

Plant roots sampling

Depending on plant type, plant roots can be sampled in two ways:

- 1. Annual plants** - remove each sub-sample plant from the ground and shake as much soil as possible from the root system. Remove several pinches of roots from random locations within the root system. This can be done by hand or using a cutting implement. Place the sub-samples in the root sample bag.
- 2. Annual and Perennial plants, and trees** (can also be used for crops) – a soil sample containing roots can be collected from the root zone of the plants by digging down to a depth of 20 cm using, e.g., a trowel or spade, or by using a soil corer. Pick pinches of root sub-samples from the soil and place them in the root sample bag.

Use whichever method you find most convenient. Remember that only about 10 mL of roots are needed for the final sample sent to the lab so it is not necessary to collect large quantities of roots.

Once you have entirely completed your sampling, remove the root sub-samples from the root sample bag and wash off as much of the remaining soil as possible. Mix the sub-samples well. Take a 10 mL sample of the mixed roots and place it in a supplied plant root vial containing 10 mL 24% ethanol. Apply the cap firmly (do not over-tighten) and test that it is properly sealed by shaking vigorously for a few seconds.

Place the filled vials in hot (54° – a properly functioning domestic hot water service should deliver water at this temperature) water for 5 mins, then refrigerate them away from food and children until you send them to the lab. **Do not freeze** plant root samples.

