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. Remember all vineyards with income of >$2500 per year MUST have an approved nutrient management plan and MDA does do regular monitoring to be sure you are in compliance. Recent analyzed tissue sample are at the core of the plan. 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/bloom tissue sampling is recommended, 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:
  - Sample different cultivars and rootstocks separately.
  - Each sample should be less than 5 acres and should reflect major changes in soil or topography.
  - Samples should represent plants that 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.

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](https://extension.umd.edu/sites/default/files/_docs/programs/viticulture/TissueSamplingforVineyards060413.pdf)


Agricultural Nutrient Management Program information: [http://www.extension.umd.edu/anmp](http://www.extension.umd.edu/anmp)