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SOIL HEALTH CARD: A LIFE FOR SOIL

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According to the latest estimates, 96.40 Million Hectare (Mha) area of India is undergoing the process of land degradation, which is 29.32 per cent of the Total Geographic Area (TGA) of the country during 2011-13 it was 94.53 Million Hectare in 2003-05 (GoI 2016). It is not a good sign for soil health. The states of Rajasthan, Maharashtra, Gujarat, Karnataka, Jharkhand, Odisha, Madhya Pradesh and Telangana contribute 24 percent of the degraded area in the country. In India, the current consumption of NPK ratio is 6.7:2.4:1, which is highly skewed towards nitrogen as against the ideal ratio of 4:2:1. Hence, there is a need for balanced use of fertilizers. According to the "Degraded and Waste Lands of India" report by the Indian Council for Agricultural Research (ICAR) and the National Academy for Agricultural Sciences, 141 million hectares of the total geographical area of India, which is about 328.2 million hectares, is 70 per cent of total cultivation which is 100 million hectares is heading down a path where it will be incapable of supporting farming. Farmers are using soil more and growing crops more than two times a year without proper soil management. Soil health and fertility is the basis for the sustainable profitability of the farmers. To keep all thing in mind, the ministry of agriculture has introduced the Soil Health Card (SHC) scheme on world soil day, 5th December 2015. The scheme is an improvement over the earlier National Project on Management of Soil Health and Fertility that was launched during 2008-09. To achieve eco-friendly agriculture, the soil must be good preserve and of good quality (Calleja-Canvantes*et al*., 2015). Soil health card scheme helps farmers know about the crops that can be planted depending on the soil based on scientific method. By doing this, the farmer can get maximum yield while harvesting the crops. SHC help to get to know soil quality. Soil quality defined as the capacity of soil to function within boundaries of natural and maintain plant and animal growth and also maintain water and air quality and also should not any side effect on human health (Karlen et al.,1997)under this scheme based on analysis, the farmer is provided with a soil health card

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that determines the crops that can be cultivated on the particular soil and measure to develop the productivity of the crops. In Cycle-I (2015-2017) 100 million soil health card distributed and 4.71 crore soil health cards have been distributed to the farmers all the country during cycle-II which cover 2017 to 2019.

Soil health card contains the following details

- The health of the soil
- Functional characteristics of the soil
- The water content and nutrients present in the soil
- Additional properties of the soil
- Measure to improve the defects of the soil

Benefits of the SHC

1. The farmer will be notified about the soil type according to soil type they can plant crop.
2. The authorities provide a report to the farmers once in three years after observing the soil regularly. This will help farmers not worry about the cultivation of crops in case of soil change due to natural factor.
3. The farmers are also given advice by the experts according to their soil sample result about improve the productivity of the crops and the necessary methods that have to be practised in order to implement the changes.
4. Soil health card contains the status of soil with respect to 12 parameters, namely N. P. K.(Macro-nutrients), S (secondary nutrients), Zn, Fe, Cu, Mn, Bo (Micronutrients) and pH, EC, OC (Physical parameters) based on this, the SHC will also indicate fertilizer recommendations and soil amendment require for the farm.
5. The farmers will be informed about the needed nutrients in the soil after analysis in the laboratory which nutrients have poor in their soil.

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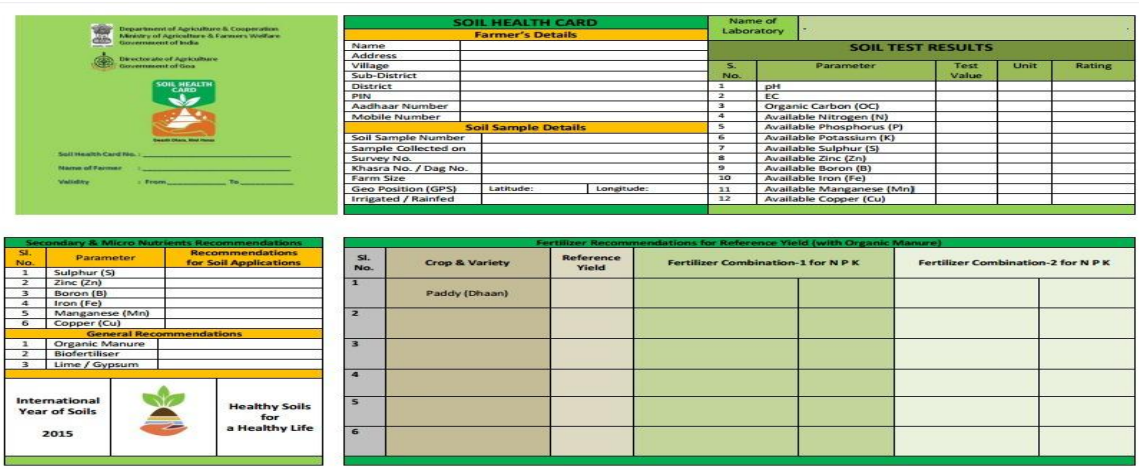
Testing of the soil

Soil sample is taken twice regularly in a year after the harvesting of the Rabi and Kharif crops and also can collect a sample when there is no crop in the field. The samples will be collected by the experts where the soil will be cut with the help of a spade or require a tool to adapt of 15-20 cm in a **'V'** shape. Sample should be collected from four corners of the field and the centre of the field and mixed thoroughly and a part of this picked up as a sample. The collected sample will be bagged and coded. The obtained sample will be coded and then sent to laboratories for conducting tests and analysis.



Conclusion

The main reason behind the soil health card scheme. This card helps to identify the scarcity of any elements which are responsible for the slow growth of crop so farmers could recognise the main problems in the soil through this SHC and can solve it.

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