

Sampling for Little Cherry Disease

Written by: Scott Harper, WSU Plant Pathology. Edited by Tianna DuPont, WSU Extension. Updated June 2019

If you are intending to conduct molecular testing for Western X or Little Cherry Virus 1 or 2, the type of tissue you would need to submit changes depending on the time of year – because the pathogen moves as the plant grows and develops.

When Symptoms are Observed

If you are observing what looks like little cherry disease symptoms on the tree, or limbs of a tree, and want to confirm what you are seeing: submit four to six-inch cuttings from the diseased limb, including leaves and if possible, fruit and/or the peduncle (fruit stem).

When Symptoms are not Yet Observed

If you do not have little cherry disease symptoms on a tree, it becomes a little bit more difficult.

Take a total of 4-5 samples from around the tree, from the following tissues, depending on the time of year:

- **Dormant/delayed dormancy:** Dormant wood (4-6 inch cuttings). Not recommended for Western X.
- **Bloom:** New wood, flower buds, emerging leaves, flower stems. Not recommended for Western X.
- **Pre-harvest:** Fruit stems and 4-6" stem sections from current year's growth.
- **Early Postharvest:** Fully expanded leaves (4-5 leaves each, include the petiole) and 4-6" stem sections from current year's growth.
- **Pre-dormancy:** Fully expanded leaves (before leaf drop) (4-5 leaves each, include the petiole) and 4-6" stem sections from current year's growth.



Figure 1: Five 8-inch cuttings per tree for dormant wood testing for little cherry virus. Photo credit Hannah Walters, Stemilt Growers.

In 2019 early sampling may result in false negatives due to the cold winter which is affecting the concentration of Western X phytoplasma in the plant tissue. It is recommended to wait to

sample until close to or after harvest in 2019 for Western X.



Figure 2: Submit four to six-inch cuttings from the diseased limb, including leaves and if possible, fruit and/or the peduncle (fruit stem).

Packaging and mailing Samples:

All samples should be collected and placed in a Ziploc bag and kept in a cooler or refrigerator until you can send them to a lab. If mailing or couriering plant samples, please place a cooler pack in with the samples to keep them in good condition. Send to:

Diagnostic Lab/Hamilton Hall
Attn.: Tina Vasile
WSU Irrigated Agriculture Research and Extension Center
24106 N Bunn Rd. Prosser WA 99350

Sampling directions and forms at

<http://cpcnw.wsu.edu/lcdtests/> The contact for the lab is Tina Vasile (509) 786-9382 <http://cpcnw.wsu.edu/virus-diagnostic-lab/>. Drop the samples off at Prosser or send them overnight mail in a Styrofoam shipping container with an icepack. Be sure to include your name and contact information with the package. Avoid sending samples on Thursday or Friday. Check with the lab for details on current fees.

Contact

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