

# BADGER MEMO



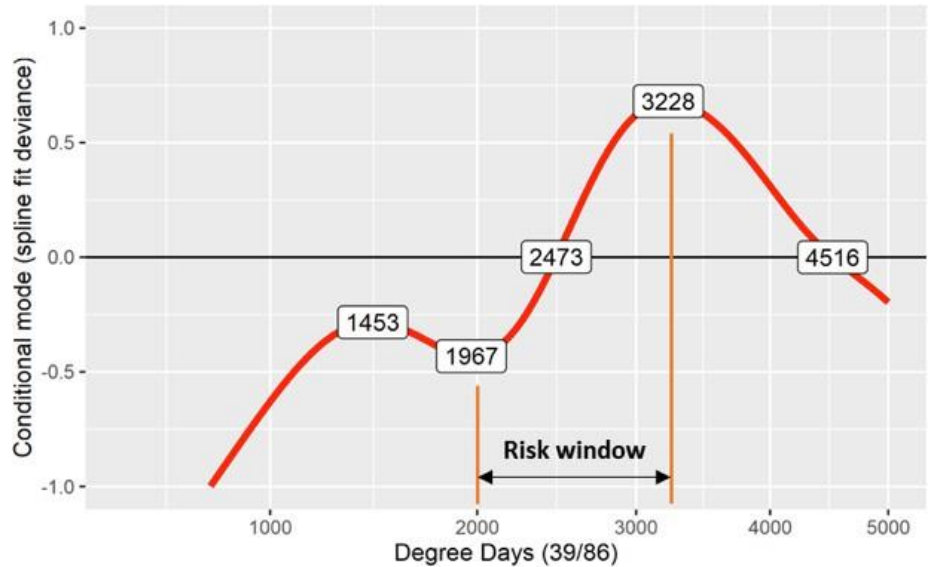
**March 2021**

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## Aphid PVY Transmission Risk Window

A presentation given at the WSPIA Annual Meeting by Dr. Russ Groves described a model depicting aphid flights for species likely to spread PVY in Wisconsin potatoes. The PVY risk index is a model built from suction trap data that highlights a time frame (Risk Window) during the growing season where aphid pressure is highest. Based on many years (2005-2018) the model fit of risk is based on degree days. Cole Lubinski plugged the growing degree criteria into a Wisconsin climactic website to show the risk windows over the last three years based on the closest weather stations. This risk window starts at 1967 GDUs and goes until 3228 GDUs. If you remember 2018 was a warmer than average spring and summer with an above average degree day accumulation.



Twice weekly oil sprays and potentially using feed blockers or aphicides should be targeted within this window. Notice the risk for most locations extends well into September.

	Antigo	Eagle River	Post Lake	Mountain	Rhineland
<b>2017</b>	7/27-9/23	8/1-10/4	7/25-9/22	7/23-9/17	7/22-9/17
<b>2018</b>	7/19-9/4	7/21-9/11	7/12-8/26	7/16-8/28	7/14-8/26
<b>2019</b>	7/29-9/24	8/3-10/7	7/29-9/25	7/26-9/17	7/22-9/16
<b>2020</b>	7/25-9/21	7/28-10/5	N/A	7/22-9/5	7/25-9/19

## State Farm Greenhouse update

In December of 2020 UW seed program staff began disassembling the racks in greenhouse four to begin preparation for a concrete slab to be poured. The goal of this project was to make it easier to disinfect the greenhouse and help with pest management. The slab was poured and finished during the last week of 2020. An additional component of this project was to improve the monitoring and alarm system for the greenhouse. This part of the update would not have been possible without help from Pete and Andrew Augustyn (Northern Canopy Gardens.) Thanks to a programable logic control built by Andrew and Pete's help installing the system remote monitoring will become an important tool in monitoring the greenhouses. While site visits will still be necessary this system will help farm staff diagnose and repair problems as they arise. Thanks to the UW seed program staff for their help with this project.



**Pea Gravel floor was upgraded to concrete.**

## Pre-approval of Seed Lots

ATCP 156 requires the pre-approval of all seed lots entering our certification program. Please get your North American Seed Potato Health Certificates or Nuclear Material Affidavits to us as soon as possible. Thank you. Foundation seed potatoes certified by another state, under standards equivalent to those in this chapter, and pre-approved by the college.

## Licensed Varieties

Many new varieties developed by public breeding programs have new requirements for licensing and production. We request that you provide a license or communication with the licensor prior to requesting a variety for field production in our program. The crop directory has every variety requiring a license labeled as such.

We also will be requiring a license or material transfer agreement (MTA) be held by your farm prior to receiving the seed from our foundation seed program. Many of the new varieties being released from US and foreign programs require variety tracking. We appreciate your cooperation! This license requirement is always listed on the program's seed request form.

Caribou russet is amongst the new varieties required to have a license to obtain seed. No new licenses are being granted at this time.



**New plumbing and holding tanks were added to the greenhouse.**



**Updates were finished just in time for plants.**

## Water Sampling for Soft Rot and Blackleg Bacteria

Renee Rioux

*Dickeya* has been perplexing the potato industry since its first detection in the United States in 2014. While we have learned much about this pathogen since that time, including great strides in detection and management, there is still limited understanding of where *Dickeya* initially comes from and how it enters the seed potato production system. Unlike *Pectobacterium*, the other major pathogen responsible for blackleg and soft rot, *Dickeya* is not believed to survive well in soil and disinfectants routinely used for sanitization on seed potato farms seem to perform well against *Dickeya*. Water, however, provides another potential source for both *Dickeya* and *Pectobacterium*. *Dickeya* species have been detected in various water sources, especially surface water, in the United States and other potato growing regions around the world. This summer and next summer, my research program will be testing water sources around Wisconsin to understand their possible role in the spread of *Dickeya* and *Pectobacterium* and we are asking for your help in our research.

We will be working with the Wisconsin Seed Potato Certification Program inspectors to collect samples and keep grower information private. If you are interested in participating, you can contact your inspector and they will have the materials needed to assist with gathering your sample and labeling it with a tracking code that allows us to process the sample without knowing any identifying information, such as source grower or location. While surface water is expected to be the most likely reservoir for these pathogens, we are happy to test any water source in which you are interested, including well water.

Water samples we receive will be processed to increase our chances of detecting *Dickeya* and *Pectobacterium*, if present, and then tested using two different methods. The first method involves extracting DNA from the water sample and performing molecular detection assays, similar to the ones done by Brooke Babler in the WSPCP's diagnostic lab. The second method involves plating the samples onto selective microbiological media, which forms pits in the presence of soft rot bacteria. With these assays we will be able to determine whether or not *Dickeya*, and specifically *Dickeya dianthicola*, is in a water sample and also provide information on the presence of *Pectobacterium* species in each sample. When we are able to isolate either pathogen from a sample, we will try to identify the species and determine the isolate's aggressiveness on potato tubers.

If you are interested in participating by submitting samples or have questions about this research, please feel free to contact me ([rrioux@wisc.edu](mailto:rrioux@wisc.edu), 608-358-5101) or another WSPCP team member. Thank you in advance for your support of this project!

## Shipping to Colorado? Late Blight

A requirement for all seed sent to Colorado (San Luis Valley) is a Late Blight Incubation Test. This has been a requirement for years now, and without a test, their department of agriculture inspectors will not allow the seed truck or totes to be offloaded. We run this test within the department and may take up to 30 days to complete. The basic process is a 21-day incubation at temperatures conducive to late blight development.

Contact the office for details. This test is a part of Colorado's broader Quarantine rule for Late Blight. For more information: <https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=8029>

**Side note: Any lot entering Colorado with greater than 1% PVY virus also require a PVY test for the N strain of virus.**

## Antigo Research Station Help

The Langlade county research station Has a part time position available; this individual will assist in field operations throughout the planting, growing, and harvest seasons. To get further information about this position please contact Cole Lubinski (715)350- 1691.



## Requesting a Variance

**Under ATCP 156 a grower may request a variance to replant seed for given.**

1. Special conditions justify the certification
2. The lot will probably meet certification in the following season, which does not exceed 1% summer readings, and 5% post-harvest mosaic tests
3. Freedom from Bacterial Ring Rot
4. Causes no harm to seed quality, does not pose risk to potato industry and customers

**Special conditions that justify variance for recertification are:**

- This is the only source of this variety
- No other source exists (widespread problems with a variety)
- Virus readings are very close to tolerances <0.75%

The likelihood that a lot will meet certification status the following year is variety dependent, is related to the field condition, and cultural practices used (rogue, tuber unit, crop protection). In general, for problem varieties (Silverton, Norkotah) lots with up to and including 0.75% will be eligible for recertification. For other lots, up to 1% mosaic is possible under special conditions listed above. All variances require a letter from the grower addressing the four conditions above. A sample format can be provided upon request.

## Upcoming Events

March 4	Virtual Associate Division Board Meeting
March 16	Virtual WPVGA Board Meeting, 11:00 am
March 23	WSPIA Board Meeting
July 15	State Farm Tour & Program

2021 MARCH						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

Free Printable Calendars From [towncalendars.com](http://towncalendars.com)

## Open Seed Potatoes at the State Farm

The following seed is in excess from harvest or is available from a down adjustment in seed request.

<b>Goldrush (E1)</b>	200 cwt	<b>Mercury</b>	250-300 cwt
<b>Caribou (E2)</b>	200-250 cwt	<b>Red Endeavor</b>	(E1)21cwt - (E2)78cwt

Please contact Alex for further information and pricing.

[abcrockford@wisc.edu](mailto:abcrockford@wisc.edu) or 715-610-4668. If there is no interest, seed will be made publicly available in February.