



SOIL, WATER AND PLANT ANALYSIS

Frequently Asked Questions (FAQs)

SOIL AND LEAF ANALYSIS

1. How often should I test my soil?

Every three years is recommended, unless a problem arises with plants that might be soil-related.

2. Which soil analyses tests are available at the Western Cape Department of Agriculture?

The laboratory tests for various different elements in the soil. With the results of the test you will have an indication of nutrient deficiencies, such as nitrogen (N), phosphorous (P), potassium (K), amongst others. Soil analysis also include pH, nutrient levels and organic matter.

3. Which common mistakes are made when taking and preparing samples?

The result of any analytical evaluation can be no better than the sample on which it is performed. The aim of sampling is to collect a portion of material that is small enough in volume to be transported conveniently and handled easily in the laboratory, while still accurately representing the material being sampled.

Avoid contaminating samples through contact with fertiliser or used fertiliser bags and the use of inadequate sampling equipment.

4. Which test package do you recommend?

The standard analytical package forms the basis for all these recommendations. Trace elements and sulphur should be included for untilled soil or when the status of a soil is unknown to the customer, or when it is known that trace elements have not been applied for a few years. Please tick the requested analyses on the application form.

5. What should the sample size be?

Leaf samples should consist of at least 40 petioles and/or leaves. Soil samples must be approximately 400g.

Obtain soil from the surface through the primary rooting zone of the crop. The rooting depth will vary with crop type. For most plants, the top 0 - 20 cm is appropriate. For established grasses, sample the top 0 - 10 cm.

For vines and fruit, it is necessary to sample topsoil (0 - 30 cm) and subsoil (30 - 60 cm) separately.



6. How many samples should I take per hectare?

It is advisable to take five samples per hectare, one at each corner and one in the centre. If there are no obvious differences (texture, slope, drainage, colour, and past pest and fertility management), these samples can be pooled together and one representative sample submitted.

7. How should one store soil and leaf samples for the most accurate results?

When sampling soil, use a clean plastic bag to store the soil. Seal the bag and label correctly. Keep sampled soil in a cool area.

Samples can be sent with a courier service or dropped at Elsenburg and must be sent in sealed and clearly labelled plastic bags.

Leaf samples must be kept in a fridge until you are able to send or deliver them to our offices. Do not freeze the sample.

8. How do I label my soil sample?

Place the collected soil sample in a plastic bag. Label the bag on the outside with a unique name, example last name of farm name and block where soil was taken. An example would be Adams A, Adams B, Adams C, etc. Or you can label using the area where the soil was taken, example Rose garden, Lavender bush, Peach tree, etc.

Name: Mr A Adams
Sample: Rose garden

Please write the sample names on the application form. If more than 10 samples, attach a list to the application form or email the list of sample names.

9. What is your normal turnaround time?

Depending on the current workload, the laboratory strives to deliver results within two to four weeks after submission.

10. What are the analysis costs?

Please contact the laboratory for the costs involved. Alternatively, find updated price list on our website: (Insert hyperlink to website)

11. Which payment methods do you accept?

The analysis will be done first, the results will be emailed to the client and then the Finance Section will email the invoice/s. Clients can make payment via EFT, direct bank deposit or at



the cashier at Elsenburg. Please use the reference on the invoice when making payment.

12. Is the lab accredited?

No, the soil, water and plant lab at the WCDoA is not SANAS accredited. However, the lab is an active member of AgriLasa, which is an inter-laboratory proficiency scheme.

13. For more information about our laboratory analysis service, please contact:

E-mail: altav@elsenburg.com
Tel: 021 808 5290

Email: Raynette.Topley@westerncape.gov.za
Tel: 021 808 5291

NOTE: All samples must include a completed application form: [Click link for application form \(hyperlink\)](#)

WATER ANALYSIS

1. Which water analyses tests does the WCDoA offer?

- Irrigation - the suitability of water for irrigation purposes.
- Household - please note that the laboratory cannot give recommendations for household use.

The tests done will highlight the concentration of salts and metals in water as well as the pH and conductivity of the water.

Please refer to our pricelist for a full list of elements that we test for.

2. What does the WCDoA water analyses not test?

The laboratory is unable to test for micro-organisms, bacteria or pesticides in water. Please contact the Veterinary lab at 021 808 7510 for bacterial tests.

3. How should water samples be collected?

When collecting water, use a clean plastic container free of any residue. Fill the container with water, discard the water, fill and rinse with the cap on and discard the water. Fill the container one more time with the water sample.

Please supply us with 500ml of water to be tested. If possible, use well rinsed bottled water bottles.



4. Where can one store the sample and for how long?

Plastic bottles are preferred because glass bottles may introduce boron to the samples. Glass bottles are also more likely to break.

Store sample in cool area or refrigerator until you are ready to deliver or courier.

5. How does one label the water sample?

Please mark your samples clearly. Label using your name and unique sample name.

Name: Ms B Adams
Sample: New Borehole

6. What is your turnaround time?

Water samples are analysed once per week. Samples must be at our offices on Fridays at 15:00 in order to be analysed the following week.

NOTE: All samples must include a completed application form: [Click link for application form \(hyperlink\)](#)

If you wish to courier your samples to the lab, please use this address:

Attention: R Topley / N Hasley
Soil, plant and water laboratory
Main Building
Western Cape Department of Agriculture
Muldersvlei Road
Elsenburg
7607

