

What soil sampling pattern should I use?

Try to take sub-samples in either a random, zigzag or systematic diagonal pattern across the sample area (Figure 3). Avoid taking sub-samples in concentrated clusters and along bed lines.

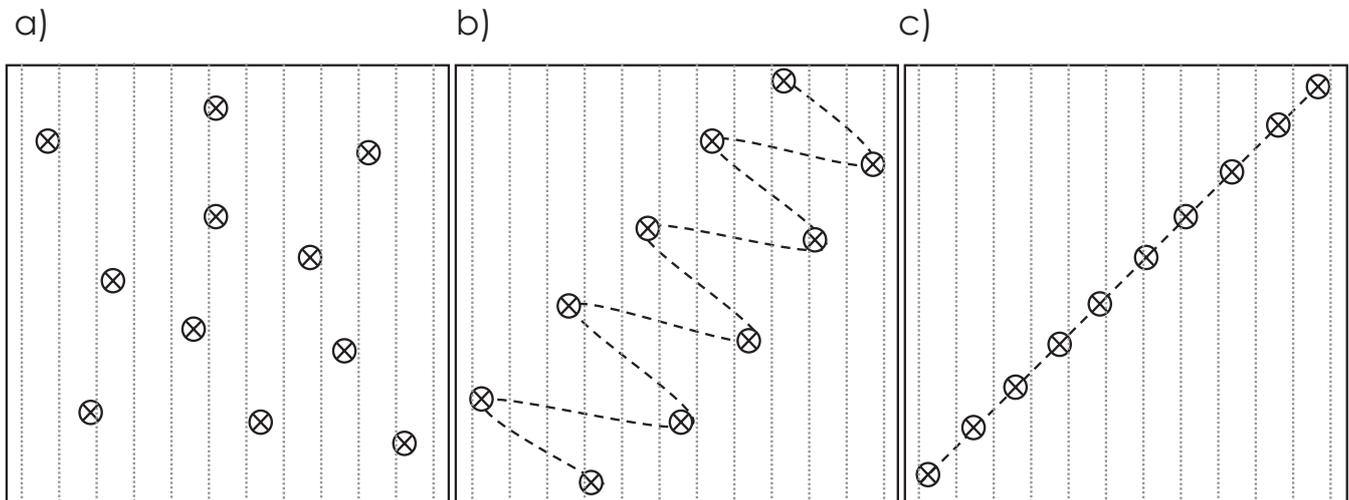


Figure 3 – Examples of sub-sampling patterns that will help to produce a representative sample: random (a), zigzag (b) and systematic diagonal (c). Crossed circles represent sub-sample locations. Black dashed lines represent a suggested pattern of travel while sampling. Grey dashed lines represent crop rows.

Taking the soil sample

If you are testing the soil in a crop it is crucial that you sample soil from the root zone. For field crops the best location is within a few centimetres of where the main stem enters the soil. For vine and tree crops it will generally be underneath the canopy or around the canopy drip line (you may need to test with a spade). Be consistent across sub-samples and over time. You should see some roots in your soil sample, if not you are probably not sampling in the root zone and need to try another spot.

Use a soil auger, spade or trowel to scrape off the top few cm of soil and dig a 15 cm (6 inch) deep hole. Other sampling depths (e.g., 10 cm, 20 cm, etc.) are OK, just be consistent. If using a soil auger the captured soil is your sub-sample. If using a shovel or trowel take a sub-sample from one face of the hole, from top to bottom. Place the sub-sample in a clean container large enough to hold all the sub-samples for the combined sample. Repeat at each sub-sample location until you have taken enough sub-samples. Mix the combined sub-samples thoroughly (for about 2 minutes). Fill a sample bag with the mixed soil (approximately 500g).

Always wear clean gloves (such as those provided in the sampling kit) when taking or mixing soil samples to avoid sample contamination. Your test may not be accurate if you do not wear gloves.

Consult Table 2 for how to treat your samples after sampling. For samples that need freezing, freeze at -18°C for at least 24 hours before sending to the lab. The freezer compartment of a domestic refrigerator should achieve this.