

# NUlogic Fact Sheet

## Products and Services - Plant Analysis



### Plant Analysis

Plant analysis is a powerful complement to soil analysis. Soil analysis prior to crop establishment provides an estimate of what nutrients should be available to plants (among other fertility aspects) while plant analysis measures if the nutrients are available. Plant analysis provides an excellent method of monitoring nutrient uptake by crops during the season as well as providing a more accurate measure of trace element status of soils. Plant analysis also gives the farmer the ability to optimise crop nutrition during the season, letting them know when to correct nutrient deficiencies before they are visible on the plant.

An effective program should include regular testing of healthy plants to see if they are as 'healthy' as they appear or if they are being limited by low nutrient levels which may be limiting the paddocks yield potential.

Like soil analysis, plant testing over time, combined with testing across many sites, builds a complete picture of where nutrient imbalances need to be addressed and where fertilisers and soil ameliorates are most required.

### NUlogic Plant Analysis for Crops and Pastures

Provides a direct measure of nutrient availability to all crops and pastures. It is the best way to determine the availability of trace elements. Designed to complement soil analysis to determine the fertiliser requirements for all crops and pastures.

Provides analysis of four samples collected. Tests for nitrogen, nitrate, phosphorus, potassium, sulfur, copper, zinc, manganese, iron, calcium, sodium, chloride, magnesium and boron.

Accredited NUlogic Advisers provide analysis results and recommendations.

Different crops require different plant sampling strategies, depending on the nutrient of interest.

A guide to plant parts to be sampled is set out below.

Whole tops provide an overall guide to the nutritional status of the plants. It is used for cereals, canola, lupins and pulses. Not recommended for pastures.

Youngest Emerged Blades (YEBS) can be helpful in determining the status of particular nutrients like copper.

Main stems (optional test) are only used to determine manganese status of lupin crops.

Mature heads (or grain) are only recommended where clear production differences are noticed at harvest. Sampling of whole heads is preferred to harvested grain because the sampling sites can be more clearly identified.

Leaves and petioles of clovers and medics provide the best guide of nutrient availability in pastures.

Youngest Mature Leaves (YMLs) are sometimes sampled in canola when the whole tops cannot be easily sampled.

More information on sampling procedures and timing is available in the instructions included in the NUlogic Plant Analysis kit.

### Benefits

- 1 Defines nutritional reasons for poorer or better plant growth;
- 2 Assists fertiliser decisions through actual measurements of nutrient availability and plant uptake;
- 3 Forms the basis for recommendations of foliar trace element sprays and additional macro elements;
- 4 Monitors changes in plant nutrition levels over time and assesses efficiency of past fertiliser practises;
- 5 Complemented by NUlogic Soil Analysis

### Frequency

Regular sampling of paddocks is recommended. Ideally each paddock should be sampled once in every 3-4 years in broadacre crop situations.

