

#### December 2019

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Over 40,000 plantlets are produced annually in the Biotron for greenhouse production in Rhinelander.

#### State Farm Harvest Finishes October 10

The State Farm completed harvest on October 10, harvesting nearly 90 planted acres and 66 different lots ranging from 0.006 acres up to 11 acres of year two Lamokas. The warehouse is full and the yields are average to slightly above average for most varieties.

Harvest was a bit less muddy than Antigo area due to slightly less rain throughout the harvest period. The quality of tubers harvested appears high, much like we've seen in the other seed areas in our program.

A significant change to production at the State Farm this year is the use of gibberellic acid on the planter on several chip and russet varieties. Additionally, we eliminated nearly all skips at planting associated with the four-cut planting, increasing the planting density. These steps are to keep yields high and seed size profile trending down.

#### Seed Potato Lab Will Move to New Home

The College of Agriculture and Life Sciences has let our program know that it plans to close the Biotron Laboratory Building in early 2021. The building was dedicated in 1970. When finally completed in 1971, the Biotron contained over fifty rooms with many able to variate temperature from as low as -25C to as high as 50C with humidity adjustable anywhere from 1%-100%.

The program's potato tissue culture laboratory has been housed in the laboratory from the beginning. Annually over 40,000 plantlets are produced for planting in the Rhinelander State Farm greenhouses. In addition important US potato germplasm is maintained and new varieties are entered into tissue culture production. The location serves as the Madison office for staff.

Over the years, the experiments at the Biotron have featured animal guests including lizards, sheep, endangered Siberian cranes, mice, squirrels and others.

Much of the Biotron work in the 1990s partnered with NASA in the Controlled Ecological Life Support System (CELSS) and its goal in researching the viability of certain vegetables for space travel, in particular the potato.

Several program staff went on a tour of the Wisconsin Crop Innovation Center in Middleton with Associate Dean Barker and met with center staff to determine potential space needs and facility changes to accommodate our needs. We will keep you updated on the changes ahead. Plans are to move between tissue culture production cycles next year.

Biotron facts: wikipedia

### Testing Requirements for Recertification in US and Canada

	Lab Test PVY				
	All Varieties	Latent * Varieties	Soil sampling	Other Requirements to import into these states/provinces	
US Agency					
Alaska	-	-			
California	-	-			
Colorado	√ <sup>A</sup>	-		Late blight incubation, PHT growout required all seed, A virus test for 1.0% PVY <sub>NTN</sub> PHT Tolerance	
Idaho	1	1		BRR G1 and later gen, PVY, PLRV (visual or ELISA)	
Maine	-	1			
Michigan	-	1			
Minnesota	-	-			
Montana	NA	NA		Montana does not allow seed import into certification	
North Dakota	-	-			
Nebraska/WY	✓	1	CRKN	Columbia Root Knot Nematode from areas of known to be present/unknown, <u>all russets</u> must be PVY ELISA.	
New York	-	-			
Oregon	-	-			
Washington	-	-			
Wisconsin	-	1		Growout (field or greenhouse) required for recertification.	
Canada Agency	-	-	PCN	BRR	
-New Brunswick	1	1	PCN	BRR, PLRV	
-PEI	✓	1	PCN	BRR, PVY & PLRV testing 200 tuber/ 40 ac (16 ha) +20 add'nl tubers per ha over 16 ha. Total virus cap 3% max PLRV is 2%).	

Above is the list of testing requirements for recertification in another State or Province. For example, if a Colorado seed grower wants to plant a seed lot of Caribou Russet, the Wisconsin grower must test for PVY with an ELISA test (preferably in Hawaii) and also contact our office and supply 400 tubers for a 30 day Late Blight incubation. Additionally, the Potato Association of America maintains a list of **latent varieties**, varieties with poor virus symptoms. This list includes (with Wisconsin varieties underlined): Alpine Russet, <u>Austrian Crescent</u>, Banana, Blazer Russet, CalWhite, <u>Caribou Russet</u>, Chieftain, Chipeta, Classic Russet, Crestone Russet, Dakota Diamond, Easton, <u>French Fingerling</u>, Gem Russet, Green Mountain, Innovator, Ivory Russet, Keystone Russet, LaRatte, Mesa Russet, <u>Pike</u>, Purple Peruvian, Rose Finn Apple, <u>Russet Norkotah</u>, Sage Russet, Shasta, Shepody, <u>Silverton Russet</u>, Winema, <u>Snowden</u>

Snowden has been added to the list of latent varieties. Maine and Wisconsin agree that it is asymptomatic, requiring an ELISA test.

## Post Harvest Test Collection & Gassing

Thank you for helping us with Post Harvest Test collection. The seed samples were in good condition. We appreciate Frontier FS allowing us space and equipment to do the sorting. We appreciate Baginski Farms for their excellent support in facilitating the pre-shipment activities.

Please remember to zip tie your bag at the top of the mesh bag. This allows for better stacking of samples, important as we are at maximum capacity for the container without making significant changes.

By the time you get this newsletter, the grow-out sample planting will be underway, December 2-6.



Zip-tie the mesh bag at the top for efficient stacking of post harvest test samples.

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## New Employee Profile: Cole Lubinski

Cole Lubinski Joined the program June of 2019. Born in Plainview MN where his family had a farm that grew grain crops and raised elk. Growing up on a farm sparked his love for ag. After high school he attended the University of River Falls to pursue an ag degree.

At UW-River Falls he obtained his Bachelors degree in Crops and Soils Science with a Sustainable Ag emphasis. Typically, with this degree a student needs to choose either a minor in soils or a minor in crops, but Cole decided he wanted to take a different path. After talking with a professor, the two created the Sustainable Ag emphasis, which he spearheaded. The new path was successful and became an option for future students. At the end of his college career he interned with a private agronomy consultant.

Post-graduation he accepted a job for 2 years at a coop as an agronomy salesman, operator, and soil sampler. Cole then took a position at a commercial vegetable farm as the rotation crop supervisor, where he was exposed to all aspects of potato production.

Having seen the amount of work and research that goes into potatoes, his interests started steering him towards the development and research side of the industry. Those interests lead to his current position with the Seed Cert Program and UW Extension as an inspector and research station manager, the position is shared by both programs 50:50.

Cole is married to Anna Lubinski, who works for Ag Source in Antigo, together they have a son Wesley, who is one in December. Cole's favorite past times usually involve hunting or the great outdoors.

#### Thank You to Drs. Gevens and Groves



The program wishes to again thank Dr. Amanda Gevens and Dr. Russ Groves for their commitment to engage, support, and provide administrative leadership to the Seed Potato Certification Program for nearly three years. We value the relationships created and continued engagement from both of them as Extension specialists. Dr. Gevens is also now serving as department head of the Department of Plant Pathology, which is the campus department we belong to.



Welcome Cole Lubinski and his family.

### **Upcoming Events**

Please plan ahead for certified seed tag printing. With the upcoming holidays and staff time-off please be proactive to call ahead of time for tag printing needs.

Planting of the PHT in Waialua, HI

PAA/NPC Seed Certification Meetings

Dec 3-4

WSPIA Board Meeting

Dec 10

State Farm Develops SOPs

Dec 16-20

Office Closed: No tags printed

Dec 24-25

DECEMBER 2019								
SUN	MON	TUE	WED	THU	FRI	SAT		
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						

# A Hearty State Farm Thanks and Needs

The State Farm thanks Schroeder Bros Farms for hauling a used Spudnik eliminator/dry grader to Portable Paint and Blasting in Rhinelander for sandblasting. Amongst other repairs this winter, the grader will be updated with all new hardware and belts for 2020 harvest. If you have any new/never used Spudnik parts available that you are willing to donate please call the farm (bearings, Spudnik 5 bolt spindle, square shaft rubber finger roller 12/6, square shaft acorn rollers.) Farm # 715-282-5530 (Matt)



## Open Seed Potatoes From State Farm

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

Red Endeavor	30 cwt	Hodag	80 cwt
Megachip	320+ cwt	Manistee	140 cwt
Red Norland	60 cwt	Oneida Gold	40 cwt
Red Prairie	30 cwt	Waneta	100 cwt
White Pearl	30 cwt		

Please contact Alex for further information and pricing.

abcrockford@wisc.edu or 715-610-4668

If there is no interest, seed will be made publically available in February.