

# MINUTES

## Potato Crop Germplasm Committee meeting

Potato Association of American annual meeting 2018 at Boise, ID, --- 6:30 AM, July 23<sup>rd</sup>, 2018

Present: Bamberg (Chair), Jansky, Vales, del Rio, Holm, Novy, Sathuvalli, French, Coombs, Emma Sweeney (APHIS), Shannon, Douches, Parsons, Ellis, Yencho, Whitworth, Endelman, Hoopes, Sharie Fitzpatrick (Simplot), Jayanty

Agenda (attached) had been distributed in advance.

CGC-sponsored grants: We updated Julien Levy's report from last year on the 2016 grant to TAMU for Zebra Chip screening, with comments about progress from Isabel Vales, the TX breeder. [Bamberg post meeting note: we have since introgressed putative Lso resistant *microdontum* and plan screening those hybrids as well as the core collection of this species, which has multiple screening data)]. Hoopes mentioned psyllid resistance through trichomes. *Dickeya* 2017: Bryan Swingle at Cornell has very encouraging results from 50-member *microdontum* core collection (replicated 2 environments, two calcium treatments). [Bamberg post-meeting updates: Pepsico did GBS on whole set. USPG started making broadly segregating pop. Soon will be able to match resistance, genetics, metabolites (by Adam H. at CSU). RE CGC grant for 2018: New expectation is double funding every other year so our proposal for crunching marker data, which we have been talking about since Portland) was turned down. Laura and Jeff are applying for grants elsewhere too. CGC grant opportunity for FY19 expected to be announced week of Feb 18<sup>th</sup>].

Vulnerability Statement update: Sagar leads a sub-committee to revise the 2014 version. Members encouraged to read the old version and submit update suggestions. Goal is a draft by Jan 1<sup>st</sup>.

Quarantine. Ron French gave status report, including remarks about challenges from recent turn-over of staff. Simplot and cooperators are asking for greatly increased throughput. Joe Coombs had shared a letter from Simplot to Dave Douches at the joint meeting of USPG Tech Advisory and National Plant Germplasm Coordinating Committee meeting at Sturgeon Bay in May, explaining the need (attached). Cannot relax standards, so more imports will require more resources, which must be lobbied for by users. What are limitations and opportunities? Ellis notes new genetic tools will speed detection. But onus will be on importer to provide the best (tested clean) sample. More testing by everyone in the pipeline is needed.

[Bamberg post-meeting addition... We addressed GMO testing for the genebank at the joint TAC/NPGCC meeting at Sturgeon Bay in May. NPL Peter Bretting started drafting genebank GMO monitoring Best Management Practices in December with USPG input, and Bamberg communicated with Sagar that this topic should be added to the revised Vulnerability report. Details available from Bamberg on request.].

[Bamberg post-meeting addition... Issue of what to do with genotyped clones at genebank. At May TAC meeting, it was suggested that marker data has become sufficiently cheap and quick to make preservation of genotyped clones not worth the ongoing costs of *in vitro* virus-free preservation. But is that so? For example, links between multiple agronomic traits could give insights into common physiological mechanisms. And if the population is characterized by general metabolite profiling, that will be a second valuable correlate already done. Of course this doesn't work if the new trait of interest doesn't vary much in the already-characterized-and-preserved population.].

Since the meeting was rather rushed, it was suggested we consider adding a phone conference.

Adjourned at 8:00 AM.  
Respectfully submitted,  
John Bamberg

# POTATO CGC 2018

As is typical, the Potato CGC annual meeting for 2018 will be held during the Potato Association of America (PAA) meeting-- this year at Boise, ID...

**6:30 AM breakfast on Tuesday July 24th**  
**Boise Center Rm 430B**

---

## AGENDA

1. NPL report – Munyaneza
2. Review of CGC mission, history, documentation -- Bamberg
3. Update on most recent grants
  - Dickeya* (2017) – Charkowski, Swingle, Bamberg
  - Zebra Chip* (2016) – Levy, Bamberg, Cooper
4. Big data management status – Shannon and others
5. Vulnerability report updates – Sathuvalli and sub-committee
6. Quarantine status – French
7. Related issues from NRSP6 TAC meeting on May 20<sup>th</sup> – Bamberg
  - not necessarily important to keep genotyped clones
  - GMO monitoring plan

Other business



Simplot Plant Sciences  
5369 W. Irving Street  
Boise, ID 83706  
(208) 780-6070

David S. Douches Ph. D.  
Department of Crop and Soil Sciences  
Michigan State University  
East Lansing, MI 48824-1312 USA  
e-mail: douchesd@msu.edu

May 25, 2018

**RE: USDA APHIS PPQ's potato germplasm import regulations and limited quarantine capacity**

Dear Dave,

The J.R. Simplot Company (JRS), Boise, Idaho, has a current and growing business interest in breeding new potato varieties to improve the competitiveness and sustainability of U.S. and Canadian potato industry. To this end, we plan to continue to develop collaborative relationships with universities, institutions and parties inside and outside of the United States. Our long-term research and breeding objectives necessitate the import of numerous *Solanum tuberosum* and other *Solanum* spp. progeny lines and germplasm for North American propagation, evaluation and breeding. We recognize and support the need for strict USDA and CFIA phytosanitary controls to guard against the inadvertent entry of quarantined pests of potato.

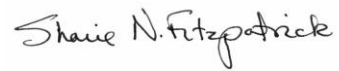
For several years now, Simplot's R&D efforts have been seriously impeded by our inability to import a sufficient number of critical research and breeding materials. USDA-APHIS's annual quarantine capacity for tuber-forming *Solanum* spp. is constrained to just 75 clonal accessions (tissue cultures and/or tuber accessions) plus 50 true potato seed (TPS) lines with 1000 seed per line, maximum. The Beltsville USDA potato quarantine facility allocates their finite capacity across all U.S. requestors, so we are typically limited to the importation of only 10-25 lines/year. Simplot has the desire to import and evaluate 100's of accessions in small quantities ("small lots") each year and every year for research use.

USDA's phytosanitary post-entry quarantine protocols for potato accessions are extremely restrictive and inflexible when compared to those for similar species entering the United States. For example, all true potato seed lots are required to undergo approximately 8-12 months of post-entry quarantine at Beltsville, whereas small lots of tomato seed may be imported under USDA permit without any requirement for post-entry quarantine ([https://www.aphis.usda.gov/aphis/ourfocus/planthealth/import-information/permits/plants-and-plant-products-permits/plants-for-planting/ct\\_smalllots\\_seed](https://www.aphis.usda.gov/aphis/ourfocus/planthealth/import-information/permits/plants-and-plant-products-permits/plants-for-planting/ct_smalllots_seed)]). Simplot has begun to learn that CFIA has similar post-entry quarantine facility capacity constraints; however, certain key advantages exist in that CFIA recognizes pre-entry phytosanitary inspections for TPS in lieu of a requirement for quarantine.

**Simplot requests that you and your colleagues help us raise awareness among U.S. and Canadian regulators and our industry for the need for review of potato import regulations, permits and quarantine policies that could lead to a rigorous, safe and much streamlined avenue for potato accession importation. Without such an effort, U.S. potato technology will continue to fall behind the rest of the world where policies and procedures for germplasm exchange are less arduous.** Without such change, the U.S. potato industry will be increasingly disadvantaged in the global marketplace. We are eager to engage with you and

other industry stakeholders and U.S. and Canadian regulators to find practical solutions to significantly increase the number and efficiency of potato introductions.

Sincerely,

A handwritten signature in black ink that reads "Sharie N. Fitzpatrick". The signature is written in a cursive style with a large initial 'S'.

Sharie Fitzpatrick  
Sr. Regulatory Manager

CC: Craig Richael, Director of Biotech Research and Development, Simplot Plant Science  
Tracy Rood, Director of Regulatory Affairs, Simplot Plant Sciences