

Original Research Article

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Awareness of Farmers Regarding Soil Health Card Scheme

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ABSTRACT

The present study was undertaken with the objective to study the awareness of farmers regarding Soil Health Card Scheme. The study was conducted in Jalandhar and Sangrur districts of Punjab. KVK Noormahal (Jalandhar) and KVK Kheri (Sangrur) were purposively selected for the study. Forty farmers from adjoining villages of KVK, Noormahal and 40 farmers from adjoining villages of KVK, Kheri who have not got SHC were randomly selected for the sample. An Interview schedule was prepared for the collection of data from the non-beneficiaries of SHCS. Awareness was measured by asking question regarding SHCS and seeking response in dichotomous form i.e. Yes/No and score of 2 and 1 respectively. Data were analyzed using appropriate statistical tools. Data indicated that all the non-beneficiaries were aware about soil testing and source of getting soil tested. Majority (97.5%) of the non-beneficiaries were aware about soil sampling technique followed by 76.25 per cent of the non-beneficiaries were aware about soil test based application of macro and micro nutrient under SHCS. About 73 per cent non-beneficiaries were aware about balanced application of chemical fertilizers under SHCS and as high as 70 per cent of the non-beneficiaries were aware about fertilizer use and management. Data also indicated that half of the non-beneficiaries belonged to medium category of awareness level. About 36 per cent of the non-beneficiaries belonged to low category of awareness level and only 16.25 per cent of the non-beneficiaries were in high category of awareness level.

Keywords

Awareness, Krishi Vigyan Kendras, Soil health card, Soil health card scheme

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Introduction

Soil health and fertility is the representative for sustained high crop productivity and profitability of the farmers. Soil health measures a soil's ability to support life, withstand transient environmental stress and endure as a core component of a resilient ecosystem. According to 'Degraded and Waste Lands of India' report by the Indian

Council of Agricultural Research (ICAR) and the National Academy for Agricultural Sciences, of the 328.7 million hectares of total geographic area about 141.4 million hectares are under cultivation (Maji *et al.*, 2010). Of which, about 100 million hectares is heading down a path where it will be incapable of supporting agriculture. Using optimal doses of fertilizers and cropping pattern is the first step towards sustainable farming. Only after 2014-

15, soil management gained attention as a more forward approach. Soil health is a holistic concept which includes chemical, physical and biological health of the soil. For fertility evaluation, the common process used is soil testing. Soil testing is a science based and time tested tool for assessment of soil fertility status and soil ailments for appropriate nutrient recommendations. Soil testing service begun in India in 1955-56 with the setting up of 16 soil testing laboratories under the Indo-US Operational Agreement for “Determination of Soil Fertility and Fertilizer Use”. This service network involved static and mobile soil testing laboratories (STLs). The Soil Health Card Scheme (SHCS) was launched in Suratgarh town of Sri Ganganagar district of Rajasthan on 19 February, 2015 to address the problems of degrading soil health. Although soil testing is a regular feature of the Department of Agriculture Cooperation and Farmer’s Welfare but after the launch of SHCS, soil testing is taken up on a mission mode. Under this scheme Soil Health Cards (SHCs) are issued to farmer. SHC is a printed report prepared in 14 local languages that a farmer is handed over for each of his holdings.

The card contains an advisory based on the soil nutrient status of a farmer’s holding. It contains the status of soil with respect to 12 parameters, namely N, P, K (Macro-nutrients); S (Secondary-nutrient); Zn, Fe, Cu, Mn, Bo (Micro - nutrients); and pH, EC, OC (Physical parameters). Based on this, the SHC also indicates fertilizer recommendations and soil amendment required for the farm. The scheme offers GPS enabled soil sampling at a grid of 2.5 ha in irrigated area and 10 ha in rain-fed areas. A Soil Health Card (SHC) is issued to all the farmers in a period of two years and these cards need to be renewed after every three years (Anonymous 2017). SHC provides a qualitative assessment of soil health and thus helps the farmer to monitor and improve the soil health based on their field experiences. There are 1244 soil testing laboratories in

India, of which 1048 are static and remaining 196 are mobile. About 90 per cent of STLs are under state government and remaining are managed by the fertilizer industry. In addition, about 7000 mini soil testing kits were distributed to block level agricultural offices across the states. Punjab has a total of 56 static soil testing laboratories and 15 mobile soil testing laboratories (Reddy, 2017). In order to make the scheme successful, the government of India, along with the Department of Agriculture and Cooperation and National Information Centre, has launched a soil health card agriculture portal and soil health card mobile app. The farmers need to register at the web portal ‘www.soilhealth.dac.gov.in’ or mobile app along with the details of the soil sample. Awareness is the ability to know and perceive, to feel or to be conscious of events, objects, thoughts, emotions or sensory pattern. The present scheme is undoubtedly a great initiative that may go a long way to promote soil health but its success shall depend on awareness of farmers regarding the scheme.

Materials and Methods

The study was conducted in Jalandhar and Sangrur districts of Punjab. *Krishi Vigyan Kendra* (KVK) Noormahal, (Jalandhar) and *Krishi Vigyan Kendra*, Kheri (Sangrur) were purposively selected for the purpose of the study. Forty farmers from adjoining villages of KVK, Noormahal and 40 farmers from adjoining villages of KVK, Kheri who have not got SHC were randomly selected for the sample. An Interview schedule was prepared for the collection of data from the non-beneficiaries of SHCS. Awareness was measured by asking question regarding SHCS and seeking response in dichotomous form i.e. Yes/No and score of 2 and 1 respectively. Data were analyzed using appropriate statistical tools.

Results and Discussion

Awareness of the non-beneficiaries regarding the soil health card scheme

Awareness was measured by asking question regarding SHCS and seeking response in dichotomous form i.e. Yes/No and score of 2 and 1 respectively. Data were analyzed using appropriate statistical tools.

Awareness of non-beneficiaries regarding SHCS

For the present study awareness of non-beneficiaries of SHCS was assessed. It was measured by seeking response on question regarding SHCS. Findings in the table 1 indicate that all the non-beneficiaries were aware about soil testing and source of getting soil tested. Majority (97.5%) of the non-beneficiaries were aware about soil sampling technique followed by 76.25 per cent of the non-beneficiaries were aware about soil test based application of macro and micro nutrient under SHCS. About 73 per cent non-beneficiaries were aware about balanced application of chemical fertilizers under SHCS

and as high as 70 per cent of the non-beneficiaries were aware about fertilizer use and management. The findings revealed that about three per cent of the non-beneficiaries were aware about login id and password provided and other facilities available on SHC portal under SHCS. These findings are in line with the findings of Niranjana *et al.*, (2017).

Awareness level of non-beneficiaries regarding SHCS

Scores obtained by each non-beneficiary were summed up. On the basis of obtained scores, non-beneficiaries were classified into three categories of awareness level i.e. low, medium and high. Data in table 2 and figure 1 indicate that about half of the non-beneficiaries belonged to medium category of awareness level. About 36 per cent of the non-beneficiaries belonged to low category of awareness level and only 16.25 per cent of the non-beneficiaries were in high category of awareness level. Similar findings were reported by Bunkar (2018) and Charel *et al.*, (2018).

Fig.1 Distribution of non-beneficiaries on the basis of level of awareness regarding Soil Health Card Scheme (SHCS)

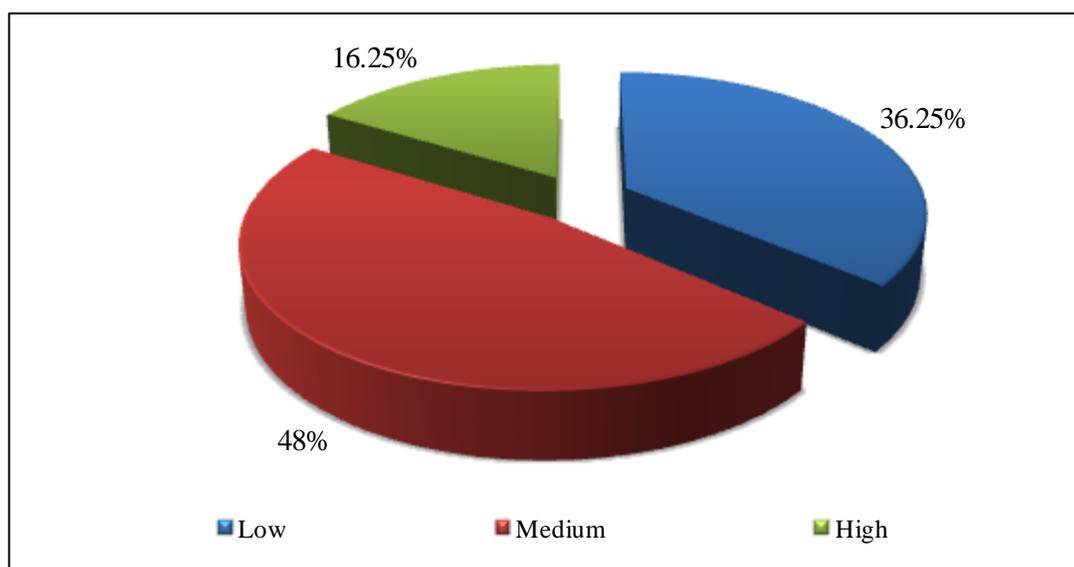


Table.1 Distribution of non-beneficiaries on the basis of awareness regarding Soil Health Card Scheme (SHCS)

S. No.	Items	n=80	
		Yes f (%)	No f (%)
Awareness about			
1.	Soil testing	80 (100)	-
2.	Source of getting soil tested	80 (100)	-
3.	Soil sampling	78 (97.50)	2 (2.50)
4.	Soil health card	24 (30.00)	56 (70.00)
5.	Periodic testing of soil under SHCS	24 (30.00)	56 (70.00)
6.	Year of launch of SHCS	8 (10.00)	72 (90.00)
7.	Sponsorship of SHCS	10 (12.50)	70 (87.50)
8.	First state to implement SHCS	2 (2.50)	78 (97.50)
9.	Form and content of SHC	21 (26.25)	59 (73.75)
10.	Eligibility of farmers for SHCS	15 (18.75)	64 (80.00)
11.	Collection of soil sample from farmer's field by trained personnel assigned by government	30 (37.50)	50 (62.50)
12.	Fees to be paid for getting soil tested under SHCS	5 (6.25)	75 (93.75)
13.	Login Id and password provided on soil health card portal	2 (2.50)	78 (97.50)
14.	Facilities available on Soil health card portal	2 (2.50)	78 (97.50)
15.	Fertilizer use and management by soil testing under SHCS	56 (70.00)	24 (30.00)
16.	Soil test based application of macro and micro nutrients under SHCS	61 (76.25)	19 (23.75)
17.	Balanced and calculated application of chemical fertilizers under SHCS	59 (73.75)	21 (26.25)
18.	Integrated Nutrient Management under SHCS	45 (59.25)	35 (43.75)
19.	Location specific improved agronomic practices under SHCS	48 (60.00)	32 (40.00)
20.	Environment friendly practices like recycling crop residue and use of organic manures under SHCS	62 (77.50)	18 (22.50)

Table.2 Distribution of non-beneficiaries on the basis of level of awareness regarding Soil Health Card Scheme (SHCS)

n=80

Awareness level	Frequency (f)	Percentage (%)
Low	29	36.25
Medium	38	47.50
High	13	16.25

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