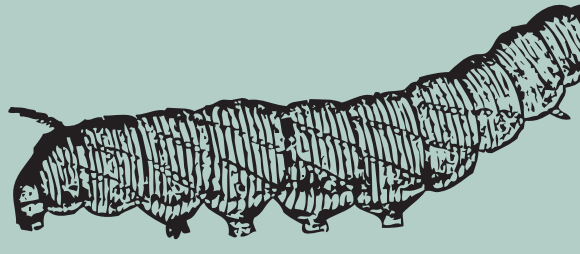
Radice

SOIL SOLUTIONS

A practical guide to collect soil samples.



Soil biological sampling

Testing soil for its biological components offers valuable insights into soil fertility, its health, and ability to cycle nutrients. By understanding the complex interactions within the soil ecosystem, you can make informed decisions on what activities enhance agricultural productivity, optimize resource utilization, and promote sustainable land management practices.

Where should I collect a soil sample?

The selection of the soil sampling area may vary depending on factors such as soil type, crops cultivated, and historical management practices. In Figure 1, the farm illustrates three distinct sampling areas: A, B, and C, each associated with different crops (crop1, crop2, and crop3, respectively).

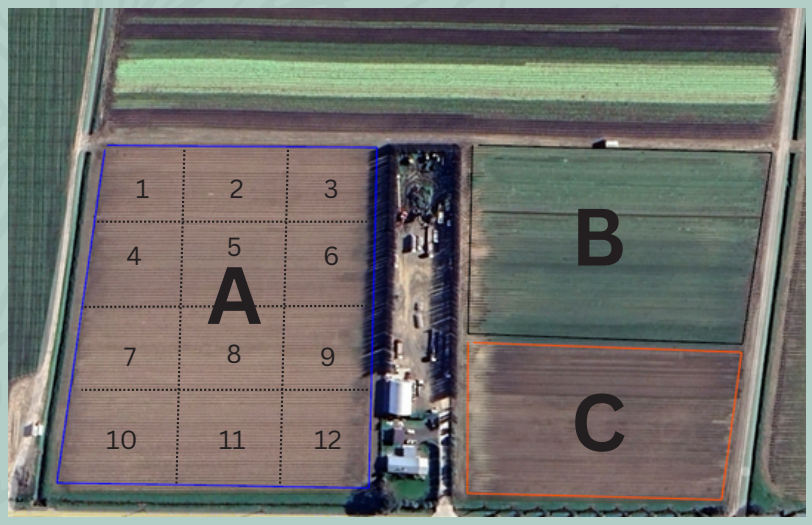


Fig 1 Example sample areas

To ensure accurate representation, it is mandatory to collect a separate soil sample from each of these three areas. Overlay a numbered grid on each area you want to
sample. See Figure 1 paddock A.
Using your computer's random number generator or search for one on the internet, select 3 to 5 grids (ideally you want to sample at least 30 % of the total area. 12 grids in total=4 grid sampled). Once you have selected the number of grids to sample, move to the center of it and collect a minimum of 3 to 5 soil cores, randomly. Avoid taking samples from parts of the grid that are not representative of
that grid.

Fig 2 Randomly samplling method

Wich is the correct dept?

Collect soil samples from the appropriate depth, considering the area where plant roots are expected to grow. For both annual and perennial crops, it is recommended to sample from the soil surface down to a depth of approximately 6 to 8 inches. If testing in presence of plants or crops make sure to collect you sample from half way between the trunk and the drip line. This ensures that the sampled soil represents the root zone and provides accurate information about the soil conditions in which the plants will grow.

Avoid contaminating the sample

• Use clean sampling tools, and avoid contaminating the sample during mixing or packaging. A small amount of residue on tools, for instance, can cause serious contamination of the soil sample.

• Do not include mulch or vegetation in the sample.

• Do not use galvanized metal, brass, or bronze tools to collect samples that will be tested for micronutrients (such as zinc).

How do I collect my soil sample?

Sample where the crop will be planted If you are using raised beds, such as for vegetable crops, take your samples in the beds, not in the areas between them. Figure 2. Take 15 to 20 subsamples within one sampling area.

Method 2 Target Sampling

Alternatively from random sampling, you can adopt the targeted sampling method, T.S. is a focused approach to collecting soil samples from specific areas of interest within a larger land area. Rather than sampling the entire land randomly, targeted sampling allows you to selectively test portions that have certain characteristics or issues. For example, if you have a garden bed or a specific area in your paddock where plants are not thriving, targeted sampling can help identify the underlying reasons. In this approach, you would first identify the problem area based on visible signs or suspected issues.

Sending your sample

To send a soil sample for biology testing to a lab, follow these steps:

Collect the soil sample: Use a clean sampling tool, such as a soil probe or a shovel, to collect a representative sample from the desired location. Take multiple subsamples from different spots within the area and mix them thoroughly in a clean container. Remove any debris, rocks, or vegetation from the sample.

Package the sample: Use a sturdy, leak-proof plastic bag or container to package the soil sample. Ensure that the container is tightly sealed to prevent any leakage during transit. If you have a plastic-lined paper bag, you may use that. Remember to take a clear photo of the sample information on the bags before mailing them for future reference.

Storage instructions: If storage is required before sending the sample, store it in condition as similar as possible to the environment where have been collected.

Remember to not overfill the sample bag, the sample should fill one-third of the overall volume the rest is oxygen for the microorganism to keep living. Do not freeze the sample. Freezing can affect the viability of soil microorganisms, potentially compromising the accuracy of the test results.

Choose an overnight delivery courier: It is essential to send the soil sample to the lab as soon as possible to maintain the sample's integrity. Select an overnight delivery courier service to minimise transit time and ensure the sample reaches our lab promptly. This is crucial because soil can deteriorate over time, especially if not properly stored or delayed in transit.

Fig 7 make sure to use overnight delivery.

Please remember to attach the soil test request form to your soil sample.

Address and recipient information:

Radice Soil Solution

Address: 7 Peel Street, Gisborne 4010

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