

## Precautions:-

- Do not draw sample from the extreme corners of the field, areas recently manured/fertilized or have received a dose of some soil amendment, old bunds, manure piles/pits, marshy spots, furrows, areas under tree canopy & non representative spots.
- Do not take less than 0.5 kg of a composite sample.
- Use ball pen for writing on the labels.
- To avoid any kind of damage to the enclosed labels/tags the same should be kept in small poly bags.
- Care in handling the soil samples against the contamination is extremely important. Any possibility of contact with chemicals, fertilizers, pesticides, salt or lime should be avoided.
- Proper procedure should be followed for sampling in saline & alkaline soils, as the procedure described above is for normal soil conditions.
- Special care is required if the samples are to be tested for micro nutrients.



**For clarifications/suggestions please feel free to contact :-**

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## Scientific Soil Sampling Procedure For Orchard Soils



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## Right Soil Sampling For Right Results

Soil sampling should be done prior to the application/addition of fertilizers from an apparently homogenous orchard, treating it as **One-Sampling-Unit**. Variation in appearance, slope, color, texture, crop growth, drainage or areas known to have been fertilized, manured or treated differently should be taken into account & separate sets of composite samples need to be collected from each area.

### • Soil Sample Collection, Procedure :-

Remove the litter/unwanted material from the surface without much disturbing the soil. Depending upon the size of the Sampling Unit, take the sample cores from 10-12 random spots in a zig-zag pattern in the field.

In an orchard, it is advisable to go normally up to the depth of three feet, which is further divided into three layers of one foot depth each. The sub-samples of each of the three layers should be collected separately, followed by the layer-wise collection of the same from all the dug pits. This will give a total of only three soil samples from One-Sampling-Unit/orchard in question (irrespective of the No. of pits).

### • Sample Size Reduction & Compositing:-

Collect the sample in a bucket & mix it thoroughly. Reduce it to 0.5 kg

Composite Sample as detailed below:-

- Spread the sample in a disc - like shape (by hand) on a clean piece of cloth, polythene sheet or thick paper and discard all unwanted material, viz, grass, stone pebbles, leaves, twigs etc.
- Reduce the bulk by dividing it into four quarters, followed by quartering i.e. discard one set of opposite quarters.
- Remix well the remaining two quarters of soil and repeat quartering till the sample size is reduced to 0.5 kg. Air-dry the sample in shade & not by direct sunlight.
- Put it in a clean & fresh cloth bag, free from any contamination of fertilizers, salts, pesticides, lime etc.
- Prepare four labels; 3 labels for each individual bag inside & one label to be tied to the neck of the main bag outside. The soil samples should be packed depth-wise in separate cloth bags & then put inside one bag.

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For nursery purpose the soil samples should be drawn from a depth of 9 inch only.

### Soil Sample Information Sheet (To be attached with the sample):-

- Name & Parentage of the orchardist,
- Full address, with Horticulture Zone, Village, Block & District,
- **Kind & Age of plantation of the orchard (very important),**
- No. of samples mixed together to get the representative/composite sample,
- Total Sampling Area/Total Area under orchard in question,
- **Date of sampling/sample collection,**
- Irrigated (Source) or Un-irrigated ,
- **Aadhar Card No. and Contact No.,**
- Survey No./Khasra No.
- Category (Gen/OBC/SC/ST)  
(for full version please visit [www.hortikashmir.gov.in/soil.htm](http://www.hortikashmir.gov.in/soil.htm))