Pioneers In Seed Potato Certification

Much of the early research work on potato diseases and how they spread was done in Germany and Holland around the turn of the century. Scientists found that, through careful monitoring of the crop and removal of unhealthy plants, they could maintain a vigorous, healthy stock indefinitely. Similar research soon was being conducted in the United States.

USDA plant pathologist W.A. Orton had studied potato certification in Germany and upon his return, began to work with potato growers and Universities to introduce those concepts here.

Efforts by Wisconsin growers led to the establishment of the Wisconsin Seed Potato Improvement Association in 1905. The Wisconsin College of Agriculture had been engaging with the grower community already to improve potato production through special teaching railcarts that traveled through potato areas in northern Wisconsin, called “Potato Specials.” The College programming emphasized the standardization and purity of potato varieties.

A convention was held in Rhinelander on November 20-21 of 1913 to discuss “Pure Seed of Standard Market Varieties for All Commercial Purposes.” At this convention, a formal plan for inspection and certification of potato seed was put into place. The first of now many official seed inspection programs in North America was established and fully implemented with field inspections in 1914. The same objectives of “varietal purity” and “freedom from disease” determined from field inspections remain today.

A reliable source of high-quality, disease-free basic seed stocks remains essential to the strength and growth of Wisconsin’s certified seed potato program. 75 years ago, the University of Wisconsin established an elite seed potato operation in Three Lakes, WI.

In 1941, propagation of disease-free stock and attention to clonal selection were key to the early success of this program making Wisconsin a leading supplier of seed potato varieties.

In 1984, a 1,000-acre property became home of the UW farm operation at the bequest of Miss Leilah Starks, a pioneer Wisconsin seed potato grower.

The Lelah Starks Elite Foundation Seed Potato Farm in Rhinelander has provided parity in germplasm availability for all Wisconsin seed growers. A trusted source, the program remains the Wisconsin seed potato growers’ primary source of new and established potato varieties.

The farm operation grows 93 acres of field generations one and two seed, operates 4 greenhouses producing conventional and NFT minitubers. Our stewardship of this seed continues through the certification of these seed lots on Wisconsin seed grower farms. There is no other program like it.

The program maintains variety trueness to type, selecting and testing clones, roguing of weak, genetic variants, and diseased plants to continue to develop and maintain germplasm of your favorite varieties at our laboratory.

A Century-Long Tradition

Administered since inception by the College of Agricultural and Life Sciences, University of Wisconsin – Madison, the program retains a full-time staff of experienced professionals to ensure thoroughness and impartiality in inspection and certification procedures.

Through providing information, exercising technical skill, doing research directed at solving problems, and conducting outreach activities, the University meets the growers at the field level. This special relationship to the academic community brings new information on pathogens, best practices, and introduces high quality basic seed into the marketplace.

A post-harvest Foundation list may be obtained by writing or calling the Wisconsin Seed Potato Certification Program, P.O. Box 328, Antigo, WI 54409; Phone (715) 623-4039; FAX (715) 623-6970.

Strict Standards Mean High Quality From Wisconsin

All certified seed potatoes are produced in a limited generation program with a maximum of seven generations of field propagation.

Certified seed potato growers must enter their entire potato acreage for certification, and plant all acreage with foundation class seed.

Only certified seed potato growers with a record of no bacterial ring rot for two consecutive seasons can produce foundation class seed.

All potatoes entered for certification undergo a minimum of two field inspections and a tuber inspection at harvest or in storage.

All potato storage facilities must be inspected and approved prior to filling with certified seed potatoes.

All potatoes meeting field and tuber inspection standards must be post-harvest tested to be eligible for certified seed tags.

All certified seed potatoes must be graded in accordance with Wisconsin seed potato grade standards before official tags can be attached.

Post-harvest testing of all certified seed lots ensures that problems from late-season virus infections are identified and assessed according to specific tolerances, preventing the movement of seed lots with potentially yield- and quality-damaging virus infections to commercial potato growers.

NEW! All Wisconsin seed grower lots intended for recertification in our program are PYV ELISA tested as part of our Post Harvest Testing program.

WISCONSIN CERTIFICATION TOLERANCES

Wisconsin Field and Harvest Inspection Standards for Certified and Foundation Seed Potato Classes*

<table>
<thead>
<tr>
<th>Disease or Defect</th>
<th>Certified (%)</th>
<th>Foundation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaf roll</td>
<td>1.00</td>
<td>0.25</td>
</tr>
<tr>
<td>Mosaic</td>
<td>1.00</td>
<td>0.25</td>
</tr>
<tr>
<td>Spindle Tuber</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total Virus</td>
<td>2.00</td>
<td>0.25</td>
</tr>
<tr>
<td>Bacterial Ring Rot</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Variety Mixture</td>
<td>0.10</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Wisconsin Post-harvest Test

Virus infection of seed lots can and does occur after summer inspections are complete. A post-harvest grow-out of all seed lots is designed to prevent the certification of lots infected late in the season with viruses or other diseases.

Post-harvest Test Standards for Certified and Foundation Seed Potato Classes*

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Leaf roll</td>
<td>5.0</td>
<td>0.50</td>
</tr>
<tr>
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<td>5.0</td>
<td>0.50</td>
</tr>
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*Seed certified in Wisconsin does not exceed the appropriate tolerances listed in the above tables based on visual inspections. Higher tolerances in the winter test are due to the greater likelihood of selecting infected tubers in single-drop seed, as used in this test.

Any seed imported into Wisconsin for recertification must also meet our same standards, both field and post-harvest test tolerances, for virus and variety mixture. We also view third-party shipping point inspections, required by Wisconsin ATCP156, as a critical component of the seed certification process and as an absolute requirement for recertification.

Incidence of Blackleg at second inspection is indicated on the North American Seed Potato Health Certificates. Targeted sampling of field Blackleg samples for Dickeya is now routine.

WELCOME

Please note that the acreage data listed in this directory represent acres meeting field tolerances for foundation and certified class seed potatoes in Wisconsin at the completion of summer field inspections.

All certified and foundation class seed potatoes in Wisconsin are post-harvest tested to ensure compliance with certification requirements. As such, these figures are not final, as certification requirements are not met until tuber inspections, post-harvest testing and grade inspections are complete.

Buyers who purchase seed prior to completion of the post-harvest test are encouraged to check the final classification of seed lots (generally available after February 1) prior to shipping.

Buyers of Wisconsin certified seed potatoes are encouraged to contact the Certification office to obtain this information at any time. The professional staff at the Certification office also can provide and explain “generation” designations of 2017 seed lots. Results of summer field inspections, tuber inspections and the post-harvest winter test may be obtained by writing or calling the Wisconsin Seed Potato Certification Program, P.O. Box 328, Antigo, WI 54409; Phone (715) 623-4039; FAX (715) 623-6970. E-mail abcrickford@wisc.edu

2017 Wisconsin Act 46: Certified Seed Potatoes

2017 WI Act 46 requires all Wisconsin potato growers planting five or more acres in a calendar year to use certified seed potatoes from the Wisconsin Certified Seed Potato Certification Program or equivalent certified seed from another state.

Authored by Senator Jerry Petrowski (R-Marathon) and Representative John Spiros (R-Marhsfield), the bill passed the Senate on a voice vote and was concurred by the Assembly on a voice vote. Governor Scott Walker signed the bill on August 2, 2017. This Act takes effect on January 1, 2018.

This link takes you to 2017 WI Act 46:

The certification standards for Wisconsin are found in administrative rule ATCP Chapter 156 which is referenced in the Act. A basic summary is attached of WI certified seed tolerances. Post harvest testing is required. Please see full rule at the following website and contact us with any questions regarding certification.

http://docs.legis.wisconsin.gov/code/admin_code/atcp/140/156

Proper documentation must be provided to the receiving grower, including:

The name and location of the person from whom the seed potatoes were purchased.

A copy of the sales contract and invoice for the seed potatoes.

The certification tag for the seed potatoes.