

W I N T E R 2 0 1 7

# the Potato News

Empire State Potato Growers Inc.

## We need your Email!

We will be switching from a paper version to an online version of the newsletter in 2017. In order to ensure you continue to receive the Potato Newsletter, please send your email address to:

[mwickham@nypotatoes.org](mailto:mwickham@nypotatoes.org)

We look forward to getting you the important information contained in the Potato Newsletter in the most efficient way possible!

Thank you for your help and understanding.



## Empire State Potato Growers Annual Meeting Luncheon

Please join us for the Empire State Potato Growers Inc. annual meeting luncheon on Friday, Jan. 27. The meeting will begin with lunch at noon, at the Empire Farm Days Show office, 2973 State Route 414, Seneca Falls, NY 13148. The NY Seed Improvement Project will hold their annual seed meeting immediately following at 1:30 pm.

Please let Melanie Wickham know if you will be attending 585.526.5356 or email: [mwickham@nypotatoes.org](mailto:mwickham@nypotatoes.org)

### Save the Dates!

#### Long Island Ag Forum

**Jan. 12-13**

Suffolk County  
Community College,  
Eastern Campus,  
Riverhead, NY

See pg. 3 for details.

#### ESPG Annual Meeting

**Noon, Jan 27**

Empire Farm Days  
2973 Rt 414  
Seneca Falls, NY

See details above.

#### Empire Expo: Potato Day

**Thurs., Jan 19**

Oncenter Convention  
Center, Syracuse, NY

See page 2 for details.

#### 2017 Empire State Producers Expo

**Jan. 16-19**

Oncenter Convention  
Center, Syracuse, NY

See page 2 for details  
or call NYSVGA  
585.993.0775.

#### Grower-Processor Meeting

**Thurs., Feb. 9**

Club 57, Hornell, NY

See page 8 for details.

#### NPC Potato DC Fly-in

**Feb. 13-16**

Mayflower Hotel,  
Washington, DC

See page 7 for details.



*Growing for the Health of New York*

**JANUARY 16-19, 2017**

**Oncenter Convention Center**  
**800 South State St.**  
**Syracuse, NY 13202-3017**  
**(315) 435-8000**  
**www.oncenter.org**  
**and**  
**Holiday Inn**  
**441 Electronics Parkway**  
**Liverpool, NY 13057**  
**(315) 457-1122**

**MONDAY, JANUARY 16, HOLIDAY INN  
 BECKER FORUM**

GAPs/Produce Safety Alliance Grower Training  
 8:00 AM – 5:00 PM  
 Convention Center

**TUESDAY, JANUARY 17, ONCENTER**

NYS Berry Growers Association  
 Berry Crops Protected Culture Workshop  
 8:30 AM – 4:00 PM

Preregistration required to receive workshop materials.

**TUESDAY, JANUARY 17, ONCENTER**

GAPs Day 2 Workshop: Writing Your Own Food Safety Plan  
 8:30 AM – 4:30 PM

This workshop requires special registration and is limited to those who have attended a PSA/FSMA 7-hour course or day 1 GAPs training.

**TUESDAY, JANUARY 17, ONCENTER**

New York State Vegetable Growers Association  
 Meeting and Lunch  
 12:00 PM Rooms 7-8

**TUESDAY, JANUARY 17**

Trade Show  
 8:00 AM – 5:00 PM  
 NYS Tasting  
 2:30 PM – 3:30 PM

**WEDNESDAY, JANUARY 18**

Special Session: The New York Grown and Certified Program  
 Richard Ball, New York State Commissioner of Agriculture  
 10:30 AM – 11:30 AM Ballroom West

**WEDNESDAY, JANUARY 18**

Trade Show  
 8:00 AM – 5:00 PM  
 Ice Cream Social in the Trade Show  
 2:30 PM – 3:30 PM

**THURSDAY, JANUARY 19**

Trade Show  
 8:00 AM – 1:30 PM

**POTATO DAY SCHEDULE, THURSDAY, JANUARY 19**

1:45 PM **Announcements and DEC credit sign-up**  
 Chuck Bornt, CCE Eastern NY  
 Commercial Horticulture Program

1:50 PM **What we've seen and what we like from our potato variety trials**  
 Sandy Menasha, CCE Suffolk Co.  
 Chuck Bornt, CCE Eastern NY  
 Commercial Horticulture Program

2:20 PM **What's New From Industry**

2:25 PM **Dickeya blackleg: The newest disease threat to potatoes**  
 Margaret McGrath, Plant Pathology and Plant-Microbe Biology Section, School of Integrative Plant Science, Cornell University

2:40 PM **Managing Colorado Potato Beetle and Potato Leafhopper**  
 Brian Nault, Entomology, NYSAES, Cornell University

3:00 PM **Adjourn**  
*\*DEC Credits available*





**Cornell University**  
Cooperative Extension  
of Suffolk County

## Long Island Ag Forum

January 12-13, 2017

Suffolk County Community College, Eastern Campus, Riverhead NY

### POTATO DAY SCHEDULE, THURSDAY, JANUARY 12

2:00 PM	<b>Golden Nematode Program – Deregulation and Rotations Explained</b> Mr. Daniel Kepich, USDA APHIS PPQ and Mr. Chris Logue, Director Division of Plant Industry, NYS Ag and Markets	3:30 PM	<b>What's New From Industry</b>
		3:35 PM	<b>Break and Visit Trade Show – Peconic Building</b>
2:30 PM	<b>Management of Blackleg Caused By Dickeya</b> Dr. Amy Charkowski, Professor and Head, Biological Sciences and Pest Management, Colorado State University	4:00 PM	<b>Tuber Necrosis Viruses in Potato</b> Dr. Amy Charkowski, Professor and Head, Biological Sciences and Pest Management, Colorado State University
3:00 PM	<b>Challenges with Controlling Wireworms and White Grubs in Potatoes</b> Dr. Thomas Kuhar, Professor and Extension Vegetable Entomologist, Virginia Tech	4:30 PM	<b>Potato Variety Trial Highlights</b> Ms. Sandra Menasha, Vegetable/Potato Specialist, Cornell Cooperative Extension/Suffolk

The Forum provides the opportunity to keep up-to-date on the latest issues and technology, as well as to accrue important pesticide recertification credits. For more information or to view the whole two-day program, visit our website at [www.ccesuffolk.org](http://www.ccesuffolk.org).

### Dave Thurston Recognized

At a recent Cornell Potato Variety “Show N Tell” meeting in Ithaca, Plant Breeding Technician David M. Thurston was recognized by USDA Animal and Plant Health Inspection Service for his 38 years of work which directly supported the success of the Golden Nematode control program. This important quarantined nematode has been nearly eradicated from New York State and not found in any other state thanks to the hard work of people like Dave Thurston.

*Photo shows Golden Nematode program director Daniel Kepich presenting a “Golden Trowel Award” to Dave honoring his accomplishments.*



## Monitoring Disease and Informing NY Potato Growers About Potato Blackleg-associated Pathogens (*Dickeya*?) and Disease Management in New York State

Keith L. Perry, Plant Pathology and Plant-Microbe Section, School of Integrative Plant Science, Cornell University, 334 Plant Science Bldg., Ithaca, NY 14853-5904. KLP3@cornell.edu

### Progress in 2016

Farm visits were made to the five NY seed potato producers that sell/distribute their seed to other growers. Blackleg disease was observed on only one farm in a single variety; the diseased plants tested positive for the pathogens *Pectobacterium carotovora* and *P. atrosepticum*. No seed farms tested positive for *Dickeya* sp. in 2016.

In 2016, 37 suspected blackleg potato samples were submitted. Nineteen of the samples were confirmed as blackleg and the pathogen isolated, identified, and bioassayed for pathogenicity. Of these, about half (9) were *Dickeya* sp. half (10) were *Pectobacterium* sp. All of the samples with *Dickeya* sp. came from fields planted with seed obtained out of state.

### Summary perspective

From the lab testing done in Ithaca and results and communications from out of state, the blackleg disease problem is nation-wide. While reports from Maine suggest that the primary pathogen is a *Dickeya* species (*D. dianthicola*), work from other states shows that additional pathogens (*Pectobacterium* sp.) are also involved. Thus far, all data are consistent with the notion that the pathogen and disease is spread with seed and that control in the long-term can be managed through certification. In the short-term, the disease will likely continue to be problematic, in part because the pathogen can be latent in infected plants. It is possible that disease is not seen in seed plots or winter grow outs, but under conducive environmental conditions (e.g. hot climates or seasons) that same seed will give rise to crops with blackleg disease.

Recommendations for managing blackleg and avoiding *Dickeya* can be found on the Cornell Vegetable MD website.



## Research & Development Fund

**Research & Development Fund:** This program is funded completely by growers, industry and matching funds from the Empire State Potato Growers, Inc. Submissions are reviewed by the Research & Development Committee and awarded based on viability and importance to the NY Industry. Total Awarded in 2016: \$27,837.

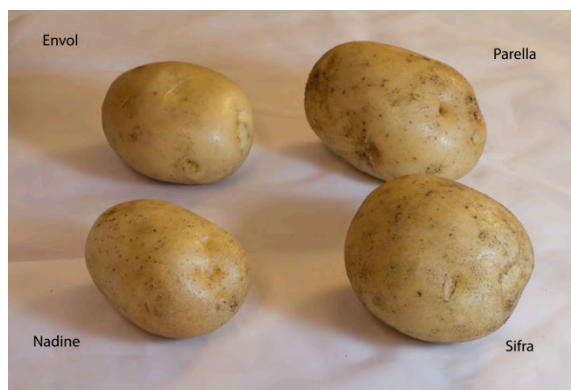
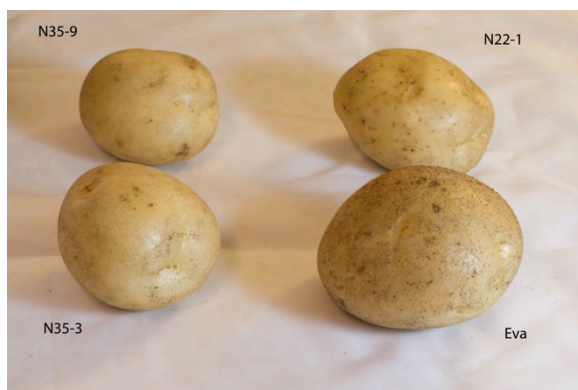
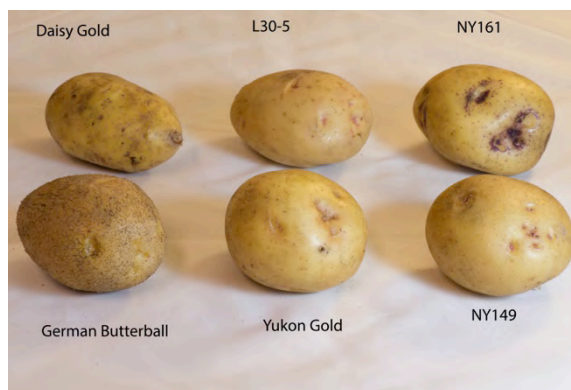
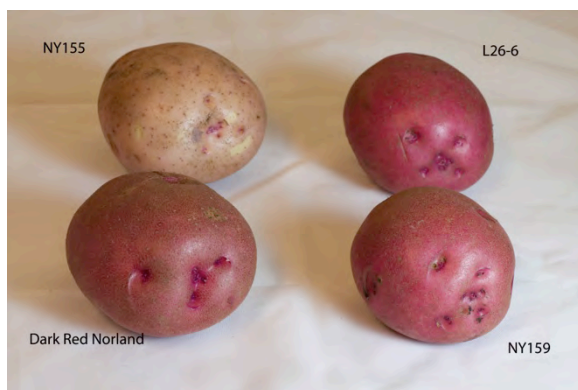
**If you haven't yet, please consider a contribution to this research fund using the MEMBERSHIP & CONTRIBUTION FORM included in this newsletter.**

## On-farm potato trial Progress Report 2016

Walter De Jong, Stephanie Mehlenbacher and Carol McNeil

School of Integrative Plant Sciences at Cornell University and Cornell Cooperative Extension

**1. On-farm muck soil trial (Williams Farms, Marion NY).** Eleven white-skinned varieties, two colored-skinned varieties, and eleven breeding selections were planted in a replicated yield trial. The trial was planted June 6 and harvested November 4. Detailed information about each clone tested can be found in the 2016 Show&Tell report (available as a .pdf file from Walter ([wsd2@cornell.edu](mailto:wsd2@cornell.edu))). Clones that yielded well included Keuka Gold, Eva, Chieftain, NY151 and NY155. Photos of many of the clones in the trial are shown below. Carol organized a twilight meeting at Williams Farms on August 25, to discuss the clones in the trial and other potato production topics.



**2. On-farm chip trial (Mahany Farms, near Arkport NY).** Four chipping varieties and eight breeding selections were planted in a replicated yield trial. Detailed information about each clone tested can be found in the 2016 Show&Tell report. Samples of each clone were saved for chipping by Wise, Herr's, Utz and Middleswarth. A few breeding selections (L2012, K27-1) bombed – that's one reason why we run trials, to identify and eliminate the losers – most clones performed OK. Stephanie organized a twilight meeting at Mahany Farms on August 18<sup>th</sup> to discuss the clones being evaluated.

**3. On-farm chip trial (McCormick Farms, near Castile NY).** Four chipping varieties and eight breeding selections were planted in a replicated yield trial. Detailed information about each clone tested can be found in the 2016 Show&Tell report. Samples of each clone were saved for chipping by Wise, Herr's, Utz and Middleswarth. The clones that bombed yield-wise in Arkport also didn't do well here. Manistee's yield, like last year, was disappointing, at 79% of Atlantic. Specific gravities were above 1.080 for all entries.

Chip color is likely to be the character that best differentiates the clones in the two on-farm chip trials this year, since gravities were generally good, there were not many internal defects, and yield was not a huge differentiator (except for a few breeding clones).



## Long Island Potato Trials Evaluating Yield and Quality

Sandra Menasha, Potato/Vegetable Specialist, Cornell Cooperative Extension – Suffolk County

The goals of the potato variety trials are to determine if clones coming out of the various breeding programs have the desired horticultural characteristics that will support industry adoption for commercial production. Characteristics such as marketable yield, specific gravity and percent internal and external tuber defects will determine the clone's potential as a commercial variety. Trial evaluations on Long Island are important to the local industry as potato variety performance can differ significantly from other regions resulting from Long Island's unique soil and climatic conditions. As new potato varieties are released by breeding programs across the nation, growers will need local performance data to make educated decisions. Evaluations on Long Island will help the industry by providing the data necessary to make these decision as well as providing the various breeding programs with performance data that will help in selecting clones that should stay or be dropped from the breeding program. The Empire State Potato Grower Grant Program has been vital in providing funds that allow for these trials to continue on Long Island.

Fifty-eight potato clones and named varieties were evaluated in replicated experiments and seventy-six clones were included in a non-replicated observational trial at the Long Island Horticultural Research and Extension Center in Riverhead, NY in 2016. Varieties and clones were obtained from several sources including the Cornell Potato Breeding Program (Walter De Jong), the Maine Potato Breeding Program (Greg Porter), Michigan Potato Breeding Program (David Douches) and the USDA Potato Breeding Program (Kathleen Haynes).

Clones that have shown the most promise and stand out as favorites for the Advanced Cornell White-skinned clones include NY140, NY141, NY151 and L7-2; from the Advanced Maine, Michigan and USDA white-skinned clone trial favorites include AF4124-7, AF5416-2 and B2869-28; from the Yellow-skinned trial the favorites were Natascha and Vivaldi; from the Red and Purple-skinned clone trial favorites include AF4985-1, BNC244-10 and L26-6. Purple Soul is a white-skinned variety with purple flesh and a favorite for specialty markets because it is so unique; and from the Intermediate White-skinned clones the favorites were BNC364-1 and WAF10131-11 (high levels of heat necrosis under LI conditions).

**Advanced Cornell White-skinned Clones:** NY140, NY151 and L7-2 were the three highest yielding varieties in the trial at 520, 517 and 525 cwt/A. The lowest yielding variety was Envol due to PVY<sup>nm</sup> in 25% of the tubers followed by Norwis with marketable yields of 319 cwt/A. NY140 and Marcy had the largest tubers with 84% distributed in the 2.5" – 4" range. NY151 were the most attractive tubers with an appearance rating of 9 out of 9. Internal defects were greatest in Norwis, Envol and NY151 while Waneta, NY140, Salem, Reba, L2-12, L7-2 and M102-3 had little to no internal defects.

**Advanced Maine, USDA and Michigan White-skinned Clones:** MSV093-1, AF5435-7 and BNC182-5 were the three highest yielding clones in the trial at 503, 505 and 505 cwt/A which were all 7% above the standard variety Reba at 471 cwt/A. AF5426-3 had the largest tubers in the trial and Spartan Splash had the smallest. Reba and Spartan Splash were the most attractive tubers with an appearance rating of 8 out of 9 while all other varieties rated 7 out of 9. External defects were lowest in BNC182-5 and highest in AF5426-3 due to PVY<sup>nm</sup> and stem-end decay followed by Michigan Purple Sport due to scab. Hollow heart and brown center was greatest in BNC182-5 and AF5426-3 had the highest percentage of tubers with heat necrosis. No internal defects were present in MSV179-1, AF4124-7, AF5435-7 and AF5416-2.

**Yellow-skinned Clones:** Marketable yields of the standard variety Yukon Gold were 306 cwt/A. All the other varieties evaluated, except AF5215-2, had marketable yields above the standard. The highest marketable yields were in Yukon Gem at 479 cwt/A and Satina at 471 cwt/A. Marketable yields of AF5215-2 were 264 cwt/A. McBride yielded the largest tubers in the trial while AF5215-5 yielded the smallest. Natascha, Vivaldi and NY161

all scored high for appearance with an 8 out of 9 rating. Augusta, Satina and L30-5 scored the lowest with a 6 out of 9 rating. Yukon Gold had the greatest percentage of external tuber defects, mainly PVY<sup>ntn</sup>. Yukon Gem had the highest percentage of hollow heart and brown center and Augusta, McBride and Satina had the highest percentage of tubers with internal heat necrosis.

**Red and Purple-skinned Clones:** Marketable yields were the greatest in Chieftain, the standard variety, at 466 cwt/a and in M22-6 at 465 cwt/A. AF4659-12 had the lowest marketable yield at 84 cwt/A followed by Raspberry at 151 cwt/A. B3148-14 had the largest tubers in the trial and AF4659-12 had the smallest. Raspberry, Purple Soul, BNC244-10 and MSV235-2PY were the most attractive tubers with an appearance rating of 8 out of 9. Scab was high in the variety Raspberry and misshapes were a concern with AF4659-12. Internal defects were highest in Chieftain with heat necrosis in 10% of the tubers cut followed by L26-6 at 8%.

**Intermediate White-skinned Clones:** Marcy, the standard variety had marketable yields of 486 cwt/A and tubers were the largest in the trial. WAF10131-11 had the highest marketable yields in the trial at 516 cwt/A. B3172-9 had the lowest at 224 cwt/A as well as the smallest tubers. BNC364-1 and WAF10131-11 were the most attractive scoring an 8 out of 9 for appearance while Elkton scored the lowest with a rating of 6 out of 9. External tuber defects were low for all varieties evaluated. Elkton had hollow heart and brown center in 13% of the tubers cut while WAF10131-11 had internal heat necrosis in 76% of the tubers cut. Marcy, B2834-8 and BNC364-1 had no internal defects.

*Thank you to the Empire State Potato Growers for funding these trials and our continued work in potato variety evaluation and testing*



## NPC Fly-In Feb. 13-16

The Mayflower Hotel, Washington, DC

Each February, potato growers and industry leaders from across the country descend upon the nation's capital as part of NPC's Potato D.C. Fly-In. This annual meeting is designed to give participants a chance to better understand and advocate for the industry's most pressing federal policy priorities.

The Fly-In features speakers from the political and policy arenas who address key issues facing the potato industry. Attendees also meet with administration officials from agencies including the U.S. Department of Agriculture and the Environmental Protection Agency. The Fly-In culminates with attendees taking to Capitol Hill to lead the industry's grassroots advocacy efforts.

NY growers and your executive director meet with most all of your legislators and talk about issues that affect you and your business. Any growers who would like to attend or have concerns they'd like addressed, please contact Melanie Wickham at 585.526.5356 or [mwickham@nypotatoes.org](mailto:mwickham@nypotatoes.org).

**If you haven't yet, please consider a contribution to the National Potato Council to support it's vital legislative work using the MEMBERSHIP & CONTRIBUTION FORM included in this newsletter.**

## Tackling Root Knot Nematode in Potato Production in New York

This project is funded by the USDA-NIFA Applied Research and Development Program and supports the graduate studies of Ms. Adrienne Gorny within the program of Sarah Pethybridge at The New York State Agricultural Experiment Station, Geneva. Root-knot nematode is an important soilborne pathogen of potatoes and other vegetables in New York (Fig. 1). This pathogen can cause considerable reduction in potato tuber yield and quality. We are developing a tool that will estimate tuber damage and crop yield at harvest based upon the population density of root-knot nematodes in the soil prior to planting. This test will be based upon a new method of extracting and quantifying root-knot nematode DNA from soil. It is anticipated this tool will aid in decision making regarding nematicide application by informing growers when an application may be cost-effective, and conversely when it may be unnecessary.

This year, three potato fields were intensively sampled in collaboration with two potato growers. Soil and tuber samples were collected both before planting and at harvest, at 100 locations within each field. Root-knot nematode populations were quantified at each location. The numbers of root-knot nematodes varied greatly between locations within each field. For example, in one of the fields, counts prior to planting ranged from 0 to over 1,500 nematodes per 200 grams (about 1 cup) of soil. Ongoing research is examining the association between tuber damage and yield at harvest with nematode populations.

We would also like to extend our thanks to our fantastic, enthusiastic collaborating growers for their role in our field research program this year. Stay tuned for further updates!

*Picture is root knot nematode at high magnification.*



## Grower-Processor Meeting

The Grower-Processor Meeting and Banquet is scheduled for Thursday, February 9, 2017 at Club 57, 7465 Seneca Road, Hornell, NY. Registration will be from 12:30 to 1:30. The program will start at 1:30. The program will provide an update on issues of importance to chipping potato growers. More information will be coming in the mail. If you have questions that require immediate attention contact Gary Mahany at 607-725-1956 or Stephanie Mehlenbacher at 607-664-2307.



## Golden Nematode Lab Update

Xiaohong Wang, Research Molecular Biologist, Robert W. Holley Center for Agriculture and Health And Courtesy Associate Professor, Plant Pathology and Plant-Microbe Biology Section, School of Integrative Plant Science

Golden nematode (GN) is a devastating and internationally-recognized quarantine pest of potatoes. The current Golden Nematode Quarantine laboratory on Cornell University campus that houses the USDA-ARS (Agricultural Research Service) GN research program is a World War II era building that no longer meets APHIS quarantine standards. Recently, Senator Tom O'Mara, R-Big Flats, and colleagues in the NY state senate and house worked with leaders at Cornell University to obtain \$1.2 million in state funding that will be used to renovate an existing building to house the quarantine research activities of the GN program. USDA-ARS has also promised to commit \$400,000 of FY17 funds to support an upgrade of equipment for the newly renovated laboratory. This research program, which works collaboratively with Cornell researchers, is the only research program in North America with expertise in the biology, resistance breeding and management of potato cyst nematodes. The upgraded facility will ensure the continuation of the collaborative research effort between USDA-ARS and Cornell University that is vital for maintaining the success of golden nematode quarantine in New York and the viability of the U.S. potato industry.

## Uihlein Farm Update

The Uihlein Farm is responsible for foundation potato seed production in NY State. Due to economic constraints, the Farm is now transitioning to a minituber only operation. Our field crop in 2017 will be the last year of field production of foundation seed potatoes. Beginning in 2018, the Farm will focus its efforts and resources entirely on potato tissue culture and greenhouse minituber production. This programmatic change is an economic decision to reduce costs while maintaining the program's ability to support the development of potato varieties with resistance to the golden nematode. Although Cornell provides infrastructure support, the Farm must be self-supporting and cover the annual operating costs for all on-site salaries and materials with revenues from sales and services. The changes in production practice follow three years of poor yields associated with drought and a newly instituted Cornell policy requiring a payment of 18% of all revenue as a cost recovery measure.



The mission of the Uihlein Farm is to support the potato industry in NY State with foundation seed potato production and variety development and to work with the Cornell Potato Breeding program to produce varieties with resistance to the golden nematode. Our continuing research efforts to develop golden nematode resistance is aided by grant support from USDA and NYS Department of Agriculture and Markets. These agencies and ESPG have been strong supporters of the Uihlein Farm and its mission.

The ceasing of field production will have several effects. One is that it will require changes in the production practices of the seven NY certified potato seed growers. They will need to plant minitubers and produce their own early generation seed or source their seed from other seed growers. Another is that it will slow the development and release of new potato varieties, especially tablestock varieties. Traditionally, the Uihlein Farm has hastened the development of new varieties by delivering foundation seed to the farms of growers for early evaluations. One additional consequence of these changes is that we are selling our minituber stocks for planting in spring 2017. Any growers interested in producing their own early generation seed are encouraged to inquire. Dr. Keith L. Perry is responsible for the oversight of the Uihlein Farm, and any questions on the Farm can be sent to him at [KLP3@cornell.edu](mailto:KLP3@cornell.edu).

## Chip Progress Report 2016

NYS Chip Growers and Processors Project, Potato Breeding  
Walter De Jong, School of Integrative Plant Science, Cornell University

The breeding program planted 12,000 seedlings from chipping crosses this year, as detailed below. (The number planted for each cross is approximate – we sow seed with the goal of planting in multiples of 200, but sometimes end up with more than 200 seedlings, and sometimes a little less). We saved 10057 of the seedlings planted, where the only clones discarded exhibited serious tuber defects, or very low/no yield. We save most clones in this generation, because there is a poor correlation between most aspects of potato performance in pots compared to performance in the field.

### Details for chipping crosses sown in 2016.

Cross	Female	Male	# planted	# saved
S1	Andover	Lamoka	600	510
S2	Andover	K27-1	400	424
S4	NY140	K27-1	600	552
S5	NY140	K28-7	200	210
S6	NY140	L14-4	400	419
S7	NY148	Lamoka	400	389
S8	NY148	J100-6	400	395
S9	NY148	K27-1	400	251
S10	NY148	K28-7	200	221
S12	NY152	K27-1	200	50
S14	NY153	H52-1	200	128
S15	NY153	J100-6	400	398
S16	NY153	K27-1	400	441
S18	NY156	F31-3	400	377
S19	NY156	K27-1	400	161
S21	NY157	F31-3	400	305
S22	NY157	J100-6	400	321
S23	NY157	K27-1	400	223
S25	J15-7	F31-3	400	347
S26	J15-7	J100-6	400	275
S27	J15-7	K27-1	400	395
S28	J15-7	NY158	200	219
S29	J17-1	F31-3	400	219
S33	J112-2	F31-3	400	262
S34	J112-2	J100-6	400	341
S35	J112-2	K27-1	400	413
S37	K31-4	F31-3	600	367
S101	Andover	Waneta	400	360
S102	Andover	E48-2	400	317
S103	Andover	J100-6	200	112
S104	Ivory Crisp	Marcy	200	242
S105	Ivory Crisp	E48-2	400	413
		<b>Totals</b>	<b>12000</b>	<b>10057</b>

A few comments: crosses with E48-2, F31-3, NY148, and NY158 bring in resistance to PVY. Andover and NY157 were used to try to bring in earlier maturity. E48-2 has the whitest potato chips of any potato we've ever seen. Ivory Crisp is from Idaho, to bring in new blood.

## Chip Progress Report cont.

We also planted 10808 four-hill plots of chipping clones in 2016. These plots represent the tubers from seedlings grown in 2015. 886 of the four hill plots were saved after harvest, based on visual assessment of tuber appearance and yield. All 886 will be chipped this winter, and the clones with good chip color will be replanted as 20-hill plots in 2017. Our seed plots received no rain in June and July (extreme drought), thus making selections was ever-so-slightly more challenging than usual this year.

### Details of four-hill chipping plots in 2016.

Cross	Female	Male	# planted	# saved
R1	Andover	NY152	545	64
R2	Andover	F31-3	353	35
R3	Andover	NY154	618	72
R5	Andover	J112-2	369	48
R7	NY140	NY152	549	71
R9	NY140	J112-2	574	57
R10	NY157	NY152	255	15
R11	K28-7	F31-3	679	76
R13	ND7519-1	F31-3	334	17
R16	NY141	NY152	476	32
R17	NY141	NY154	105	13
R18	NY141	J15-7	104	6
R19	NY141	J112-2	99	15
R100	Lamoka	E48-2	536	56
R101	Snowden	E48-2	501	49
R102	NY154	E48-2	537	45
R104	Ivory Crisp	E48-2	836	38
R105	NY140	E48-2	1346	111
R106	NY145	E48-2	143	10
R107	NY148	E48-2	1024	10
R108	E114-5	E48-2	825	46
		<b>Totals</b>	<b>10808</b>	<b>886</b>

*This project is funded through grower & industry contributions to the Potato Variety Development Fund*

## Potato Variety Development Fund

\$32,922 CHIPPING Potato Breeding & Evaluation Project, Walter DeJong, Cornell University. \$10,000 Fresh Potato Breeding & Evaluation Project, Walter DeJong, Cornell University. As the Cornell Breeding Program funds continue to erode, growers, processors and industry have stepped up and committed funds to accelerate promising varieties of potatoes. Started by the chip industry, this fund has been expanded to include both Chip & Fresh market variety acceleration. Funds are proportionately allocated to research projects based on contributions from each industry.

**Grower support is crucial to the continuing success of the breeding program. If you haven't yet, please consider a contribution to this research fund using the MEMBERSHIP & CONTRIBUTION FORM included in this newsletter.**



## Freshmarket Progress Report 2016

NYS Freshmarket Project, Walter De Jong, School of Integrative Plant Science, Cornell University

The breeding program planted 7800 seedlings from freshmarket crosses this year, as detailed below. The number planted for each cross is approximate – we sow seed with the goal of planting in multiples of 200, but sometimes end up with more than 200 seedlings, and sometimes a little less. We saved 6172 of the seedlings planted, where the only clones discarded exhibited serious tuber defects, or very low/no yield. We save most clones in at this stage, because there is poor correlation between potato performance in pots compared to performance in the field.

With our white-fleshed crosses we're working to develop an attractive, early-maturing replacement for Superior. With our yellow-fleshed crosses, we're aiming for a replacement for Yukon Gold. With our red-skinned crosses, a replacement for Red Norland (this is a new program goal).

**Details for freshmarket crosses sown in 2016. Cross names ending with a Y have at least one yellow-fleshed parent.**

Cross	Female	Male	# planted	# saved
S38	Andover	Superior	200	125
S39	Andover	NY141	200	222
S40Y	Andover	NY149	400	275
S43	Svart Valdres	NY141	200	180
S44Y	Svart Valdres	NY149	200	155
S45	Svart Valdres	J21-5	200	154
S47	Svart Valdres	H52-1	200	197
S48Y	NY140	NY149	400	380
S49	NY140	H52-1	200	253
S50	NY155	Superior	200	241
S51	NY155	NY141	200	152
S52Y	NY155	NY149	200	113
S53	NY155	F31-3	200	152
S54	NY155	J21-5	200	90
S55	NY155	NY159	200	99
S59	J34-1	J21-5	200	71
S60	J34-1	NY159	200	123
S61	K11-2	Superior	200	184
S62	K11-2	NY141	200	163
S63Y	K11-2	NY149	400	363
S64	K11-2	NY115	200	156
S66	K11-2	NY159	200	330
S67	K101-1	Norland	150	107
S69	L26-6	Norland	400	166
S74	L26-6	K100-3	200	191
S75	L26-6	J21-5	200	221
S76	L27-2	J21-5	200	125
S77	L27-2	Norland	400	325
S78	L27-2	NY159	200	113
S79Y	L29-3	NY149	150	78
S80Y	L29-3	F31-3	100	155
S200	Andover	NY141	400	205
S201	F31-2	NY141	400	308
		<b>Totals</b>	<b>7800</b>	<b>6172</b>

## Freshmarket Progress Report cont.

We also planted 4299 four-hill plots of freshmarket clones in 2016. These plots represent seedlings first grown in 2015. 222 of these four hill plots were saved after harvest, based on visual assessment of tuber appearance and yield. All will be replanted as 20-hill plots in 2017.

**Details of four-hill freshmarket plots in 2016. Cross names ending with a Y have at least one yellow-fleshed parent.**

Cross	Female	Male	# planted	# saved
R14	Genesee	NY150	68	1
R15	IDB	F31-3	388	23
R20Y	L29-3	Peter Wilcox	401	69
R200	Amandine	NY115	394	14
R201	Apolline	Genesee	187	9
R202	Apolline	NY115	169	3
R203	Blue Belle	Genesee	289	17
R204	Blue Belle	NY115	319	17
R205	Early Ohio	NY115	85	4
R206	Juliette	Genesee	86	3
R207	Juliette	NY115	278	1
R208	E43-10	MSN105-1	189	11
R209Y	NY149	Valisa	255	2
R210Y	NY149	Yema de Huevo	16	0
R211	NY141	E43-10	79	0
R212	NY141	NY127	117	3
R213Y	Daisy Gold	F11-1	394	26
R214Y	B13-1	C24-1	80	3
R215Y	C24-1	D1-1	148	4
R216Y	C24-1	POR01PG4-6	177	1
R217Y	C24-1	Purple 5	93	8
R218Y	NY142	POR01PG4-6	87	3
		<b>Totals</b>	<b>4299</b>	<b>222</b>

As you can see by scanning down this table, some crosses yield a higher percentage of attractive offspring than others. It is currently impossible to predict, in advance, which crosses will yield the best offspring. We tend to sow more seeds, in future years, of crosses that we have learned, by experience, perform relatively well.



## Who Do You Call?

Below is a listing of potato industry researchers; college, state & association representatives that can provide expertise and knowledge about issues. For a complete listing including addresses please contact Melanie Wickham, Executive Director ESPG 585.526.5356 or mwickham@nypotatoes.org.

### Breeding/Potato Varieties

Walter De Jong, Associate Professor  
Cornell University  
(607) 254-5384  
Fax: (607) 255-6683  
wsd2@cornell.edu

### College of Ag & Life Sciences/Cornell

Kathryn Boor, Dean  
(607) 255-2241  
Fax: (607) 255-3803  
kjb4@cornell.edu

Beth Ahner, Senior Associate Dean  
(607) 255-4677  
baa7@cornell.edu

Legislative Issues pertaining to CALS  
Julie Suarez, Associate Dean  
(518) 434-4157 / (518) 728-6061  
jcs433@cornell.edu

Gary Bergstrom, Department Chair  
School of Integrative Plant Science,  
Cornell University  
(607) 255-3245 / (315) 787-2331  
Fax: (607) 255-4471  
gcb3@cornell.edu

### Diseases

Sarah Pethybridge, Ph. D.  
Assistant Professor  
Cornell University  
(315) 787-2417 / (315) 744-5359  
sjp277@cornell.edu

Christine Smart, Professor  
Cornell University  
(315) 787-2441  
cds14@cornell.edu

### Seed

Keith Perry, Associate Professor  
Cornell University  
(607) 254-8243 / (607) 255-9744  
Fax: (607) 255-4471  
klp3@cornell.edu

Phil Atkins, NY Seed Improvement  
Project, Cornell University  
(607) 255-9869 / (607) 423-5974  
Fax: (607) 255-9048  
pma3@cornell.edu

### CCE Long Island

Sandra Menasha, Vegetable/Potato  
Specialist  
CCE-Suffolk Co.  
Phone: (631) 727-7850 / ext. 316  
srm45@cornell.edu

Margaret Tuttle McGrath  
Long Island Horticultural Research &  
Extension Center  
(631) 727-3595 / ext. 20  
Fax: (631) 727-3611  
mtm3@cornell.edu

### CCE Southern Tier

Stephanie Mehlenbacher,  
Horticulture Community Educator  
CCE-Steuben County  
Phone: (607) 664-2307  
sms64@cornell.edu

### CCE Central/Western NY

CCE - Vacant

### CCE Capital District/Eastern NY

Charles Bornt, Extension Educator  
CCE Eastern NY Commercial  
Horticulture Program  
(518) 272-4210 / (518) 859-6213  
cdb13@cornell.edu

### GN Quarantine

Daniel Kepich, USDA-APHIS  
Officer in Charge, PPQ  
(607) 566-7059 / (607) 769-0152  
Fax: (607) 566-2081  
daniel.j.kepich@aphis.usda.gov

### Insects

Brian Nault, USDA-ARS  
Professor, Department of Entomology  
(315) 787-2354 / (315) 521-6315  
Fax: (315) 787-2326  
ban6@cornell.edu

### Viruses

Stewart Gray, USDA-ARS  
Research Plant Pathologist  
Cornell University  
(607) 255-7844  
Fax: (607) 255-2345  
stewart.gray@ars.usda.gov

### Golden Nematode

Xiaohong Wang, USDA-ARS  
Research Molecular Biologist  
Cornell University  
(607) 255-3518  
Fax: (607) 255-7845  
xiaohong.wang@ars.usda.gov

### NYS Potato Issues

Richard Ball, Commissioner,  
NYS Dept. of Ag & Markets  
(518) 457-8876  
richard.Ball@agriculture.ny.gov

### NYS Potato Issues

Jackie Czub, Deputy Commissioner  
NYSDAM  
(518) 485-7728  
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czub@agriculture.ny.gov

Christopher Logue  
Director, Division of Plant Industry  
NYSDAM  
(518) 457-2087  
christopher.logue@agriculture.ny.gov

### National Legislative Issues

John Keeling, VP-CEO  
National Potato Council (NPC)  
Phone: (202) 682-9456  
Fax: (202) 682-0333  
johnk@nationalpotatocouncil.org

Ralph Child, NY Representative  
NPC  
Phone: (518) 483-1239  
rchild@childfarm.net

### National Promotion Issues

Blair Richardson, CEO  
POTATOES USA  
(303) 369-7783  
Fax: (303) 369-7718  
blair@potatoesusa.com

Chris Hansen  
NY Representative  
POTATOES USA  
(585) 322-7274  
chrishansen@mccormickfarms.net



## EMPIRE STATE POTATO GROWERS, INC. ASSOCIATE MEMBERSHIP & CONTRIBUTION PAYMENT FORM

Company: \_\_\_\_\_

Contact: \_\_\_\_\_

Street/ Box: \_\_\_\_\_ City, State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

CELL: \_\_\_\_\_

**\*Email address:** \_\_\_\_\_

**1. ASSOCIATE MEMBERSHIP** \$20 per membership \$ \_\_\_\_\_

**2. RESEARCH & DEVELOPMENT FUND PAYMENT**  
Lump Sum Payment I feel is appropriate \$ \_\_\_\_\_

**3. POTATO VARIETY DEVELOPMENT RESEARCH FUND**  
Lump Sum Payment I feel is appropriate \$ \_\_\_\_\_  
*Please allocate my PVDF monies to CHIP or FRESH (circle one)*

**TOTAL** (make sure you denote amounts above) \$ \_\_\_\_\_

\*NOTE: In an effort to provide more timely information and reduce costs, we are transitioning to an electronic version of our newsletter The Potato News. We will no longer be printing and mailing it. Please provide an email address to continue receiving The Potato News. Thank you.

**SUGGESTIONS FOR RESEARCH PROJECTS:** \_\_\_\_\_

**SUGGESTIONS FOR TOPICS FOR A REGIONAL POTATO SCHOOL or other meetings:** \_\_\_\_\_

Address All Checks and Correspondence To:  
Empire State Potato Growers, Inc., Melanie Wickham, Executive Director  
PO Box 566, Stanley, NY 14561 Phone: 877/697-7837 Fax: 585/295.9663

**Due in ESPG office Jan. 31**

Company/ Farm: \_\_\_\_\_ Contact: \_\_\_\_\_

Street/ Box: \_\_\_\_\_ City, State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Cell phone: \_\_\_\_\_

**\*Email address for newsletter:** \_\_\_\_\_

[illegible]

- 1. NYS GROWER MEMBERSHIP** (3 or more Acres) \$20 per membership \$ \_\_\_\_\_
- 2. NATIONAL POTATO COUNCIL QUOTA PAYMENT**  
Lump Sum Payment I feel is appropriate **OR** # acres \_\_\_\_\_ x \$0.50 per acres = \$ \_\_\_\_\_
- 3. RESEARCH & DEVELOPMENT FUND PAYMENT**  
Lump Sum Payment I feel is appropriate **OR** # acres \_\_\_\_\_ x \$2.00 per acre = \$ \_\_\_\_\_
- 4. POTATO VARIETY DEVELOPMENT RESEARCH FUND**  
Lump Sum Payment I feel is appropriate **OR** # acres \_\_\_\_\_ x \$2.50 per acre = \$ \_\_\_\_\_  
Please allocate my PVDF monies to (chip or fresh): \_\_\_\_\_

**SUGGESTIONS FOR RESEARCH PROJECTS:**\_\_\_\_\_

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Empire State Potato Growers, Inc., PO Box 566, Stanley, NY 14561: 877/697-7837 Fax: 585/295.9663

**DUE IN ESPG OFFICE BY Jan. 31 - Please Return This Entire Bill with Your Payment**