



VINEYARD REPLANTING BEST PRACTICES

Prepared by the Napa Valley Grapegrowers Industry Issues Committee

REASONS TO REPLANT

- A significant percentage of your vines are not producing due to death or disease, or are producing substandard fruit. The percentage of affected vines should be greater than 10-20%, so that replanting and not simply rogueing individual vines justifies the cost of replanting and loss of 2+ years of revenue.
- The vines have a disease that is spreading in your vineyard and threatens adjacent vines and blocks. Various diseases can pose a threat to vine health and wine quality. These diseases include but may not be limited to: Leafroll disease, Trunk diseases, Red blotch, Fanleaf, Pierce's Disease, and others. Be sure to communicate with your UC Viticulture Farm Advisor and stay informed through NVG seminars and university reports. Again, the percentage of affected vines will help determine the decision to rogue or re-plant.
- Row orientation, trellis configuration, spacing, irrigation and/or plant material may not be ideal for your vineyard location to achieve desired quality or profitability goals. Replanting provides the opportunity to improve any or all of these factors. If only the variety needs to be changed, one should consider T budding, which is a much less expensive alternative to replanting.
- The market in general and the needs of your winery or winery customers will also drive replanting decisions. The price for Napa Cabernet Sauvignon and Cabernet Franc are almost double the average price for Napa Merlot and more than double the price for Napa Valley Sauvignon Blanc and Napa Valley Chardonnay. The grower must also consider the suitability of the vineyard site for winegrape quality. From what you have learned about your site from the original planting or the prior owner; make an assessment as to financial yield - being careful to remember that there are mediocre sites in Napa for Cabernet Sauvignon that may be better suited for another variety.
- Referring to the Cost Studies that are produced regularly by the University of California in conjunction with the NVG can be very useful. These can be found on the NVG website under "Reports".

GOING ABOUT THE REPLANT

- Do thorough soil testing to assess nutritional needs as well as suitable rootstocks and varieties that will do well. Soil testing should include an evaluation of nematode populations. Understanding nematode pest pressure is critical to rootstock selection.
- Carefully consider vineyard irrigation demands and soil water holding capacity. Water availability and irrigation design are two of the most critical decisions of the replanting process. Does the site require drainage and could this drainage be reclaimed for future irrigation or frost needs?
- If you do not need the grapes from this replant for your own wine, show the site and discuss your plans with wineries that you work with or those that you think may be interested. A long term planting contract removes much of the downside risk to a new planting. We are still in an up part of the grape cycle, which may help you enter a favorable contract.
- Plan to carefully rip and cross rip out as many old roots as possible. Root pieces remaining from the previous planting can harbor pests and diseases. Thoroughly incorporate the recommended soil amendments. Consider the application of compost. Regular compost and/or mulch applications can increase soil water holding capacity.
- Consider planting a cover crop during the fallow period.
- Refer the NVG Best Practices Paper on obtaining clean plant material. There have been multiple recent examples of growers replanting a sick vineyard only to need to go thru the process again due to sick plant material. Until the test for Red Blotch became available, many replanted vineyards were planted back to vines affected by this disease.
- Obtain the necessary permits for re-planting. These are usually track 2 and are easier to obtain than permits for new plantings. Careful attention to erosion control practices will help ensure vineyard uniformity, soil health, prevent soil losses and potential violations due to offsite transport.

- If possible, remove the existing vineyard in the summer prior to planting. The trellis and irrigation can all be done ahead of time. That way the vines can be planted in early spring. Planting in March or April vs. July is often worth a year in vine growth. If preparation the year prior is not practical, begin work as early as permitted in the spring.
- Should the rootstock, variety, trellis, row direction, spacing, means of frost control, and/or irrigation be changed? Double poly irrigation is a frequent upgrade in replanted vineyards. Adding a second set of underground mainlines decreases the labor to switch from first to second lines. There are many new rootstocks to choose from, including some nematode resistant ones.
- All decisions at this time are largely permanent and will affect grape quality and vineyard longevity. Now is the time to pay extra attention to details and infrastructure.
- Discussing your ideas with an experienced vineyard consultant is often helpful, even if you have replanted vineyards in the past.

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To Preserve and Promote Napa Valley's World-Class Vineyards