

How to test your soil

The following steps will help you measure the salinity level of your soil.

Step 1: how to take soil samples

Below is a step by step instruction for taking soil samples. The collected soil sample can then be used to measure soil salinity using one of two methods: the 1:2 method and/or the Saturated Paste method.

Salinity can be patchy [CR1] under field conditions, for each field at least 2 samples are needed to determine the level of soil salinity.

1. For each soil sample: collect **20 subsamples** in a clean plastic bucket, these subsamples can then be **mixed into 1 sample**. For further analysis, store this sample in a double plastic sample bag (remove as much air as possible before closing). The location of the subsamples should be evenly spread over the field. In many cases a gouge auger ($\varnothing = 1,5$ cm in the one we use) can be used for the collection of the samples.
2. Less subsamples are needed for smaller locations, but always take at least 2 soil samples per location and take a minimum of 1 subsample per 10 m²
3. Take separate soil samples from different plots or different crops/varieties
4. Focus on the depth of the rootzone for the initial samples, often the **first 30 centimeters** are sufficient, especially in the beginning of the season. Based on the soil analysis and crop development, the layers 30-60 cm depth and 60-90 cm depth may be analysed as well. When possible, sampling should continue up to the depth of the groundwater.
5. In case more elaborate measurements will be taken, the total weight of the soil sample should be about 1,5 kg. If the soil sample is only used for a saturated paste 0,5 kg is sufficient.
6. Areas that are clearly different from the rest (waterlogging, no plant growth, for instance) must be sampled separately. Several patches can be mixed into 1 sample, collection should take place as mentioned above.
7. Based on the variation of soil salinity per location, additional soil samples may be needed.
8. Per season at least 3 sampling events should take place to get a clear picture of the level of soil salinity.

9. Clearly label the different samples (location, depth, date) and list the crops/plants that grow there. Also mention when crops damage or poor growth is observed and anything that might influence your measurement (for example, heavy rainfall).

Please go [click here](#) and select step 2 to be measure this soil sample for salinity.