

Your Soil Sampling Kit



Soil Analysis
by APAL

Australian Perry Agricultural
Laboratory

Recommendations
by

**Ferti-Tech
Australia Pty Ltd**

Independent Advice

This kit includes
sampling instructions,
sample bags,
information sheets &
one pre-paid envelope.

**PRACTITIONERS
IN
SOIL & PLANT
NUTRITION**



ABN 23 107 754 110

Ferti-Tech Soil Test Description:

We test for:

Total Exchange Capacity, $\text{pH}_{(\text{water})}$, Organic Matter, Nitrogen, Sulphur, Phosphorus and Phosphate Recovery %, Calcium, Magnesium, Potassium, Sodium, Boron, Iron, Manganese, Copper, Zinc, Salinity (EC) and calculate Base Saturation Percentages.

Report & Recommendation:

An independent colour graph report & Ferti-Tech report - includes a detailed program with recommended fertilisers & soil amendments (lime / gypsum / dolomite / compost) plus foliar applications and interpretation of cation balance.

**FERTI-TECH AUSTRALIA PTY LTD
PO BOX 5086
BUNBURY DC WA 6230**

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Free call: 1300 885 474
Fax: 08 9725 6899
Email: info@fertitech.com**

KIT Released 1st January 2012

SOIL SAMPLING KIT

Full range of tests available through Ferti-Tech Australia Pty Ltd

Test Options: Prices valid until 31/12/12		Price/Sample (excl GST)	Price/Sample (incl GST)
SOIL TESTS	Premium Soil Test Full Report – TEC, OM, pH, N, S, P (Olsen/Bray), P recovery, Ca, Mg, K, Na, EC, B, Fe, Mn, Cu, Zn, Ca:Mg ratio, cation/base saturation %, all expressed in kg or lt/ha to allow easy calculation of fertiliser needed with colour graph report plus a Ferti-Tech report. Full Independent Graph & Ferti-Tech Full Recommendation	\$130.00	\$143.00
	+ Chlorides as additional test to Premium Test	\$10.00	\$11.00
	+ Molybdenum as additional test to Premium Test	\$15.00	\$16.50
	+ Cobalt as additional test to Premium Test	\$15.00	\$16.50
	+ Aluminium as additional test to Premium Test	\$15.00	\$16.50
	+ Nitrogen No₃ and NH₃ as additional test to Premium Test	\$15.00	\$16.50
	Garden Soil Test - Full Report – same as Soil Test above + Chloride and more detailed recommendations	\$170.00	\$187.00
	Subsoil Test – pH, EC, Ci & B	\$40.00	\$44.00
	Soil Biological Activity Test – (<i>Analysis by CIAF</i>) provides an excellent indicator of soil health by calculating soil microbial activity based on CO ₂ evolution	\$60.00	\$66.00
	Reams Test for Ca, Mg, K, Na & P – Analysis & Data only as standalone test without interpretation	\$50.00	\$55.00
	Reams Test – In Addition to Premium Soil Test	\$40.00	\$44.00
	PLANT	Plant Tissue - N, NO ₃ , P, K, Ca, Mg, Na, S, Cu, B, Fe, Mn, Zn, Al, C, Mo, Co in a colour graph and Ferti-Tech report. Full Report	\$100.00
Fodder & Grain MINERAL – (N,P,K,Ca,Mg,Na,S,Cu,B,Fe,Mn,Zn,Cl,Mo,Co) APAL report of Analysis		\$65.00	\$71.50
Pasture, Fodder & Grain FEED TEST –(DM, DMD, ME, CP, NDF, ADF, Ash Fat) Analysis, Data & APAL graph report		\$85.00	\$93.50
Dairy one FEED TEST - –(DM, DMD, ME, CP, NDF, ADF, Ash Fat) plus additional feed indices and major minerals Analysis, Data & APAL graph report		\$90.00	\$99.00
Selenium – on any sample		\$65.00	\$71.50
Plant Sap Test – Analysis & Data (No interpretation) – NO ₃ , P, K, S, Ca, Mg, Na, Al, Fe, Mn, Cu, Zn, B, Co, Mo + NH ₄ , Cl, pH, EC		\$70.00	\$77.00
Manure/Compost Commercial Test – Analysis & Data – Total Kjeldahl Nitrogen, pH, Salinity, Ec, Boron, Calcium, Copper, Iron, Potassium, Magnesium, Manganese, Sodium, Phosphorus, Sulphur, Zinc, Molybdenum, Carbon/Nitrogen Ratio, Organic Matter and Total Carbon (from Organic Matter), Chloride & Moisture Content. Tested to Australian Compost Standards (AS4454)		\$215.00	\$236.50
Heavy Metals Test – Analysis & Data – Antimony, Arsenic, Barium, Beryllium, B, Cadmium, Chromium, Co, C, Lead, Mn, Mercury, Mo, Ni, Selenium, Tin, Vanadium, Zinc 1 sample 2+ samples		\$290.00 each \$170.00 each	\$319.00 each \$187.00 each
Pesticide Residues OC & OP Test – Analysis & Data – a test for 20 individual organo-chlorine (OC) and 11 individual organo-phosphorous (OP) pesticides. 1 sample 2 + samples		\$290.00 each \$190.00 each	\$319.00 each \$209.00 each
Lime / Dolomite Test (as product) - APAL Report & Analysis – Ca, CaO, CaCO ₃ , Mg, MgO, MgCO ₃ , S, fineness of grind, TNV, ENV		\$95.00	\$104.50
Gypsum Test (as product) - APAL Report & Analysis - Ca, Mg, S, fineness of grind, TNV, ENV.		\$95.00	\$104.50
OTHER TESTS		Water – APAL Report & Analysis – pH, EC, SAR, Al, Cu, Fe, Zn, B, Ca, K, Mg, Mn, Mo, Na, P, S, Cl, NO ₃ , TDS	\$85.00
	EPA (Winery Waste Water Disposal) - Analysis & Data – ECse (sat paste extract), pH (1:5 soil: water), Organic Carbon % (Walkley Black)	\$95.00	\$104.50
	Soil Probe (plus \$20 postage & handling) – engineered stainless steel 15cm tapered tube mounted on painted iron handle to allow manual step-on core sampling method + Postage	\$95.00	\$104.50 \$20.00



ABN: 23 107 754 110

Soil Test Instructions

- 1. Take Samples (1 bag = 1 test) as per instructions on reverse**
- 2. Place sealed sample bags into APAL pre-paid envelope**
- 3. Fill in the Test Request & Sample Detail and Payment Advice forms with as much detail as possible**
- 4. Place the Test Request & Sample Detail form into pre paid bag addressed to APAL with soil samples**
- 5. Place Payment Advice sheet (yellow page) in pre-addressed envelope to Ferti-Tech Australia with the sheet filled in with:**
 - Customer information, such as Name, number, email, address**
 - Next to # the number of samples sent**
 - Next to \$, the number multiplied by the price**
 - If any extra elements are required to be tested, put in the number of samples which are to be tested**
- 6. Put cheque into envelope with Pay Advice to be sent to Ferti-Tech Australia**

We appreciate your business

How to collect soil samples for the best results

1. **Choose your soil sampling equipment.**
A spade and a clean bucket can be used. Please refer to the instructions for using a spade and a bucket in the diagram below. Alternatively, you can use one of our soil sampling probes. Please ring our office on 08 9725 6877 or email us on info@fertitech.com for further information.

2. **Decide on the right depth for sampling.**
For trees, vines, vegetable gardens, flower beds collect your sample from the surface and down to a depth of 15 cm. For lawn and pastures collect your sample from the surface and down to a depth of 10 cm.

3. **Where to take a soil sample?**
First select a representative area. Keeping in mind to take samples separately from:
 - different soil types
 - good and problem (productive/non-productive) areas
 - hills and flats
 - vegetable gardens, orchards and lawns
 - areas of same soil with different fertilizer histories
 Avoid taking soil samples:
 - close to sheds, fence lines, roads and gateways
 - in urine and dung patches
 - close to water tanks or troughs
 - close to old buildings or burn-off

4. **Now you're ready to go!**
Within one representative area, take at least 20 core samples. Take samples across the whole area in a grid or zig zag pattern. Place this soil in your bucket and mix thoroughly. From this composite sample, pour the soil mixture into one of the provided sample bags, to the line indicated

Please ensure

- The customer information sheets are filled out (including front page with contact details), record each soil sample and their background information.

- Please fill out the PAYMENT ADVICE enclosed and send this with your payment in the provided pre-addressed envelope to FERTI-TECH AUSTRALIA.

- Please label the soil sample bags clearly and do not staple close the bags.

- The soil samples (including the customer information sheets) are put into the large zip lock bag provided, before placing into the prepaid envelope for mailing to APAL.

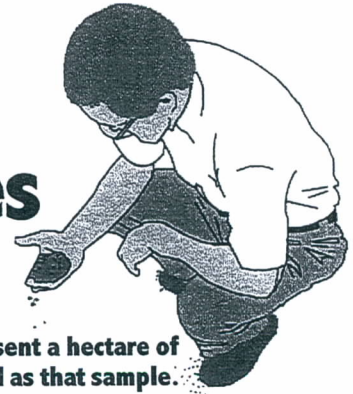
- Fill sample bags STRICTLY to the arrowed level.

Secure both ends of the pre-paid envelope, to ensure nothing comes out of the envelope during mailing

IF EXTRA SAMPLES ARE REQUIRED, PLEASE USE A CLEAN, WELL LABELLED PLASTIC BAG FOR EACH EXTRA SAMPLE AND FORWARD WITH REQUIRED INFORMATION

APAL's tips on soil sampling

How to collect soil samples for the best test results

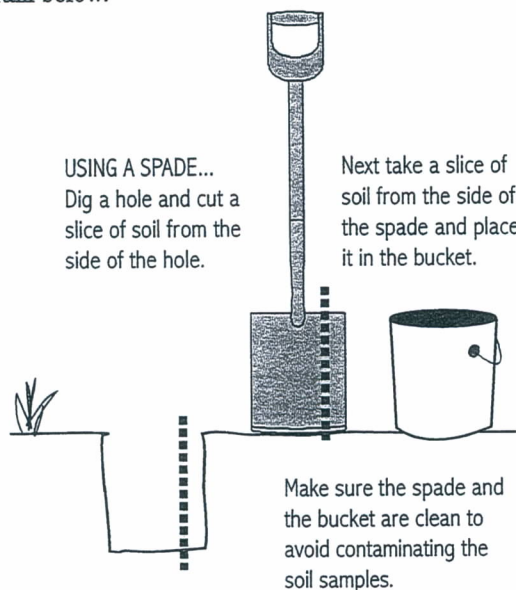


APAL's soil tests depend on the samples you send us. A sample of 300g can represent a hectare of top soil of about 2600 tonnes. Our analysis and recommendations are only as good as that sample.

Here's how to collect soil samples

Before you start, ask us to send you our free soil test kit. Call us on (08) 8332 0199, fax on (08) 8361 2715, email us at info@apal.com.au, or fill in a soil test kit form at our website www.apal.com.au

The next step is to choose your soil sampling equipment. When we send you your free soil test kit we can supply you with a stainless steel soil probe for a simple and efficient job. The soil probe is available from us at a cost of \$88 including GST plus \$10 postage. But there's no reason why you can't use a spade and a clean bucket. Read the instructions for using a spade and bucket in the diagram below.



USING A SPADE...

Dig a hole and cut a slice of soil from the side of the hole.

Next take a slice of soil from the side of the spade and place it in the bucket.

Make sure the spade and the bucket are clean to avoid contaminating the soil samples.

Where to take soil samples?

There are no hard and fast rules for selecting the sample area. In the beginning you might choose an area characteristic of most of your property. Later you might sample other different areas and combine the results for a comprehensive profile of the whole property.

For effective soil sampling keep different soil types separate. When you find several different soils in one area and you are collecting samples for a single test only, take your samples from the main soil type.

Sometimes when you are analysing a problem area it can be helpful to test another area as well to serve as a contrast.

Take separate samples from

- hills and flats
- continuous cropping areas (e.g. hay, silage) and others
- areas of same soil with different fertiliser histories
- in orchards and vineyards, vine/tree rows and areas between rows.

And do NOT take soil samples

- close to sheds, fence lines, roads, or gateways
- in urine or dung patches
- close to water tanks or troughs
- close to old buildings or burn-off
- in unusually wet or dry patches, or animal camping areas
- where fertiliser has been banded in rows—(mix rows with the surrounding area)
- in headland areas where double fertilising may have taken place.

Decide on the right depth to sample:

- a depth of 150mm (6 inches) for trees, vines, and vegetable gardens
- or a depth of 100mm (4 inches) for pastures, turf, cereals, and non-cultivated areas.

Now you're ready to go!

1. In each sample area take at least 20 soil samples. Take samples across the whole area in a grid pattern or zig zag. Look carefully at each sample and discard it if it appears out of place with the other samples.
2. Mix the 20 soil samples thoroughly and take a 300g sample of this mixture to send to us.
3. Label this soil sample clearly and keep a record for yourself of the area sampled.
4. Fill in the information sheet and enclose your money order/cheque and put it in with the soil sample. Package it securely for posting.

Ensure that samples are taken at least 4 weeks prior to expected planting dates and preferably allow 8 weeks.



AUSTRALIAN PERRY AGRICULTURAL LABORATORY

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Website www.apal.com.au



SOIL TEST REQUEST & SAMPLE DETAIL FORM

CUSTOMERS NAME:

AGENTS NAME:

Office Use Only:

Chq: \$ Chq #

To be invoiced: Inv #

Data only: Sent/...../.....

Report: Sent/...../.....

1. SAMPLE NAME:..... PROPOSED CROP:.....

Extra Tests:

Chlorides Cobalt Molybdenum Aluminium NO₃ NH₃ Reams Soil Biological Activity

YEAR	CROP	FERTILISER USED	MANURE / COMPOST USED	LIME USED
This yr:				
Last yr:				

Soil / crop / animal problems or comments: Dryland / Irrigated Organic / Conventional TARGET YIELD/ha:.....

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2. SAMPLE NAME:..... PROPOSED CROP:.....

Extra Tests:

Chlorides Cobalt Molybdenum Aluminium NO₃ NH₃ Reams Soil Biological Activity

YEAR	CROP	FERTILISER USED	MANURE / COMPOST USED	LIME USED
This yr:				
Last yr:				

Soil / crop / animal problems or comments: Dryland / Irrigated Organic / Conventional TARGET YIELD/ha:.....

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3. SAMPLE NAME:..... PROPOSED CROP:.....

Extra Tests:

Chlorides Cobalt Molybdenum Aluminium NO₃ NH₃ Reams Soil Biological Activity

YEAR	CROP	FERTILISER USED	MANURE / COMPOST USED	LIME USED
This yr:				
Last yr:				

Soil / crop / animal problems or comments: Dryland / Irrigated Organic / Conventional TARGET YIELD/ha:.....

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4. SAMPLE NAME:..... PROPOSED CROP:.....

Extra Tests:

Chlorides Cobalt Molybdenum Aluminium NO₃ NH₃ Reams Soil Biological Activity

YEAR	CROP	FERTILISER USED	MANURE / COMPOST USED	LIME USED
This yr:				
Last yr:				

Soil / crop / animal problems or comments: Dryland / Irrigated Organic / Conventional TARGET YIELD/ha:.....

5. SAMPLE NAME:..... PROPOSED CROP:.....

Extra Tests:

Chlorides Cobalt Molybdenum Aluminium NO₃ NH₃ Reams Soil Biological Activity

YEAR	CROP	FERTILISER USED	MANURE / COMPOST USED	LIME USED
This yr:				
Last yr:				

Soil / crop / animal problems or comments: Dryland / Irrigated Organic / Conventional TARGET YIELD/ha:.....

6. SAMPLE NAME:..... PROPOSED CROP:.....

Extra Tests:

Chlorides Cobalt Molybdenum Aluminium NO₃ NH₃ Reams Soil Biological Activity

YEAR	CROP	FERTILISER USED	MANURE / COMPOST USED	LIME USED
This yr:				
Last yr:				

Soil / crop / animal problems or comments: Dryland / Irrigated Organic / Conventional TARGET YIELD/ha:.....

7. SAMPLE NAME:..... PROPOSED CROP:.....

Extra Tests:

Chlorides Cobalt Molybdenum Aluminium NO₃ NH₃ Reams Soil Biological Activity

YEAR	CROP	FERTILISER USED	MANURE / COMPOST USED	LIME USED
This yr:				
Last yr:				

Soil / crop / animal problems or comments: Dryland / Irrigated Organic / Conventional TARGET YIELD/ha:.....

