

COTTON

Take the petiole from the first fully expanded leaf – usually the fourth or fifth leaf back from the growing point of the plant. BE SURE TO TAKE WHOLE LEAF & STEM (petiole), not just the blade.

Sample at least **60 petioles**, randomly across the sampling area to obtain a representative sample. If the petioles are small or dry, more petioles will need to be collected. The part to be tested is the petiole (leaf stalk).

If you require a Sap 2 or 3 analysis, please collect **twice** as many petioles.

If you require a Sap 4 sap analysis please collect **three times** as many petioles.

Additional Notes:

- To ensure that the laboratory is able to perform the entire test suite required and that the optimal levels supplied on the laboratory report are relevant, please ensure that the above instructions are followed.



- Place samples into a plastic sample bag, not in paper, as paper will dry out the sample and may not allow for enough sap to be extracted for the analysis requested.

COTTON

Crop Stages:

Vegetative:

V0 – between seedling emergence to 1st true leaf = 2.5cm

V1 – between V0 and 2nd true leaf = 2.5cm

V2 – between V1 and 3rd true leaf = 2.5cm

Vn – n true leaf = 2.5cm

Squaring Stage:

B1 – 1st flower bud (square) is visible

B2 – 2nd flower bud (square) is visible

Bn – n flower bud (square) is visible

Flowering:

F1 – when square at B1 reaches anthesis (open flower)

F2 – when square at B2 reaches anthesis (open flower)

Fn – when square at Bn reaches anthesis (open flower)

Cracked Boll:

C1 – when boll at F1 begins to dehisce (cracked boll)

C2 – when boll at F2 begins to dehisce (cracked boll)

Cn – when boll at Fn begins to dehisce (cracked boll)

Crop Stages in AgPro:

- Pre-plant
- Seedling (V0)
- Early Vegetative (V1 – Vn)
- Squaring (Bud – B1 – Bn)
- Flowering (F1 – Fn)
- Boll Fill (C1 – Cn)
- Pre/Early Harvest
- Post/ Late Harvest

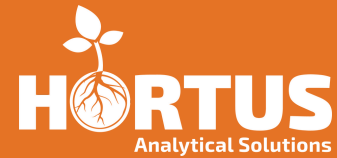
Sap Monitoring program:

Sap sampling times for cotton are:

- squaring
- 2-3 weeks later, late flowering
- 2-3 weeks later, late boll set / early boll fill
- 2-3 weeks later, mid-late boll fill
- late boll fill

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DIFFERENTIAL SAP ANALYSIS



Sampling for new leaf and old leaf testing:

- Take the petiole from the first fully expanded leaf – usually the fourth or fifth leaf back from the growing point of the runner. BE SURE TO TAKE WHOLE LEAF & STEM (petiole), not just the leaflets. This will be your NEW LEAF SAMPLE.
- Take the petiole from the from an old leaf from the same growing stem. BE SURE TO TAKE WHOLE LEAF & STEM (petiole), not just the leaflets. This will be your OLD LEAF SAMPLE.
- If the petioles are small, more petioles will need to be collected. If the old leaves are dry, more petioles will need to be collected. The part to be tested is the petiole (leaf stalk).



NEW LEAF
(1ST FULLY
EXPANDED LEAF)

OLD LEAF