



Extension Service

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To: Oregon Seed Potato Growers  
From: Jeffrey P. McMorran, OSCS Potato Seed Certification Specialist  
Subject: Post-Harvest Testing (aka “Winter Grow-out”) - A few important items

- 1. Winter Grow-out Requirements:** In Oregon, a winter grow-out (WGO) is required for any lot to be eligible for recertification (i.e. seed used to produce seed). An ELISA test for virus does not take the place of a winter growout. Exceptions to this requirement are considered as “special cases” and must have advanced approval by OSCS. NOW is the time to insist that your source conduct a Winter Grow-out on their seed.
- 2. Grow-out of Canadian Lots:** As with previous years, if you are interested in purchasing seed from an area where a Winter Grow-out is not required for re-certification eligibility you may request that a grow-out of this lot be conducted at OSCS for the purpose of making that lot eligible for re-certification in Oregon (only). In most cases this involves lots from Canada, not other US states where grow-out are required. Such requests must come from, and be paid by, the Oregon grower. No formal report will be issued, however results will be sent to the Oregon grower who paid for the test (only). Once a Canadian lot has qualified for re-certification in Oregon it can be grown by any Oregon grower. The cost of this 400 tuber grow-out test is \$135.
- 3. Required WGO sample size for “own-use-only” Nuclear and G1 lots:** For growers of PVY *latent* varieties that opted out of latent virus testing this summer for the “One-Use-Only”/WGO option, please don’t forget that be legible for Nuclear or G1 class the minimum sample size for these lots is 220 tubers if 1 acre or less, 420 tubers for up to 20 acre lots. Any such lot for which tubers are not submitted will automatically be downgraded to G2 class eligibility. Please note: the 750 lbs exemption for WGO does not apply to such lots!
- 4. Eye-indexing for Nuclear lots:** Minimum lot size for nuclear lots is now 220 tubers for each. These nuclear lots are high value, so to help reduce the impact of the loss of material sent to the WGO, OSCS is allowing Nuclear class lots (only) to be ‘eye indexed’ this year. In this process a single eye can be removed from the tuber by the grower, and used for the WGO, leaving the rest of the tuber for propagation the next season. Growers who choose this option should contact **OSCS** for an acceptable protocol to follow.
- 5. Optional PVY ELISA testing:** In response to Idaho’s requirement that all seed lots for re-certification in Idaho be ELISA tested for PVY, OSCS will offer this service to growers who request it in advance. In this program a ‘standard’ 400-leaf sample is taken (or less if fewer plants present in the lot). The grower will be billed directly by ICIA for the lab testing cost (currently \$180 for 400 leaves, \$99 for 220 leaves), and billed a \$42 per lot ‘sampling/mailling’ fee by OSCS. Total cost per

400 tuber lot for this testing thus comes to \$222. Testing leaves from the greenhouse is much cheaper than testing tubers later on! Testing 400 tubers for PVY is \$1,200 (\$660 for 220 tubers).

6. **PVY Strain Survey:** Some growers who had more than a trace of PVY in their lots in past years requested that a ‘strain survey’ be conducted on the positive ‘mosaic’ plants to identify the type of PVY present (i.e. PVY<sub>n</sub>, PVY<sub>ntn</sub>, PVY<sub>no</sub>, PVY<sub>o</sub>). Currently, the only virus testing done in the WGO is ‘conformation testing’ to help inspectors be assured of the viral nature of mosaic found, and then the results are simply “PVY +” or “PVY –“ (and sometimes PVA). Strains of PVY are not identified because the Standards are for ‘Mosaic’, and not related to strains of PVY or PVA causing the mosaic.

For those interested, there are two options for further testing:

- (1) OSCS can request that the lab of ICIA further test the sample for PVY<sub>n</sub> (the cost is \$5.55 for one sample, 5 leaves would be \$27.75 and 10 leaves would be \$43.50). To avoid sampling/mailling fees you should make OSCS aware of your interest in this testing in advance, also be aware that ‘post-reading’ your plants are pulled and may not still be present for further testing.
- (2) The OSU lab in Hermiston will run a full PVY strain survey (PVY-O, PVY-NO, and PVY-NTN) for \$35/sample for 1-4 samples and \$30/sample for 5 or more samples (with a limit of 10 samples per lot).

NOTE: OSCS participates in the national PVY Strain Survey. This involves sending representative mosaic samples found in the WGO to Alex Karasev in Idaho for strain analysis (grower ID is kept confidential). Thus some mosaic plants are analyzed for PVY strains, but the results are not readily available, nor is there any guarantee that your particular mosaic plants were sent (you can always ask if they were). To my knowledge Dr. Karasev does not do this testing on a ‘fee basis’ for individual growers on a regular basis, he said he may be able to do some limited typing, but this depends on the number of samples.

7. **Inspection at Shipping Point – set aside tubers:** As you should recall, the Necrotic Virus Management Plan, which Oregon has agreed to participate in, requires that all lots of seed potato shipped out of state receive an inspection for internal necrotic arcs after 2 months (minimum) in storage. Maximum tolerance for internal necrotic arcs are set at 2.0% for certified seed, and 0.5% for seed to be eligible for re-certification (see extract below). It is the responsibility of the grower to contact the ODA for this inspection (Ron Pence, Commodity inspection Division, (503) 986-4620, or [rpence@oda.state.or.us](mailto:rpence@oda.state.or.us)). The ODA has been allowing growers to set aside two 200-tuber bags of each lot to be inspected in the early spring. Contact Ron Pence for details.

8. **Some Important Winter Grow-Out Dates:**

<b>October 1</b>	- evaluation samples may be delivered after this date;
<b>November 20</b>	- Deliveries received after this date will be assessed a late fee;
<b>December 15</b>	- OSCS must be notified in advance of any samples to arrive after Dec 15;
<b>January 2</b>	- No winter test samples will be accepted after this date.

## Necrotic Virus Management Plan – Interstate Inspection for Necrotic Arcs

### 3.5 Shipping Point Inspection

#### 3.5.1 Seed for Commercial Production

- All seed shipments moving from a production State or Canada for commercial production must be inspected by federally recognized inspectors or a federally authorized cooperator from a facility under a quality assurance system and must meet the tolerances for internal necrosis of Table 1 below. If the potatoes to be shipped from a seed lot exceed this tolerance, the grower has the option to re-grade or remove them from the seed certification system.

#### 3.5.2 Seed for Recertification

- All seed shipments moving from a production State or Canada for recertification must be inspected by a federal, state or provincial inspector for tuber necrosis. If the potatoes to be shipped from a seed lot exceed the tolerance of 0.5% necrosis caused by PVY complex, PMTV or TRV (see Table 1 below), it is not eligible for recertification but may be shipped for commercial purposes.

<b>Percentage Internal Tuber Necrosis Scored*</b>	<b>Seed intended for Recertification</b>	<b>Seed intended for Commercial Production</b>
Less than or equal to 0.5%	Eligible	Eligible
Between 0.5 and 2.0%	Eligible if negative lab test for PVY <sup>N/NTN</sup> , PMTV, TRV	Eligible
More than 2.0%	Not eligible	Not eligible
Notes: * Internal tuber necrosis will be calculated as percent incidence $\{(number\ of\ tubers\ with\ internal\ necrosis/number\ of\ tubers\ sampled) \times 100\}$ .		