

How to collect soil samples

Proper collection of soil samples is extremely important. The correct interpretation of the soil test can be made only when the samples are truly representative of the soil conditions in the field.

Sampling

Sampling is easy when the soil is moist. However, sampling may also be done when the soil is dry or is naturally wet as in paddy fields. Collect soil samples away from fences, roads, building sites, straw piles, manure piles, etc.

Do not mix the following:

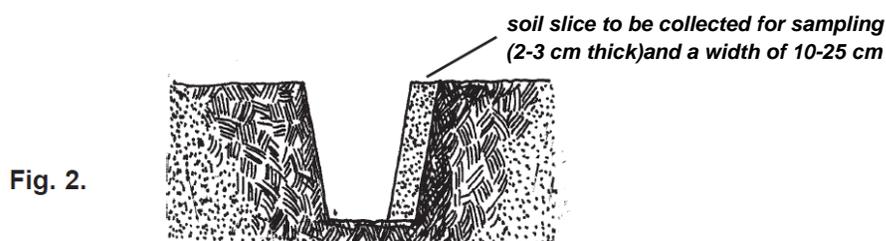
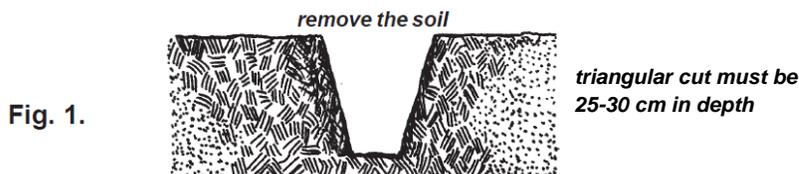
- light and dark colored soils
- samples from areas which vary in past fertilizer application or
- average crop yield
- samples from different textures
- samples from different elevations/slopes

Materials

- Tools - a long narrow bladed shovel or other ordinary shovel or bolo, to collect soil samples
- for paddy field (wet soil), use a PVC pipe with about 2.5" cm diameter
- Containers - a pail or basin for collecting and mixing soil samples
- plastic bags for packaging the samples from the field to the laboratory

Procedure

1. Divide the farm into lots. A farm may be level or sloping, it may have wet or stony portions. Collect a sample that represents an area, which has uniform slope, texture, depth, drainage, and crop grown.
2. Make a triangular cut to a depth of 25-30 cm (Fig. 1). Slice 2-3 cm (Fig. 2) thick from each of the cut using a shovel. Remove and place the collected soil in a container. Repeat this procedure in 10 different spots as shown in Figure 3.



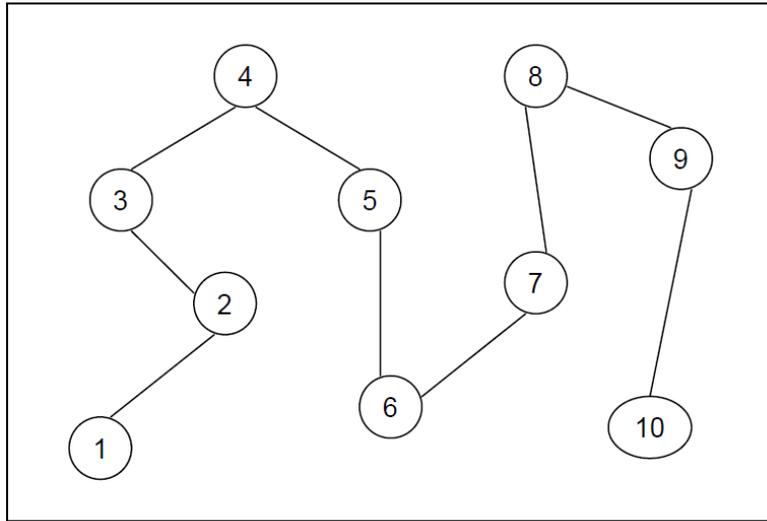


Fig. 3. Ten different places in the field where soil sample should be collected.

Note: Avoid any contamination during the collection and processing of soil samples.

- Mix all of the collected soil samples in a container; break big clods into the smallest possible size, then pour the soil on a plastic sheet. Divide the lot into four (Fig. 4) and discard the soil from appropriate quarters. Repeat the procedure until the desired volume of soil (1-2 kg) is attained.

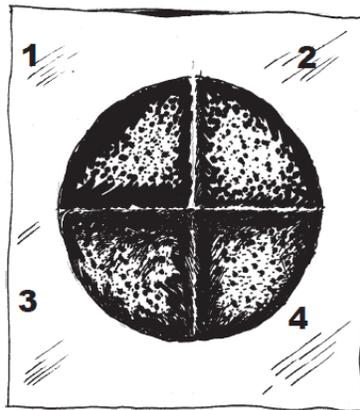


Fig. 4.

In the divided lot, collect only parts 1 and 4 and discard parts 2 and 3.

- Fill up the soil sampling information sheet and attach it to the plastic bag containing the soil sample. Label the plastic bags with the following: 1) date and place of sampling, and 2) name of researcher or farmer.
- In your station/laboratory, air dry the soil samples. Pulverize using a wooden mallet/pestle.

Soil sampling information sheet

Name of farmer _____	Date of sampling _____
Mailing address _____	
Location of farm _____	Date submitted _____
Directions for finding the site/Landmark _____	
Area represented (ha) _____	
Topography: ___ Plain ___ Rolling ___ Hilly	
Previous crops _____	
Fertilizer applied to previous crops (amount and kind) _____	

Crop and variety to be fertilized _____	

Water source: ___ Irrigated (NIA/Pump/SWIP, etc) ___ Rainfed	
Yield (t/ha): in dry season _____ in wet season _____	
Slope gradient _____	
Yield from previous cropping _____	

Source: Q&A Series No. 4. Integrated Nutrient Management. Philippine Rice Research Institute. ©2002

Reviewed by:
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