Sugar Research Australia

Information Sheet

IS13014

Leaf sampling

A key to improved nutrient management

Leaf sampling allows you to:

- Check on the adequacy of fertiliser recommendations and the nutrients you have applied to your sugarcane.
- Adjust fertiliser rates if necessary next season (or in the current crop if the cane was young enough at the time of sampling).
- Identify possible nutrient problems associated with 'poor cane'.
- Monitor nutrient trends at the block, farm and regional levels.

It is important that leaves are sampled correctly and that all the details requested on the Analysis Service label be supplied as accurately as possible. This will enable meaningful interpretation of the analysis results.

An example of a leaf sample label is shown below. Dried samples should be sent to your local advisor.

Sugarcane Leaf Sample	
Grower's name:	
Farm identification:	
Address:	
Postal code: Mill area:	Tel number: Sampling date:
Block number: Crop: Plant / ..... Ratoon Variety:	Details of fertiliser applied Type: Rate: ..... bags/acre/..... kg/ha
Age of cane at sampling: ..... months*	

**calculated from the date of planting for plant or replant cane, the beginning of spring for winter-cut ratoons, and from harvest date for spring-cut ratoons*

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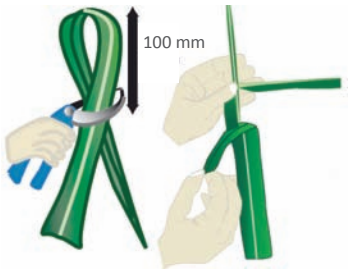
Three easy steps to successful leaf sampling

STEP 1

- Select leaves from stalks of average height.
- Sample the third leaf from the top of the stalk (as shown on the diagram). Counting from the top of the plant, the first leaf is the one that is more than half-unrolled. The third leaf usually corresponds to the top visible dewlap.
- Collect 30-40 leaves at random from across the entire block of sugarcane being sampled.

STEP 2



- Fold the leaves in half (top to base) and cut a 100-200 mm length from these folded leaves (giving a total 200-400 mm section of each leaf). Retain these middle 200-400 mm sections of the leaf blades and discard the remaining top and bottom sections.
- Strip out and discard the midrib from each 200-400 mm section.

STEP 3

- Bundle the leaf strips together and attach an appropriate label.
- Place the sample in a cool environment (for example, a polystyrene cooler) until it can be dried in an oven (about 60°C) or a well-ventilated area.
- Once the sample is dry, place it in a clean paper bag or envelope.

NB

To ensure meaningful interpretation of the analysis results, make sure that the following guidelines are adhered to:

- Cane is sampled during the prescribed leaf-sampling season (December to April).
- Cane is the correct age (3-7 months) at the time of sampling.
- Cane has been growing vigorously during the month prior to sampling.
- Cane is not affected by moisture stress at the time of sampling.
- Cane is also unaffected by any other factors, such as disease, insect damage, etc.
- At least six weeks has passed since fertiliser applications.
- Hands, equipment and working surfaces are clean and uncontaminated.