NRSP-6 TAC17 MEETING MINUTES

Agenda

Teleconference based at Plye Center, Madison, WI
http://conferencing.uwex.edu/about/pyle-center/
Tuesday, June 13, 2017
9-12 AM CT

W. DeJong = Chair
C. Yencho = Vice Chair
J. Parsons = Secretary (for G. Gusmini)

Meeting sections – DISCUSSION LEADER

Preliminaries – DE JONG
1. Welcome, introductions, announcements (resolutions committee to be appointed in advance)
2. Review and approve 2016 minutes

Reports
3. NPGS – BRETTING
4. NRSP6 update on admin, service, funds, tech, CGC -- BAMBERG
5. PARS status, NRSP6 budget, AA regional admin status and concerns -- BARKER
6. USA-regional & Canada use of NRSP6 germplasm and tech rep advice for the genebank – DE JONG

Comments from other cooperators
7. Industry – PARSONS
8. NIFA – LIN & KALEIKAU
9. USDA/ARS – SIMON
10. APHIS/Quarantine -- FRENCH

Resolutions, Venue & Officers for next year can be settled later by email if time is short.

Present at Pyle Center:
John Bamberg – USPG Project Leader, Sturgeon Bay
Laura Shannon – new potato breeder at University of Minnesota
Dave Spooner – USPG taxonomist, Madison
Shelley Jansky – USPG germplasm enhancement, Madison
Chris Hamilton – NCRA, Madison
Josh Parsons – Frito-Lay, Rhinelander
Bill Barker – CALS, Madison
Jeff Endleman – UW potato breeder, Madison
Max Martin – USPG Project Assistant, Sturgeon Bay

Participating by remote access:
Walter DeJong – NE Tech Rep, Cornell
Peter Bretting – NPGS NPL, Beltsville
Dave Douches – NC Tech Rep, MSU
Craig Yencho – S Tech Rep, NCSU
Dave Holm – W Tech Rep, CSU
Ed Kaleikau – NPL NIFA, Beltsville
Liang-Shiou Lin – NPL NIFA, Beltsville
Rich Novy – USDA/ARS Tech Rep, Aberdeen, ID
USPG Sturgeon Bay staff and Curzio Caravati of Kenosha Potato Project
Ron French -- APHIS/Quarantine, Beltsville
JL Willet – USDA, Peoria

Meeting Minutes

9:02

Welcome by **technical support**, roll call. There were some technical difficulties with the video conferencing. All participants could at least participate by phone, some had trouble with the video.

9:08

John Bamberg - opening remarks about meeting venue. Met at the Pyle Center to conserve travel funds and time so as to promote more participation by having video conferencing instead of in person meeting.

9:12

Walter DeJong (chair) - Opening remarks

Richard Novy and Benoit Bitzimungu are a resolution committee to make resolutions from the meeting.

Meeting minutes from last year - June 24 changed to June 14 and then approved (all in favor)

John Bamberg noted meeting minutes need to be posted within 60 days of the meeting so while it is a good idea to approve the minutes, they need to be posted sooner than the next meeting.

Peter Bretting - "The National Plant Germplasm System - 2017 status, prospects, and challenges"

-NPGS has most campuses on land grant universities - great partnership and thank you to university cooperators.

-NPGS is over major accumulation phase across the system. Less than 1% growth per year based on targeted accessions vs. large increases.

-Web site access relatively stable over years. In 2016 there was a change in system which is why the number of accesses looks lower - not tracked the same anymore.

-Each year around 250,000 accessions are distributed. 2/3-3/4 distributed in the US and the majority to the public sector.

-Fiscal year 2017 essentially the same as 2016. Fiscal year 2018 if approved in current form, would cut about 13.5%. Congress and reconciliation budget still not released.

-Budget has remained stable, but when adjusted for inflation then the value of those dollars decreases.

-Expanding demand for data and germplasm and decreasing actual dollars to meet demand

-Interest in cryopreservation or in vitro conservation for clonal germplasm due to extremely virulent diseases. Some crops only maintained in the field and this would prevent loss of those accessions.

-Patents and PVP of GMO crops are expiring and the first crops are entering the NPGS system. Need BMPs to manage them separately and make sure there is no Adventitious Presence in the remaining material.

-Maintenance is highest priority.

-Acquisition of endangered crops or in endangered areas is high priority as well.

-Several personnel changes - see slides

-2016 NP 301 Retrospective Review

-Dr David Bubeck chair, 8 other anonymous reviewers

-Shelley Jansky helped highlight Sturgeon Bay's contribution to potato breeding and the potato part of the program/review was called out as a highlight.

-FAO international treaty and the Convention on Biological Diversity

190 nations part of CBD - US has signed (1993) but has NOT yet been ratified by the Senate

-143 nations part of IT - US Senate ratified the treaty in 2016 (Bush signed in 2002. The senate didn't look at it until the SMTA was finalized in 2006-2007. There were committee hearings in 2010 and

approved by committee but not taken to vote to whole senate. Then it didn't come up to a vote until 2016. Approved by at least 66 senators - 2/3 supermajority needed. Don't know the actual count)
-Treaties are not retroactive. Going forward, global germplasm collection terms determined by bilateral agreements between the collector and host countries. Since CBD, access to germplasm has been hindered.
-Under IT, there is a standard way to acquire materials - use a Standard MTA.
-Now that US is part of IT, the US now has a seat at the table and can get help (potentially) and work issues with statements in the SMTA at higher levels.
-For NPGS, there are a few additional reporting requirements but otherwise not overburdened. Outside of US, GRIN shipments will be sent with SMTA.
*ARS scientists are permitted to use PGRFA accompanied by the SMTA in research but **NOT** in breeding. Some of the SMTA obligations are not acceptable to the private sector so the ARS scientists are not allowed to use the material in breeding. US might try and change these unfavorable aspects of the SMTA.
*Problematic clauses in SMTA - Lacks a termination clause - the obligations you enter into are perpetual. Most companies are not interested in signing or accepting non-ending legally binding contracts.

9:58
John Bamberg- Thank you to **Simplot** for hosting the meeting and thanks for **Max Martin** for finding Pyle center and getting that set up.

-John then browsed through the website to show the resources on there.
-Searching "NRSP 6" shows the genebank correctly at the top of the search results.
-Genebank Holdings takes you to the accessions Sturgeon Bay has - takes you to the GRIN site
-Evaluation data also takes you to GRIN
-There are "Genetic stocks" and "Breeding stocks" and there is not a very clear distinction. Breeding stocks might be a bit further down the road in development, but it is a judgment call when the material is entered.
4 partners - Sturgeon Bay, UW, industry, federal
Shelley Jansky - Germplasm enhancement - she is bridge between GRIN and breeders by working on parental lines specifically for diseases resistance. M clones - M is for Madison.
David Spooner - 14 years in a row he spent 2.5 months a year collecting. Up until 2000. 10 years ago David also started working on carrots as well. Works on documenting the potato diversity.
Germplasm handling tips - *John would like to do a better job of making resources available to people who need them - how to guides on the website.
Max Martin - Things are going well at the station.
~5,000 populations of botanical seeds
Intergenebank database - shows which genebanks globally have similar/same accessions
Administrative reports - meetings and documents. Meeting minutes are at the top, meeting documents are at the bottom of the page.
Walk through administrative reports
Acquisitions - Collection trips to Arizona that are not just collections, but data gathering about location and population observations.
Genebank does basic maintenance as well as research - #4 on annual report highlights a few of the projects
Support a lot of work that requires screening a large amount of genetic variability.
The material is being used - 6 of last 8 potato releases by UW had NRSP6 lines in pedigree
Impact statement is on the last page

Maintaining the clonal collection - how do we decide what to continue to maintain. They routinely send out e-mails to the group asking if there is interest. Crop germplasm committee and this advisory group should probably weigh in on reviewing the clonal in-vitro repository. The objective of the NRSP6 is to preserve genes and not genotypes

10:41

William Barker- The story in WI is repeated at many land grant institutions - there is a decline in state support. Ag research budget greatly reduced. There is value from the genebank to Hancock and Rhinelander breeding stations. Within the genebank are the solutions to some of society's current problems. Bill is working with some private sectors to support genebank functions. The Genebank will have to diversify funding if possible. Bill asks everyone in the potato community to promote the genebank and the value of the genebank whenever the opportunity arises. If all AA's can come to the midterm meeting next year with information on the value of the NRSP6 site, that will help tremendously.

Chris Hamilton- Next year NRSP6 will be up for midterm review. Conducted by 4 regional advisors. The review from this year recommended Sturgeon bay move away from NRSP6 funding. It is $150,000 and they are asking to remove that funding from Sturgeon Bay. NRSP is supposed to be a temporary funding model and NRSP6 has been funded for a while now so there is pressure to remove the funding.
NRSP - National Research Support Project - fund designed to get research projects going, not ongoing.

Question about funding for NRSP6 in grants that utilize its resources? No one knew if that is allowable. There was a recommendation to make a "shipping and handling" charge for outgoing accessions from Sturgeon Bay.

Bamberg responded to the above challenges and recommendations by noting that there is much history about NRSP6 funding considerations that we are not able to discuss at this meeting, but we would be wise to understand. We should have thorough research, documentation, and communication before the 2018 regional spring meetings or midterm TAC regarding the contentions: a) NRSP6 needs more industry support, b) NRSP6 can or should charge for germplasm, c) NRSP6 is funded awkwardly, d) NRSPs are necessarily short term and therefore not appropriate for NRSP6, e) NRSP6 depends more on state vs federal support than other genebanks, f) a regional (North Central) multistate project would be more appropriate for the USPG that Off-the-Top.

11:03 - break until 11:13

Reports are or will be available online.
Dave Holm - Recommendation to bring in European clones. Max said the USDA can bring in 30 clones per year. Especially useful because of the disease resistances in many of their material.
Dave Douches - Working hard on diploids, extracting and evaluating haploids. Introgressing self-compatibility from M6 and backcrossing to tuberosum dihaploids. Self-compatibility is not as easily inherited as you would like it to be. Alca Tarna source of Potato Leaf Roll Virus resistance. Bacterial wilt resistant material from John Bamberg
Jeff Endelman - Successfully induced some dihaploids with IVP 101 and working on chloroplast counting and genotyping. Also got some European germplasm.
Not present but Susie Thompson is also doing dihaploid extraction.
Rich Novy - Several requests made for Zebra chip or psyllid resistance

Craig Yencho - Southern Region - not primarily strong supporter of genebank efforts. Usually not very big potato programs. Creighton Miller is doing a big screening for psyllid/ZC resistance. PVY resistance is a much larger interest as well.

Walter - Half of accessions to NE region went to company trying to mine the microbiome.

Josh Parsons - Thank you to the genebank for ongoing support for PepsiCo's initiatives. We have made use of the genebank, and given back genotypic information whenever we can to support the ongoing research.

Ed Kaleikau and **Liang-Shiou Lin** - USDA/ARS update - National Program leaders - AFRI plant breeding for agricultural production. Focus on pre-breeding and germplasm enhancements. Commodity boards and NIFA make grants available for a 1:1 match at times. It might be an option to get potato industry interested and then have NIFA match the grant.
Li Yang

NIFA website - search for "commodity board" and that gives information on how they can participate. Procedurally, commodity board submits topic and puts funds in escrow. Then researchers applying for grants need to get a letter of support from the commodity board.

Ronald French - APHIS - 2nd day on the job - Lead plant pathologist for potato, sweet potato, and cassava. The connection with Ron was lost so we will need an e-mailed report

USDA/ARS - No update

Wrap-up Discussion
Walter DeJong volunteered to host the meeting next year if it was a week later. John mentioned we could meet in Sturgeon Bay in connection with the National Plant Germplasm Coordinating Committee meeting at Sturgeon Bay on May 29-30. Meeting will officially be decided via e-mail.

Dave Douches volunteered to be the incoming secretary with **Craig Yencho** becoming the chair and **Joshua Parsons** becoming the Vice Chair.

Thank you to John, Max, Jesse, Simplot (for funding), thank conference group for hard work trying to get the systems up and running.

Meeting adjourned at 12:08pm.

Action items mentioned during the meeting:
*Discuss about merging "genetic stocks" and "breeding stocks" to one heading since the distinction is not very clear.
*Have a meeting at PAA (or potentially other time) with industry supporters to explain the situation of the funding that is going away and try and gain industry support.

Resolutions:

NRSP-6 TAC 2017 Resolutions

Whereas John Bamberg, Max Martin, Jesse Schartner and other NRSP-6 staff have efficiently organized an excellent Technical Advisory Committee (TAC) meeting, and have provided a detailed and thorough summary of their outstanding work in the maintenance, characterization, and dissemination of potato germplasm resources for the benefit of scientists in the USA, Canada, and around the world, let it be resolved that the genebank staff be commended in the highest possible terms for their efficiency, hospitality, and scientific contributions to the potato community.

Whereas the 2017 NRSP-7 TAC meeting was held as a video conference to facilitate participation, we acknowledge the efficient and coordinated efforts of John Ibis and his staff at Instructional Communications Systems, University of Wisconsin-Extension in providing their expertise in electronic meeting resources for the benefit of all TAC participants.

We also wish to acknowledge and thank the J.R. Simplot Company for providing $2,785 to sponsor the TAC17 video conference at the Pyle Center on the University of Wisconsin-Madison campus.