



Potato Progress

Research & Extension for the Potato Industry of Idaho, Oregon, & Washington

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www.nwpotatoresearch.com

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Request for Colorado potato beetle samples for dispersal study

Understanding the dispersal of Colorado potato beetles (CPBs), including how often populations exchange migrants and over what distance this occurs, can help inform pest managers, especially in regions with intense potato production, where one grower's management decisions affect pest abundance across the region. While one approach to learn more about CPB dispersal could be to track individual beetles and find out where they go throughout the season, another (much more feasible) approach involves inferring general patterns of dispersal using genetics. To accomplish this objective, **all we need are beetle samples from which we can obtain DNA.**

Using DNA from populations of CPB from different potato fields, we intend to compare genetic similarities/differences (called "genotypes") across their genomes (the full complement of DNA that makes up an individual). Once we get an idea of how much genetic variation exists within and among beetle populations from different potato fields, we will be able to infer how often beetles migrate to other fields. The frequency of such migration events, and the distance over which we observe migration, will give us an indication of how interconnected CPB populations are. The success of this approach depends on several factors, one of the most important being adequate samples of beetles per field and across multiple locations.



Thus, we are requesting help from growers in obtaining samples of CPBs (20 beetles per farm) from throughout the Columbia Basin in Oregon and Washington.

Any growers who are willing to sample beetles from their farm please contact Silvia Rondon (541-567-8321 or silvia.rondon@oregonstate.edu), and she will send you simple instructions for collecting and materials for shipping. This is an ongoing collaboration between Oregon State University and University of Wisconsin....Michael Crossley, Sean Schoville, and Silvia Rondon.

2015 WA Commercial Potato Seed Lot Pick up & Trial Information

Info also available each year at: www.potatoes.wsu

Commercial potato seed samples are requested for the 2015 Washington Seed Lot Trial. **Two hundred whole (single drop) seed is an acceptable sample size, or 50 lbs of 4 oz single drop seed.**

Requested: 50 lbs of 2-4 oz whole seed, no seed treatments

We want a representative sample - if applicable, include a representative amount of rotten tubers!

(Seed over 6 oz is not acceptable)

A representative sample is needed. Sampling the first (or last) 300 seed from the truck is not likely to provide a representative sample of the lot. Sample tags may be obtained by calling the Potato Commission at 509-765-8845 or stopping by.

Your assistance with collection and drop off of seed samples is needed. Seed samples may be taken to the WSU Othello Research Unit (509-488-3191); located on Booker Road ¼ mile south from State Highway 26 and about five miles east of Othello. For sample pick up and any questions regarding the seed lot trials please call:

South Basin: Tim Waters (509-545-3511), Mark Pavek (509-335-6861), or Zach Holden (509-335-3452).

North Basin: Carrie Huffman Wohleb (509-754-2011), Mark Pavek (509-335-6861), or Zach Holden (509-335-3452).

Westside: Don McMoran (360-428-4270), Mark Pavek (509-335-6861), or Zach Holden (509-335-3452).

In the North Basin, one seed “drop-off” has been established. It is located at Qualls Ag Labs (Mick Qualls, 509-787-4210 ext 16) on the corner of Dodson Road and Road 4; come to front office between 8 am and 5 pm. Please call the numbers below to arrange additional pick up sites. Samples will be picked up at 2:00 pm the day before each planting date (below) to be included. Growers planting in early March should drop their samples off at the Othello Research Center or store the samples and call the numbers below for pick up. For all alternative pick up locations or questions please call Mark Pavek at 509-335-6861 or Zach Holden at 509-335-3452.

PICK UP DATES ARE ONE DAY PRIOR TO THE PLANTING DATES BELOW

The seed lot planting dates for 2015 are:

1st (Early)	March 24
2 nd	April 7
3 rd	April 21
4th (Late)	May 5

2015 Potato Field Day - Thursday June 25

This year’s virus reading of the seed lots will take place on June 9 and 23.

Time to Clean Up Cull Piles and Spills

In a previous edition of this newsletter (Volume VII, No. 2) we discussed the importance of cull piles and spilled potatoes in disease and pest issues for the commercial crop. Cull piles and other waste potatoes pose little or no threat during the winter, but with the growing season underway and the crop emerged, it is past time to clean up cull piles and maintain good sanitation around storages and other places where it might be tempting to pile culls. Some of the problems associated with cull piles, such as late blight, are community problems and must be handled by the whole community working together.

Pest Alerts via Email!

Potato Insect Pest Survey for the WA Columbia Basin. Get current information about the size and whereabouts of important insect pest populations such as potato psyllid, green peach aphid, beet leafhopper, and tuberworm. Subscribe to receive weekly pest alerts via e-mail by sending an e-mail to Carrie Wohleb (cwohleb@wsu.edu). See also: <http://potatoes.wsu.edu/>.

Pacific Northwest Pest Alert Network. For the latest crop pest alerts in much of the Northwest, go to the Pacific Northwest Pest Alert Network website, <http://pnwpestalet.net/>, where you can sign up for e-mail alerts and bulletins as well as view the latest on the website itself. These bulletins include the annual potato psyllid survey work from University of Idaho.

Potato Update from OSU Hermiston. A weekly newsletter on potato insect pests, with news on late blight and other diseases, is produced by Silvia Rondon and Ken Frost at Oregon State University. To receive this newsletter, contact Silvia Rondon (Silvia.Rondon@oregonstate.edu).

Potato Bytes from OSU Klamath Falls. A weekly newsletter during the growing season with crop- and pest-management information and news. Find archives of Potato Bytes here: <http://oregonstate.edu/dept/kbrec/potatoes>. Brian Charlton produces this newsletter, and can be reached at 541-591-1255.

Potato Variety Management Institute (www.pvmi.org)

In 2005 the state potato commissions of Idaho, Washington, and Oregon launched a new nonprofit 501(c)(3) corporation called the Potato Variety Management Institute (PVMI) to handle the licensing and royalty collection on Tri-State potato varieties. It was developed as a grower-controlled alternative for managing varieties and interacting with industry in royalty collection. PVMI hopes to provide the following main benefits to the industry:

1. Exert grower control over varieties developed through grower supported research.
2. Work with end-users to increase adoption of new varieties in the marketplace.
3. Use market research to focus variety development goals.
4. Manage distribution and use of varieties around the world.
5. Return royalties directly to Tri-State potato research programs.

PVMI is governed by a nine-member Board of Directors.

Bacterial Diseases: Blackleg

See also: <http://www.nwpotatoresearch.com/>



Note the black color - rhizoctonia stem canker is similar but causes brown lesions.

Plants that grow from infected seed often die shortly after emergence.

Symptoms include:

- *inky black stem below ground, sometimes extended far above ground;
- *wilting of leaves or entire stems.

General Information

Causal Agent: *Pectobacterium atrosepticum*, *Dickeya* spp.

Biology: Blackleg begins with planting infected seed. Seed can be infected during seed production, handling, cutting, and planting. Infected seed pieces sometimes rot before emergence -- this is called seed piece decay. Not all infected plants produce symptoms, but can still pass the infection to progeny tubers and therefore into storage.

Distribution: Blackleg occurs everywhere potatoes are grown.

Management

1. Prevention is key.
2. Know your seed source -- healthy seed is critical.
3. Sanitize seed cutting equipment between lots by cleaning all soil and debris from cutting equipment and applying a disinfectant.
4. Plant well-suberized seed into well-drained soil of 50-58 degrees F.

Idaho Potato Commission (Phone: 208-334-2350)