# **Sampling for Soil Analysis**

Soil analysis is necessary for any fertility program especially today when the farmer wants to maximize yields and profits while minimizing costs. Soil tests can help determine and overcome:

- Acid soils
- Low yields due to lack of fertility
- Using the wrong fertilizer
- Wasting fertilizer to maximize yields.

The interested farmer will soil test his fields on a regular basis. Testing is used as a guideline for a specific crop; and, is not used to determine which crop is suitable for the soil.

The soil test made will only be as accurate as the sample is representative of the field being sampled. Therefore, a good sampling method is important in getting good soil test results.

### When to Sample

Soil sampling can be done at any time, but remember the following:

- Spring sampling tends to leave one short when requiring fertilizer and limestone recommendations for planting that year;
- Fall sampling assures you that your results are returned in time for your next planting and allows for planning; and,
- Early fall sampling allows you to receive results for fall liming.

Fall is the best time for sampling.



# **Tools required**

Uniformity of samples is necessary for representative, or composite, field samples. The tools required are:

- A clean pail for mixing;
- A soil auger or probe; or, a shovel or spade;
- Sample bags;
- Information sheets crop history.

**Note:** Sample bags and information sheets are available from your local Agriculture Representative's office.

#1	) #2	#3	#4
PASTURE	NEW SEEDING	TURNIP	CABBAGE
#5 WODED	#6 HAYLA		#7 TATOES

## **Pre-sampling**

Sampling takes some planning prior to the actual deed. Make sure you have completed the following:

Map of the farm, indicating the next crop to be grown in field(s); and, assign each field a number. Use the same field numbers as used in previous testing.

An information sheet - crop history - on each field to be sampled. A crop history should include:

- Past crop history
- Next crop to be grown
- Last time limestone was applied and how much per hectare (acre).
- Field size, indicated in hectares (acres)
- Problems that have occurred in past.

Information on front of soil sample bags, especially field number(s) and crop(s) to be grown, along with name and address.

Note: Where no crop to be grown is specified, fertilizer and limestone recommendations cannot be made.

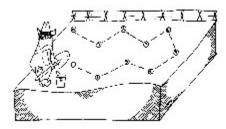
#### Size up your Fields

Samples should be taken from each field that appears uniform; and, has had a similar cropping history.

Sections to avoid and to be sampled separately are:

- Bottom and uplands soil.
- Large low or poorly drained areas.
- Soils of different color and texture.

Soils of different liming, fertilizing or cropping practices.



Take five (5) to ten (10) individual samples from each field of 10 acres of less. The depth to which the samples are taken is usually 6 inches or more.

**Note:** Avoid sampling in areas of field that have low wet areas, dead furrows, and close to trees, fence-lines, roads or windrows.

### **Taking the Samples**

A soil probe or auger is the best tool for taking soil samples but more often a shovel is readily available. If a shovel is used, follow these directions.

	<ul> <li>Dig a V-shaped hole in the soil, being careful to clear away the surface litter.</li> </ul>
The second se	Take a 2 inch slice down one side of the hole to a depth of 6 inches. Two (2) to three (3) inches is suitable for sod crops
	<ul> <li>Trim both sides of this slice to leave a 1 inch width of soil. This is an individual sample to be placed in a clean pail. Take 5 to 10 such samples and mix them thoroughly to make a representative, or composite, field sample.</li> <li>Take about 2 cups of the soil and place it in a soil sample bag and seal it.</li> </ul>

Note: All lumps are to be broken down and any large stones removed.

Do not put information - crop history - sheets or map(s) inside sample bags.

Securely package and send soil samples with fee to:

Soil Plant and Feed Laboratory Department of Forest Resources and Agrifoods Provincial Agriculture Building P.O. Box 8700 Brookfield Road St. John's, NL A1B 4J6

(709) 729-6638

Note: Fee should be payable by cheque or money order to "Newfoundland Exchequer Account".

Publication SLM005