

Minutes of the NCCC84 Potato Genetics Technical Committee Meeting

December 14-15, 2009, Best Western, O'Hare, Rosemont, IL

December 14 & 15

The meeting was called to order by chair Benoit Bizimungu at 1:00 and attendees were welcomed.

The agenda was announced. The focus of Monday afternoon would be research presentations, while that on Tuesday morning would be breeding trials.

Attendees introduced themselves.

The minutes of the January 2009 meeting were unanimously approved.

The administrative advisor, Ken Grafton, was not present to provide comments.

John Bamberg provided an NRSP-6 update. The project is up for a 5-year renewal. The rewrite has been favorably received.

Reports were given from contributing projects:

Wisconsin

Jansky lab

PVY resistance in wild *Solanum* species. (Xingkui Cai, Visiting Scientist, Huazhong Agricultural University).

Environmental factors affecting amylose content in wild and cultivated potatoes. (Diego Fajardo, Post-doctoral Scientist).

Genetic mapping of tuberization in haploid-wild species hybrids. (Piya Kittipadakul, Ph.D. candidate).

Taxonomy and biogeography for disease resistance to soft rot in wild potato species. (Yong Suk Chung, Ph.D. candidate).

Breeding for resistance to early blight. (Emily Haga, M.S. candidate).

Examination of early blight resistance derived from *S. raphanifolium*. (Brooke Weber, M.S. candidate).

National Verticillium wilt trial. (Shelley Jansky and Andy Hamernik).

Halterman lab

Characterization of the *RB*-mediated late blight resistance phenotype. (Monica Chen, Ph.D. candidate).

Development of a potato seedling assay to screen for resistance to *Verticillium dahliae*. (Austin Meier, Ph.D. candidate).

Palta lab

Understanding the genetic association between calcium and tuber quality at the tetraploid Level. (Cinthya Zorrilla, Ph.D. candidate).

Bamberg lab

Effects of the pesticide carbofuran on diversity of wild potato species. (Alfonso del Rio).

Minnesota

Thill lab

Cryotherapy as a means of virus eradication in *S. tuberosum*. (Kristen John, Christian Thill).

Potato Breeding and Genetics at the University of Minnesota (Christian Thill, Jeffrey Miller).

- Variety trial results
- Disease resistance results (scab, late blight, PVY)
- Cryotherapy
- Pre-nuclear and Nuclear seed production

North Central Regional Potato breeding Trial Report (Jeffrey Miller, Christian Thill).

Late Blight resistance breeding and Potato Virus Y (PVY) expression in winter testing (Christian Thill).

Michigan

Douches lab

Potato Breeding and Genetics at Michigan State University (David Douches).

- Variety trial results
- Disease resistance results (scab and late blight)
- Genetic engineering for PVY resistance

SolCAP Update (David Douches).

North Dakota

Thompson lab

Potato Breeding and Varietal Development at North Dakota State University (Asunta Thompson).

- Variety trial results
- Disease resistance results (Verticillium wilt, late blight)
- Seed certification

Nebraska

Pavlista lab

NCR Potato Variety Trials Nebraska (Alex Pavlista).

New York

DeJong lab

Breeding and Genetic Research at Cornell University (Walter DeJong).

Alberta, CA

Bizimungu lab

Breeding update from Canada (Benoit Bizimungu).

- Development and release of processing and fresh markets, adapted to irrigated production systems.
- Development and release potato selections with improved resistances to diseases and pests, and adapted to rain-fed production systems.
- Marker-assisted selection of cold temperature stability.

Closing Remarks

There was final discussion on meeting times for 2010 and it was agreed that similar timing and location in December 2010 was best.

Nominations were held to elect a NCCC84 secretary. Alex Pavlista (NE) was elected. Jansky (WI) will chair and Thill (MN) will be vice-Chair for the 2010 NCCC84 meeting.

The meeting was adjourned at 12:00 noon, December 15, 2009.

Submitted by Christian A. Thill