



Timely Viticulture

- Dormant
- Pre-Bloom
- Bloom
- Post Bloom
- Mid Season
- Pre-Harvest
- Harvest
- Post Harvest
- Dormant

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"Timely Vit" is designed to give those in the Maryland grape industry a timely reminder on procedures or topics they should be considering in the vineyard.

Tissue Sampling

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Some early varieties in many vineyards are just starting to bloom. This is a critical time for taking tissue/ petiole samples to assess the nutritional status of your vines. The following are some timely considerations.

- Grape petiole analysis is recommended along with soil samples and visual observations as part of a complete nutrient management program.
- A three year cycle of sampling all of the varieties in a vineyard is typically recommended.
- Tissue/petiole analyses reveal the **actual amount of nutrients in the vines.**
- Tissue samples are needed when doing your mandatory Maryland Agricultural Nutrient Management Plan. (Please see link at the end of the publication for details)
- Spring tissue sampling is a good time to sample, as you can make nutrient adjustments to the vineyard that may influence this year's crop quality.
- Nitrogen status is best evaluated with tissue sampling not through soil sampling.
- The time to take spring tissue samples is during full bloom of a particular variety.
- Bloom time samples may show more accurate levels of boron and zinc, but are less accurate indicators of potassium status. Where bloom-time analyses indicate borderline potassium nutrient levels, a second sampling is warranted in late summer (70-100 days post bloom).
- Some specifics on sampling:
 - Each sample should be less than 5 acres; they should reflect major changes in soil or topography
 - Sample different varieties and rootstocks separately.
 - Samples should represent plants that are planted on the same soil type and are of the same age.
 - Vines should represent that portion of a block that is maintained under the same cultural practices, i.e. fertilizer, irrigation and vigor control practices.
 - ◊ For example, irrigated blocks should not be combined with non-irrigated blocks.
 - Do not sample vines on the border of the block or near dusty roads.

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For the bloom sampling period, sample the petiole of the leaf petiole **OPPOSITE** the 1st blossom/cluster (see figure 1. below and details on fact sheet linked below).

- About 50-75 petioles are needed from varieties with large petioles and about 75-100 petioles are needed from varieties with small petioles.
- Gently wash petioles with water and gentle detergent, pat dry and place in OPEN paper bag (lunch, #6 size) to dry for a few days.

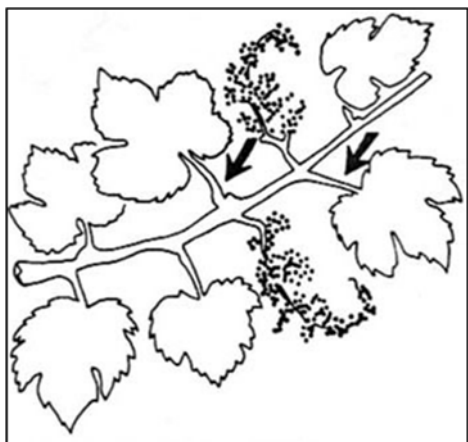


Figure 1.

There are many labs that can analyze tissue samples (see detail on fact sheet and you will find a list of labs in link below). Call the laboratory to determine current pricing and submission information.

“*Tissue Sampling for Vineyards*” Information Sheet for more information:

<https://extension.umd.edu/sites/default/files/docs/programs/viticulture/TissueSamplingforVineyards060413.pdf>

Comparison Soil Testing Labs:

<http://extension.umd.edu/sites/extension.umd.edu/files/docs/programs/anmp/Soil%20Lab%20Comparison.pdf>

Agricultural Nutrient Management Program information:

<http://www.extension.umd.edu/anmp>

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