

Soil Health Card Scheme: A way forward to "Swasth Dharaa, Khet Haraa"- Healthy Earth. Green Farm

¹Aarti Bajwan *, ²Ashok Dhillon and ³Deepak Bhardwaj

¹Ph.D Scholar, Department of Agricultural Economics, CCS HAU, Hisar

²District Extension Specialist (Farm Management), KVKMahendargarh;

³Department of Agri-Business Management, CCS HAU, Hisar

ARTICLE ID: 56

Introduction

The International year of soils was celebrated in 2015 the same year India's unique programme of soil health card was launched on February 19 at Suratgarh, Rajasthan to assess the nutrient status of every farm holding in the country. The scheme has been introduced to assist State Governments to issue soil health cards to all farmers in the country.

Soil Health Card (SHC) is a Government of India's scheme promoted by the Department of Agriculture & Co-operation under the Ministry of Agriculture and Farmers' Welfare. It is being implemented through the Department of Agriculture of all the State and Union Territory Governments. Soil Health Card Scheme is a very beneficial scheme for farmers. There are many farmers in India and they do not know which types of crops they should grow to get maximum yield. Basically, they do not know the quality and the type of their soil. They might know by experience what crops grow and what crops fail. But they don't know what they can do to improve the condition of the soil. Soil health card provides information to farmers on nutrient status of their soil along with recommendation on appropriate dosage of nutrients to be applied for improving soil health and its fertility.

Major objectives of the Soil Health Card Scheme are:

- To Issue soil health card to farmers to help them get good harvest by studying the quality of soil.
- To help farmers to improve productivity from their farms by letting them know about nutrient/fertilizer requirements for their farms.
- Soil testing is developed to promote soil test based on nutrient management. Soil testing reduces cultivation cost by application of right quantity of fertilizer. It ensures

additional income to farmers by increase in yields and it also promotes sustainable farming.

Features of Soil Health Card Scheme:

- In the form of a soil health card, the farmers will get a report which will contain all the details about the soil of their particular farm.
- A farmer will get the soil health card once every 3 years.
- Soil samples will be drawn in a grid of 2.5 ha in the irrigated area and 10 ha in the rain-fed area with the help of GPS tools.
- Under the Soil Health Card Scheme, all soil samples are to be tested in various soil testing labs across the country. Thereafter the experts will analyse the strength and weaknesses (micro-nutrients deficiency) of the soil. It will also contain corrective measures that a farmer should adopt to obtain a better yield.
- Samples are generally taken two times in a year,
- A sum of Rs. 190 per soil sample is provided to State Governments. This covers the cost of collection of soil sample, its test, generation and distribution of soil health card to the farmer.
- The card lists soil health indicators that can be assessed without the aid of technical or laboratory equipment.

Soil Health Card

SHC is a printed report that a farmer will be handed over for each of his holdings. It will contain the status of his 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 will also indicate fertilizer recommendations and soil amendment required for the farm.

Financial Progress of Soil Health Card Scheme:(Rs. in crore)

Year	Funds released
2014-15	23.89
2015-16	96.47
2016-17	133.66
2017-18	152.76

2018-19	237.40
2019-20	107.24
Total	751.42

Status of Soil Testing Laboratories set up under Soil Health Management (SHM) scheme since 2014-15

S.N.	Name of State	Static Labs	Mobile Labs	Village Level Soil Testing Labs	Mini Labs
1.	Andhra Pradesh	0	9	16	1328
2.	AP	6	0	0	20
3.	Assam	10	0	0	200
4.	Bihar	0	6	25	0
5.	Chhattisgarh	23	0	5	111
6.	Goa	0	0	0	0
7.	Gujarat	0	0	30	230
8.	Haryana	7	0	36	34
9.	HP	0	7	0	47
10.	Jharkhand	0	0	0	1300
11.	Karnataka	0	1	289	6
12.	Kerala	0	2	0	152
13.	MP	265*	0	6	626
14.	Maharashtra	24	9	0	299
15.	Manipur	6	0	2	0
16.	Meghalaya	2	0	0	8
17.	Mizoram	2	0	0	0
18.	Nagaland	13	3	74	0
19.	Odisha	4	19	0	0
20.	Punjab	0	0	0	0
21.	Rajasthan	55	0	0	0
22.	Sikkim	0	0	14	0

23.	Tamil Nadu	5	0	2	0
24.	Telangana	0	3	0	2050
25.	Tripura	1	2	0	100
26.	Uttarakhand	0	0	1	0
27.	Uttar Pradesh	2	0	6	0
28.	West Bengal	12	0	0	0
29.	J & K	0	8	0	0
	Total	437	69	506	6511

* Under Process (Ministry of Agriculture & Farmers Welfare)

Collection of Sample

The State Government will collect samples through the staff of their Department of Agriculture or through the staff of an outsourced agency. The State Government may also involve the students of local Agriculture / Science Colleges. Soil Samples are taken generally two times in a year, after harvesting of Rabi and Kharif Crop respectively or when there is no standing crop in the field.

Soil Samples will be collected by a trained person from a depth of 15-20 cm by cutting the soil in a “V” shape. It will be collected from four corners and the centre of the field and mixed thoroughly and a part of this picked up as a sample. Areas with shade will be avoided. The sample chosen will be bagged and coded. It will then be transferred to soil test laboratory for analysis.

Testing of Soil Samples

The soil sample will be tested as per the approved standards for all the agreed 12 parameters in the following way:

1. At the STLs owned by the Department of Agriculture and by their own staff.
2. At the STLs owned by the Department of Agriculture but by the staff of the outsourced agency.
3. At the STLs owned by the outsourced agency and by their staff.
4. At ICAR Institutions including KVKs and SAUs.
5. At the laboratories of the Science Colleges/Universities by the students under supervision of a Professor/ Scientist.

Benefits of Soil Health Card Scheme

- The scheme will monitor the soil of the farmers well and will give them a formatted report. So, they can decide well which crops they should cultivate and which ones they should skip.
- The authorities will monitor the soil on a regular basis. Once in every 3 years, they will provide a report to farmers. So, farmers need not worry if the nature of the soil changes due to certain factors. Also, they will always have updated data about their soil.
- The work of the government does not stop at listing down measures required to improve the quality of the soil. In fact, they will also employ experts to help farmers in carrying out the corrective measures.
- The soil card will give the farmers a proper idea of which nutrients their soil is lacking. And hence, which crops they should invest in. they will also tell which fertilizers they need. So, ultimately, the crop yield will see a rise.
- The main aim behind the scheme was to find out the type of particular soil. And then provide ways in which we can improve it. Even if a soil has some limitations, we can do something to get the most out of it. And that is what the government is trying to do with the help of this scheme.

Reference

- Singh, U., Singh, A. and Pandey, A. K. (2020). Soil Health Card: A Scheme For Sustainable Agriculture.
- <https://india.gov.in>National Portal of India
- <https://pib.gov.in>Ministry of Agriculture & Farmers Welfare