

Soil Health Card: Scheme That Transforms Lives of Farmers

Peddi Naga Harsha Vardhan

Ph.D. Research Scholar, Department of Agricultural Extension, Uttar Banga Krishi Viswavidyalay, Pundibari, West Bengal

SUMMARY

The future of world's food security depends upon the attention we pay to soil health care and efficient use of water. However, imbalanced use of chemical fertilizers and high yielding varieties causing mining of nutrients from soil which results in depletion of soil fertility, decrease in organic matter content and deterioration of soil health. The Government of India started a scheme called "Soil Health Card" (SHC). It can be achieved by scientific soil sampling method, testing and recommendations. Thus, soil health card provides sound information or recommendations on integrated nutrients management through right source and right amount to be applied in soils in order to enhance soil health and crop productivity.

INTRODUCTION

Agriculture is the backbone of Indian economy and food is a physiological necessity for the survival of human being (Parewa *et al.*, 2016). The basis for the sustainable profitability to the farmers was Soil health and fertility. The first step for the sustainable farming was using the optimum dose of the fertilizers and cropping pattern. Soil testing is a scientific tool used for the assessment of soil fertility status and nutrient amendment recommendations. It helps in the judicious fertilizers usage. It works on the principle of profitability, meaning if all other factors of production are at optimum and none of them limiting, there is all probability to obtain more profitable response to applied nutrients based on soil testing. In India, the current consumption of NPK ratio is 6.7:2.4:1, which is highly skewed towards nitrogen as against ideal ratio of 4:2:1 (Anonymous, 2017). India is spending nearly Rupees Seventy thousand crores on fertilizer subsidy every year. It leads to excessive use of fertilizers, especially NPK at the cost of micro-nutrients and manure. Hence, there is a need for balanced use of fertilizers, keeping this government of India introduced a scheme across India (Reddy, 2017). Indian government has launched a scheme called Soil health card scheme for the welfare of the farmers. On 19th February 2015 Department of Agriculture & Co-operation under the Ministry of Agriculture and Farmers' Welfare introduced this Soil health card (SHC) scheme (Anonymous, 2015). It is provided for every 2 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.

What is soil health card?

Soil Health Card (SHC) is the farmers printed report which will be handed over for each of his holdings. It will contain the status of 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 Soil Health Card will also indicate fertilizer recommendations and soil amendment required for the farm. Soil health card is a field-specific detailed report of soil fertility status and other important soil parameters that affect crop productivity.

Objectives of soil health card:

- It helps in improving the soil quality and profitability of the farmers.
- It generates the employment for rural youth.
- It helps in updating the information on soil analysis.
- To provide soil testing facilities to farmers at their doorstep.

Where the farmers can get SHC:

A farmer can directly bring their field's representative soil samples to the nearest District Soil Testing Laboratory (STL) or STL of the State Agriculture University or Krishi Vigyan Kendra. The sample can also be

deposited to the Agriculture supervisor, Assistant Agriculture Officer, ATM or BTM for testing and to obtain the SHC. After analysis of the samples and interpretation, the recommendation made for the particular soil/field by the subject specialist. The SHC are prepared by the District soil testing laboratory, soil testing laboratory of the State Agriculture University, Krishi Vigyan Kendra is dispatched to the farmers address or they can collect in person.

Merits:

- It has helped the farmers to find the input substitutions.
- It helped the farmers in judicious use of the NPK and increased the use of micro nutrients which helped them to increase the soil fertility.
- Farmers diverted towards less input intensive crops from more input intensive crops like paddy and cotton.
- It has helped in the formulation of specific schemes like subsidised micronutrients from governments.

Demerits:

- The limitation for adopting the soil testing is that having limited number of soil testing laboratories.
- Having poor infrastructure of the soil testing laboratories.
- Location of the Soil testing laboratories far from the village head quarters.
- Lack of awareness on following the scientific method of soil sampling by the farmers.
- Poor inclination towards adoption of the soil testing.
- Lack of Coordination among agricultural extension officers and farmers.

Possible way out:

- Should conduct the Demonstrations on the benefits of Soil health card.
- A specialized body is needed to be formed both at state and central level for monitoring the quality of work and management of the soils. This also provides continuity of the work by the department.

CONCLUSION

Soil health card is a quality assessment tool which helps in easily prepared by the farmers for the diagnosing present nutrient status and problems of the farmer's field. . It is an initiative for farmers to manage their soil for productivity and for environmental protection. Moreover, finally soil testing and its recommendations in the form of soil health card can be a real solution for self-sufficiency in food, feed, fodder and fiber to fulfill daily needs of living-beings and future generation without deterioration of soil health.

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