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Organic agriculture: awareness and perception of farmers in Rudraprayag district, Uttarakhand

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ABSTRACT

The study was conducted in Rudraprayag district of Uttarakhand to find out the perception and attitude of farmers towards organic farming. A sample of 100 farmers of Rudraprayag district was taken by purposive sampling and data were collected through interview conducted with the help of a pre-tested questionnaire. To find out farmers' response toward organic agriculture Likert scale was applied. Data were analyzed using statistical tools. Results showed that majority of the farmers (38%) strongly agreed that organic produce provides health security for the family followed by 30 per cent who perceived that health of fields is preserved by organic agriculture. The study depicted that the perception of farmers towards organic agriculture was quite positive. It was also found that adoption of organic agriculture techniques was quite high in the study area.

Keywords: Organic agriculture; farmers; perception; response

INTRODUCTION

Organic agriculture is a production system which includes agriculture with biodiversity, ecosystem and biological cycle and excludes all chemical and synthetic inputs. It avoids chemical fertilizers, hormones, feed additives and pesticides and promotes natural techniques like crop rotation, animal manure, off-farm waste, crop residues, plant protection and nutrient mobilization.

In Rajasthan organic farmers have been getting lower price of their produce than that of conventional farmers. Though the marketing cost of the both is almost same consumers are not ready to spend more money on organic produce. Niggli et al (2008) observed that the profit from organic agriculture was in the range of +/- 20 per cent with respect to conventional agriculture. Organic farms demand more labour hence job opportunities are higher in organic farms. Organic agriculture contributes to rural development and rural tourism. Prabu (2007) observed that the farmers who adopted organic agriculture became role models to other farmers. Cambardella et al (2015) reported that organic farming practices such as the application of composted animal manure and the use of forage legumes and green manures within extended cropping rotations can improve water quality.

Organic agriculture has been perceived differently by different kind of people. For many people it has the use of natural manures and methods of crop protection instead of synthetic fertilizers and pesticides. For some it is the replacement of synthetic fertilizers and pesticides with organic manure and natural inputs. It is a comprehensive management system to improve the health of the soil.

From the economic and farm effort perspectives organic agriculture is more beneficial in Uttarakhand. Most of the agricultural land of Uttarakhand is free from synthetic fertilizers as farmers are not able to purchases expensive fertilizers and pesticides and thus the soil is organic by nature. Study was conducted in Rudraprayg district of Uttarakhand which falls in lesser and higher Himalayan terrain of

Garhwal Himalaya (Plate 1). Administrative boundaries of the district are delimited by 78°48'46" E and 79°21'45" E longitudes and 30°10'36" N and 30°48'50" N latitudes. The present study was conducted to assess the perception of farmers about organic agriculture and analyze the impact of landholding on adoption of organic agricultural techniques.

METHODOLOGY

In total 100 farmers of Rudraprayag district, Uttarakhand were selected through purposive sampling method from Uttarakhand Organic Commodity Board (UOCB) working for the development of organic agriculture in the state. The questionnaire formulate was focused on farmers' perception about organic agriculture. Eight questions were selected on the basis of beliefs regarding economic and environmental sustainability (in a series of Likert items). In order to measure the perception of the farmers questions were presented to respondents which were based on 5-point Likert scale viz SD (Strongly disagree), D (Disagree), N (Neutral), A (Agree) and SA (Strongly agree). The adoption of organic agriculture techniques was studied under three categories of farmers viz landholding <0.500, 0.500 to 0.999 and 1.000 ha and above.

RESULTS and DISCUSSION

Majority of the farmers (38%) strongly agreed that organic produce provides health security for the family followed by 30 per cent who perceived that health of fields is preserved by organic agriculture (Table 1). Most (64%) farmers agreed that it provides new platform for local agricultural produce followed by 62 per cent who perceived that it preserves health of field. On the other hand maximum (50%) farmers disagreed that organic agriculture has adverse impact on water quality. The findings are in conformity with the findings of Shreck et al (2006) and Adesope et al (2012).

The data in Table 2 indicate that use of air tight containers for storage and sun-drying of farm

Table 1. Farmers perception about organic agriculture

Statement	SD	D	N	A	SA
It provides higher profits	7	6	17	55	15
It has better public acceptance	0	13	29	48	10
It provides new platform for local agricultural produce	0	2	15	64	19
Organic agriculture increases input cost	24	41	17	15	3
Organic farming techniques are easy to apply	2	16	0	58	24
Organic produce provides health security for the family	0	1	2	59	38
It preserves health of fields	0	2	6	62	30
Organic agriculture has adverse impact on water quality	50	40	10	0	0

SD= Strongly disagree, D= Disagree, N= Neutral, A= Agree, SA= Strongly agree

Table 2. Distribution of farmers with different landholdings as per adoption of organic agriculture techniques

Technique	Number of farmers (adopters and non-adopters) with landholding (ha)					
	<0.500		0.500-0.999		1.00 and above	
	N	Y	N	Y	N	Y
Use of green manure	16	12	14	22	10	26
Crop rotation	2	26	0	36	0	36
Mixed cropping	5	23	2	34	4	32
Use of compost	7	21	7	29	9	27
Hand picking of insets	1	27	1	35	0	36
Use of organic manures	10	18	12	24	10	26
Use of air tight containers for storage	0	28	0	36	0	36
Sun-drying of farm produce	0	28	0	36	0	36

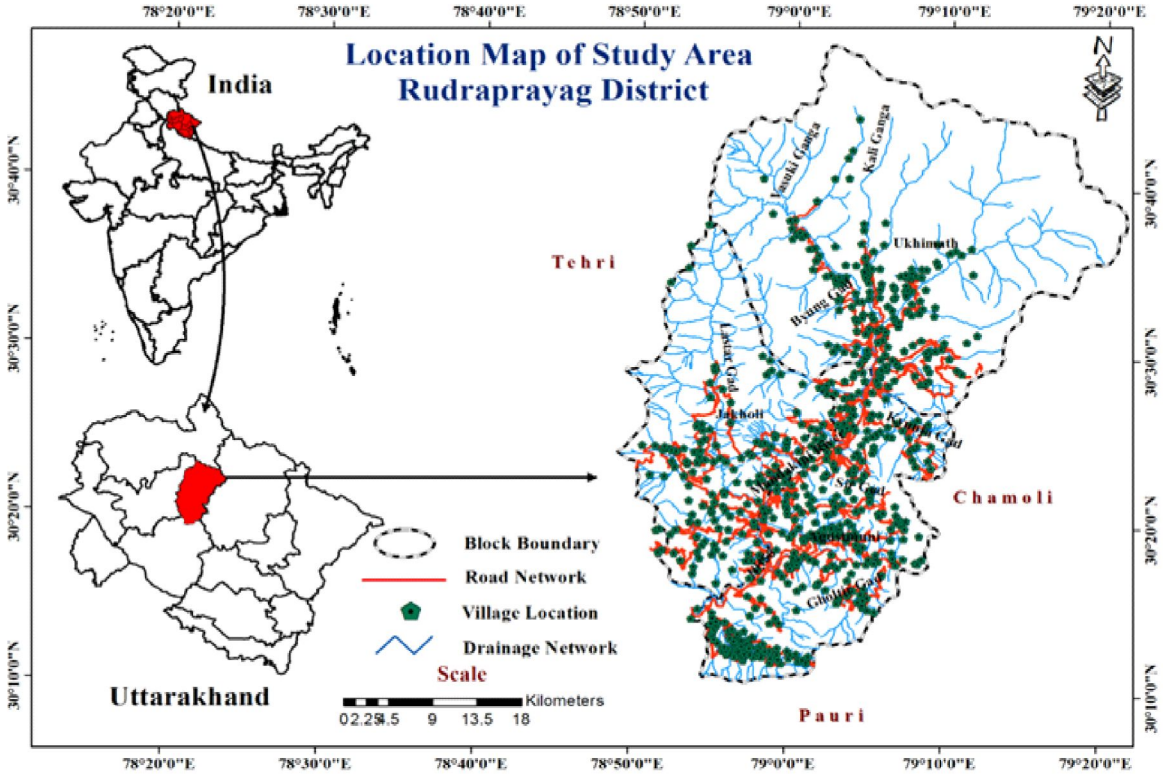

Plate 1. Map showing the study area

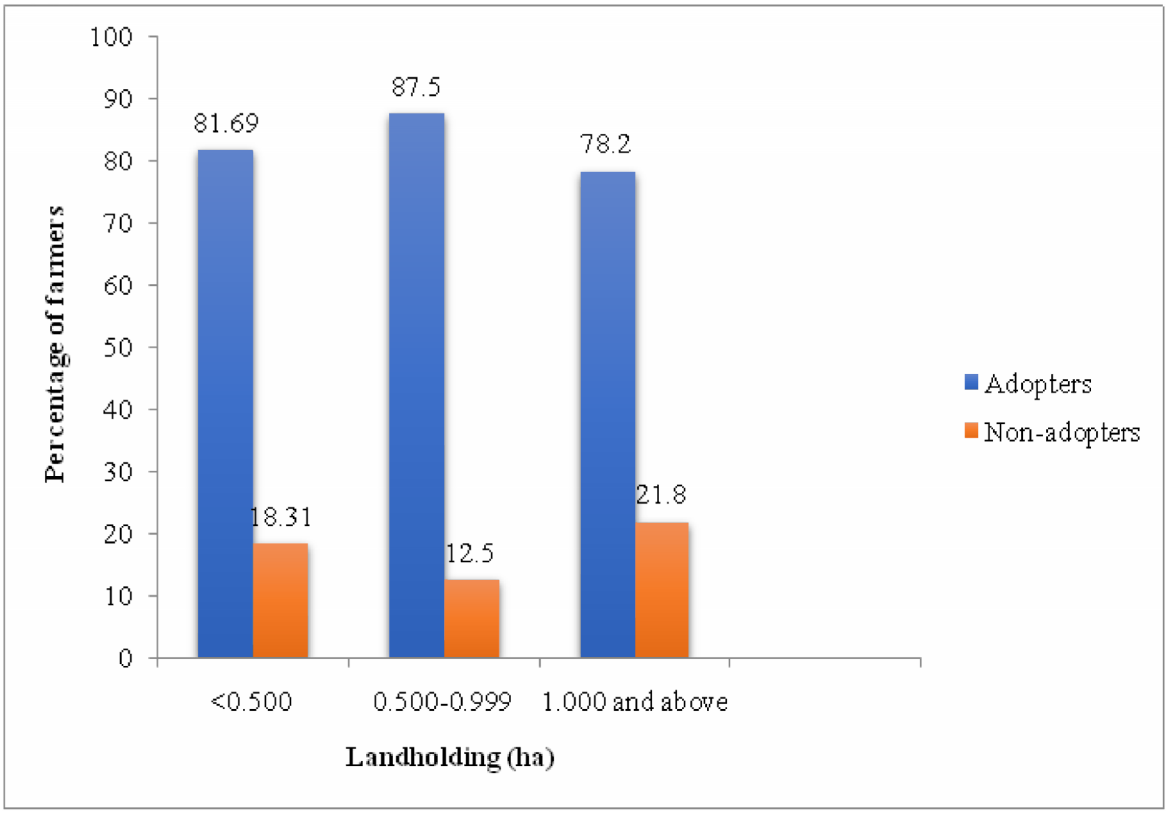

Fig 1. Adoption of organic agriculture techniques according to landholding

produce was adopted by all the farmers. It shows that the farmers were well conversant with these traditional methods to avoid spoiling of produce.

Fig 1 depicts that highest adoption (87.5%) was among the farmers having landholding of 0.500-0.999 ha followed by 81.69 per cent with landholsings less that 0.500 ha. It was lowest among the farmers having landholding 1.000 ha or above. This could be due to the reason that big farmers did not mind the input costs and wanted to have higher production for getting returns from the market. These results are supported by the findings of Prashanth and Reddy (2012).

CONCLUSION

This study was focused on farmers' perception towards organic agriculture and adoption of organic agriculture techniques. It was noted that the perception of farmers towards organic agriculture was quite positive. It was also found that adoption of organic agriculture techniques was quite high in the study area.

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