



Soil Health Card Scheme

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What is Soil Health Card (SHC)?

- On 5th December 2015 the ministry of agriculture introduced the soil health card (SHC) scheme
- 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.
- Soil health card is field-specific detailed report of soil fertility status and other important soil parameters that affect crop productivity.

Objectives

- 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.

About Soil Health Card

- The cropped area was divided into grids of 10 ha for rainfed and 2.5 ha for irrigated and taken only one soil sample from each grid and test results will be distributed to all the farmers whose area was falling under the grid.
- Soil samples are processed through standard procedures and analyzed for various parameters namely pH, electrical conductivity (EC), Organic Carbon (OC), available N, P, K, S and micronutrients (Zn, Cu, Fe, Mn & B).
- 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.

Benefits

- SHC helps farmers to improve soil health and ultimately increase productivity.
- After getting SHC farmers have reduced N, P and K use, especially nitrogen use has and increased micronutrients use which helped them to increase the fertility.
- It has helped farmers to diversify towards less input-intensive crops from more input-intensive crops like paddy and cotton.
- It has also helped farmers to find input substitutions.
- It has helped in the formulation of specific schemes like subsidised micronutrients from governments.

Drawbacks

- Many farmers are unable to understand the content, hence unable to follow the recommended practices.
- Number of soil samples per unit area are not based on soil variability.
- Lack of Coordination among agricultural extension officers and farmers.
- Microbial activity, moisture retention activity are essential but missing in SHC.
- The soil health card is more focused on chemical nutrient indicators; among physical and biological properties only soil color is included.
- Some important indicators (i) cropping history, (ii) water resources (soil moisture), (iii) slope of soil, (iv) depth of soil, (v) color of soil, (vi) soil texture (bulk density) and (vii) Micro-biological activity etc are not included.
- Inadequate soil testing infrastructure.

Way Forward

- 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.
- **A specialized body is needed** both at central as well as at state level for the management of soils. They should be given responsibility of monitoring the quality of service by various agencies. This also provides continuity of the work by the department.
- SHC distribution and awareness campaigns needs to be arranged before sowing season, so that farmers will practice recommended crop choice and fertilizers.