

## Grapevine Clean Stock- Planning

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The vineyard manager or grower needs to make planting, top working, or vine removal decisions with testing results. An on-going challenge we face is to educate growers and vineyard managers with the collection and submission of samples in order to detect pathogens accurately. Sample collection in the correct season/vine location is not always convenient. However, in all cases the grower will get the best return of investment if simple procedures are followed. Developing a testing plan that fits with the vineyard's long term goal and planting plan is necessary.

Our lab specializes in testing grapevines for disease caus-

ing agents (i.e., pathogens). Our working experience allows us to develop reliable sampling and testing procedures. The time to submit samples for testing of planting material should coincide with the time the grower decides which rootstock-scion combination will be ordered at the nursery. In most cases, nurseries are able to trace their mother vines and organize cuttings in specific bins. A representative sample should be collected from each bin of rootstock and scion material that will be used for grafting. The correct sample will depend on the diagnostic tests ordered. For sensitive and accurate detection sampling must be done in the correct season. As noted in the table below, samples will need to be submitted at different times

## Disease Testing Prior to Planting

(one or more years ahead of the planting season!) to cover the whole spectrum of detection of grapevine disease causing agents.

In a simple world, analyzing samples from mother vines would be all the testing needed. Because of the potential of virus spread, bacterial, and /or fungal infections during the field finishing process it is important to collect and test samples from vines prior to planting the vineyard. Visual inspection is important, but ultimately testing is needed to pinpoint the presence of a pathogen. Collecting samples with and without symptoms will help determine if the visual symptoms are due to the presence/absence of disease agents or other stress factors. Many pathogens remain symptomless in the vineyard for many years and are only detected by laboratory tests.

The key is to start developing your disease testing strategy today. This spring submit samples for HealthCheck Panel B. HealthCheck™ Panel B includes the detection of decline/degeneration disease causing (nematode-transmitted) viruses: Arabis mosaic virus (ArMV), Grapevine fanleaf virus GFLV, Tobacco ringspot virus (TRSV), and Tomato ringspot virus (ToRSV). Work in our lab has shown that although dormant wood may be used in heavily infected vines, young tips and leaves collected in the spring are more reliable for the detection of viruses included in HealthCheck Panel B. Please check our website for updates on grapevine disease testing and call us to discuss your specific testing needs.

### Recommended Sample Type And Collection Season for the Detection of Grapevine Pathogens

HealthCheck™	Pathogens detected	Tissue type	Season
Panel A	Viruses associated with leafroll, rugose wood disease	Mature green growing and dormant cane, cordon, trunk	Late fall, winter
Panel B	Viruses associated with grapevine decline	Young leaf shoots	Early spring to mid summer
Panel CG	Pathogenic Agrobacterium spp.	Green growing and dormant cane, cordon, trunk	All year
Fungal Panel	Fungi associated with trunk and root disease	Green growing or dormant cane, cordon, trunk, and root.	All year
Panel PD	Bacteria associated with Pierce's Disease	Mature leaf petioles	Late summer, until leaves fall

