



# Soil Health Card Scheme

**Last Updated: September 2022**

**For Prelims:** Soil Health Card, Soil Testing Norms.

**For Mains:** Government Policies & Interventions Related to Farmers, Significance and Drawbacks related to the Soil Health Card Scheme.

## What is Soil Health Card (SHC)?

- On 19<sup>th</sup> February 2015, the **Ministry of Agriculture and Farmers' Welfare** introduced the [Soil Health Card \(SHC\) scheme](#).
- A soil health card **provides information on the nutrient status of soil**, along with recommendations on the dosage of nutrients to be utilised for improving its fertility and health.
  - **Soil Health Card Day:** Soil Health Card Day commemorates the day when the SHC scheme was launched by the Prime Minister on February 19, 2015. The **Ministry of Agriculture introduced the SHC scheme on December 5, 2015.**
- SHC is a printed report which contains nutrient status of soil with **respect to 12 nutrients:**
  - pH, Electrical Conductivity (EC), Organic Carbon (OC), Nitrogen (N), Phosphorus (P), Potassium (K), Sulphur (S), Zinc (Zn), Boron (B), Iron (Fe), Manganese (Mn), Copper (Cu) of farm holdings.
- SHC will be provided to all farmers in the country at an **interval of 3 years to enable the farmers to apply recommended doses of nutrients** based on soil test values to realize improved and sustainable soil health and fertility, low costs and higher profits.
  - Farmers can take a printout of the card from the SHC portal, which has a **database of all harvesting seasons** and is available in 21 languages.

## What are the Objectives of the SHC Scheme?

- To improve soil quality and profitability of farmers.
- Employment generation for rural youth.
- To update information on soil analysis.
- To provide soil testing facilities to farmers at their doorstep.

## What are Soil Testing Norms?

- Soil samples are drawn in a **grid of 2.5 ha in irrigated areas and 10 ha in rain-fed areas** with the help of the Global Positioning System (GPS) tools and revenue maps.
- Soil samples are **processed through standard procedures and analysed for the above mentioned 12 parameters.**
- 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 collected generally two times in a year, after harvesting of [Rabi and Kharif](#)

**Crop** respectively or when there is no standing crop in the field.

## What is its Significance?

- **Insufficiency of Nutrients:** The government launched the SHC scheme as an initiative to curb the overuse of urea or nitrogenous fertilisers causing a deficiency of nutrients in soil like potassium, nitrogen, Sulphur, zinc, boron, copper and phosphorus.
- **Soil Productivity:** Farmers can assess and raise the soil and crop productivity using key inputs from the card that carries crop-wise recommendations and other physical parameters of fertilisers and nutrients required for farm lands.
- **Increase in Soil Fertility:** With the help of the SHC, farmers can improve integrated nutrient management by judiciously using the soil nutrients.
  - After getting SHC farmers have **reduced N, P and K use**, especially nitrogen use and increased the use of micronutrients which helped them to increase fertility.
- **Crop-wise Guidance:** It is a field-specific report that helps the farmers to receive crop-wise recommendations of required fertilisers and nutrients in each type of soil.
- **Fertiliser Based Recommendations:** SHC offers two sets of fertiliser recommendations for six crops, including recommendations for organic manures.

## What are the Drawbacks Associated with SHC?

- **Inadequate Understanding:** Many farmers are unable to understand the content, hence unable to follow the recommended practices.
- **Issues in Collecting Variable Samples:** The Number of soil samples per unit area are not based on soil variability.
- **Concerns Regarding Coordination:** Lack of Coordination among agricultural extension officers and farmers.
- **Lack of Important Aspects:** Soil health card does not include essential characteristics like moisture retention and microbial activity.
- **Equal Attentiveness:** The soil health card is more focused on chemical nutrient indicators; among physical and biological properties only soil color is included.
- **Exclusion of Important Aspects:** Some important indicators are not included in this scheme such as:
  - cropping history,
  - water resources (soil moisture),
  - slope of soil,
  - depth of soil,
  - color of soil,
  - soil texture (bulk density) and
  - Micro-biological activity etc are not included.
  - Inadequate soil testing infrastructure.

## What are the Initiatives to Improve Soil Health?

- [Organic Farming](#)
- [Paramparagat Krishi Vikas Yojana](#)
- [Fertilizer Self-Sufficiency](#)
- [Digital Agriculture](#)
- [Carbon Farming](#)
- **The Nutrient Based Subsidy (NBS) Scheme**

## What can be the Way Forward?

- **Adaptation of Recommendations:** There is a need for **demonstration of benefits of SHC** on an experimental basis in each block by adopting a comprehensive approach (systematic and scientific analysis of soil and water) and adoption of recommended doses.
- **Requires Monitoring:** A specialised body is needed both at the central as well as at state level for the management of soils. They should be given the responsibility of monitoring the quality of

service by various agencies. This also provides continuity of the work by the department.

- **Need of Awareness:** SHC distribution and awareness campaigns needs to be arranged before sowing season, so that farmers will practice recommended crop choice and fertilizers.

## **UPSC Civil Services Examination Previous Year's Questions (PYQs)**

### ***Prelims***

**Q. Consider the following statements: (2017)**

**The nation-wide 'Soil Health Card Scheme' aims at**

1. Expanding the cultivable area under irrigation.
2. Enabling the banks to assess the quantum of loans to be granted to farmers on the basis of soil quality.
3. Checking the overuse of fertilizers in farmlands.

**Which of the above statements is/are correct?**

- (a)** 1 and 2 only
- (b)** 3 only
- (c)** 2 and 3 only
- (d)** 1, 2 and 3

**Ans: (b)**