International Journal of Applied Agricultural Research
ISSN 0973-2683 Volume 14, Number 2 (2019) pp. 79-85
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http://www.ripublication.com

Impact and Awareness of Soil Health Card with Reference to Maize Production in Dhar District of Madhya Pradesh

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Abstract

The soil health card (SHC) is an analysis of the quality of the soil right from its functional characteristics to water and nutrient content and other biological properties. It contains corrective measure that a farmer should adopt to obtain a better yield. The SHC helps the farmers to get a well monitored report about the soil and they are guided by the expert to improve soil health. It also helps the farmer to get maize crop recommendation of nutrients and fertilizer required in each type of soil. This can help in increasing the maize production. Maize is one of the essential foods, green forage and manufacturing crops of the world. It is called 'QUEEN OF THE CEREALS'. Maize has the highest yield/ha among the cereal crops. It is now full-grown in all countries except for Antarctica and under an extra diverse range of climates than any other cereal crops. The National Commission on Agriculture practices that maize can significantly contribute to the extra total food grain production by rising its present contribution from 6% to 10% Implementation of the scheme.This study conducted in Dhar district of M.P. with 120 SHC holder farmers. The majority of beneficiaries were found to have medium level of awareness about various components of soil health card where as satisfaction regarding cultivation practices of maize production recommended by KVK" the higher number of respondents realized high impact of SHC on Increase of maize production.

Keyword: Impact. Awareness, Soil Health Card, Maize Production

INTRODUCTION

Soil Health Card Scheme was launched by the Government of India on19th February 2015. The scheme, plans to resolve the problems of soil to farmers which will carry crop-wise recommendations of nutrients and fertilizers necessary for the individual farms to assist farmers to improve productivity through careful use of inputs. All soil samples are to be tested in different soil testing labs across the country. After that the experts will analyze the strength and weaknesses (micro-nutrients deficiency) of the soil and suggest measures to deal with it. The result and proposal will be displayed in the cards. The government plans to provide the cards to 14 crore farmers.

The soil health card (SHC) is an analysis of the quality of the soil right from its functional characteristics to water and nutrient content and other biological properties. It contains corrective measure that a farmer should adopt to obtain a better yield. The SHC helps the farmers to get a well monitored report about the soil and they are guided by the expert to improve soil health. It also helps the farmer to get maize crop recommendation of nutrients and fertilizer required in each type of soil. This can help in increasing the maize production.

OBJECTIVE

1. To study the awareness of Soil Health Card holders regarding its utility.
2. To analyse the impact of Soil Health Card on Maize production

REVIEW OF LITERATURE

Awareness of Soil Health Card holders regarding its utility.

Mukati (2016) found that out of 117 the soil health card holders hestudied in the Tikamgarh district in Madhya Pradesh, 81.19 per cent farmers had awareness about the utility of soil health card made by the agricultural department**.**

Bordoloi and Das (2017) found in a study conducted in the Jorhat and Golaghat districts of Assam that 58.33 per cent of the SHC non beneficiary farmers had awareness about the soil health card scheme ongoing in the study area. Moreover, 80 per cent of SHC beneficiaries and 78.33 per cent of the non beneficiaries had knowledge about the ill effects of imbalanced fertilizer application.

Impact of Soil Health Card on Maize production.

Raaj and Jahanara (2017) studied the attitude of farmers towards soil health card scheme in the Deoghar district of Jharkhand and found that 64 per cent of them had a favourable attitude towards the scheme whereas 23.33 per cent farmers expressed neutral attitude.

Singh (2017) in his study on chickpea farmers in Bemetara and Mungeli district of Chhattisgarh found that the benefit-cost analysis of chickpea crop before NFSM

shows that average yield of chickpea (q/ha) 12.77. Average value of chickpea Rs.48526, gross income (Rs./ha) 48526, average cost in cultivation (Rs./ha) 14541, net income (Rs./ha) 33985 and benefit- cost ratio 3.68. Followed by benefit- cost ratio of chickpea crop after NFSM average yield of chickpea q/ha 16.66, average value of chickpea- Rs. 74970, gross income (Rs./ha) 74970, average cost in cultivation (Rs. /ha) 20436, net income (Rs./ha) 54534 and benefit- cost ratio 3.66.

METHODOLOGY

1. Selection of the block

The study was conducted in Dhar block of Dhar district purposively because this block has the highest area of maize cultivationand large number of farmers use of soil health card.

2. Selection of the villages

Out often villages of Dhar block namely Raipuria, Salkanpur, Mundla, Mohali, Osara, Rehtiya, Kunda, Piplaya, Balipur, and Naikpur were selected on the basis of higher use of soil health card under maizegrowers for the present study with the help of Krishi Vigyan Kendra, Dhar, M.P.

3. Selection of the respondents

A list of farmers from these villages who are using soil health card undermaize cultivation the farmers were selected from each village through proportionate random sampling method to make a sample of 140 Maize growers. Finally the sample consisted of 140 respondents.

Dependent variable

Impact and awareness of SHC holders on maize production.

RESULT AND DISCUSSION

Awareness of Soil Health Card holders regarding its utility.

The detail distribution of respondents according to their overall Awareness of SHC regarding its utility has been presented in Table 4.22.

Table 1: Distribution of the total respondents according to their extent of awareness about soil health card (n = 140)

S.No.	Extent of awareness of soil health Card	Number of respondents	Percentage
1.	**Low**	45	32.15
2.	**Medium**	59	42.14
3.	**High**	36	25.71
Total		**140**	**100**

Table 1 showed that out of total 140 respondents 42.14 percent of respondents had medium awareness of soil health Card, 32.15 percent had low awareness of soil health Cardwhereas only 25.71 percent had high awareness of soil health Card. Thus, the majority of beneficiaries were found to have medium level of awareness about various components of soil health card followed by low and high level of awareness about various components of soil health card.

Table 2: Distribution of the total respondents according to their level extent of awareness about soil health card

S.N.	**Statement**	**level of Awareness**			**Total Score**	**Mean Score**
		Complete	Agree	Slightly agree		
1	Soil health card provides information regarding the status of micro-nutrients in the soil.	81	32	27	194	1.38
2	Soil health card provide corrective measures a farmer should take for improved soil health and for better yield.	51	32	47	144	1.02
3	There is essentially need of such card as farmers themselves are practicing agriculture in a better way.	50	37	53	147	1.05
4	Soil health card helps farmers in reducing extra expenditure by supplying required nutrients in the soil	62	42	36	166	1.18
5	Soil health card is supportedwhen the required input should be provided by the government.	55	34	51	144	1.02
6	There is to much information in soil health card difficult.	53	35	52	141	1.00
7	It is not possible to follow all the recommendation as mentioned in soil health card.	65	35	30	165	1.17
8	The soil health card helps the farmers to get an idea on the crop wise recommendation of nutrients and fertilizers required in each type of soil	61	38	31	160	1.14
9	Soil health card can be helpful and effective only if the recommendations are followed by farmers on regular basis.	69	39	32	177	1.26

S.N.	Statement	level of Awareness			Total Score	Mean Score
		Complete	Agree	Slightly agree		
10	The technical information provided in soil health card should be made easy in local terms.	78	47	15	203	1.45
11	Soil health card helps in practicing farming in scientific way.	71	42	27	184	1.31
12	Soil health card helps to check the excessive use of fertilizer.	75	45	20	195	1.39
13	Soil health cards provides clue to health of farm and its strength and weakness in terms of different chemical ingredients	58	38	34	154	1.10

2. Impact of Soil Health Card on Maize production.

Table 3: Distribution of the total respondents according to their impact of soil health card (n = 140)

S.No.	Impact of soil health Card	Number of respondents	Percentage
1.	**Low**	43	30.71
2.	**Medium**	62	44.28
3.	**High**	35	25.00
Total		**140**	**100**

Table 3 showed that out of total 140 respondents 44.28 percent of respondents had medium impact of soil health Card, 30.71 percent had low impact of soil health Cardwhereas only 25.00 percent had high impact of soil health Card.

Thus, the majority of beneficiaries were found to have medium level of impact about various components of soil health card followed by low and high level of impact about various components of soil health card.

Table 4: Distribution of the total respondents according to their level of impact of soil health card.

S.No	Aspects of maize production	Level of Impact		
		High	Medium	Low
1	Satisfaction regarding cultivation practices of soybean recommended by KVK	80 (57.14)	32(22.85)	28(20.00)
2	Selection of crop variety based on SHC	78 (55.71)	35(25.00)	27(19.28)
3	Increase in production	87(62.14)	39(27.85)	14 (10.00)
4	SHC as beneficial schemes	91(65.00)	15(10.71)	34(24.28)
5	Availability of nutrients at due time	65(46.42)	42(30.00)	37(26.42)
6	Inspiration for other experimental activities	71(50.71)	38(27.14)	31(22.14)
7	Enhancement in knowledge regarding other agricultural activities	64(45.71)	39(27.85)	37(26.42)
8	Crop rotation based on SHC	68(48.57)	41(29.28)	31(22.14)

Awareness of Soil Health Card holders regarding its utility.

It was observed that mean 42.14 percent of respondents had medium awareness of soil health Card, 32.15 percent had low awareness of soil health Cardwhereas only 25.71 percent had high awareness of soil health Card.

Thus, the majority of beneficiaries were found to have medium level of about various components of soil health card followed by low and high level of awareness about various components of soil health card.

C. Impact of Soil Health Card on Maize production.

The statement of beneficiaries regarding “Satisfaction regarding cultivation practices of maize production recommended by KVK” the higher number of respondents realized high impact of SHC confronted by (57.14%) followed by (22.85%) respondents realized medium impact of SHC and (20.00%) respondents realized low impact of SHC.

The statement of beneficiaries regarding “Selection of crop variety based on SHC” the higher number of beneficiaries realized high impact of SHC confronted by (55.71%) followed by (25.00%) beneficiaries realized medium impact of SHC and (19.28%) respondents realized low impact of SHC.

The statement of beneficiaries regarding “Increase in production” the higher number of respondents realized high impact of SHC confronted by (62.14%)followed by (27.85%) beneficiaries realized medium impact of SHC and (10.00%) respondents realized low impact of SHC.

The statement of respondents regarding “SHC as beneficial schemes” the higher

number of respondents realized high impact of SHC confronted by (65.00%) followed by (24.28%) respondents realized medium impact of SHC and (10.71%) respondents realized low impact of SHC.

The statement of beneficiaries regarding "Availability of nutrients at due time" the higher number of respondents realized high impact of SHC confronted by (46.42%) followed by (30.00%) beneficiaries realized medium impact of SHC and (26.42%) beneficiaries realized low impact of SHC.

The statement of respondents regarding "Inspiration for other experimental activities" the higher number of respondents realized high impact of SHC confronted by (50.71%) followed by (27.14%) beneficiaries realized medium impact of SHC and (22.14%) respondents realized low impact of SHC.

The statement of respondents regarding "Enhancement in knowledge regarding other agricultural activities" the higher number of beneficiaries realized high impact of SHC confronted by (45.71%) followed by (27.85 %) respondents realized medium impact of SHC and (26.42%) respondents realized low impact of SHC.

The statement of respondents regarding "Crop rotation based on SHC" the higher number of respondents realized high impact of SHC confronted by (48.57%) followed by (28.29%) respondents realized medium impact of SHC and (22.14%) respondents realized low impact of SHC.

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