

NRSP-6 TAC 2010 MINUTES

Ramada Geneva Lakefront
Geneva, NY
July 27, 2010

Walter DeJong, Chair, NRSP-6 TAC '10
Vice Chair (vacant, since DeJong became Chair upon departure of Isabel Vales)
Creighton Miller, Secretary, NRSP-6 TAC '10

The meeting was called to order at 8:20 a.m.

ATTENDANCE

Present: Ed Ashworth, John Bamberg, Ben Bizimungu, Ben Brancel, Peter Bretting, Larry Chandler, Chuck Brown, Ralph Cavalieri, Harry Danforth, Walter DeJong, Fahrettin Goktepe, Bob Hoopes, Shelley Jansky, Max Martin, Creighton Miller, Jeannie Miller

Absent: David Douches, David Spooner

BUSINESS

Preliminaries

1. There were no announcements
2. There were no changes to the Agenda.
3. Minutes of the 2009 meeting were reviewed. Miller moved to accept, seconded by Hoops, and minutes were accepted as presented
4. Chair DeJong appointed the Resolutions Committee: Jansky, with input from Brown and Miller

Reports

5. Ben Brancel presented the Lead AA report. Stressed that the Gene Bank is an important asset around the world, and the UW has no plans to abandon it. There is strong ARS support for a viable, active, and strong Gene Bank – should be open to structural changes if needed. There was discussion on use of Gen Bank. Thirteen individuals at UW are involved in potato research, so should probably maintain leadership role. Larry Chandler, ARS, committed to help Gene Bank.
6. Ed Ashworth, Regional AA, understands that there are budgetary frustrations. NRSP-6 can expect flat support and should plan accordingly. Ben Brancel stated that the vast majority of potato research is in the public sector, and that it was bad for all resources to be in one place.

7. Regional and ARS Technical Reports (complete reports attached)

Oregon:

Fahrettin Goktepe reported that 675 units were distributed to the Western Region in 2009. Receiving states were CA, ID, OR, UT, and WA. Material was requested by universities, private companies and individuals. Materials were of good quality and received in good condition. Materials have been used for studies on: disease resistance, health attributes, molecular genetics, new cultivars for organic potato production, heat and drought tolerance, teaching and education. Chuck added that private requests are up.

North Central Region:

David Douches was not present, but sent report (attached).

North East Region:

Walter DeJong noted that there were 20 orders – 121 units. These went to large universities

And some small farms in NY and surrounding area. Largest order was from Keith Perry, entomologist.

Southern Region:

Creighton Miller reported 29 orders (increase from 2008) and 422 accessions, with Texas A&M the largest user. Texas is currently using *Solanum jamesii* in human prostate cancer studies. Craig Yencho is working on heat necrosis and Colorado Potato Beetle. He also stated that TAMU has already suffered a 5% cut in funding, with another 10% cut possible. Creighton has been ½ time for three years. He was the only person working on potato for more than 35 years. Now, with Zebra Chip still the big issue, there are more than 20 working on some aspect of potato research. The TX legislature has provided \$800,000 for two years to study of ZC. New Zealand hard hit by ZC. Research should focus on the vector. There might be tolerance to ZC, but probably not resistance.

8. Agriculture and Agrifood Canada (actually presented at 1:00, afternoon session to accommodate Bretting)

Ben Bizimungu reported 9 orders (159 clones) from Gene Bank. AAFC is the main user, with major focus on incorporation of genetic resistance to late blight, PVY, PLRV, *Verticillium* wilt and CPB. They have a Potato Gene Resources Collection (159 clones), including Canadian-bred varieties, heritage cultivars, and selected breeding parents. They have released four cultivars and five related publications.

Discussion – Frito Lay has 300 clones in storage. There was further discussion on preservation of historical collection of American cultivars. This is a function of the Gene Bank, but can't keep all – perhaps seed

storage lab in CO? Should get input from breeders then pick 20 varieties that should be maintained. Each breeder to send in three suggestions and state why each is worthy of review/viable argument as to why important and send to Max.

9. Industry Perspectives

Bob Hoopes stated that Frito-Lay has a history of using NRSP-6 germplasm. Past orders of 440 & 438 good – now 482. Have used 20 wild species – most dead ends. IR1 used. Dan Ronis can provide number received. Wild species used for health and wellness studies and Corinne for PVY resistance. There has been extensive use of Sturgeon Bay over the years. FL will provide a list of public materials.

Max has a good set of clones. Breeders are responsible for supplying clean material.

10. NRSP-6 Report

Reports, administrative structure and new personnel can be found on NRSP-6 website. Report is structured by job.

- Acquisition: Collecting in US to stock Gene Bank and R&D type work. Discusses more efficient collection practices. Lists papers published. Examines diversity – amazing potential of germplasm.
- Collections: Need to look at what available in other gene banks as related to late blight resistance. Ordered 17 primitive cultivars from CIP – grown in Prosser or Aberdeen. Krantz has been acquired from Christian Thill – has lots of wild germplasm in pedigree.
- Preservation: Have 4,000 seed (200/year for 20-year cycle). Involves clean-up and viability tests – some species selfing.

There was mention of bee work – two per cage for pollination, OP increases, disposition of backlog, making samples more efficiently, the appetite suppressant chimin, and use of *microdontum* to check for many things at once. There are 7,000 packets of *phurea* in need of testing.

Max stated that some virus test had not been done for several years, so testing has been conducted at UW. Repeated that always looking for more efficient ways to do things and make the Gene Bank more useful.

Classification same as last year - molecular markers. Distributions pretty normal. Impact statement to be edited to include health benefits of potato

Status of Renewal, Funding, etc. - \$150,000, but down.

NRSP-6 – time for new 5-year project. The plan is good – submission has been reviewed and accepted by external reviewer. John answered questions but has not seen internal review. John reviewed publications,

but Ralph wants additional user data – apparently must rework and show how NRSP-6 impacts customers/researchers. Need to show how we are supporting the public and how helping universities. We DO ultimately do this,

- Original report can be left intact
- John answered the 5 question, but more needed
- Need for all parties to have the latest version in hand when fate of project is discussed
- Use in-kind support – land, facilities, maintenance, administrative fro UW

We don't know outcome, but nice to keep status quo.

In 2012, Horticultural crops can apply
Those that do well in tropical or sub-tropical environments yield earlier

11. David Spooner was absent, so there was no report on collecting and taxonomy
12. Peter Bretting discussed the ARS FS 2011 President's Budget Proposal, the 2010 Office of National Programs Report, and personnel changes (discussion took place in morning session).
 - The US Senate is considering joining a 2002 FAO treaty – should ratify
 - We are cutting back on expeditions to Central and South America, since they no longer allow us to take material out of the country
 - Best luck with former Soviet Union countries for collecting

(Ralph Cavalieri, NRSP Chair fro WSU attended briefly)

NRSP help support research by experiment station faculty. There is pressure on budgets, so must decide what to fund. There is some question as to why the germplasm project in NRSP is receiving support. Some don't want to use Hatch funds for this purpose.

It is illegal to allow a private company to profit from our publicly funded research.

Coordinating activities is valuable – at NRSP-6 annual meeting ideas are exchanged, breeders get input into what the Gene Bank does. We need to get this information to the Directors so productive voting at fall meeting can take place. Personnel changes make this difficult.

Chuck Brown presented the ARS report. There were 17 users of 1,452 units

- **David Spooner** has been prolific in publication area - Investigating the species boundaries and phylogenetic relationships of wild and cultivated potatoes
- **Shelley Jansky** has been working on PVY resistance, amylase content, starch composition (display early blight resistance), invertase activity, bridge crossing, processing qualities, soft rot resistance (*S. chacoense*)
 - Diego Fajardo and Shelley Jansky have determined amylase content in tuber samples from 94 wild *Solanum* accessions representing 38 species. Species selected for high amylase percentage were: *S. acaule*, *S. commersonii*, and *S. raphanifolium* while *S. berthaultii*, *S. lignicaule*, and *S. morelliforme* were selected for low tuber amylase content. Further screenings will be conducted to determine intra- and inter-accession variability. Fine screening of *S. microdontum* accessions and an initial screen of 187 clones from the Sol CAP core collection were also performed.
- **Dennis Halterman** investigating natural diversity in wild species and effector proteins
- **Rich Novy** concentrating on late blight resistance
- **Prosser, WA** – phenolics in cultivated and wild species, health factors in potato, early (baby) potatoes, high nutrients
- **Ozette** potato from NW Washington (Macaw Indians) possible freeze resistance
- **Chuck** working on high carotenoids, black rot resistance.
- Potato cyst nematode was found in Iowa in 2006

13. CSREES (Thro)

- ARS budget up – Hatch funds level
- Reads and summarizes all reports – non-technical aspects and impact get lots of readership
- Have been changes in REPORT system. White House has decided that one format is needed for all reports.
- Would like to document long-term impacts – scientists should flag high value items
- Characterization funds will be available in a few years
- Food Security is somewhat funded by USDA & USAID – they can now communicate
- There is a frank emphasis on productivity – feed the future is the #1 government priority

- Focus on African countries first. Country-based investment plans to be used – Bangladesh, Haiti, Rwanda, Ghana, etc.
- \$40,000,000 reduction and \$50,000,000 increase. NIFA budget up 1%. Should cite funding source on publications – Hatch and NPGS
- NEPA – include this information to speed up grants
- Have CRISS?? Forms ready to go when asked for

13. APHIS/Quarantine

- Can request for anyone that is a legal resident of the US
- More interest in exotic varieties fro abroad
- Have collection for 1992 – when tested, found one infected with virus – also new virus on stuff from S. America
- Massive sequencing t identify new viruses - \$3,000/sample
- 75 accessions/year
- TPS received 13 fro Argentina???.; 13 propagated and released
- Caught up with Spooner collection
- How handle requests from small growers
- Don't charge to deter smuggling, but still happens

15. Resolutions:

WHEREAS, Dr. Isabel Vales served as the Western Regional Advisor to the NRSP-6 Potato Germplasm Project; therefore, be it

RESOLVED, that the NRSP-6 Technical Advisory Committee expresses its appreciation for Dr. Vales' leadership and wishes her success in future endeavors.

WHEREAS, the NRSP-6 Technical Advisory Committee met at the Ramada Geneva Lakefront hotel in Geneva, NY, on July 27, 2010; and

WHEREAS, those participating were involved in productive and stimulating discussions; therefore be it

RESOLVED, that the NRSP-6 Technical Advisory Committee expresses its appreciation to Dr. John Bamberg for coordinating the meeting, and be it further

RESOLVED, that an original of this resolution be provided to Dr. John Bamberg and that a copy be filed as a part of the official minutes of this meeting.

16. Elect new officers and set next meeting location

Officers

Chair: Walter DeJong
Vice-Chair: Creighton Miller
Secretary: Fahrettin Goktepe

Next Meeting Venue

Respectfully Submitted,

**Jeannie P. Miller
For Creighton Miller**