

## NATIONAL AGRO FOUNDATION

### SOIL SAMPLING PROCEDURE FOR FERTILITY EVALUATION

A sampling area is divided into homogenous units or fields that have similar soil characteristics like colour, texture and drainage; topography (ridge, side slope, bottom), crop and fertility history etc. (Fig 1). The size of each field may vary from one acre to 20 acres depending on the uniformity of the ground. Exclude small areas within a field that are obviously different. These can be sampled separately if they are large enough to warrant treatment.

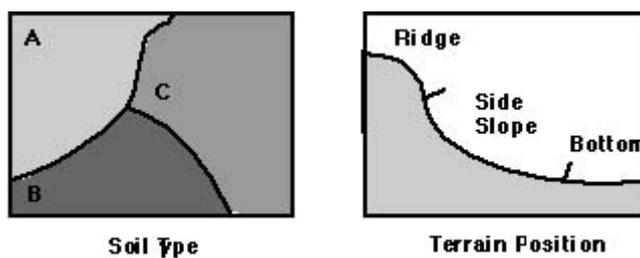


Fig 1

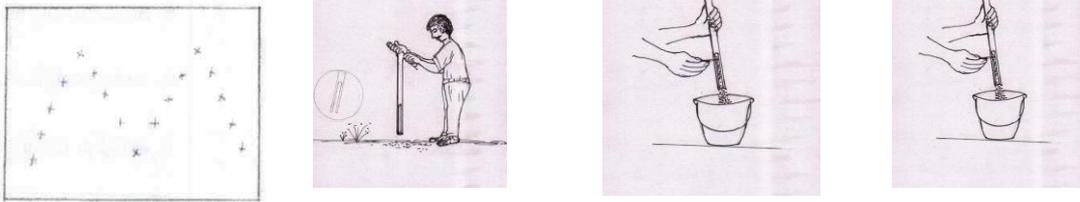
Avoid sampling in the following areas:

- Old fertilizer bands, if possible
- Recently fertilized areas or fields
- Dead furrows and end rows
- Areas near roads, and fence rows,
- Avoid areas where livestock flock
- Small, very poorly drained spots in the field

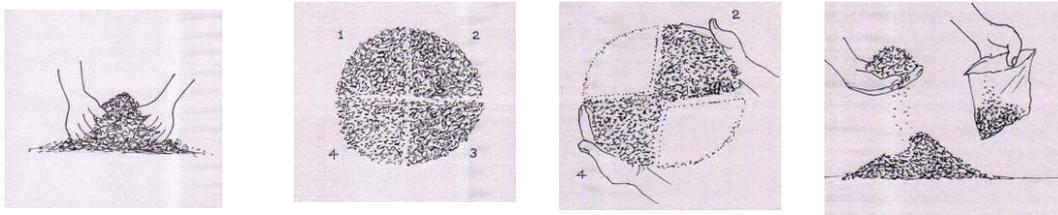
A representative soil sample can be collected from each field as follows:

From each field take 10 to 24 soil cores to a depth of about one feet deep using a soil sampling probe. Deposit the soil cores into a clean plastic bucket. Make sure samples are taken from locations in the field distributed in a pattern to represent the entire field (fig 2). All the cores from the same field are thoroughly mixed together in a clean bucket. From this mixture take a sub-sample weighing about 500gms. Use a cloth, plastic or paper sack to hold this sample. Immediately mark the sample with Farmer's name and field number for identification.

If the ground is too hard to get the desired depth of sampling, soften the ground by overnight watering at only the spots in the field where the soil cores are to be taken.

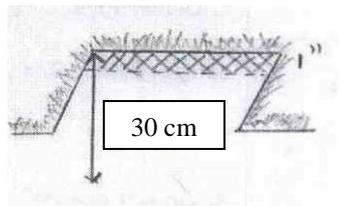


A field showing sampling locations (fig 2)



If soil probe is not available, use the following procedure:

Expose 6 - 8 inches wide and 12 inches deep soil profile with a shovel. Slice out a piece of ground 1 inch wide and 1 inches thick and 12 inches deep (fig 3). Place the carefully sliced soil sample in a clean plastic bucket. Repeat this process in several locations in the field as shown in fig 2 to get a representative sample of the entire field. Thoroughly mix all the soil slices from the field and sub sample as described earlier.



(fig 3)

Moist samples should be air dried as soon as possible before sending to the soil testing lab.

Forward the soil sample along with the details of sample identification, previous crop, planned crop and irrigation water facilities to the following address for fertility evaluation:

**National Agro Foundation**

R&D Centre – Soil Testing Lab

Anna University Taramani campus, CSIR Road

Taramani, Chennai - 600 113, Tamil Nadu

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