



Carbohydrate Observatory

Sampling Protocol

What you need:



1. Pruning shears



2. Razor blade

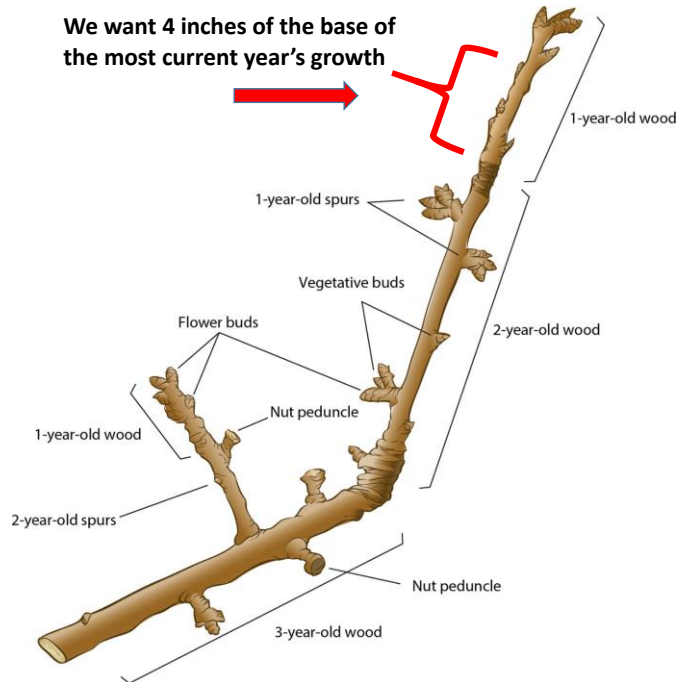


3. Addressed envelope to Paula

1. Choose a branch that is within reach or midway up the tree on the sunniest side of the tree. **Choose current year's growth.** You should pick 1 branch per tree on 3 different random but typical trees. A total of 3 shoots should be selected.



- Cut the current year's growth off. We want the base 4 inches of the current year's growth. (The only exception is during the growing period: if current year's shoot did not reach its maximum length, collect the base 4 inches of previous year's growth.)

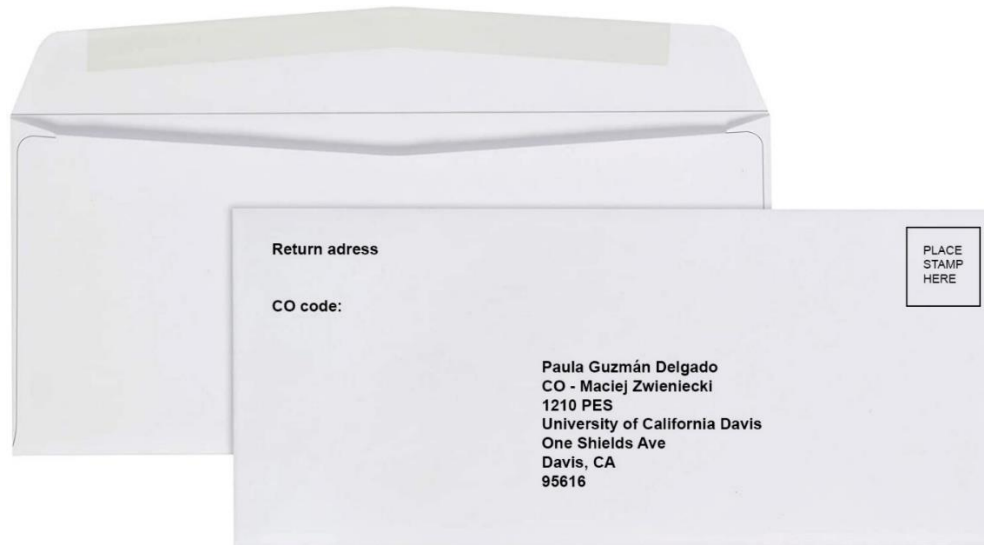


- Remove the bark near the base of the branch (about 4 inches worth). You can shave it off with the razor blade or simply peel it off if the bark is slippery.



- Save the bark and put it in the envelope along with the wood. Put all the bark and the 3 twigs in the envelope together for one sampling plot.
- Put the name of the sampling plot (i.e. "Home Ranch") on the envelope with your identifying farm number (provided by us). Please fill out your return address and the following information on the front of the envelope: date, location-GPS coordinates (there are many free apps you can download on your phone to obtain latitude and longitude) contact person's name, species, variety (rootstock and scion) age of tree and any other

notes you feel are relevant. After your first sample, you can simply write the farm # and the sampling date instead of all the information since we will have it from your first sampling.



6. **Immediately** drop in the mail (the sugars begin to break down after a few days). It is recommended to sample on a Monday or Tuesday so the samples do not sit in the mail over the weekend. Please sample every 4-6 weeks.



7. **Look at your results!**

This is the link to our lab website, and the Carbohydrate Observatory:

http://www.plantsciences.ucdavis.edu/plantsciences_faculty/zwieniecki/CR/cr.html

This is the link to the map where you can access your results as we process them:

https://mzwienie.shinyapps.io/Shiny_test/

If you would like to participate, or if you have any questions please contact Paula Guzmán-Delgado at pguzmandelgado@ucdavis.edu or (530)400-6912.

Consider donating to keep horticulture science going! Right now, it is free to participate in this study. However, we need to keep our equipment and personal in good condition!

Thank you!