is doing its best to create awareness on the benefits of using organic inputs and organic farming.

The group also manufactures and markets organic inputs such as vermiwash, aattottam, gunabajalam, vermicompost, egg-lime formulation, effective micro organisms, tender-coconut-buttermilk growth promoter and many more.

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