

CROP ESTIMATION AND ADJUSTMENT

Why worry about crop estimation? Why not just harvest when the grapes are ready and get them to a winery for processing? If you operate a winery, the ability of your growers to estimate (and perhaps adjust) the amount of crop on the vines is essential to managing the winery operation. Scheduling winery projects absolutely requires that amounts are known and when they will be available in order to conduct winery operations in an efficient fashion. If you are a grower, it is important to be able to know, with a reasonable degree of accuracy, what size crop you will be harvesting and transporting to the winery. This knowledge helps the winery, but also helps with other vineyard management decisions and of course the ability to estimate cash flow of your enterprise.

So how do we estimate crop load? Two methods that are in usage for predicting yields are:

- The **traditional method** is based upon a running historical record of cluster weights for a specific cultivar on your vineyard.
- The second method is based upon **“lag phase”** cluster weights. This is based upon evidence that cluster weights will double from lag phase to harvest. The lag phase, as the name suggests, is the period when growth of the berries slows temporarily (usually about 55 days after bloom).

In both cases, the importance of accurate record-keeping cannot be stressed enough.

Keep Good Records! For a grower to successfully estimate yields, it is critical to have an accurate estimation of cluster weights at harvest.

For the traditional method, it is necessary to have the following information:

- Number of bearing vines per acre (or area being evaluated).
- Number of clusters per vine (to get a representative sample, count clusters in a sample area, perhaps 20 randomly selected vines) count the clusters in that area and multiply by the appropriate number (e. g., 30 if you have 600 vines per acre).
- Historical average weight of clusters for that cultivar (based upon harvest records from your vineyard). This figure will become more accurate when averaged over several vintages (harvest years).
- Use the following formula:

Estimated Yield/Acre = vines per acre x clusters per vine x average cluster weight at harvest (pounds or grams).

For the “lag phase” method, use the same formula and multiply by two.

Note that crop estimation relies on accuracy of cluster weight records at harvest, a correct number of vines per acre (or area for which estimates are desired) and a careful counting of clusters per vine. Also remember to adjust for missing or damaged vines (or replants).

Paul E. Read
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