



# SOIL TESTING

## SOIL MONITORING SAVES MONEY

With rising fertiliser prices worldwide, the need for reliable analysis to monitor soil and plant levels has increased. Harvest of summer crops is well under way and farmers are now looking to prepare for a winter crop.

Improved soil moisture levels and rising dam capacities all point towards a high yield for this year's crops, and farmers can increase their chances of a bumper winter crop with a soil test.

Monitoring your soil is highly recommended to every farmer as a tool, which helps to effectively manage the productivity of the farm.

Here at East West EnviroAg we offer a comprehensive testing service from our ASPAC accredited Tamworth Laboratory. We offer reliable results with non-biased advice in a quick turn around time.

Our basic belief is that careful use of science and technology applied to farming can increase yields, with a greater profit to the farmer.

A small investment in a soil or plant tissue test can save money in better use of the fertiliser dollar.

As agriculture becomes more scientific every day, the opportunity exists for farmers to better utilise their current resources. The only way this can be achieved is to increase your knowledge of what your farm can offer you.

This means being aware of the nature of your soil, understanding the needs of the plant species you plan to grow, and monitoring an effectively planned fertiliser program for either pasture improvement or higher crop yields.

East West EnviroAg laboratory services will identify nutritional prob-

lems in crops and soils, and will help to refine management decisions.

Laboratory results require interpretation and the East West EnviroAg our staff specialise in agricultural science, so we can offer comments on your results. We can recommend the appropriate nutrient regime for your crop and pasture, and can identify nutrient deficiencies or toxicities.

In other words don't guess, test!



## Online Survey

You are invited to participate in our customer survey. In order for us to improve our services we require feedback from our valued client base on what we can do to provide a service suited to your chang-

ing needs.

It will take approximately five minutes to complete.

Your participation in this survey is completely voluntary, but only you can provide

us with the feedback necessary to help improve our services to you.

Please find a copy of the survey online under NEWS or contact us for a form to be sent to you.

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***DON'T GUESS, TEST!***

- East West Enviroag is ASPAC Accredited.
- We test soil, water, grain & manure.
- Please visit our website [www.ewenviroag.com.au](http://www.ewenviroag.com.au) for current information and news about the services we offer.

## SOIL - A VITAL RESOURCE!

Soil is a vital resource in agriculture and understanding and maintaining the health of your soils will provide you with a foundation for sustainable agriculture and increased productivity.

Have you ever wondered whether: Your soil is suitable for cultivation? If you could branch into other areas on your farm? For example: Olives, Viticulture or Orchards?

Whether your soil lacks the necessary trace elements to promote healthy plant production?

Whether your soil suffers from the effects of salinity which could be slowly killing your garden, crops or pastures?

If you have answered YES to any of the above, you need to

SOIL TEST with East West EnviroAg. Let us show you how.

East West EnviroAg offers comprehensive soil testing and analyses with the problem area being pin-pointed and remedial soil treatment programs recommended - ready to be put into action.

**Soil analysis offers the immediate benefit** of being able to identify soil nutritional problems and is the first step to ensure optimum nutrient balance.

Regular soil testing can be used to provide a more appropriate fertiliser programme, to monitor soil fertility and check long term fertiliser programs.

The end result of a testing program is a **cost effective fertiliser usage** and more control over your crops performance.

## INDEPENDENT ENVIRONMENTAL AND AGRICULTURAL LABORATORY

### What do we do?

Independent sampling • Plant Analysis

Agricultural soil testing • Irrigation Water

Environmental services • Grain and feed

Independent consulting • Manures and fertilisers

Sampling • Monitoring Programs

### 5 Working days turnaround

We are happy to customise testing suites to meet your requirements

## UNDERSTANDING BASIC SOIL TESTS

**EC** (Electrical Conductivity) is a measure of the capacity of a liquid to pass an electric current, and increases as salinity increases. EC is the most common measurement of salinity in both soil & water. An EC of less than 0.08mS/cm in soil will present no problems. Levels over 0.15mS/cm can be indicative of salinity.

**pH** is a measure of acidity and alkalinity which can influence soil physical conditions & plant growth. pH is a logarithmic scale between 1 & 14, with 7 being neutral, below 7

being acid & above 7 being alkaline. CaCl<sub>2</sub> is also used when measuring pH and this reading is said to be a measure of the "true" pH of a soil. Generally soil between pH (CaCl<sub>2</sub>) 5.5 & 7.5 is free of problems. Above pH (CaCl<sub>2</sub>) 7.5 deficiencies in copper, zinc & iron can occur & below pH (CaCl<sub>2</sub>) 5.5 induced deficiencies of calcium, magnesium, molybdenum & boron are possible together with toxicities of aluminium & manganese.

**Nitrate-Nitrogen (NO<sub>3</sub>)** levels fluctuate widely depending on

season & rainfall. Nitrates are essential nutrients required for plant growth. Between 20 & 35ppm of nitrate-N is considered adequate for most agricultural purposes.

**Available phosphorus** is measured by the Bray No.1 method when the soils fall within the acidic pH range of 4.0 to 6.5. The Bray No. 1 method employs fluoride as its Extractant is the best P test for predicting yield response to P by legume-based pastures on acid to neutral soils in NSW. Levels considered adequate for Bray P are 20 to 40ppm.

## SOIL SAMPLING

If the soil types vary, sample the predominant soil type. **NEVER MIX SOIL TYPES.**

Preferably sample early in the morning and do not sample very wet soils.

Sample Depth: For most areas, sample soil over the depth of the main root area or A horizon: eg 0-15cm.

For tree crops, orchards and cotton sample over the main root area out to the drip line: eg 0-30cm.

For sub soil samples, generally over 15-90cm, to investigate nitrogen reserves or possible toxic levels of sodium.

Avoid unusual areas such as stock camps, wet areas, old fence lines,

timber burns and headlands. Before sampling, remove excess top growth and un-decomposed organic matter taking care not to remove any of the surface soil.

a) **Collecting soil samples in pasture areas:** Select five representative sites per 50 hectares. Drive in a permanent marker peg at each site. At a radius of approximately 30m around each site take 10 soil samples.

b) **Collecting soil samples in cropping areas:** Collect a minimum of 25 sub-samples along an easily identifiable "monitor line" across the area to be sampled.

Mix the sub-samples in a clean plastic bucket and remove about 500g (about two handfuls- half a bag). Exclude as much air as possible from bag.

After collecting the sample, mark identification on the plastic bag. Fill in the details sheet as your identification details will be the ones we use when returning the results to you.

Preferably keep the samples in a cool place between sampling and posting. Post samples ASAP ensuring all details are completed. We require at least 5 working days to carry out a basic test.

