864 Connect Agricultural Services

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Soil Sampling Guide

Soil conditions can vary across paddocks and between regions. Each paddock should be considered on a case by case basis, as many factors govern the content and balanced availability of nutrients and elements in the soil. Soil analysis can be used to assess the degree of efficiency with which soils produce crops and pastures. An effective soil program can only be developed when all elements of soil content, air, water, nutrients and microbiological life are taken into account. Soil Sampling Method For a soil test to provide a reliable guide to the condition of your soil, the sample must truly reflect the soil of the sampling site. If the soil type varies within the area to be tested, sample the predominant soil type only.

A minimum of 5 to 10 cores per site is recommended. The more sites sampled the more representative and accurate the results.

Core depths of 100 mm for pasture and crops, with 150 mm for orchards and vineyards (2.5 cm or core diameter) are appropriate.

Subsurface soil sampling is beneficial when establishing deep rooted plants, such as vineyards and orchards, or where salinity and acidity are suspected. Take at least 5 to 10 sub-sample cores from the 150 to 300 mm interval of the soil profile.

Avoid contaminated and deceptive areas such as in the vicinity of gateways, animal tracks, animal camps, fences, troughs, trees, fertiliser or lime dumps, planter or seeder loading areas. The bottom of gullies and water holding depressions, areas where timber windrows have been burnt and extremely wet soils should not be sampled. Where sampling gilgai, take material from the same part of the gilgai for each core (e.g. crest).

Remove surface material such as pasture or weed growth and surface litter, to bare soil at sampling site. Cropped paddock soil sample cores should be taken from between plants within rows.

Areas with major soil type variations, or that differ in appearance, crop growth or past treatment, should be sampled separately, provided the area can be treated separately. A soil or crop map can assist in distinguishing areas and in recording the location of samples.

General Instructions Several different tools – such as an auger, sampling tube or spade may be used in taking samples. Important: Use a clean plastic bucket to collect and mix samples, a metal bucket may contaminate the sample for trace element analysis.

If a sampling tool is not available, use a spade to dig a small hole with a vertical side and take a uniform slice of soil about 20 mm wide to the required depth. Break up clods, mix thoroughly and spread the total sample evenly on a clean surface. Divide into quarters, discard the two diagonal quarters and remix the remains, continue this reduction process to achieve the volume required to fill to the sample bag line.

Cores should be taken from sites of average growth. For plant sampling, sample half way between the stem and drip-line. Do not sample bare ground unless it predominates, or patches of very good growth such as near urine and dung clumps, or within 10 m of sheds, tracks and fence lines. Thoroughly mix sample cores in a plastic bucket.

Label each sample bag with the relevant sample and crop details, mixing and preparation, then fill sample bag to fill line (approximately 200 g), immediately after sample core collection.

Fill out the Sample Submission Form, one line for each sample, with as much of the requested details as possible. Ensure the sample identification corresponds with that of the sample bag. On receipt of the samples, 864 Connect

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Agricultural Services will email a Sample Receipt Notice; please check samples have been booked in for the correct analysis.

Leaf Sampling Guide

A minimum of 100g leaf sample is required - a paper lunch bag is the most suitable (do not store in plastic)

Collect a representative sample. The preferred leaf sample is the first fully expended from the growing point for Seasonal Cash crops.

Crop	Time of Year	Growth Stage	No. of Leaves
Seasonal Vegetables		Growth/Fruit Set/Fruit Filling	100 gms. /30-50 leaves
Avocado	Summer Flush- Late April-May	Leaves- recently expanded, mature and healthy. Non-fruiting terminals approx. 4-5 months old	20 leaves
Banana-Sth Qld, NSW	Active growth from medium sized suckers	Strips 20cm wide from each side of midrib from the centre section of the third fully emerged leaf.	6 plants 2 per plant
Citrus	February – March in Qld – leaves are 5-7 months old.	Healthy, mature leaves from middle of non-fruiting terminals of previous spring flush	50 leaves
Mango- S/E QLD	August – September	Latest mature leaves just prior to flowering	30 leaves
Macadamia	September-November, just before peak of Spring flush.	6-7-month-old mature leaves from 2nd whorl of current season's growth, from non-flushing terminals.	40 leaves
Peach and Nectarine	Mid-summer, or within 2 weeks after harvest.	Mature leaves from mid-portion of shoot, current season's terminal growth.	80 leaves

1. Leaf samples should NOT be collected after recent foliar fertilizer or fungicide usage
2. If crop problems: collection of leaves from problem plants and comparison wit