



FACT SHEET | AUGUST 2026

Know your soil biology series

Part 2: Soil biology sampling

Healthy soils are teeming with beneficial organisms that support nutrient cycling, suppress disease, and improve soil structure - testing helps you see the invisible, and to decide next steps to take to either improve or enhance your farms soil biology.

Part 2 of our *Know Your Soil Biology* series shares practical tips for getting soil sampling right, helping ensure test results are accurate and reliable.

Sampling tips

Sampling requirements vary between laboratories and test types. Always follow the instructions provided by your testing laboratory, as the quality of the sample directly affects the reliability of the results.

Selecting the sampling area and time

- Collect samples from a uniform area with similar soil type and management history
- Avoid unusual areas such as gateways, fence lines or waterlogged patches unless these areas are specifically being investigated or used as a comparison/control

TOP SAMPLING TIPS

- **Use clean tools** to avoid contaminating samples.
- **Remove surface debris** (leaves, mulch and plant material) before sampling.
- **Collect a representative sample** by taking at least 0-30cm soil cores, mixing them well, and sampling separate soil types or management zones individually.
- **Sample consistently** using the same depth and a regular pattern (e.g. grid, W or transect).
- **Storage conditions:** Follow the laboratory's storage instructions. As some may require the samples to be refrigerated or frozen.
- **Post samples promptly** (preferably early in the week via express post) to avoid weekend delays.
- **Label and record** sample location, depth, date and other key details for future reference.



- If comparing results over time, sample from the same location at the same time of year and under similar conditions (e.g. similar soil moisture and temperature). Soil biology is highly influenced by environmental conditions, so consistent sampling improves the reliability of comparisons
- If assessing the impact of a management practice, sample before the practice is implemented to establish a baseline, then repeat sampling after sufficient time has passed for biological changes to occur

Collecting the sample

- Use clean tools and containers to avoid contamination
- Remove surface residues such as leaves, mulch and plant material before sampling
- Take at least 15 soil cores across the sampling area, combine them into one well-mixed composite sample, and submit the amount of soil specified by your chosen laboratory
- Sample different soil types or management zones separately
- Sample to 0-30cm depth and record the depth used



Taking soil cores

- Follow a consistent sampling pattern (e.g. grid, random, transect, or an X/W pattern) to ensure the sample is representative of the entire area rather than a single location

Handling and storing samples

- Keep samples cool and out of direct sunlight after collection
- Different tests require different sample storage and transit conditions. Always read and follow the instructions specific to the test. Some labs will require refrigerated samples and other frozen samples
- Send samples to the laboratory via express post as soon as possible early in the week after collection
- Consider your location and postal delivery times and avoid dispatching samples if they are likely to remain in transit or at a post office over the weekend

Labelling and record keeping

- Label samples clearly with the location, depth, date and sample name
- Keep records of sampling locations, depths and management history to support future comparisons



Soil samples bagged up and correctly labelled.



Further reading

Factsheet:

What you need to know about soil biology



Factsheet:

Part 1 of this series: Soil biology testing



Factsheet:

Part 3 of this series: Interpreting soil biology results



References

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