

## Trunk Sampling for GRBV

*Collecting trunk samples for PCR or LAMP analysis for red blotch virus*



### Supplies for Sample Collection

#### PCR and LAMP

Clean razors

Box/bag for used razors

Box of gloves

Bag to dispose of gloves

#### Additional supplies

##### PCR

Resealable bags  
label with sample number

##### LAMP

Clean pipette tips  
field use only

Tray of Eppendorf tubes  
label & fill with 10µl DI H<sub>2</sub>O



# Preparing the Vine for Sample Collection

## PCR and LAMP

### Step 1

Peel back first few layers of bark on the trunk, near the head of the vine.



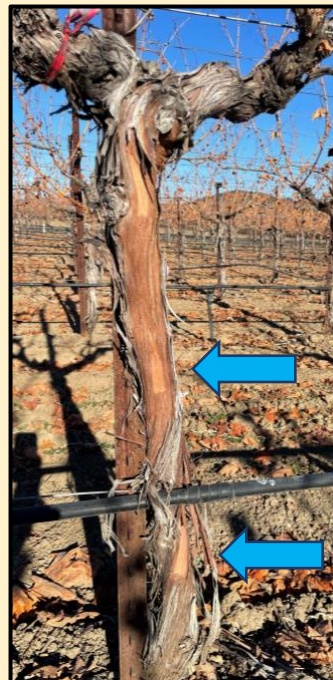
### Step 2

Glove both hands. Use a clean razor to cut to the sapwood layer.



If you are sampling more than one location on a vine, repeat **steps 1 & 2** in the middle and lower trunk.

Sampling 3 locations per vine requires more labor but may improve reliability.





## PCR

### Step 3

Keeping your gloves on, use the razor to remove a small section of sapwood.



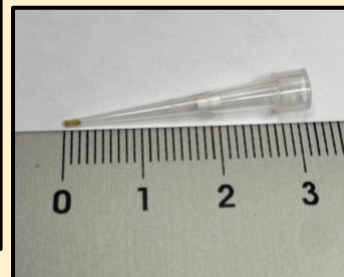
## LAMP

### Step 3

Replace your gloves. Collect a small amount of tissue from the sample location(s) with a pipette tip.



Tissue in pipette tip shouldn't be more than 3mm in length.



## Composite Sampling PCR

Repeat **steps 1-3** on all vines that are included in the composite sample.

Contact your analytical laboratory to determine optimal number of vines for composite sampling.

## Composite Sampling LAMP

Sample no more than 4 vines per composite.

Repeat **steps 1-2** on all vines. Prepare **one location** per vine.

Conduct **step 3** on all vines, using a single pipette tip.

Composite sampling combines samples from multiple vines for analysis. It can be used to optimize resources when sampling many vines. If a composite sample returns a positive result for GRBV, each vine can be re-sampled individually to determine infection status.

## PCR

### Step 4

Place sapwood sample(s) into labeled bag. Deliver to analytical laboratory.

These samples may dry out quickly.

Contact your analytical laboratory for guidelines on shipping & handling.



## LAMP

### Step 4

Place pipette tip into labeled Eppendorf tube. Conduct LAMP-GRBV assay.



Trunk wounds from sampling heal quickly.  
Wound sealant can be applied.



2 weeks post-sampling, with sealant

Visit the UCCE-Napa Vit Team website for LAMP-GRBV assay supply list & protocols.



[ucceviticulturenapa.wixsite.com](https://ucceviticulturenapa.wixsite.com)