

Status and Opportunities of Organic Farming for Sustainable Agriculture – Successful Cases of Rural Youths in Haryana

Satyajeet¹, V.P.S. Yadav², S.P. Yadav³ and Rajender Kumar⁴

1. D.E.S (Agro.), KVK, Jhajjar. 2. P.E.S (Ext. Edu.) & 4. P.E.S (Agro.), Krishi Vigyan Kendra, Faridabad, 3. Asstt. Scientist (Ento.), Regional Research Station, Bawal, CCS Haryana Agricultural University, Hisar, Haryana

Corresponding author e-mail: sjeet.hau@gmail.com

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ABSTRACT

The farmers have already made a significant contribution in the field of organic farming and farmer to farmer transfer of technology helps in domestic and export market potential for organic products. Conversion to small organic farms is more profitable and would lead to sizeable increases of food production worldwide. To achieve this strong policy support from government is required to promote farmers centered, research, education, development, supply of inputs and development of market channels for success of organic farming. In present study, the success cases of organic farming of district, Jhajjar, Haryana have been presented to popularize the organic farming among other farmers. The perusal of the data in the study reveals that the net return from different components of organic farm viz. crops, horticulture and dairy of Sh. Bhim Singh (5.6 hectare), Shivraj (1.0 ha) and Sanjay (1.6 ha) comes out to be Rs. 16.5, 3.15 and 25.0 lakhs per annum, while B:C ratio was to the tune of 1.67, 2.27 and 3.44, respectively.

Key words: Organic farming; Paramparagat Krishi Vikas Yojana; Eco-friendly agriculture; Economic analysis;

Organic agriculture, a holistic system that focuses on improvement of soil health, use of local inputs, and relatively high-intensity use of local labour, is an admirable fit for drylands in many ways, and the drylands offer many benefits that would make it relatively easy to implement. In India's pre-independence era (before the 1950s), agriculture was a system of harnessing nature for the sustenance of human beings, similar to the presently defined organic farming. Organic agriculture is indeed being pursued in India; the National Programme of Organic Products (NPOP) was launched in 2000 (Gauri 2005). Organic agriculture is currently practiced in 170 countries in 43.1 million hectares with annual market of US \$ 72 billion. In India too, the cultivated area under certified organic farming has grown almost 17 fold (42,000 ha in 2003-04 to 7.23 lakh ha in 2013-14) in last one decade. The Government of India is also keen to promote organic animal husbandry through focused attention on native breeds and local practices. In XII plan, the GOI has launched *Paramparagat Krishi Vikas Yojana*, under which Rs.

300 crores (Union Budget 2015-16) have been allocated to promote organic agriculture. Organic agriculture is a viable alternative because of its added benefits like improved soil fertility and water quality prevention of soil erosion, enhanced soil biological activity. As a result farmers are encouraged to convert their existing farms into organic farms to sustain their productivity and better livelihood. During last decade about 4.72 million ha area was brought organic certification process which includes 0.6 million ha of cultivated agricultural and 4.12 million ha of wild harvest collection area in forests. The export of organic products touched 1.65 lakh tons of about 135 commodities during 2012-13 worth approximately Rs. 3300 crores (Mishra, 2016). It provides the consumers healthy organic food for which they are ready to spend. In addition to this export market can also be tapped in selected preferential Universities, the NGO's and private sector will continue to have major role in promotion of organic farming and certification process. Many of the practices of organic agriculture were the only option for farmers before the advent of chemically synthesized

fertilizers, pesticides, biocides, medicines, mechanization and fossil fuels that allow industrial agriculture to function. Without recourse to such technologies, farmers had no option but to work within biological and ecological systems. Failing to rotate crops caused a buildup of pests, as there were no pesticides to control them. From this perspective, organic agriculture is the original & mainstream agriculture and conventional industrial agriculture is the one that departs from the practices that agriculture has been following since its inception (Yadav, 2011).

METHODOLOGY

Organic farming is a method of farming system which primarily aimed at cultivating the land and raising the crops in such a way, as to keep the soil in good health by use of organic wastes (crops, animal and farm wastes) and other biological materials along with beneficial microbes. Nutrients are provided to the crops for increased sustainable production in an eco-friendly and pollution free environment. Documentation of the experiences of successful farms and comparing neighbourhood conventional farm is important. This should help in generating comparative data to help the policy makers to listen towards this form of eco-friendly agriculture and help them to decide on investing more heavily in this direction. Keeping these points in view a study on selected organic grower was carried out by CCS HAU, Krishi Vigyan Kendra, Jhajjar, Haryana during the year 2015-16. Three organic growers from rural areas were selected and data were collected on different enterprises and economic of their farm was worked out by simple tabular analysis method. In present study, the success cases of organic farming Sh. Bhim Singh (having land holding 14 acres), Shivraj (having land holding 2.5 acres) and Sanjay (having land holding 4 acres) of district, Jhajjar, Haryana have been presented to popularize the success of organic farming among other farmers.

RESULTS AND DISCUSSION

Economic analysis of organic farming – successful case 1 : Sh. Bhim Singh of village Salenga, district Jhajjar, Haryana started cow-based organic agriculture during the year 2007. He started preparation of organic inputs viz. organic manures as well as organic pesticides for his own farm. By motivating the other farmers he

made a group of organic growers and got organic certification of their farm during the year 2016. He was awarded by Govt. of India and Minister of Agriculture during *Krishi Sikhar Sammelan* - 2014. He has an orchard of kinoo and ber in 14 acres area. He also established a dairy with four cows. The study reveals that cost of cultivation from various components on his organic farm viz. horticulture intercropping with field crops (Wheat, pearl-millet and green gram) as well as vegetables (Potato, onion, garlic, pea, coriander and methi) and dairy components was worked out to be Rs. 24.50 with a net return of Rs. 16.50 lakhs per annum (Table 1).

Table 1. Economic analysis (Rs. Lakhs/annum) of different components of organic farm of Sh. Bhim Singh during the year 2015-16

Enterprises	Gross cost	Gross return	Net return	B:C Ratio
Crops and horticulture	15.00	25.00	10.00	1.67
Cow based dairy unit	2.50	4.00	1.50	1.60
Organic manures & bio-pesticides	4.00	7.00	3.00	1.75
Extension activities & marketing	3.00	5.00	2.00	1.66
Total	24.50	41.00	16.50	1.67

Table 2. Economic analysis (Rs. Lakhs/annum) of different components of organic farm of Sh. Shivraj Singh during the year 2015-16

Enterprises	Gross cost	Gross return	Net return	B:C Ratio
Crops and fodder	0.71	1.41	0.70	1.98
Horticulture	0.88	2.63	1.75	2.99
Livestock	0.90	1.60	0.70	1.78
Total	2.49	5.64	3.15	2.27

Economic analysis of organic farming – successful case 2 : Sh. Shivraj Singh is a progressive farmer of village Kheri-Khummar, district Jhajjar Haryana. He is popularly known as organic grower of guava & ber fruits. He has established an organic farm of 1.0 hectare out of which 0.4 ha area is under Guava plants, 0.4 ha area is under Ber plants and wheat, pearl-millet & fodder crops are taken as inter crops. In dairy component, he is having two Murrah Breed of buffalows. He started organic farming during year 2010-11 and he got first prize in 3rd Fruit, Vegetable and flower festival during 2014 at Haryana State Agriculture Marketing Board,

Panchkula. Now he is planning to made value added products of guava like squash etc. for marketing. Economic analysis of his farm during 2015-16 is given in Table 2.

Table 3. Economic analysis (Rs. Lakhs/annum) of different components of organic farm of Sh. Sanjay Jhakar during the year 2015-16

Enterprises	Gross cost	Gross return	Net return	B:C Ratio
Crops and fodder	1.80	3.20	1.40	1.77
Livestock	0.42	0.97	0.55	2.31
Vermicompost production plant	8.00	31.05	23.05	3.89
Total	10.22	35.22	25.00	3.44

Economic analysis of organic farming – successful case 3 : Sh. Sanjay Jhakar of village Salhawass, district Jajjar, Haryana after getting retirement from Indian Army works as a master trainers to give training of organic farming to other farmers. He is a social worker. He has 1.6 ha farm comprises of crop components (Wheat, jower, mustard & pearl-millet), livestock (One desi cow) and vermi-composting and composting were included for residue recycling in the system. He has established vermi-compost production plant by taking loan with financial assistance from NABARD. Now

he has returned his all loan to the bank. The initial investment of approximately one crore on account of establishing the vermicompost production plant is not included in the B:C ratio estimation (Table 3).

The perusal of the data in Table 1-3 reveals that the net return from different components of organic farm viz. crops, horticulture and dairy of Sh. Bhim Singh (5.6 ha), Shivraj (1.0 ha) and Sanjay (1.6 ha) comes out to be Rs. 16.5, 3.15 and 25.0 lakhs per annum, while B:C ratio was to the tune of 1.67, 2.27 and 3.44 of individual farmers, respectively. These observations are consistent with the findings of earlier studies by Rao *et al.* (2014).

CONCLUSION

All the organic fields of farmers/ rural youth were generating higher net returns over their traditional farming. The higher net return from diversities organic agriculture came from synergistic effect among various enterprises resulting in reduced overall costs of production. The reduced net returns variability's and income was due to extended trade-off among varies organic agricultural enterprises. Thus, the farmers need to be made well aware about the use of such practices so that the basic concept of organic farming and its application part could be familiar among the farmers.

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