

SOIL HEALTH CARD - A SAVIOUR FOR FARMER

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"Swasth Dharaa. Khet Haraa." - Healthy Earth, Green Farm

India is now eyeing second Green Revolution in eastern India. The need for enhanced investment in agriculture with twin focus on higher quality productivity and welfare of farmers is rightly emphasized from time to time by the Prime Minister Narendra Modi.

Soil health and soil fertility is the basis for sustainable profitability of the farmers all over the world. And utilizing optimum doses of fertilizers and cropping pattern according to the scientific recommendation is the initial step towards sustainable farming

In the entire scenario, importantly the Narendra Modi government has laid emphasis on the awareness campaign and enhanced agri-knowledge for the farming community. But besides the measures to improve minimum support price and assistance like improved irrigation and rural electrification, the incumbent NDA regime has laid emphasis on the **Soil Health Card Scheme**.

Soil Health Card Scheme

The Soil Health Card scheme launched by the Modi Government during the financial year 2014-15 with a view to address the decline of soil nutrients, has started reaping fruit. In the second phase of the scheme 11.69 crore soil health cards have been distributed to farmers in the last two years. 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.

The scheme has been approved for implementation during the 12th plan with an outlay of Rs.568.54 crore. For the financial year (2015-16) an allocation of Rs.96.46 crore – only for the central government share has been made. The scheme is to be otherwise implemented on 50:50 sharing pattern between Government of India and state Governments.



Importance of Soil Health Card

A Soil Health Card is used to assess the current status of soil health and when used over time to determine changes in soil health that are affected by land management.

Soil Health Card is basically a printed report that is given to a farmer for all his land or holdings. It contains the status of soil considering 12 parameters - N, P, K (Macro-nutrients), S (Secondary-nutrient), Zn, Fe, Cu, Mn, Bo (Micronutrients) and pH, EC, OC. Based on all this, the Soil Health Card will also specify fertilizer recommendations and soil changes required for the farm.

SOIL HEALTH CARD			Name of Laboratory	
Farmer's Details			SOIL TEST RESULTS	
1. Name		1. pH	Test Value	Unit
2. Address		2. EC		Rating
3. Village		3. Organic Carbon (OC)		
4. District		4. Available Nitrogen (N)		
5. State		5. Available Phosphorus (P)		
6. Landholder Name		6. Available Potassium (K)		
7. Sample Number		7. Available Sulphur (S)		
8. Soil Sample Details		8. Available Zinc (Zn)		
9. Sample Collected on		9. Available Boron (B)		
10. Survey No.		10. Available Iron (Fe)		
11. Khasra No. / Dag No.		11. Available Manganese (Mn)		
12. Farm Size		12. Available Copper (Cu)		
13. Geo Position (GPS)	Latitude	Longitude		
14. Irrigated / Rainfed				

Importance of Soil Health Card

The SHC will have an advisory based on the soil nutrient status of the farmer's holding, which will tell about the recommendations on the dosage of different nutrients required. After that, it will advise the farmer on the how much fertilizer he/she should apply and what soil amendments he/she should adopt. The SHC will be made available once in every 3 years to the farmers and this will indicate the status of soil health of his land for that particular period. Farmers would understand the fertility factor of the land better and can be attracted towards value added newer crops. This would help in reducing risk in farming and also the cost of overall cultivation process would get reduced.

Cost of Soil Sampling

The State Government collects soil samples twice in a year, after harvesting of Kharif and Rabi Crop or when there is no standing crop in the meadow. Then the samples sent to the various soil testing laboratories in the state or country.

A sum of Rs. 190/soil sample is given to State Governments, which covers the entire cost of collection of sample, testing, generation and distribution of Soil Health Card to the farmers.

Present Scenario of Soil Health Card

The country wide application of soil health card has led to a decline in the use of chemical fertiliser by 10%. A study conducted by the National Productivity Council (NPC) says that application of Soil Health Card recommendations has led to a decline of 8-10% in the use of chemical fertilizers. "It has also raised the productivity by 5-6%," the study said.

Soil Sample Details				
Date of Sample Collection	10/09/2017			
Survey No., Khasra No. / Dag No.	88			
Farm Size, Irrigation Status	2.16 Acre Irrigated (Bore well)			
Geo Position (GPS)	Latitude 16.117223°N Longitude 75.800556°E			

Soil Test Results				
Soil Health Centre, Bagalkote				
Soil Type: Black Soil				
Parameter	Test Value	Unit	Rating	Normal Level
1 pH	7.70		Moderately alkaline	7, Neutral
2 EC	0.04	dS/m	Normal	0 - 1 dS/m
3 Organic Carbon (OC)	0.35	%	Low	0.51 - 0.75%
4 Available Nitrogen (N)	200.63	kg/ha	Low	280 - 560 kg/ha
5 Available Phosphorus (P)	4.19	kg/ha	Very Low	23 - 57 kg/ha
6 Available Potassium (K)	122.85	kg/ha	Low	145 - 337 kg/ha
7 Available Sulphur (S)	26.50	ppm	Sufficient	> 10 ppm
8 Available Zinc (Zn)	0.27	ppm	Deficient	> 0.6 ppm
9 Available Boron (B)	0.63	ppm	Sufficient	> 0.5 ppm
10 Available Iron (Fe)	0.71	ppm	Deficient	> 4.5 ppm
11 Available Manganese (Mn)	6.41	ppm	Sufficient	> 2.0 ppm
12 Available Copper (Cu)	1.65	ppm	Sufficient	> 0.2 ppm

This has enabled the farmers to understand the soil health parameters and improve its productivity by judicious application of soil nutrients. Under the Central Government's Soil Health Card Scheme Phase-I (Years 2015 to 2017) 10.74 crore cards were distributed, while under the Phase-II 11.69 crore cards have been given away during the period 2017-19.

In the previous financial year, a pilot project "Development of Model Villages" is being implemented under which the sampling and testing of cultivable soil is being encouraged in partnership with the farmers. Under this project a Model Village has been selected for aggregation of soil samples and analysis of each agricultural holding. As part of the scheme 13.53 lakh Soil Health Cards have been distributed during the year 2019-20.

For setting up of soil health laboratories under the scheme, the states have been sanctioned 429

static labs, 102 new mobile labs, 8,752 mini labs, 1,562 village level labs and strengthening of 800 existing labs. The scheme provides for the analysis of soil composition by the State Governments once in every two years so that remedial steps can be taken to improve soil nutrients status. Farmers can track their soil samples and also obtain their soil health card report. Under the scheme village youth and farmers up to the age 40 years are eligible to set up soil health laboratories and undertake testing. A laboratory costs up to Rs 5 lakhs, 75% of which can be funded by the central and state governments.

Advantages of Soil Health Card

There are many benefits of having a Soil Health Card and the farmers need to understand it:

- The soil health card scheme will properly examine the farmer's soil and accordingly give them a formatted report so that he/she can decide upon which types of crops to be cultivated for higher income.
- The appointed authorities will also monitor the soil on a regular basis and will give a report to the farmers once in every 3 years. Also the farmers will be regularly updated about their soil.
- Under the scheme, the government will also employ professionals to help the farmers in adopting remedial measures.
- With the help of Soil Health Card Scheme, the farmers can plan the future of their crops as well as land.
- The best thing about the scheme is that Government pays utmost attention that same individual conducts soil analysis for a farmer, further enhancing the effectiveness of the scheme.
- The SHC gives the farmers a clear idea of which nutrients are lacking in their soil. So that he/she can decide that which crops they should grow for maximum benefit.

SOIL HEALTH CARD MULTIPLE BENEFITS

