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Attitude of farmers of Sirohi district of Rajasthan towards Soil Health Card (SHC) Scheme

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Abstract

The present study was conducted in ten village of Sirohi district of Rajasthan state to assess the attitude of farmers towards soil health card scheme. Total 100 farmers were selected and approached personally by the investigators for the collection of relevant data. The study shows that more than one third (35 Per cent) of farmers had neutral attitude towards soil health card scheme. While 16 per cent of farmers had strongly favourable attitude toward soil health card scheme. Equal number (17 per cent) of farmers had favourable and unfavourable attitude towards soil health card scheme. Rest of them (15 per cent) had strongly unfavourable attitude towards soil health card scheme.

Keywords: Attitude, soil health card scheme

Introduction

Soil health is the basis for sustainable profitability of the farmers. Using optimal doses of fertilizers in an integrated manner and cropping pattern as per the scientific recommendation is the first step towards sustainable agriculture. The average yield per hectare of crops in India is very low due to exhausted soils which have been over cropped from centuries without adequate replenishment for nutrients through fertilizers and manure. Such heavy removal of plant nutrients from soil leads to depletion of soil fertility, which shows up in crop yield decline and lowered factor productivity (Yadav *et al.*, 1998) [9]. One of the major factor for soil health degradation is imbalanced use of fertilizers. Low or negligible application of organic manures and nonreplacement of depleted essential nutrient elements over the years, caused widespread nutrient deficiencies and decreased soil fertility in many parts of the country. (Singh 2008; Parewa *et al.* 2016) [6, 3]. Presently, the number of nutrients deficient in Indian soils are about ten.

Indian soils not only show deficiency of primary nutrients (Nitrogen, Phosphorous and Potassium) but also of secondary nutrients (Sulphur, Calcium and Magnesium) and micro nutrients (Boron, Zinc, Copper and Iron etc.) in most parts of the country. Besides the three primary nutrients (N, P, K), deficiency of Sulphur and micro nutrients like Zinc and Boron in many of States, and of Iron, Manganese and Molybdenum in some States, has become a limiting factor in increasing food productivity. (Dwivedi, 2014, Singh, 2008a, Motsara, 2012) [1, 7, 2]. Therefore, application of fertilizers and manure in an integrated manner is essential to prevent soil degradation, keeping agriculture land productive and economically viable. Hence, there is a need for balanced use of fertilizer to stabilize crop yield and sustain high crop productivity, keeping this the ministry of agriculture, government of India introduced soil health card scheme across India in 2015.

The soil health card (SHC) provides soil health data to get appropriate guidance to the farmers for the efficient use of fertilizer to cultivate crops based on soil health analysis. The SHC provide necessary information to farmers about present nutrient status of their soil/farm and recommendation for appropriate dosage of different sources of nutrient for improving soil health and crop production. To understand the feelings of the farmers against this system, there is an urgent need to study the degree of positive or negative outlook associated with farmer towards the usefulness of soil health card. Hence, keeping the above facts in mind, the present study entitled attitude of the farmers towards soil health card scheme was planned with following objectives: (1) To study attitude of the farmers of Sirohi district of Rajasthan towards soil health card scheme (2) To study the constraints faced by the farmers in the use of soil health card and (3) To study suggestions of the farmers to accelerate application of soil health card.

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Resources and research methods

The present study was conducted in Sirohi district (Rajasthan). This district consists of 5 tehsils. All tehsil viz., Sirohi, Aburoad, Pindwara, Reodar and Sheoganj was selected purposively looking to the number of respondent having soil health card. Total ten villages were selected, two villages having more number of respondents from the each tehsil were selected. A comprehensive list of all the respondents having SHC was obtained from Deputy Director Agriculture office of the respective villages. Thus, ten respondents from each village were selected at random sample for the study. The data were collected through pre-tested hindi version interview schedule. The data were tabulated and analysed in light of the objectives to draw the meaningful conclusion. The statistical tools used for the analysis of the data were percentage, mean and standard deviation.

To measure attitude, researchers had used scale developed by Patel and Chauhan (2011) [5] with due modification. The scale consisted 9 statements. The responses of the farmers were obtained against each statement in terms of agreement or disagreement on a five point continuum ranging from strongly favourable, favourable, neutral, unfavourable, and strongly unfavourable. The positive statements were scored 5, 4, 3, 2

and 1 for strongly favourable, favourable, neutral, unfavourable and strongly unfavourable and for negative statements, the scoring was reverse. The final score was worked out by summing scores obtained by respondent for all statements.

Research findings and discussion

Attitude refers to the “degree of positive or negative feeling associated with some psychological object” (Thurston, 1946) [8]. In the present study, attitude was conceptualized as positive, neutral or negative reactions / feelings of farmers towards SHC scheme (Table 1).

The data given in Table 1 in depicted that majority 35 per cent of the farmers had neutral attitude towards soil health card scheme, while 16 per cent of farmers had strongly favourable attitude. Equal number (17 per cent) of farmers had favourable and unfavourable attitude towards soil health card programme. Rest of them (15 per cent) had favourable attitude towards soil health card programme, respectively. From the foregoing discussion it can be concluded that majority (68.00 per cent) of the farmers had neutral to strongly favourable attitude towards soil health card programme. The result of the study corroborated with the findings of Patel and Chauhan (2012) [4].

Table 1: Attitude of farmers towards soil health card (SHC) scheme (n=100)

S. No	Attitude	No	Per cent
1.	Strongly favourable (Above mean + SD: (Above 33.78)	16	16
2.	Favourable (Between mean + 0.5 SD and mean + SD (31.55 to33.78)	17	17
3.	Neutral (Between mean - 0.5 SD and mean + 0.5 SD (31.55.68 to27.07)	35	35
4.	Unfavourable (Between mean - SD and mean - 0.5 SD (24.84 to27.07)	17	17
5.	Strongly unfavourable (less than 24.84)	15	15
Total		100	100.00

Mean=29.30

SD=4.46

Constraints faced or limitation observed by the farmers in SHC

The data illustrated in Table 2 revealed that over whelming majority (90 per cent) of farmers expressed difficulty in calculating fertilizer dose on the basis of nutrient status of soil. 86 per cent of them expressed difficulty in use of micronutrient deficiency due to unavailability of micronutrient in market. 82 per cent of them expressed that soil health cards were issued after harvesting of crops. 80 per

cent expressed that time taken between soil sampling and issuing cards to the farmers was too high, 61 per cent expressed problem of unavailability of internet facility at village level, 55 per cent expressed that unable to use internet, 21 per cent of them expressed that collection of soil sample was not done in presence of them and 20 percent of them expressed location of soil test laboratory is far from the village.

Table 2: Constraints faced by the farmers in soil health card scheme (n=100)

S. No	Constraints	Per cent	Rank
1.	Difficulty in calculating fertilizer and manure doses on the basis of nutrient status of soil	90	I
2.	Unavailability of micronutrient in market	86	II
3.	Time gap between soil samples taken and issuing cards is too high	80	IV
4.	Received soil health cards after crop harvest	82	III
5.	Unavailability of internet facility	61	V
6.	Collection of soil sample was not done in presence of them	21	VII
7.	Unable to use internet	55	VI
8.	Location of soil test laboratory is far from the village	20	VIII

Suggestions of the farmers to accelerate application of soil health card

The major suggestion given by the farmers to accelerate application of soil health card were crop wise recommended dose of fertilizer should be given (91.00 per cent) followed by availability of micronutrient status should be displayed (89.00 per cent), SHC should be issued prior to crop season(87.00 per cent), farmer should be trained to take soil sample of its

own soil(79.00 per cent), soil testing laboratory should be established at Tehsil level with highly qualified supporting staff (70.00 per cent), site specific crop should be recommended (62 per cent), internet facility should be provided at village level (31.00 per cent) and soil sampling procedure should be done in presence of farmer(25.00 per cent).

Table 3: Suggestions of the farmers to accelerate application of soil health card (n=100)

S. No	Suggestions	Per cent
1.	Crop wise recommended dose of fertilizer should be given.	91
2.	Availability of micronutrient status should be displayed.	89
3.	SHC should be issued prior to crop season.	87
4.	Farmer should be trained to take soil sample of its own soil.	79
5.	Soil testing laboratory should be established at Tehsil level with highly qualified supporting staff.	70
6.	Internet facility should be provided at village level.	31
7.	Soil sampling procedure should be done in presence of farmer.	25
8	Site specific crop should be recommended	62

Conclusion

It can be concluded from this study that majority of the farmers had neutral to strongly favourable attitude towards soil health card scheme. Major constraints faced by the farmers in soil health card scheme were difficulty in identifying micronutrient deficiency due to unavailability of micronutrient status of soil, difficulty in calculating fertilizer dose on the basis of nutrient status of soil, soil health cards were issued after harvesting of crops and important suggestions of the farmers to accelerate application of soil health card were crop wise recommended dose of fertilizer should be given, availability of micronutrient status should be displayed, SHC should be issued prior to crop season and farmer should be trained to take soil sample of its own soil.

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