SOIL & LEAF ANALYSIS - *Why Analyse?*

A soil analysis program will provide important and essential information on the soils' nutritional status, which enables decisions of fertiliser and micronutrient applications to maximise the quantity and quality of crop yields. It also gives you a better understanding of what nutrients are available in the soil, what nutrients are available for the tree and by marrying the results of the leaf and soil analysis together, you can understand how your soil is functioning. A poor functioning soil can lead to a multitude of health problems for your tree which in turn affects the ultimate goal, yield and quality.

A comprehensive measurement of available levels of macro and micronutrients such as nitrogen, calcium, magnesium, potassium, sodium, phosphorus, sulphur, iron, manganese, copper, zinc, boron, molybdenum and chloride in addition to pH, conductivity etc are available to assess the nutritional status of the soil and plant. It is recommended that a comprehensive soil test regime be performed at least once every 2 years to determine your soils nutritional status. Leaf tests should be performed every year in January. If possible, in one year, take samples every month to establish a nutrient usage pattern.

IMPORTANT NOTE: *The importance of plant and soil sampling should never be underestimated. The analysis and interpretation information you will receive is highly dependent on the sampling strategy used.*

SOIL SAMPLING INSTRUCTIONS - *Designing your sampling plan*

The degree of non-uniformity of soil type present in each paddock will influence your sampling strategy (i.e. sample numbers and locations), so it is important to consider these aspects when establishing your soil-sampling plan.

As a general rule:

- Blocks of up to 10ha in area can be sampled as one unit, providing each field is uniform in terms of soil type, topography, land use, crop variety and fertiliser history.
- Larger blocks (i.e. greater than 10ha) will generally be less uniform and as such should be subdivided and each part sampled separately. You will need a clean sampling tool (like the one you have), hand trowel or spade (preferably chromium plated or of stainless steel) and a plastic bucket.

NOTE - Do not collect samples immediately after lime, gypsum, fertiliser (or other chemical) applications to the soil.

Individual soil samples should be taken along a carefully planned route across the paddock. The 'W-pattern' sampling plan (see figure below) is adaptable to most shapes of field.

Identify a start position and move way from this point, avoiding all areas which are not representative of the paddock such as fences, hedges, tracks, patches etc. We recommend at least 20 samples be taken at regular intervals along this sampling path. Around 20 samples are required even from small paddocks or areas.

At each of the 20 sampling points, remove the top 5cm (2") of soil and discard. Take a sample to a depth of 15cm (6") and placed in a bucket. Thoroughly mix all samples with your trowel, avoiding spillage. Fill the provided sample bag with soil from the bucket, and seal securely. Label the bag. As a general guide, fill with about 500g, which is sufficient for a comprehensive soil test. Remember, that wholesale bulking of samples, especially of different soil types will not allow the identification of problems associated with more localised spots on the paddock. It is recommended that these areas be sampled separately.

Ensure the soil samples collected are express posted to your testing lab on the day. If not possible to send on the day, store samples in refrigerator and send the following day.

Take and post soil samples on Monday – Wednesday to ensure they are received by the testing lab before the end of the week otherwise, the sample could sit in the post office for days prior to arriving at soil testing lab. This can affect the results you will receive if the sample sits in the bag for too long prior to testing

NOTE *– When collecting samples, take soil from the drip zone of the trees.*