

Soil Health Card Scheme

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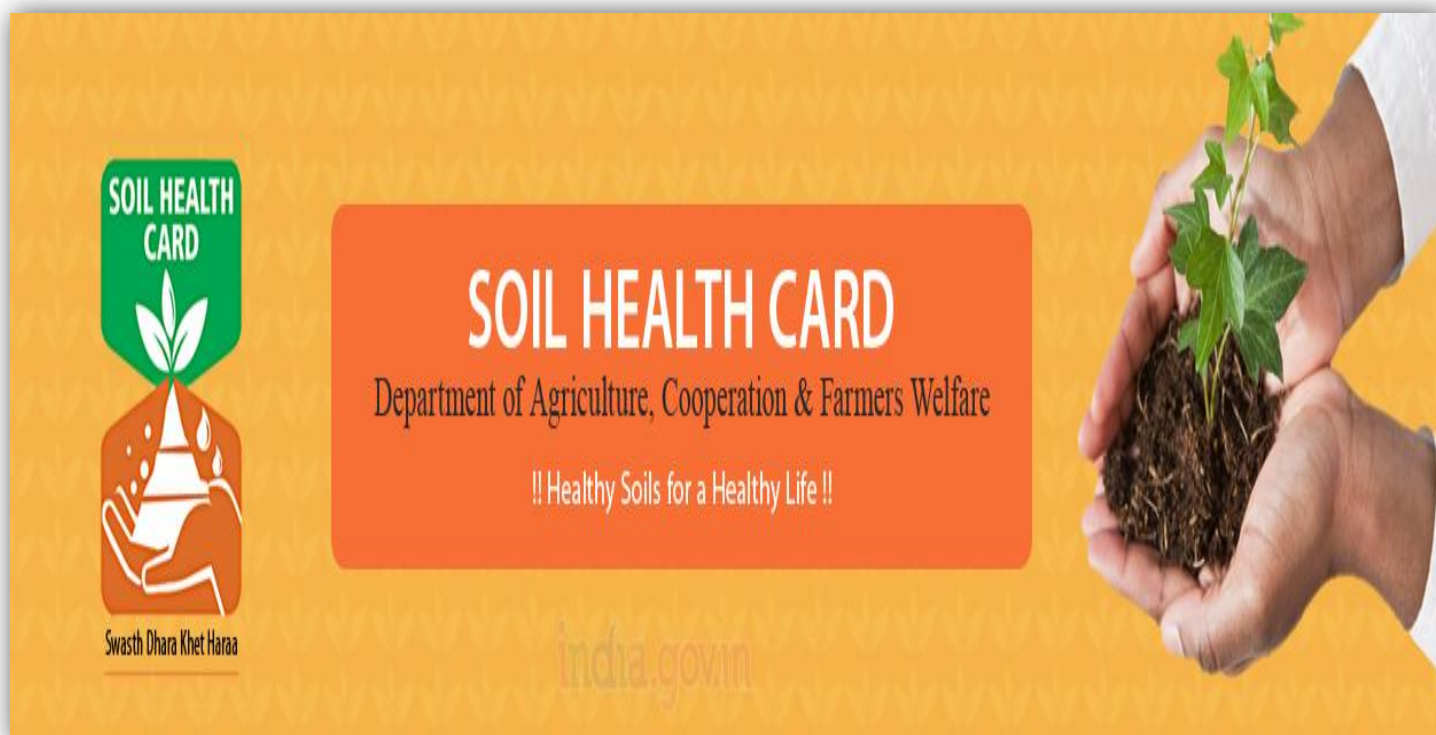
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SUMMARY

Soil is the fundamental element of agriculture which contains nutrients and provides to plant for healthy growth. The soil health has declined recently as a result of indiscriminate fertilizer usage and imbalanced application of other practices. In light of these facts, the Indian government has introduced a flagship scheme for disseminating data on agricultural nutrient availability. The soil nutrient status of each farmer's particular farm is provided by the soil health card, which also makes recommendations for the amount of fertilizer and soil amendments that each farmer should apply in order to preserve the long-term productivity and health of the soil.

INTRODUCTION

Soil is the key to ecosystem functions which support the production of food, forestry products and human health. Healthy soils result in healthy crops that feed both people and animals. In terms of soil attributes, soil health is crucial for agricultural production, food quality, environmental resilience, and the sustainability of ecosystems (Stevens, 2018). According to research by Kibblewhite *et al.* (2007), the preservation of four key processes—carbon conversions, nutrient cycles, soil structure maintenance and pest and disease control—is necessary for the health of the soil. Nutrient shortages in soil have been caused by improper fertilizer application, a lack of organic matter input, and a failure to restore depleted micro and secondary nutrients over time. Soil fertility management practices are not widely used or widely known. Therefore, it is necessary to assess soil health under various management regimes in order to understand and enhance the function of soil ecosystems.



Soil health management may be built on the basis of precise and systematic measurements of soil health. As a result Government of India started a new scheme of providing Soil Health Card to farmers. Soil Health Card scheme was launched by Prime Minister Narendra Modi on Feb 19, 2015 at Suratgarh, Rajasthan. Prime Minister gave the slogan Swasth Dharaa, Khet Hara- Healthy Earth Green Farm. 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 which is a simple document, contains useful data on soil based on chemical analysis of the

soil to describe soil health in terms of its nutrient availability and its physical and chemical properties (Mukati *et al.*,2018).

Latest Update

As of 2021, The Soil Health Card Scheme has reached more than 150 million farmers nationwide. The scheme has also been expanded to include non-farmers, such as rural business owners who may set up soil testing labs and provide farmers soil testing services using the data supplied by the soil health cards. The government has also released a mobile app called "Soil Health Card" that gives farmers access to their soil health card on their smartphones. The app also offers details on soil management techniques and soil health. As part of the Pradhan Mantri Krishi Sinchai Yojana (PMKSY)'s "Per Drop More Crop" initiative, the government of India has also given states financial support for the installation of soil moisture sensors and other soil testing tools that can help farmers maximize their use of water and inputs.

What is a Soil Health Card?

The 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 *viz.* 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.

Objective of Soil Health Card

- To issue the soil health cards to farmers every two years and provide a basis to address nutrient deficiencies in fertilization practices
- To develop and promote soil test based nutrient management
- To ensure cultivation cost by application of right quantity of fertilizer
- To ensure additional income to farmers by increasing yields
- To improve soil health for Sustainable farming

Implementation of the Scheme

The Soil Health Card Scheme is being implemented by the Department of Agriculture, Cooperation, and Farmers' Welfare (DAC&FW), Government of India. Under the scheme, soil samples will be collected from farmers' fields and delivered to labs for soil testing and analysis. The analysis provides information about the nutrient content of the soil and recommendations for appropriate fertilization and soil management practices.

Benefits of the Scheme

Improved soil health: By providing farmers with information about the nutrient status of their soil, the scheme stimulates appropriate fertilization and soil management practices, which can improve soil health and minimize the use of chemical fertilizers

Increased productivity: The scheme can help farmers become more productive by encouraging sustainable agriculture, suitable fertilization methods, and methods of soil management.

Cost savings: The scheme can help farmers save money on inputs by minimizing the usage of chemical fertilizers and encouraging suitable fertilization and soil management practices.

Environmental benefits: The scheme can help minimize agriculture's impact on the environment by minimizing the usage of chemical fertilizers and encouraging sustainable agriculture.

Challenges and Way Forward

Awareness and participation: The scheme has to be made more widely aware and encourage more farmers to participate. Some farmers may be unwillingness to participate due to the perception that the scheme is time-consuming or requires additional investment.

Quality of soil testing: There have been some concerns about the quality of soil testing under the scheme. Some farmers have reported receiving inconsistent or incorrect recommendations, which may result in less-than-ideal farming practices.

CONCLUSION

The soil health card will help to create awareness among the farmers about the nutrient status of the soil and indicate fertilizer recommendations and soil amendments required for the farm. It will help with the improvement of soil health and, at a minimum cost, increase the production of crops.

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