

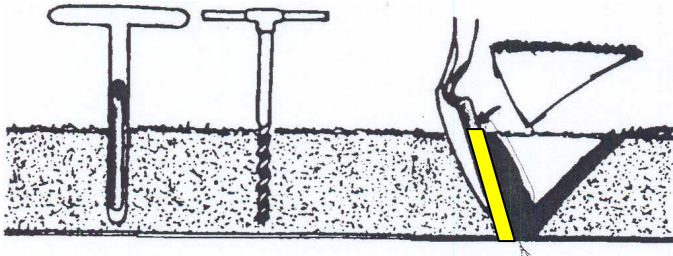
SOIL SAMPLING PROCEDURES

The intention of the following information is to aid you in properly taking soil samples under various conditions and for specific purposes. As it has been said many times, **"A soil test is only as accurate as the sample taken."**

SAMPLING TOOLS

Tools that may be used to take a soil sample include a spade or shovel, soil sampling tube, or soil auger. Sample tubes or augers should either be stainless steel or chrome plated.

When sampling various soils at different times of the season it is important to use the proper equipment. A soil probe, either a hand tube or hydraulic probe, can be used under most conditions. A small wooden rod may be helpful in removing the soil core from the tube. The soil auger is especially useful when sampling frozen ground or heavily compacted soil that a soil tube can't penetrate. **If a spade is used for sampling, dig a V-shaped hole to sample depth; then cut a thin slice of soil from one side of the hole.**



If using a pail to collect the soil, it should be **plastic** to avoid any contamination from trace metals. For instance, soil will pick up **zinc** from a galvanized pail.

When sampling wet soils, vegetable oil or mineral oil may be used to lubricate the probe to minimize soil pushing ahead of the probe.

SAMPLE PREPARATION

Mix the cores or slices together in a **clean plastic container**. Save a **final 4 cup** sample of this mixture in a plastic container or plastic bag. **Your sample should be refrigerated if it is not brought into the Thurston Conservation District office promptly.** At A & L Laboratories, the sample received is dried, ground, and sieved by experienced technicians.

SAMPLE SIZE

A **soil composite** from 10 to 20 random locations should be well-mixed for a **final 4 cup soil sample** to be brought into the Thurston Conservation District office. Greater amounts may be needed when physical properties of the soil (such as textural classification, available moisture, nematodes or pesticide residues) are to be measured.

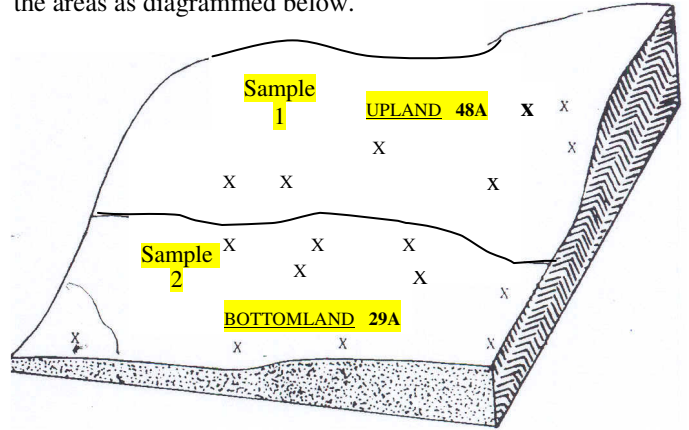
SAMPLE AREA

Area to be included in a sample generally should be no more than forty acres. Small acreages may be sampled when soil is not uniform throughout a field. A soil map or crop response map can be of help in distinguishing areas.

Areas that differ in soil type, appearance, crop growth or in past treatment should be sampled separately, provided this area can be treated separately.

Avoid small areas that are different such as dead furrows, corners of fields, end rows, and poorly drained areas. Stay at least fifty feet from barns, roads, lanes, or fence rows.

The sample should be obtained from 10 to 20 locations within the areas as diagrammed below.



When sampling problem areas, collect separate samples from both the poor area and the good area to use as a comparison. It would be advisable to run a complete test on a surface sample and a sample from a lower depth to provide additional information. Include a description of the problem when samples are submitted so that A & L agronomists may assist you in finding a solution.

If sampling an area with extreme variations, such as where land leveling has occurred or erosion and deposition are severe, the field should be sampled on a grid or incremental unit basis.

SAMPLING DEPTH

When sampling, **scrape away plant residue and sample to 6 inches**; or if primary tillage is deeper, sample to tillage depth. This is the depth which can be altered with fertilizers or soil amendments. Eighty to ninety percent of the nutrients taken up by the plant come from this tillage depth.

TIME TO SAMPLE?

Soil samples may be taken at any time during the year. However, it is generally recommended to be consistent from year to year. If a particular field is sampled in the spring, it should be sampled in the spring in following years. If this cannot be done, seasonal variations should be expected and taken into account.

Thurston Conservation District Office Location

