



## Berry Variability

Some vineyard blocks are consistently the best block every vintage, while adjacent blocks are less impressive. One factor that contributes to a less impressive vineyard is high variability in berry ripening. If the Brix range in a vineyard sample is high (i.e., 17° to 30° Brix), it can be expected that the composite sample will show unripe and undesirable characteristics. In cases where the maturity level of the sample is more uniform, quality and flavor intensity will dominate.

Many factors can be attributed to variability in the berry, cluster, vine and block. These factors include length and evenness of bloom and fruit set, canopy density, crop load, fruit thinning, fruit exposure and other viticultural practices. Although there are some factors that a winemaker can't control, there are others where techniques can be adjusted to achieve more uniformity. Vinquiry's Berry Variability assay will give information on the uniformity of the vineyard which yields better knowledge of the vineyard site. It is a tool that will help winemaking and vineyard staff to make informed decisions for total quality management.

We suggest that you follow specific blocks through time; weekly from veraison until harvesting of the block, approximately six times per vintage, and over several years.

### Berry Variability Includes:

- Berry Weight Average
- Brix Reading for 300 Individual Berries
- Composite Titratable Acidity
- Composite pH
- Composite Brix

## Analysis

Fresh **Berry Weight** will increase, peak and then sometimes decline during ripening. Harvesting should take place at the optimal weight. Berry weights can vary from year to year, but over time, one can build a database for the conditions that can cause changes in the weight and quality.

**Brix** readings for individual berries help you to determine the sugar per berry and determine variability. The standard deviation of a 300 berry sample is established. This Brix pattern will help direct vineyard practices for more uniform ripening such as leaf removal, bunch thinning, and canopy management.

**Composite Titratable Acidity, pH and the Brix** of the 300-berry sample gives the overall picture of berry chemistry. Each component gives insight to the extent of ripening and possible adjustments that need to be made during vinification.

Thanks to Zelma Long and Mark Greenspan for their technical contributions.

## Sampling

A sample of 300 berries is required for this assay. The sample should be representative of the test area.

For questions or further information on Berry Variability please call 707-838-6312.