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# A study on perceived problems and farmers' attitude towards organic farming

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## ABSTRACT

Organic farming primarily aims at cultivating the land and raising crops without using chemical fertilizers, pesticides etc thereby maintaining the health not only of the soil but lessening the negative impact of chemical farming on environment also. The benefits of going organic are many however what matters most is the attitude and preparedness of farmers to convert to organic farming. The present study was conducted with an aim to assess the attitudes of farmers and problems perceived by them in adopting organic farming. A sample of 60 farmers from Oachghat, Nauni and Shamror Panchayats of Solan block, Solan district, Himachal Pradesh was selected. The findings showed that farmers had highly favourable attitude towards organic farming and felt that organic farming was right approach for protecting the quality of soil which was being deteriorated due to continuous and uncontrolled use of chemical fertilizers. However it was reported that due to lack of knowledge and skills required they found it difficult to adopt organic farming.

**Keywords:** Farmers; organic farming; attitude; soil fertility; chemical fertilizers

## INTRODUCTION

Organic agriculture has been considered as the boon to the present agricultural situation where the health of the soil in terms of nutrients, water holding capacity and fertility is declining day by day, environment is being depleted of its natural resources and health of human beings is being deteriorated due to immense commercialization of agriculture by uncontrolled use of chemicals, pesticides, herbicides, etc. On the other hand overall improvement in various parameters of soil such as physical, biological and chemical with sufficient micro and macronutrients indicating enhanced soil health and sustainability of crop production has been noticed under organic agriculture. Furthermore it was observed that organic farming in spite of the reduction in crop production provided higher net profit as compared to conventional farming (Ramesh et al 2010). Organic farming is an agricultural system involving a combination of sustainable production practices in conjunction with the discontinuation or the reduced use of production practices that are potentially harmful to the environment (D'Souza et al 1993). It is the process that develops a viable and a sustainable agrosystem (Assis and Mohamad Ismail 2011). Organic farming excludes the use of chemical fertilizers, pesticides, growth regulators and livestock feed additives (Nenna and Ugwumba 2014), reduces pesticide use (Bengtsson et al 2005), enhances the nutrients of the soil which are passed on to the plants (Prihtanti 2016), reduces soil erosion (Siegrist et al 1998), increases soil fertility (Leifeld and Fuhrer 2010), increases water holding capacity (Lotter et al 2003) and enhances taste (Koesling et al 2008). Organic food is preferred as it battles pests and weeds in a non-toxic manner, involves less input costs for cultivation and preserves the ecological balance while promoting biological diversity and protection of the environment (Panda 2011).

Many studies have reported that majority of the farmers held a positive attitude towards organic agriculture (Alzaidi et al 2013, Patidar and Patidar 2015, Rana et al 2017, Korde 2017). Ullah et al (2015) reflected that the adoption of organic farming has a positive and significant impact on the farmers' life. The

organic farmers reported more satisfaction with their lives, a greater concern for living ethically and a stronger perception of community (Sullivan et al 1996). Majority of the farmers were motivated for organic cultivation for soil protection (Jayanthi and Vaideke 2015) while some studies have concluded that future conversion to organics was most likely to be financially driven.

However the studies have also reported that lack of access to guidelines, certification and input cost coupled with capital driven regulation by contracting firms strongly discourage small farmers to adopt organic farming (Pandey and Singh 2012). It was also noted that lack of organic inputs, lack of organized markets, lack of skill in preparing organic manures, chances of disease attack during initial period, high cost of organic fertilizers and lack of government support were some of the constraints (Jayanthi and Vaideke 2015). Balachandran (2004) pointed out that major problem cited by many farmers was the poor marketing prospects of organic produce. Lack of time and the length of time to certify for organic farming were the two most cited reasons for farmers not growing organic (Marsh et al 2017). Some farmers were found reluctant for organic farming due to lack of knowledge (Shakthi Devi 2017). Korde (2017) reported that major constraint faced by the respondents was inadequate availability of inputs like vermicompost, biofertilizers and organic manures.

## METHODOLOGY

The study was conducted in Solan block of disrict Solan, Himachal Pradesh. In this block three Panchayats namely Nauni, Oachghat and Shamror were selected. Two villages from each selected Panchayat and from each selected village 10 farmers were randomly chosen making sample size of 60. Data were collected from famers through personal interview and questionnaire. For measuring attitude and perceived problems of farmers five-point Likert scale was used. Attitude was measured through 18 statements both positive and negative and perceived problems were assessed through other parts of the questionnaire which consisted of sixteen statements. Each respondent was asked to indicate his/her extent of agreement or disagreement against each statement along a 5-point scale: strongly agree (SA), agree (A), undecided (U), disagree (DA) and strongly disagree (SDA). Weights assigned to these responses were 5, 4, 3, 2 and 1 respectively.

The total score of a respondent was determined by summing up the weights for responses against all 18 statements. For the negative statements reverse scoring was done and the weights assigned were 1, 2, 3, 4 and 5 for strongly agree (SA), agree (A), undecided (U), disagree (DA) and strongly disagree (SDA) respectively.

Attitude score= $5 \times SA + 4 \times A + 3 \times U + 2 \times DA + 1 \times SDA$ for positive statements

Attitude score= $1 \times SA + 2 \times A + 3 \times U + 4 \times DA + 5 \times SDA$ for negative statements

## RESULTS and DISCUSSION

The data in Table 1 show that farmers had higher degree of agreement with almost all the statements related to organic farming. The mean values of responses by farmers were lower on negative statements on organic farming reflecting disagreement with these statements.

It can be observed from Table 2 that calculated attitude score of the farmers ranged between 52-87 and possible score ranged between 18-90 with an average score of 76.45. On the basis of the attitude scores the farmers were categorized into five groups viz highly unfavourable, unfavourable, neutral, favourable and highly favourable. The findings indicated that 85 per cent of the farmers had highly favourable and 11.66 per cent had favourable attitude towards organic farming.

The results given in Table 3 on problems perceived by farmers in adopting organic farming show that maximum statements had mean value below 3 which reflects higher degree of disagreement with the statements. The statements with the mean values more than 3 were the major problems faced by the farmers in adopting the organic farming. The scores were higher wrt statements ‘higher knowledge is required in converting to organic farming’ (M= 4.63) followed by ‘there is a lack of extension services’ (M= 4.50), ‘organic farming is not technically feasible’ (M= 4.07), ‘farmers need technical and financial assistance’ (M= 4.03) and ‘organic certification is difficult’ (M= 4.02). Thus the major problems faced by farmers in adopting organic farming were their lack of knowledge about organic farming, lack of extension services for capacity building and process of organic certification.

Table 1. Attitude of farmers towards organic farming

| Statement on organic farming | Extent of opinion | | | | | Total score | Mean |
|---|---|---|---|---|---|---|---|
| | SA | A | U | D | SDA | | |
| Is environmentally sustainable method for food production | 34 | 24 | 2 | 0 | 0 | 272 | 4.53 |
| Prohibits the use of chemical fertilizers/pesticides | 43 | 15 | 2 | 0 | 0 | 281 | 4.68 |
| Is holistic way of protecting human, soil and environmental health | 49 | 10 | 1 | 0 | 0 | 288 | 4.80 |
| Is difficult to implement because of the complicated techniques | 4 | 18 | 10 | 19 | 9 | 191 | 3.18 |
| Is difficult due to difficulties in obtaining organic matter | 1 | 12 | 1 | 32 | 14 | 226 | 3.76 |
| Has more challenges than inorganic farming | 26 | 22 | 5 | 6 | 1 | 114 | 1.90 |
| Is only a wastage of time and money | 8 | 42 | 2 | 7 | 1 | 131 | 2.18 |
| Is effective in maintaining soil fertility | 48 | 12 | 0 | 0 | 0 | 288 | 4.80 |
| Increases the water holding capacity of soil | 34 | 18 | 3 | 1 | 4 | 257 | 4.28 |
| Is efficient in reducing the pests and diseases infestation | 11 | 27 | 10 | 8 | 4 | 159 | 2.65 |
| Increases the income of the producers | 15 | 33 | 6 | 2 | 4 | 237 | 3.95 |
| Is more profitable than inorganic farming | 39 | 13 | 3 | 2 | 3 | 263 | 4.38 |
| Consumers are willing to pay more for organic products | 13 | 14 | 18 | 12 | 3 | 202 | 3.36 |
| Protects environment | 35 | 25 | 0 | 0 | 0 | 275 | 4.58 |
| Conserves water resources as compared to inorganic ones | 37 | 17 | 3 | 1 | 2 | 266 | 4.43 |
| Organic produce has better quality | 36 | 19 | 1 | 0 | 4 | 263 | 4.38 |
| Organic products are more healthy | 37 | 20 | 0 | 2 | 2 | 269 | 4.48 |
| Has more risk due to yield fluctuation | 2 | 22 | 17 | 13 | 6 | 129 | 2.15 |

SA= Strongly agree, A= Agree, U= Undecided, DA= Disagree, SDA= Strongly disagree

Table 2. Attitude score of the respondents

| Range | | Category of farmers | Respondents | | Mean | SD |
|---|---|---|---|---|---|---|
| Possible | Observed | | Number | Per cent | | |
| 18-90 | 52-87 | Highly unfavourable (<36) | 0 | 0 | 76.45 | 6.69 |
| | | Unfavourable (36-54) | 01 | 1.67 | | |
| | | Neutral (54) | 01 | 1.67 | | |
| | | Favourable (54-72) | 07 | 11.66 | | |
| | | Highly favourable (>72) | 51 | 85.00 | | |
| Total | | | 60 | 100 | | |

Table 3. Problems perceived by farmers in adopting organic farming

| Constraint | Mean | SD |
|---|---|---|
| Farm structure is not suitable for organic farming | 1.88 | 0.80 |
| Organic standards are too restrictive to be practical | 2.33 | 1.08 |
| Farmers need technical and financial assistance | 4.03 | 1.22 |
| Information about organic farming is insufficient | 3.63 | 1.23 |
| There is lack of proper marketing structure | 2.78 | 1.15 |
| There are chances of more diseases in organic farming | 2.78 | 1.40 |
| Organic farming requires additional work | 2.48 | 1.32 |
| Organic farming is not economically viable | 2.30 | 0.79 |
| Organic farming is not technically feasible | 4.07 | 0.97 |
| Organic seeds are harder to obtain | 3.97 | 1.23 |
| Organic certification is difficult | 4.02 | 1.27 |
| Converting to organic farming will deteriorate the socio-economic conditions of the farmers | 2.62 | 1.18 |
| There is need to employ more labour in organic farming | 2.18 | 1.24 |
| There is a lack of availability of inputs | 2.62 | 1.19 |
| There is lack of extension services | 4.50 | 0.70 |
| Higher knowledge is required in converting to organic farming | 4.63 | 0.76 |

## CONCLUSION

The study concluded that the farmers held highly favorable attitude towards organic farming and were aware of bad impacts of fertilizers on the soil, human health and environment. However lack of knowledge and skills in organic farming and organic certification procedure emerged to be constraints perceived by farmers in adopting organic farming. Thus it is suggested that training programmes for capacity building of farmers in organic farming should be organised. The farmers should be explained in detail the procedures of organic certification so that they do not find it difficult and time consuming.

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