

Soil Health Focus <October> <2023>

# THE POWER OF PETIOLE TEST.



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For grape growers, petiole testing is a powerful tool that can help keep your fertiliser program cost-effective. It can help you develop more precise nutrient management, avert unnecessary fertiliser applications and enhance the efficiency of your vineyard operations.

Petiole testing is a highly efficient and accurate way to ascertain nutrient uptake, and is typically used to establish levels of nitrogen, phosphorous, potassium, magnesium, calcium, manganese, iron, zinc, boron and copper in the vine. Petiole tests show if the plant has a 'hidden hunger' for any nutrients before visual symptoms appear or reveal if the existing nutrition is adequate for crop requirements.

## How to test

Petiole testing is best done early in the morning when the plant is still inactive. The earlier the better, ideally before 10 am.

In grapevines, one-off testing is best done at about 70% cap fall as this will allow for nutrient adjustments to be made within the current growing season. More frequent, monthly testing can be done if the objective is to diagnose or monitor a specific issue or fertiliser program.

To take a sample, go halfway up the vine and look for a bunch. Then take the petiole or leaf blade opposite the bunch. Remove the leaf blade and you're left with the petiole.

To get a representative sample, aim for 40 or 50 of these from across the vineyard. Ensure each sample is taken from the same variety, rootstock, age and vigour, and avoid outside rows by going three or four rows into the vineyard to start taking petioles.

To avoid contamination of the petiole, it's important to ensure hands are clean, and this can be done using an alcohol based sanitiser or surgical gloves.

## Submitting and interpreting tests

Sending petiole samples for testing is simple. Once the samples are collected:

1. enter the details into the LabSTREAM app
2. put the sample in the bag
3. scan the bag barcode into the app and submit the sample
4. send the sample off in the post to Nutrient Advantage

When the laboratory results are ready they can be viewed in NA Pro.

NA Pro is IPF's Fertcare accredited decision support system that has been helping agronomists interpret soil, plant, water, and tissue sample data and generate nutrient, fertiliser and agronomy recommendations for over 25 years. Fertcare accredited agronomists can tailor the NA Pro recommendations, adding personalised comments and customise product recommendations to suit the requirements of their clients. It's free to use with no subscriptions or long-term commitments.

NA Pro is fully integrated with LabSTREAM, the sample submission app which simplifies logging samples in the field. Even without an internet connection, LabSTREAM will securely store logged samples and sync them when connection is restored.

## Further Information

For more information on Nutrient Advantage, please contact an IPF Agronomist.

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