

How to take leaf samples for petiole analyses for grapevines.

To select vine leaves for petiole analysis, collect the petioles (leaf stems) from fully developed, healthy leaves that are well-exposed to sunlight and free from disease, insects, or injury. Sample at a consistent growth stage, such as bloom (80% cap-fall), by taking leaves opposite the flower clusters, or at veraison (most recently matured leaf), by sampling 5–7 leaves from the shoot tip. Collect 50–80 petioles per sample from representative vines of the same variety and rootstock, place them in a paper bag, and send them to a lab for analysis.

When to Sample

- **Bloom (80% cap-fall):**

Collect petioles from leaves opposite the first or second flower cluster on the shoot. This stage is ideal for assessing the status of mobile nutrients like nitrogen, phosphorus, and potassium.

- **Veraison:**

Collect petioles from fully mature, healthy leaves, typically 5-7 leaves down from the shoot tip.

How to Select Leaves

1. **Healthy and Exposed:**

Choose leaves that are fully developed, green, and free from any insect damage, diseases, or physical injuries.

2. **Consistent Location:**

Select leaves from the same approximate position on the shoot each time you sample.

3. **Uniform Vines:**

Collect samples from vines of similar age, variety, and rootstock within the same vineyard block.

4. **Avoid Contamination:**

Do not collect from vines located at the edge of the vineyard, near trees, or immediately after pesticide applications.

How to Prepare the Sample

1. **Separate Petioles:**

Carefully detach the petiole (leaf stem) from the leaf blade immediately after collecting the leaf.

2. **Discard Leaf Blades:**

Discard the leaf blades after separating them.

3. **Use Paper Bags:**

Place the petioles into a clean, labelled paper bag. Avoid using plastic bags, as they can cause the leaves to develop fungal infestations.

4. **Dry or Ship Immediately:**

Allow the petioles to air dry at room temperature in a shaded area or send them to the lab promptly.

5. **Label Clearly:**

Label the bag with the vineyard block, date of collection, and growth stage for accurate record-keeping.