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Necessity of Soil Testing Before Planting Kharif Crops

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Kharif crops are crops that are mainly grown in the season of May/June and harvested in September/October. One of the major Kharif crops is paddy and we know it plays an important role in the country's AGDP i.e. Agriculture's gross domestic product and ultimately to overall GDP of the country. Paddy is considered a highly demanding crop; it requires an average of 2500 liters of water to produce 1 kg of rice. This requirement can be fulfilled either through rainfall or through irrigation water. The other major kharif crops are Millet, Cotton, Maize, etc.

Every farmer's main aim is always to get maximum yield and for that, they use fertilizers and pesticides abruptly which ultimately makes the quality of soil deteriorate. So, to conserve the quality and fertility of soil it is necessary to test the soil. Soil testing is very important because it will help in the production of crops, diagnosis of nutrient deficiency, and improving crop nutrient deficiency by applying the required amount of dose of fertilizer. Knowing the exact nutrient found in your soil and pH is the first step of any healthy crop production program. So regular and repeated soil sampling is the best management practice. As much you know your soil the better will be to get of it.

From where to get your soil tested?

We can get our soil tested from soil testing laboratories, KVK, local cooperatives, extension offices, or any garden centers.

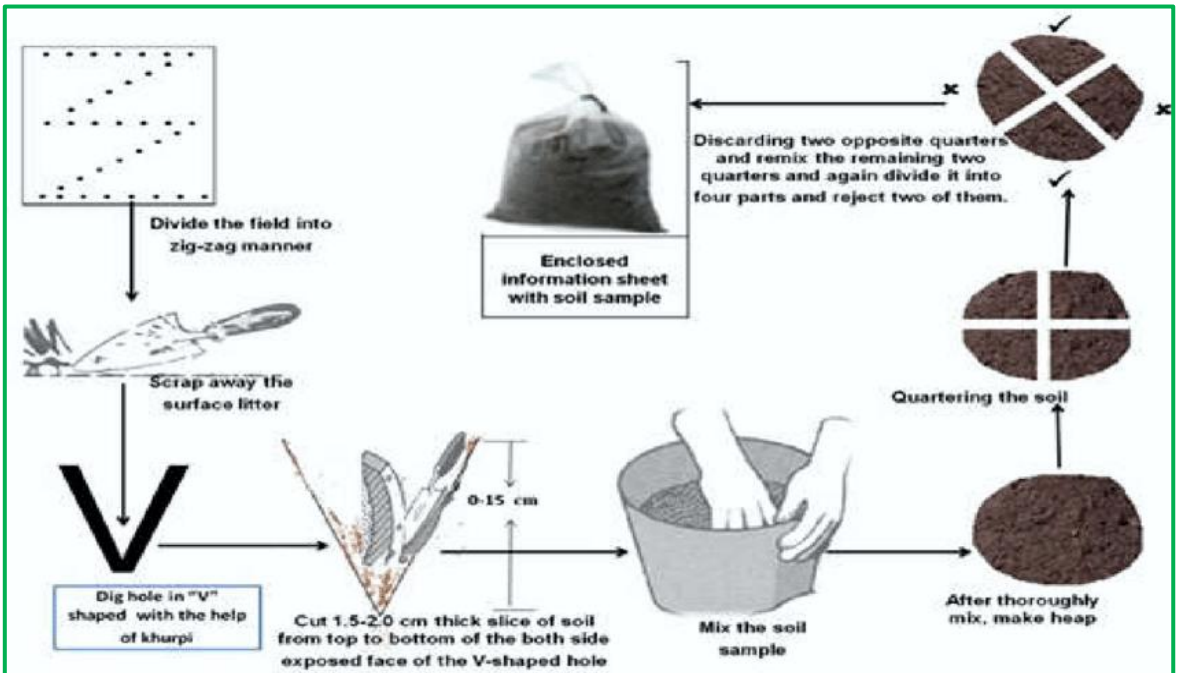
Materials required for soil sampling

1. Spade
2. Khurpa
3. Pich axe
4. Augers (Post hole, Screw, or Carpenter and Tube)
5. Sampling bags
6. Buckets or trays

Procedures to be followed while soil sampling

1. Collect the soil sample from undisturbed soil i.e., after harvest but before tillage operation, if taking samples from standing crops take them from rows.
2. The sampling spots should be taken randomly for sampling volume.
3. Do not sample unusual spots which are recently fertilized, old bunds, marshy spots, composite piles, or other non-representative spots.
4. More samples should be taken to the place where nutrient deficiency is more often seen.
5. For the fertility test, the sample should be taken from 15cm beneath.
6. Mix well the soil collected from different spots of the field and take ½ kg composite sample as follows:

I. Divide the soil collected into four parts and discard any two of them.
II. Mix well the soil remaining two parts and again divide into four parts out of which only two are taken and put in a clean cloth bag free from fertilizers, salt, etc.



7. Air dry the sample under shade. Do not dry the soil in the sun or by artificial heating with a stove or furnace.
8. Label each sample with the name address and field number, prepare two labels one to be inside the bag and the other to be tied on the bag. Labels should be written with a copying pencil but not in ink.

Key advantages of soil testing

1. It helps to know farmers about the current nutrient status of soil and how to improve it.
2. Soil testing leads to the minimization of fertilizer expenditure.
3. Soil testing helps to avoid the degradation of soil.
4. It helps to avoid soil poisoning as required treatment would be given according to the soil test report.
5. Soil testing saves an average of Rs 1000- Rs 1200 per acre in fertilizer application.

Hence due to all these suitable reasons, there is a necessity for soil testing before planting next season's crop