

April 7, 2024

## **X-disease phytoplasma and Little Cherry Virus 2**

### **Proficiency testing**

Proficiency testing is conducted by WSU with cooperating labs in order to help labs maintain the highest quality outputs for growers. *WSU is not a certifying agency and can only provide testing as a service to the cherry industry.*

#### **Steps:**

1. Labs please use recommended testing protocols for LCV2 and X-disease Phytoplasma.
2. WSU Extension Wenatchee will obtain samples from known negative and known positive trees (6 -10 samples).
3. Samples are pooled and homogenized.
4. Subsamples of pooled samples will be provided to participating labs which contain tissue to be tested. Subsamples will be in 2 ml ependorf tubes. Tissue will be segmented bark tissue and fruit stems. In addition we plan to include extracted material.
5. For consistency both labs will process the same tissue. Tissue type will depend on timing of analysis, harvest timing = fruit stems, after harvest pooled leaf/bark samples.
6. Extraction and analysis conducted using standardized protocols (**See Recommended Protocols**).
7. **Three technical replicates is highly advised.**
8. **The cut-off value for positive analysis is 37 Cq.**
9. Please submit using the accompanying excel submission sheet.
10. Sample results from participating labs are provided to WSU Tianna DuPont <Tianna.dupont@wsu.edu> in excel spreadsheet format with column 1 sample name, column 2 LChV2 positive/negative (designate as P/N), column 3 LChV2 Ct value (average of 3), column 4 standard error, column 5 XDP positive/negative (designate as P/N), column 6 XDP Ct value (average of 3), column 7 standard error.
11. New labs will also provide accompanying run data to allow for Dr. Harper to check that appropriate protocols were used.
12. To pass the panel, all negative samples must be correctly identified, and 85% of results of positives must fall within a range of +6 cycles (Ct values).
13. To be considered for a given panel test results must be returned by deadline (generally 10 working days of sample distribution dates).
14. Labs who do not pass said panel are welcome to submit at the next date but re-analysis will not be accepted.

#### **Contacts**

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