DELEGATE PROGRAM

SUNDAY MORNING, July 27, 2014

9:00 a.m.–12:00 p.m. Finance & Endowment Fund Comm.  Davenport Boardroom
12:00 p.m.–6:00 p.m. Registration Desk/Visuals Viewing  Coat Check/Registration
1:00 p.m.–5:00 p.m. PAA Executive Committee Meeting  Davenport Boardroom
6:30 p.m.–9:00 p.m. President’s Reception  Grand Pennington

MONDAY MORNING, July 28, 2014

6:30 a.m.–8:00 a.m. Buffet-Style Breakfast  Isabella Ballroom
7:00 a.m.–8:20 a.m. Editorial Board Meeting  Davenport Boardroom
8:00 a.m.–5:00 p.m. Registration Desk/Visuals Viewing  Coat Check/Registration
8:30 a.m.–4:30 p.m. PAA Executive Committee Meeting  Davenport Boardroom

OPENING SESSION  Marie Antoinette

Presiding: Dr. Nora Olsen, PAA President

8:15 a.m.  WELCOME
Co-Chairs, Local Arrangements Committee
Mark Pavek, Dept. of Horticulture, Washington State University, Pullman, WA
Raina Spence, Washington State Potato Commission, Moses Lake, WA

Assoc. Dean and Director of WSU’s Ag Research Center
Jim Moyer, College of Agricultural, Human & Natural Resource Sciences, Washington State University, Pullman, WA

UTILIZATION AND MARKETING SYMPOSIUM 2014
Bringing New Potato Varieties to Market
Moderator: Dr. Joseph F. Guenthner, Department of Agricultural Economics and Rural Sociology, University of Idaho, Moscow, ID

8:45 a.m.  (S1) Symposium Introduction.
Guenthner, JF. Department of Agricultural Economics and Rural Sociology, University of Idaho, Moscow, ID, USA.
9:00 a.m.  (S2) Varietal Change in North America-Can We Overcome Declining Consumption?  
Bragg, Jeff.  Vice President of Meijer North America, Inc., Idaho Falls, Idaho, 83402, USA.

9:15 a.m.  (S3) New Varieties for the Eastern North American Table Market.  
Gareau, RM.  Québec Parmentier, Rivière-du-Loup, QC G5R 3Z3, Canada.

9:30 a.m.  (S4) Save the Potato. Feed the World.  
Santiago, Angela.  CEO & Co-Founder The Little Potato Company Ltd.  
Edmonton, Alberta, Canada.

9:45 a.m.  (S5) Roasted Specialty Potato Products - Baby Bakers & Fingerling Potatoes.  
Nedrow, Bret.  Idaho Regional Raw Procurement Manager, J.R. Simplot Company, Caldwell, ID.

10:00 a.m.  BREAK  
Hall of the Doges

10:00 a.m.–5:30 p.m.  Poster Session Setup  
Hall of the Doges

10:30 a.m.  (S6) Potato Variety Innovation in Snack Foods.  
Sawatzky, Kirby.  Parkland Seed Potatoes Ltd., Edmonton, Alberta, Canada.

10:45 a.m.  (S7) Environmental Opportunities of a Potato that Increasingly Becomes a Globally Traded Product.  
Haverkort, AJ.  Wageningen University and Research Center, Plant Research International, P.O. Box 616, 6700 AP Wageningen, The Netherlands.

11:00 a.m.  (S8) Sustainable Potato Production – A North American Potato Industry Collaboration.  
Leclerc, Yves.  McCain Foods, Florenceville, New Brunswick, Canada.

11:15 a.m.  (S9) Evaluation and Marketing of Various Valley Potato Varieties with Biomedical Effects in Rat and Human Volunteers.  
Lim, HT and HS Choi.  Department of Bio-health Technology, Center for the Korea Potato Genetic Resources, and Global Potato Network Inc., College of Biomedical Sciences, Kangwon National University, South Korea.

11:30 a.m.  (S10) Bringing Innate™ Potatoes to Market  
Bradley, Kerwin.  Simplot Plant Sciences, Boise, ID.

11:45 a.m.  Symposium Wrap-up Discussion

12:00 p.m.  Delegate's Luncheon  
Marie Antoinette
MONDAY AFTERNOON, July 28, 2014

Concurrent Session I: Plant Protection

Moderator: Dr. Alexzandra F. Murphy, OSU Hermiston Agric. R & E Ctr., Hermiston, OR

1:30 p.m.  (G1) Possible Management Alternatives for Verticillium Wilt: Seed Treatments, In-furrow Applications, and Foliar Sprays.
Light, SE1, LD Porter2, DA Horneck1, and PB Hamm1.  1Oregon State University Hermiston, OR 97838 and 2USDA-ARS, Prosser, WA 99350, USA.  (Frank L Haynes Graduate Student Research Competition)

1:45 p.m.  (G2) Impact of Seed Treatments on Senescence and Yield of Potatoes Grown from Seed Encrusted with Verticillium dahliae- and Colletotrichum coccodes-infested Soil.
Wheeler, DL1, Cummings, TF1, Hamm, PB2 and DA Johnson1.  1Dept. of Plant Pathology, Washington State University, Pullman, WA 99164, USA; 2Dept of Botany & Plant Pathology, Oregon State University, Hermiston OR 97838, USA.  (Frank L Haynes Graduate Student Research Competition)

2:00 p.m.  (G3) Field Evaluation of Potato Genotypes for Resistance to Spongospora subterranean.
Bittara, FG, NC Gudmestad, GA Secor, AL Thompson and DA Peterson. Departments of Plant Pathology and Plant Sciences, North Dakota State University, Fargo, ND 58102, USA.  (Frank L Haynes Graduate Student Research Competition)

2:15 p.m.  (G4) Using Geostatistics and Spatial Information to Study Soil Data from Michigan Potato Cropping Systems.
Steere, L, N Rosenzweig and WW Kirk.  Dept. of Plant, Soil and Microbial Sciences, Michigan State University, East Lansing, MI 48824, USA.  (Frank L Haynes Graduate Student Research Competition)

2:30 p.m.  (G5) Liberibacter Transmission Efficiency among Potato Psyllid Haplotypes.
Mustafa, T1,2, VG Sengoda1, KD Swisher1, JE Munyaneza1, D Horton1, RS Zack2.  1USDA-ARS, Yakima Agricultural Research Laboratory, Wapato, WA, USA; 2Department of Entomology, Washington State University, Pullman, WA, USA.  (Frank L Haynes Graduate Student Research Competition)

2:45 p.m.  BREAK

Hall of the Doges

3:15 p.m.  (G6) Genetic Diversity of the NE-11 Strain of Potato Virus Y
Quintero-Ferrer, A, KJ Evans, and AV Karasev.  Department of PSES and Bioinformatics and Computational Biology Program, University of Idaho,
3:30 p.m.  (G7) Typing Strains of Potato Virus Y Circulating in the Pacific Northwest in Potato Seed Lot Trials, 2011 to 2013. Karasev, AV1, PB Hamm2, JE Eggers2, and JL Crosslin3. 1Dept. of PSES, University of Idaho, Moscow, ID 83844, USA; 2Oregon State University, Hermiston, OR, USA; 3USDA-ARS, Prosser, WA, USA.

3:45 p.m.  (G8) International Endeavors in Investigating Potato Virus Y Transmission. Murphy, AF1, A Moreno2, A Fereres2 and SI Rondon1. 1Hermiston Agricultural Research and Extension Center, Oregon State University, Hermiston, OR, USA; 2Instituto de Ciencias Agrarias, Consejo Superior de Investigaciones Científicas, Madrid, Spain.

4:00 p.m.  (G9) Host Plant Choice of Colorado Potato Beetle, Leptinotarsa decemlineata, and Variation in Defoliation and Yield Losses among Organically Grown Commercial Potato Varieties. Wenninger, EJ and N Olsen. Dept. of Plant, Soil & Entomological Sciences, University of Idaho, Kimberly Research & Extension Center, Kimberly, ID 83341, USA.

4:15 p.m.  Adjourn

MONDAY AFTERNOON, July 28, 2014
Concurrent Session II:  Breeding and Genetics
Moderator: Dr. Richard G. Novy, USDA-ARS, Aberdeen, ID

1:30 p.m.  (G10) Durable Resistance to Late Blight in Potato through Cisgenic Modification after Eight years: Rationale, Results and Obstacles. Haverkort, AJ. Wageningen University and Research Center, Plant Research International, P.O, Box 616, 6700 AP Wageningen, the Netherlands.

1:45 p.m.  (G11) Genetic Linkage Mapping of Economically Important Traits in Cultivated Tetraploid Potato (Solanum tuberosum L.).

2:00 p.m.  **(G12) Population Structure and Genetic Differentiation of Potato Clones with Highly Informative SNP Markers.**
Bisognin, DA, A Massa, J Coombs and DS Douches. Dept. of Crop, Soil and Microbial Sciences, Michigan State University, East Lansing, MI, 48823, USA.

2:15 p.m.  **(G13) TAL-Mediated Targeted DNA Integration in Potato Plants.**
Duan, Hui, Adrienne Forsyth, Troy Weeks and Craig Richael. Plant Sciences, J. R. Simplot Company, Boise ID 83706, USA.

2:30 p.m.  **(G14) Genetic Analysis of Tolerance and Resistance to Verticillium dahliae.**
Tai, Helen H1, David De Koeyer1, Claudia Goyer, Lana Nolan1, Charlotte Davidson1, Mads Sønderkær2, Sanne Hedegaard2, Kåre Lehmann Nielsen2, Martin Lägue1, Agnes Murphy1, Pedro Uribe3, and Dennis Halterman3,4. 1Potato Research Centre, Agriculture and Agri-Food Canada, Fredericton, NB, Canada; 2Department of Life Sciences, Aalborg University, Aalborg, Denmark; 3Department of Plant Pathology, University of Wisconsin-Madison, Madison, Wisconsin, USA; 4U.S. Department of Agriculture-Agricultural Research Service, Vegetable Crops Research Unit, Madison, Wisconsin, USA.

2:45 p.m.  **BREAK**  
*Hall of the Doges*

3:15 p.m.  **(G15) Variation for Amylose Content in Potato Tubers and its Correlation with Dry Matter Content- Breeding Implications for Quality Improvement.**
Bizimungu, B. Agriculture and Agri-Food Canada, Fredericton, New Brunswick, E3B 4Z7, Canada.

3:30 p.m.  **(G16) Genomics Assisted Breeding: An Update on Oregon Potato Breeding and Variety Development.**
Sathuvalli, V1,2, BA Charlton1,3, S Yilma1, and CC Shock1,4. 1Department of Crop and Soil Science, Oregon State University, Corvallis, OR 97331, USA; 2Hermiston Agricultural Research and Extension Center, Oregon State University, Hermiston, OR 97838, USA; 3Klamath Basin Research and Extension Center, Oregon State University, Klamath Falls, OR 97603, USA; 4Malheur Experiment Station, Oregon State University, Ontario, OR 97914, USA.

3:45 p.m.  **(G17) Breaking Physiological Dormancy in Tubers of Solanum chacoense.**
Christensen, C¹, L Zotarelli¹, K Haynes² and M Giurcanu³. ¹Dept. of Horticultural Sciences, University of Florida, Gainesville, FL, 32611, USA; ²USDA-ARS, Beltsville, MD, USA; ³Dept. of Statistics, University of Florida, Gainesville, USA. (Frank L Haynes Graduate Student Research Competition)

4:00 p.m.  (G18) Solanum chacoense Rooting Response In Vitro.  
Christensen, CT¹, L Zotarelli¹, and K Haynes². ¹Department of Horticultural Sciences, University of Florida, Gainesville, FL 32609, USA; ²USDA-ARS, Beltsville, MD 20705, USA.

4:15 p.m.  Adjourn

4:30 p.m.–5:30 p.m.  Plant Protection Section Meeting  Flowerfield Room
4:30 p.m.–5:30 p.m.  Breeding and Genetics Section Meeting  Lincoln Room
4:30 p.m.–5:30 p.m.  Physiology Section Meeting  Porter Room
4:30 p.m.–5:30 p.m.  Utilization and Marketing Section Meeting  Grand Pennington A

4:30 p.m.–6:00 p.m.  Graduate Student Awards Committee  Cutter Room

POSTER SESSION & RECEPTION  Hall of the Doges
5:30 p.m.–7:00 p.m.

Breeding and Genetics

(P1) Quantification of Acrylamide in Processed Potato Products by Near Infrared Spectroscopy (NIRS).  
Adedipe, O¹, S Johanningsmeier², D Truong², D Douches³, J Coombs³ and C Yencho¹. ¹Dept. of Hort. Sci., NC State Univ., Raleigh, NC; ²USDA ARS Food Res. Unit, Dept. of Food, Bioprocessing & Nutrition Sci., NC State Univ., Raleigh, NC; ³Dept. of Plant, Soil & Microbial Sci., Michigan State Univ., East Lansing, MI, USA.

(P2) Insights and Applications of the SolCAP Genome-Wide SNP Array.  
Douches, David¹, C Robin Buell², Joseph Coombs³, Norma C Manrique¹, Alicia Massa¹, Kim Felcher¹, Daniel Zarka¹. ¹Dept. of Plant, Soil, and Microbial Sciences, Michigan State University, East Lansing, MI 48823, USA; ²Dept. of Plant Biology, Michigan State University, East Lansing, MI 48823, USA.

(P3) Genotyping-by-sequencing of a Diploid Potato F2 Population.  
Endelman, JB¹, and SH Jansky¹,². ¹Department of Horticulture, University of Wisconsin, Madison, WI 53706, USA; ²USDA-ARS, Madison, WI 53706, USA.

(P4) Distorted segregation in Diploid Populations of Potato.
Manrique-Carpintero, Norma C1, Joseph J Coombs1, Richard E Veilleux2, C Robin Buell1, and David S Douches1. 1Michigan State University, East Lansing, MI 48824, USA; 2Virginia Polytechnic and State University, VA 24061, USA.

(P5) Development of Molecular Markers Linked to Columbia Root-knot Nematode Tuber Resistance.
Patel, GK, CR Brown, and V Sathuvalli. 1Hermiston Agricultural Research and Extension Center, Oregon State University, OR 97838, USA; 2USDA-ARS Vegetable and Forage Crops Research Unit, Prosser, WA 99350, USA.

Extension, Production and Management

(P6) Aminopyralid, Clopyralid and Dicamba Soil Residues Injure Potato and Daughter Tubers.
Boydston, RA1 and SS Seefeldt2. 1USDA-ARS, Prosser, WA, USA; and 2University of Alaska, Fairbanks, AK, USA.

(P7) Regulatory Evaluation of Simplot Innate™ 2.0 Russet Burbank Potatoes.
Burzaco, Juan, Amy Ginter, Eric Rosenbaum, Pete Clark, Erika Roach, Matthew McDonald, Susan Collinge, Craig Richael, Kerwin Bradley, Haven Baker. Simplot Plant Sciences, 5369 W Irving Street, Boise, ID 83706, USA.

(P8) Effect of Variety and Previous Crop on Potato Yield in the Columbia Basin of Oregon.
Dung, JKS1, GJ Harris2, AB Haguewood2, and PB Hamm2. 1Central Oregon Agricultural Research Center, Oregon State University, Madras, OR, USA; and 2Hermiston Agricultural Research and Extension Center, Oregon State University, Hermiston, OR, USA.

(P9) Weed Control with Pyroxasulfone, Fomesafen, and Linuron in Pacific Northwest Potato.
Felix, J1, RA Boydston2, and P Hutchinson3. 1Oregon State University, Ontario, OR, USA; 2USDA-ARS, Prosser, WA, USA; and 3University of Idaho, Aberdeen, ID, USA.

(P10) Season-long phosphorus availability using slow release Crystal Green®.

(P11) Tuber Yield and Acrylamide Concentration of Chips and Fries as Affected by Nitrogen Management, Cultivar, and Storage Time.
Sun N1, C Rosen1, J Crants1, A Thompson2 and M Glynn3. 1Dept. of Soil, Water, and Climate, Univ. of Minn., 2Dept. of Plant Sciences, North Dakota State Univ., 3USDA-ARS Potato Research Worksite, East Grand Forks, MN, USA.

(P12) Low-Cost Potato Tissue Culture with Microwave and Bleach Media Preparation and Sanitation.
Weber, Brooke N, R Andrews Witherell, Amy O Charkowski. University of Wisconsin-Madison, Department of Plant Pathology, Madison, WI, USA.

**Physiology**

(P13) The Sprout Inhibitor 1,4-dimethylnaphthalene Alters the Expression of Genes in Potato Eyes Associated with Stress and Cell Viability.
Campbell, MA. Penn State Erie, School of Science, 4205 College Drive, P1 Prischak Bldg., Erie, PA 16563, USA.

(P14) Shrinkage and Bruising Characteristics of Seven Russet Potato Varieties during Cold Storage.
Goyer, A1,2,3, V Sathuvali2,3,4. 1Dept. of Botany and Plant Pathology, Oregon State University, OR 97838, USA; 2Hermiston Agricultural Research and Extension Center, Oregon State University, OR 97838, USA; 3Center for Genome Research and Biocomputing, Oregon State University, OR 97331, USA; 4Crop and Soil Science Dept., Oregon State University, OR 97838, USA.

(P15) A Model System that Elucidates the Mode of Action of α,β-unsaturated Carbonyl Compounds as Toxicants to Potato Sprout Tissue.
Knowles, LO and NR Knowles. Washington State University, Dept. of Horticulture, Pullman, WA 99164, USA.

(P16) Comparative Proteomic Analysis of Purple Pigmented and White Fleshed Sections in Tubers of Potato (*Solanum tuberosum* L.).
Külen, Oktay1, Orhan Özcan1, Ahmet T Baykal2, Murat Çalar3, David G Holm4 and Cecil Stushnoff5. 1TUBITAK MRC Genetic Engineering and Biotechnology Institute, Gebze, Kocaeli, Turkey; 2Department of Medical Biochemistry, School of Medicine, Istanbul Medipol University, Unkapani, Istanbul, Turkey; 3Department of Chemistry, Faculty of Arts and Sciences, GaziOsmanpaşa University, Tokat, Turkey; 4San Luis Valley Research Center, Colorado State University, 0249 East County Road, 9N, Center, CO, USA; 5Department of Horticulture & Landscape Architecture, Colorado State University, Fort Collins, CO, USA.

(P17) The Coordinate Induction of DNA Synthesis after Tuber Wounding.
Lulai, EC and JD Neubauer. USDA-ARS, Northern Crop Science Lab., Fargo, ND 58102, USA.

(P18) Phytonutrient Analysis of *Solanum sisymbriifolium* Berries.
Moehninsi1,2, DA Navarre2,3, and CR Brown2,3. 1University of Idaho, Moscow, ID; 2,3IAREC, Washington State University; 2,3USDA-ARS, Prosser, Washington, USA.

(P19) Role of Sucrose and Transcription Factors in the Regulation of the Potato Phenylpropanoid Pathway.
Singh, RK\textsuperscript{1,2}, R Payyavula\textsuperscript{1,2}, DA Navarre\textsuperscript{2}. \textsuperscript{1}Dept. of Horticulture, Washington State University, Pullman, WA, USA; \textsuperscript{2}USDA-Agricultural Research Service, Prosser, WA 99350, USA.

\textit{Plant Protection}

\textbf{(P20)} Tuber Symptoms Associated with Recombinant Strains of \textit{Potato virus Y} in Specialty Potatoes under Western Washington Growing Conditions.

C Benedict\textsuperscript{1}, DA Inglis\textsuperscript{2}, D McMoran\textsuperscript{3}, and A Karasev\textsuperscript{4}. \textsuperscript{1}Washington State University Extension, Bellingham, WA 98225, USA; \textsuperscript{2}Washington State University-Mount Vernon, WA 98273, USA; \textsuperscript{3}Washington State University Extension, Burlington, WA 98233, USA; \textsuperscript{4}Department of Plant, Soil and Entomological Sciences, University of Idaho, Moscow, ID 83844, USA.

\textbf{(P21)} High-fidelity PCR Improves Detection of Zebra Chip (ZC) (\textit{Candidatus Liberibacter solanacearum}) in Potato Tubers, Plants, and Potato Psyllids (\textit{Bactericera cockerelli}) When Compared to a Conventional PCR Protocol.

Cating, RA, SI Rondon, and PB Hamm. Hermiston Agricultural Research and Extension Center, Oregon State University, Hermiston, OR 97838, USA.

\textbf{(P22)} A Multiplex Reverse Transcription (RT) High-fidelity PCR Protocol for the Simultaneous Detection of Six Viruses that Cause Necrosis in Potato Tubers: \textit{Alfalfa Mosaic Virus} (AMV), \textit{Tobacco Rattle Virus} (TRV), \textit{Tomato Spotted Wilt Virus} (TSWV) \textit{Potato Mop Top Virus} (PMTV), \textit{Potato Virus Y} (PVY), and \textit{Potato Leafroll Virus} (PLRV).

Cating, RA, CN Sago, and PB Hamm. Hermiston Agricultural Research and Extension Center, Oregon State University, Hermiston, OR 97838, USA.

\textbf{(P23)} \textit{Wolbachia}-infection Differs Among Potato Psyllid Haplotypes.

Cooper, W\textsuperscript{1}, T Mustafa\textsuperscript{1,2}, K Swisher\textsuperscript{1}, S Garczynski\textsuperscript{1}, J Munyaneza\textsuperscript{1}, D Horton\textsuperscript{1}. \textsuperscript{1}USDA-ARS, Wapato, WA, USA; \textsuperscript{2}Washington State University, Department of Entomology, Pullman, WA, USA.

\textbf{(P24)} Seed Treatments, In Furrow and Early Foliar Treatments for Control of Seed-borne \textit{Phytophthora infestans}.

Dangi, Sandesh, William W Kirk, Paula Somohano, and Robert Schafer. Department of Plant, Soil and Microbial Sciences, Michigan State University, East Lansing, MI 48824, USA.

\textbf{(P25)} Comparison of Tuber Inoculation Techniques to \textit{Phytophthora infestans}.

Dangi Sandesh, William W Kirk and Paula Somohano. Department of Plant, Soil and Microbial Sciences, Michigan State University, East Lansing, MI 48824, USA.

\textbf{(P26)} Susceptibility of Immature and Mature Potato Tubers to Different Genotypes of \textit{Phytophthora infestans}.
Dangi Sandesh, William W Kirk and Paula Somohano. Department of Plant, Soil and Microbial Sciences, Michigan State University, East Lansing, MI 48824, USA.

(P27) Tolerance of Thirteen Potato Varieties to Three Herbicides.
Hutchinson, PJS, BR Beutler, C Miera, and B Kendall. University of Idaho, Aberdeen, ID 83210, USA.

(P28) Aphid Alert II Trapping Network: Monitoring Flights of Vectors of Potato Virus Y.
MacRae, Ian V and Nate Russart. Dept. of Entomology, University of Minnesota, Northwest Research & Outreach Center, Crookston, MN, 56716, USA.

(P29) Regional Variation of Candidatus Liberibacter solanacearum Genomic Sequences Isolated from Carrot Psyllids in Scandinavia.
McCue, K1, GR Lazo2, VG Sengoda3, A Nissinen4, L Sundheim5, O Anderbrant6, and JE Munyaneza2. 1USDA-ARS, Albany, CA 94710, USA; 2USDA-ARS, Wapato, WA 98951, USA; 3MTT Agrifood Res. Finland, Jokioinen, Finland; 4Norwegian Inst. for Agric. and Environ. Res., Aas, Norway; 5Lund University, Lund, Sweden.

(P30) Baseline Sensitivity of Fusarium spp. Associated With Potato Dry Rot in Michigan to Fungicides.
Merlington, A and WW Kirk. Department of Plant, Soil and Microbial Science, Michigan State University, East Lansing, MI, 48824, USA.

Merlington, A and WW Kirk. Department of Plant, Soil and Microbial Science, Michigan State University, East Lansing, MI, 48824, USA.

Ricard, Darrah1, Katie Fairchild1, Emily Baergen1, Philip B Hamm2, Mark Pavek3, and Phillip S Wharton1. 1Department of Plant, Soil and Entomological Sciences, University of Idaho, Aberdeen Research and Extension Centre, Aberdeen ID, 83210, USA; 2Oregon State University, Hermiston OR 97838, USA. 3Washington State University, Pullman, WA 99164, USA.

(P33) In-furrow Fungicide Treatments for Control of Verticillium Wilt of Potatoes.
Steere, L, R Schafer, N Rosenzweig, K Polaskey and WW Kirk. Dept. of Plant, Soil and Microbial Sciences, Michigan State University, East Lansing, MI 48824, USA.

TUESDAY MORNING, July 29, 2014

6:30 a.m.–7:45 a.m. Production & Ext. Section Breakfast Meeting The Early Bird Room
6:30 a.m.–8:00 a.m. Buffet-Style Breakfast
Isabella Ballroom

8:00 a.m.–5:00 p.m. Registration Desk/Visuals Viewing
Coat Check/Registration

8:30 a.m.–4:30 p.m. PAA Executive Committee Meeting
Davenport Boardroom

**Concurrent Session I: Industry-based seminars**

**Extension Production & Management**

**Grand Pennington A**

**Moderator:** Dr. Jeffrey C. Stark, Dept Plant, Soil & Entomol. Sci., Univ. of Idaho, Idaho Falls

8:00 a.m.  **(G19) Nitrogen Rate Effects on Potato Yield, Quality and Acrylamide-forming Potential.**

Gause, Kathryn, Gregory Porter, L Brian Perkins, and Mary-Ellen Camire. University of Maine, Orono, Maine 04469, USA. *(Frank L Haynes Graduate Student Research Competition)*

8:15 a.m.  **(G20) The Influence of Agromanagement on Potato Mineral Nutrients.**

Kammlade, Sara M1, DG Holm2, SYC Essah2, M Stromberger3. 1Department of Horticulture & Landscape Architecture, Colorado State University, Fort Collins, CO 80523, USA; 2San Luis Valley Research Center, Colorado State University, 0249 East Road 9 North, Center, CO 81125, USA; 3Department of Soil and Crop Sciences, Colorado State University, Fort Collins, CO 80523, USA. *(Frank L Haynes Graduate Student Research Competition)*

8:30 a.m.  **(G21) Production Economics and Consumer Preference Reveal Alternatives to Russet Norkotah.**

Spear, RR, ZJ Holden, and MJ Pavek. Washington State University, Department of Horticulture, Pullman, WA 99164, USA. *(Frank L Haynes Graduate Student Research Competition)*

8:45 a.m.  **(G22) The Effects of Phosphorus Fertilizer on the Commercial Production and Postharvest Quality of Nine Potato Cultivars.**

Dolezal, C, ZJ Holden, NR Knowles, L Knowles, and MJ Pavek. Washington State University, Department of Horticulture, Pullman, WA 99164, USA. *(Frank L Haynes Graduate Student Research Competition)*

9:00 a.m.  **(G23) The Effects of In-Season Canopy Damage on Potato Growth, Development, and Grower Return.**

Shelton, SC, ZJ Holden, and MJ Pavek. Washington State University, Department of Horticulture, Pullman, WA 99164, USA. *(Frank L Haynes Graduate Student Research Competition)*

9:15 a.m.  **(G24) Nitrogen Modulates Physiological Maturity and Tuber N Content to Affect Postharvest Processing and Nutritional Qualities.**

Knowles, NR, MJ Pavek and LO Knowles. Washington State University, Department of Horticulture, Pullman, WA 99164, USA.
9:30 a.m.  (G25)  Timing of Nitrogen Fertilizer Application for Increased N Use Efficiency in Potato Production of New Russets from Colorado State University.
Essah, SYC and DG Holm.  Department of Horticulture and Landscape Architecture, Colorado State University, San Luis Valley Res. Center, 0249 E Rd 9 N, Center, CO 81125, USA.

9:45 a.m.  BREAK

10:15 a.m.  (G26)  Potassium Rate Effects on Potato Yield, Quality and Acrylamide-Forming Potential.
Gause, Kathryn, Gregory Porter, L Brian Perkins, and Mary-Ellen Camire.  University of Maine, Orono, Maine 04469, USA.

10:30 a.m.  (G27)  Detection of Nitrogen Deficiency in Potatoes Using Small Unmanned Aircraft Systems.
Horneck, DA2, ER Hunt, Jr1, DJ Gadler3, AE Bruce3, RW Turner3, CP Spinelli3, JJ Brungardt4, and PB Hamm2.  1Hydrology and Remote Sensing Lab, Beltsville Ag Research Center; 2Hermiston Ag Research and Extn Center, OSU; 3Boeing Res & Tech, Kent, WA, USA; 4Paradigm ISR, Bend, OR 97701, USA.

10:45 a.m.  (G28)  Evaluating Sources of Aphid Vectors and Potato Virus Y in Eastern Oregon and Washington.
Murphy, AF1, R Cating1, PB Hamm, J Crosslin2 and SI Rondon1.  1Hermiston Agricultural Research and Extension Center, Oregon State University, Hermiston, OR, USA; 2USDA-ARS, Vegetable and Forage Crops Research, Prosser, WA, USA.

11:00 a.m.  (G29)  Potato Sustainability in Wisconsin: Results of an Industry-Wide Sustainability Assessment in 2013.
Colquhoun, J1, PD Mitchell2, DL Knuteson1, JA Wyman1, N Willie2.  1Department of Horticulture and 2Department of Agriculture and Applied Economics, UW-Madison, Madison, WI 53706, USA.

11:15 a.m.  (G30)  Evaluation of the Vital Farms PIP-200 System for Aeroponic Production of Seed Potato Mini-Tubers in Alberta.
Konschuh, Michele.  Alberta Agriculture and Rural Development, Crop Diversification Centre South, 301 Horticultural Station Road East, Brooks, AB T1R 1E6, Canada.

11:30 a.m.  (G31)  Vietnamese Farmers Successfully Demystified Rapid Multiplication Technology to Revolutionize the Potato Industry.
VanderZaag, P1, PX Tung2 and VU Nguyen2.  1Sunrise Potato, Alliston, Ontario, L9R1V3, Canada; 2Yersin University, Dalat, Vietnam.
11:45 a.m.  (G32) **SCRI-Arylamide Agronomic Trials Identified Exceptional Clones with Low Acrylamide.**  
Wang, Yi, Paul C Bethke, Alvin J Bussan. Department of Horticulture, University of Wisconsin-Madison, Madison, WI 53706, USA.

12:00 p.m.  **Delegate’s Luncheon**  

**TUESDAY MORNING, July 29, 2014**

6:30 a.m.–7:45 a.m.  Production & Ext. Section Breakfast Meeting  
The Early Bird Room

6:30 a.m.–8:00 a.m.  Buffet-Style Breakfast  
Isabella Ballroom

8:00 a.m.–5:00 p.m.  Registration Desk/Visuals Viewing  
Coat Check/Registration

8:30 a.m.–4:30 p.m.  PAA Executive Committee Meeting  
Davenport Boardroom

**Concurrent Session II: Industry-based seminars**

Breeding & Genetics/Marketing & Utilization  
Grand Pennington C

Moderator:  Dr. Roy A. Navarre, USDA-ARS, Prosser, WA

8:15 a.m.  (G33) **Potato Fingerprinting Using Genome-wide SNPs.**  
Coombs, Joseph, Daniel Zarka, and David Douches. Department of Plant, Soil, and Microbial Sciences, Michigan State University, East Lansing, MI 48824, USA.

8:30 a.m.  (G34) **National Chip Processing Trials: Four Years of Progress.**  
Douches, David and Joseph Coombs. Department of Plant, Soil, and Microbial Sciences, Michigan State University, East Lansing, MI 48823, USA.

8:45 a.m.  (G35) **Improving Potato Germplasm Collecting Technology.**  
Bamberg, J, A del Rio and C Fernandez. US Potato Genebank, Sturgeon Bay, WI, USA.

9:00 a.m.  (G36) **Crestone Russet and Mercury Russet: Two New Russet Potato Cultivars from the Colorado Potato Breeding and Selection Program.**  
Gray, CP¹, DG Holm¹, SYC Essah¹, SS Jayanty¹, RD Davidson². ¹San Luis Valley Research Center-CSU, 0249 East Road 9 North, Center, CO 81125, USA; ²Department of Horticulture & Landscape Architecture, Colorado State University, Fort Collins, CO 80523, USA.

9:15 a.m.  (G37) **Masquerade, Midnight Moon, and Red Luna: Three New Specialty Potato Cultivars from the Colorado Potato Breeding and Selection Program.**
Holm, David G¹, CP Gray¹, SYC Essah¹, SS Jayanty¹, RD Davidson². ¹San Luis Valley Research Center-Colorado State University, 0249 East Road 9 North, Center, CO 81125, USA; ²Department of Horticulture & Landscape Architecture, Colorado State University, Fort Collins, CO 80523, USA.

9:30 a.m.  **(G38) Linkage Map and QTL Analysis for Internal Heat Necrosis in a Segregating Tetraploid Potato Population.**
Schumann, Mitchell¹, Craig Yencho¹, Mark Clough¹, and Kathleen Haynes². ¹Department of Horticultural Science, North Carolina State University, Raleigh, NC 27607; ²USDA ARS Plant Sciences Institute, Genetic Improvement of Fruits and Vegetables Laboratory, Beltsville, MD 20705, USA. *(Frank L Haynes Graduate Student Research Competition)*

9:45 a.m.  **BREAK**
Hall of the Doges

10:15 a.m.  **(G39) Generation of Herbicide-Resistant Lines of Potato Using Genome Editing.**
Butler, Nathaniel M¹, Nicholas J Baltes², Daniel Zarka¹, Colby G Starker², Daniel F Voytas², and David S Douches¹. ¹Michigan State University, East Lansing, MI 48824, USA; ²University of Minnesota, Minneapolis, MN 55455, USA. *(Frank L Haynes Graduate Student Research Competition)*

10:30 a.m.  **(G40) Purple and White Potatoes, even after Processing, Suppress Colonic Interleukin-6 Expression, a Pro-inflammatory Cytokine, in a High-fat Consuming Pig Model.**
A Sido¹, S Radhakrishan¹, E Eriksson², SW Kim³, L Reddivari¹, and J Vanamala¹. ¹Penn State University, PA, USA; ²Lund University, Sweden; ³North Carolina State University, NC, USA. *(Frank L Haynes Graduate Student Research Competition)*

10:45 a.m.  **(G41) Purple Potato, even after Processing, Suppresses Colon Cancer Stem Cell Growth In Vitro Independent of p53.**
Charepalli, V¹, R Vadde², L Reddivari², and J Vanamala¹. ¹Food Science, ²Plant Science, Penn State University, USA; ³Biotechnology, Yogi Vemana University, India. *(Frank L Haynes Graduate Student Research Competition)*

11:00 a.m.  **(G42) Potatoes Can’t Take the Heat: Effects of Cultivar and Processing on Global Metabolite/Nutritional Profiles.**
Markham, Laura¹, Lavanya Reddivari², Luke K Ursell³, David Holm⁴, Gregory Ziegler¹, Rob Knight³, and Jairam Vanamala¹. ¹Food Science, Pennsylvania State University; ²Horticulture, Pennsylvania State University; ³Chemistry and Biochemistry, University of Colorado at Boulder; ⁴Colorado Agricultural Experiment Station, San Luis Valley Research Center, USA. *(Frank L Haynes Graduate Student Research Competition)*
11:15 a.m.  **(G43) The Growth in Potato Production and Inception of Secondary Potato Markets in India.**
Tyagi, Garima and Gina Greenway.  Department of Agricultural Economics and Rural Sociology, University of Idaho, Moscow, ID 83844, USA.  *(Frank L Haynes Graduate Student Research Competition)*

11:30 a.m.  **(G44) Economic Impact of Zebra Chip in Potato.**
Greenway, G and J Guenther.  University of Idaho, Moscow ID 83844, USA.

11:45 a.m.  **(G45) Evaluation of Potato Anaerobic Digestate as a Renewable Alternative to Peat Moss in Horticultural Substrates.**
Vaughn, SF1, E Lee2 and RE Wagner3.  1USDA/ARS, Peoria, IL 61604, USA; 2Summit Seed, Inc., Manteno, IL 60950, USA; 3Microbial Energy Systems, Inc., Bloomington, IN 47401, USA.

12:00 p.m.  **Delegate's Luncheon**  *Marie Antoinette*

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**TUESDAY AFTERNOON, July 29, 2014**
Concurrent Session I: Industry-based seminars

**Physiology/Extension, Production & Management**

*Grand Pennington A*

Moderator: Dr. Tim D. Waters, WSU Extension, Pasco, WA

1:30 p.m.  **(G46) Sprout Inhibition by α,β-unsaturated Aliphatic Carbonyls – Discovery, Chemistry and Physiological Responses.**
Knowles, NR and LO Knowles.  Washington State University, Dept. of Horticulture, Pullman, WA 99164, USA.

1:45 p.m.  **(G47) Global Development and Commercial Launch of 3-decen-2-one (SmartBlock®) for Potato Sprout Control.**
Immaraju, J and T Zatltny.  AMVC Chemical Corporation, 4695 MacArthur Court, Suite 1200, Newport Beach, CA 92660, USA.

2:00 p.m.  **(G48) Chloropropham Sprout Inhibitor Residue on Fresh-Pack Potatoes.**
Frazier, Mary Jo and Nora Olsen.  University of Idaho, 3793N 3600E, Kimberly, ID 83341, USA.

2:15 p.m.  **(G49) Miniaturization of Post-Harvest Sprout Control Chemical Application.**
Zalewski, Jim, Addie Waxman, Curtis Eames.  1,4GROUP, Meridian, Idaho 83642, USA.

2:30 p.m.  **(G50) Biochemical Properties and Expression Analysis of Potato Cytokinin Oxidases during Tuber Dormancy.**
Suttle, Jeffrey C and Linda L Huckle. USDA-ARS Northern Crop Science Lab, 1307 18th St. N, Fargo, ND 58105, USA.

2:45 p.m.  
**G51** Effect of Harvesting Time of Seed Tubers, Reconditioning and GA3 Treatment on Dormancy Breaking of ‘Superior’ Potato Tubers. 

3:00 p.m.  
**BREAK**

3:30 p.m.  
**G52** Weight Loss in Storage: Russet Burbank and New Potato Cultivars.  
Brandt, Tina and Nora Olsen. University of Idaho, 3806N 3600E, Kimberly, ID 83341, USA.

3:45 p.m.  
**G53** The Origin of Russet Burbank (Netted Gem), a Sport of Burbank.  
Bethke, Paul C1 and Danielle J Donnelly2. 1USDA ARS and Dept. Horticulture, University of Wisconsin, Madison, WI USA; 2Plant Science Dept., McGill University, Ste. Anne de Bellevue, QC and Potato Research Centre, Agriculture and Agri-Food Canada, Fredericton, NB Canada.

4:00 p.m.  
**G54** Vacuolar Invertase Gene Silencing in Potato Decreasing the Frequency of Sugar-end Defects.  
Zhu, X1, C Richard2, J Jiang1, PC Bethke1 3. 1Dept. Horticulture, University of Wisconsin, Madison, WI, USA; 2Simplot Plant Sciences, J. R. Simplot Company, Boise, ID, USA; 3USDA Vegetable Crops Research Unit, Madison, WI, USA.

4:15 p.m.  
**G55** Effects of Simulated Glyphosate and Dicamba Drift in Seed Potatoes.  
Robinson, Andy1 and Harlene Hatterman-Valenti2. 1North Dakota State University and University of Minnesota, USA; 2University of Minnesota, USA.

4:30 p.m.  
**G56** Seed Size and Spacing on Profitability for Dry Matter Production in an Organic, Dryland System in Western Nebraska.  
Pavlista, Alexander D. University of Nebraska, Panhandle Research & Extension Ctr., 4502 Avenue I, Scottsbluff, NE 69361, USA.

4:30 p.m.–6:00 p.m.  
**Cutter Room**

Graduate Student Awards Committee

4:45 p.m.  
**G57** Analysis of the Regulation of Tuber Phytonutrient Metabolism.  
Payyavula, Raja2, Rajesh Singh2, and Roy Navarre1,2. 1USDA-ARS, Prosser, Washington; 2IAREC, Washington State University, Prosser, USA.

5:00 p.m.  
**G58** Crystal Green® as a Slow Release Phosphorus Fertilizer Source for Potatoes.

5:15 p.m.   Adjourn

6:30 p.m.–9:00 p.m.   Reception, BBQ and Live Auction   Roof Garden Terrace

TUESDAY AFTERNOON, July 29, 2014
Concurrent Session II: Industry-based seminars  
Plant Protection  
Moderator: Phil Hamm, Hermiston Agric. R & E Ctr., Oregon State University

1:30 p.m.    (G59) Resistance to Metalaxyl-m in Populations of the Potato Pink Rot Pathogen (*Phytophthora erythroseptica*) in Canada.  
Crane, B1, RD Peters1, LM Kawchuk2, KI Al-Mughrabi3, K MacDonald1, A MacPhail1, KA Drake1, and D Gregory1.  1AAFC, Charlottetown, PE, Canada; 2AAFC, Lethbridge, AB, Canada; 3NBDAAF, Wicklow, NB, Canada.

1:45 p.m.    (G60) Evidence of a Monogenic, Dominant Nature of the *Nz* Gene Conferring Resistance against *Potato Virus Y* Strain Z (PVYZ) in Potato.  
Chikh-Ali, M1, JS Rowley1, JC Kuhl1, SM Gray2, and AV Karasev1.  1Dept. of PSES, University of Idaho, Moscow, ID 83844, USA; 2USDA-ARS, Cornell University, Ithaca, NY 14853, USA.

2:00 p.m.    (G61) A Multiplex IC-RT-PCR Assay Distinguishes Fourteen Strains and Recombinants of *Potato Virus Y*.  
Chikh-Ali, M1, SM Gray2, and AV Karasev1.  1Dept. of PSES, University of Idaho, Moscow, ID 83844, USA; 2USDA-ARS, Cornell University, Ithaca, NY 14853, USA.

2:15 p.m.    (G62) Evaluating the Effectiveness of Pesticides in Controlling Potato Psylids.  
Rondon, SI and E Echegaray.  Oregon State University, Hermiston Agricultural Research and Extension Center, 2121 S First Street, Hermiston, OR 97838, USA.

2:30 p.m.    (G63) RNA-Seq Analysis of Early Infected Potato Leaves by Potato Virus Y in Resistant and Susceptible Potato Varieties.  
Goyer, A1,2, L Hamlin3, JM Crosslin3, A Buchanan1, JH Chang1.  1Dept. of Botany and Plant Pathology, Oregon State University, OR 97838, USA; 2Hermiston Agricultural Research and Extension Center, Oregon State University, OR 97838, USA; 3USDA-ARS, WA 99350, USA.

2:45 p.m.    (G64) Silver Scurf Incidence and Severity at Four Storage Temperatures.
Woodell, Lynn¹, N Olsen¹, and PB Hamm². ¹University of Idaho, Kimberly, ID, 83341, USA; ²Oregon State University, Hermiston, OR, 97838, USA.

3:00 p.m.  BREAK

3:30 p.m.  (G65) Integrating Next-Generation Sequencing and GIS Technology to Develop Bacterial Diversity Baseline Data to Evaluate Soil Health in Michigan Commercial Potato Production Systems.
Rosenzweig, N, L Steere, K Steinke, C Long, A Santa Maria, S Whitney, R Schafer and WW Kirk. Michigan State University, Department of Plant, Soil and Microbial Sciences, East Lansing, MI 48824-1325, USA.

3:45 p.m.  (G66) Fungicide Resistance of Phytophthora infestans (Mont.) de Bary, in Chapingo, México.
Héctor Lozoya-Saldaña¹, Martha Nayeli Robledo Esqueda², and Jaime B Díaz de la Cruz¹. ¹Departamento de Fitotecnia, Universidad Autónoma Chapingo, Chapingo, Estado de México, 56230, México; ²Instituto de Fitosanidad, Colegio de Posgraduados, Montecillo, México.

4:00 p.m.  (G67) A Research Collection of Plant Pathogenic Streptomyces.
Wanner, Leslie A. USDA-ARS Beltsville, MD, USA.

4:15 p.m.  (G68) Prevalence and Prevention of Phytophthora infestans US-23.
Kawchuk, LM¹ ML Kalischuk¹, RD Peters², KI Al-Mughrabi³, F Daayf⁴, MW Harding⁵ and RJ Howard⁵. ¹Agriculture and Agri-Food Canada, Lethbridge, AB T1J 4B1, ²Agriculture and Agri-Food Canada, Charlottetown, PE C1A 4N6, ³New Brunswick Department of Agriculture, Aquaculture and Fisheries, Wicklow, NB E7L 3S4, ⁴University of Manitoba, Winnipeg, MB R3T 2N2, ⁵Alberta Agriculture and Rural Development, Brooks, AB T1R 1E6, Canada.

4:30 p.m.  (G69) DuPont™ Zorvec™ (“DPX-QGU42”, “oxathiapiprolin”): The First Member of a Novel Class of Oomycete Fungicides.
Shepherd, CP. DuPont Crop Protection, Stine-Haskell Research Center, 1090 Elkton Road, Newark, Delaware, 19714-0030, USA and W.J. Summers, DuPont Crop Protection, 7070 Mississauga Road, Mississauga, Ontario, Canada.

4:30 p.m.–6:00 p.m.  Graduate Student Awards Committee

4:45 p.m.  (G70) Monitoring Haplotypes of Potato Psyllid Collected from Potato and Bittersweet Nightshade in the Pacific Northwest.
Swisher, KD¹, J. Munyaneza², and JM Crosslin². ¹USDA-ARS, Wapato, WA 98951, USA; ²USDA-ARS, Prosser, WA 99350, USA.
5:00 p.m.  (G71) Analysis of the Prevalence and Haplotypes of Liberibacter solanacearum, the Causal Agent of Zebra Chip Disease, in South-Central Idaho during the 2012 and 2013 Potato Growing Seasons.
Dahan, J1, B Thompson1, EJ Wenninger2, N Olsen2, and AV Karasev1.  Dept. of PSES, University of Idaho, 1Moscow, ID 83844, USA; and 2Kimberly, ID 83341, USA.

5:15 p.m.  Adjourn

6:30 p.m.–9:00 p.m.  Reception, BBQ and Live Auction  Roof Garden Terrace

WEDNESDAY, July 30, 2014 - TOURS Off-Site, listed below

6:30 a.m.–8:00 a.m.  Buffet-Style Breakfast  Isabella Ballroom
7:00 a.m.–5:30 p.m.  Fly Fishing Tour  Meet in Lobby
8:00 a.m.–5:00 p.m.  Registration Desk/Visuals Viewing  Coat Check/Registration
9:00 a.m.–3:00 p.m.  Local Ag Tour  Meet in Lobby
10:00 a.m.–4:00 p.m.  Coeur d’Alene, ID tour  Meet in Lobby

THURSDAY MORNING, July 31, 2014

6:30 a.m.–8:00 a.m.  Buffet-Style Breakfast  Isabella Ballroom
7:00 a.m.–8:20 a.m.  USDA Germplasm Breakfast Meeting  Cutter Room
8:00 a.m.–5:00 p.m.  Registration Desk/Visuals Viewing  Coat Check/Registration
8:30 a.m.–12:00 p.m.  PAA Executive Committee Meeting  Davenport Boardroom

Final Session:
Breeding and Genetics  Grand Pennington A
Moderator:  Dr. Charles R. Brown, USDA/ARS, Prosser, WA

8:30 a.m.  (G72) Identification of Disease Resistance Genes for Enhancement of Existing Potato Cultivars.
Halterman, D.  USDA Vegetable Crops Research Unit, Madison, WI, 53706, USA.
8:45 a.m.  (G73) Assessing Potato Virus Y Resistance in Advanced Breeding Lines and New Cultivars from U.S. Potato Breeding Programs.
Whitworth, Jonathan L¹, Stewart M Gray², Russell L Groves³, and Amy O Charkowski³. ¹USDA-ARS, Aberdeen, ID, USA; ²USDA-ARS, Ithaca, NY, USA; ³University of Wisconsin, Madison, WI, USA.

9:00 a.m.  (G74) Progress toward the Development of Recombinant Inbred Lines in Potato.
Jansky, SH¹,2, DS Douches³, and JB Endelman². ¹USDA-ARS, Madison, WI, 53706, USA; ²Department of Horticulture, University of Wisconsin-Madison, Madison, WI, 53706, USA; ³Department of Plant, Soil, and Microbial Sciences, Michigan State University, East Lansing, MI 48824, USA.

Navarro, FM¹, KT Rak², E Banks³, BD Bowen¹, C Higgins⁴ and JP Palta². ¹University of Wisconsin Agricultural Research Stations, and ²Department of Horticulture, Madison WI 53706, USA; ³OMAFRA-Guelph N1G 4Y2, Ontario; ⁴Heartland Farms, Hancock WI 54943, USA.

9:30 a.m.  (G76) Development and Application of Genome-Wide Association Studies for Autotetraploid Potato.
Rosyara, UR, and JB Endelman. Department of Horticulture, University of Wisconsin, Madison, WI 53706, USA.

9:45 a.m.  (G77) High Throughput Phenotyping Using an Unmanned Aerial Vehicle.
Jansky, SH¹, DI Rouse², AJ Gevens², and FM Navarro³. ¹USDA-ARS and Department of Horticulture, University of Wisconsin-Madison, Madison, WI, 53706, USA; ²Department of Plant Pathology, UW-Madison, Madison, WI, 53706, USA; ³Wisconsin Agricultural Experiment Station, Hancock, WI, USA.

10:00 a.m.  BREAK

10:30 a.m.  (G78) Genome-Wide Association Study (GWAS) and Mapping of Late Blight and Potato Virus X Resistance Loci in Potato Using Genotyping-by-Sequencing.
Yilma, S¹, V Sathuvalli¹,², E Karaagac³, and MI Vales¹. ¹Department of Crop and Soil Science, Oregon State University, Corvallis, OR 97331, USA; ²Hermiston Agricultural Research and Extension Center, Oregon State University, Hermiston, OR 97838, USA.

10:45 a.m.  (G79) Marker-Assisted Selection in Columbia Root-Knot Nematode and Potato Virus Y Resistance Breeding in Potato.
Zhang, Linhai\textsuperscript{1}, Richard Quick\textsuperscript{2}, Charles R Brown\textsuperscript{2}. \textsuperscript{1}Irrigated Agriculture Research and Extension Center, Washington State University, Prosser, WA 99350, USA; \textsuperscript{2}United States Department of Agriculture-Agricultural Research Service, Prosser, WA 99350, USA.

11:00 a.m. \textbf{(G80) Adoption of a Real-Time PCR-Based Strategy for the Quantification of Verticillium dahliae in Potato Stems for the Breeding of Verticillium Wilt Resistance at North Dakota State University.} Sabba, Robert P\textsuperscript{1}, Asunta L Thompson\textsuperscript{1}, Julie S Pasche\textsuperscript{2}, Ray Taylor\textsuperscript{2}, and Neil C Gudmestad\textsuperscript{2}. \textsuperscript{1}Department of Plant Sciences, North Dakota State University, Fargo, ND 58108, USA; \textsuperscript{2}Department of Plant Pathology, North Dakota State University, Fargo, ND 58108, USA.

11:15 a.m. \textbf{(G81) A02507-2LB and A03158-2TE: Promising Breeding Clones from the Northwest (Tri-State) Potato Variety Development Program.} Novy, R\textsuperscript{1}, J Whitworth\textsuperscript{1}, J Stark\textsuperscript{2}, B Charlton\textsuperscript{3}, S Yilma\textsuperscript{3}, V Sathuvalli\textsuperscript{3}, NR Knowles\textsuperscript{4}, M Pavek\textsuperscript{4}, R Spear\textsuperscript{4}, T Brandt\textsuperscript{2}, N Olsen\textsuperscript{2}, M Thornton\textsuperscript{2}, C Brown\textsuperscript{1}, and J Debons\textsuperscript{5}. \textsuperscript{1}U.S. Dept. of Agriculture, \textsuperscript{2}University of Idaho, \textsuperscript{3}Oregon State University, \textsuperscript{4}Washington State University, \textsuperscript{5}PVMI, Bend, OR 97702, USA.

11:30 a.m. \textbf{(G82) Genetic Diversity and Evolution of Recombinants of Potato Virus Y.} Evans, KJ, and AV Karasev. Dept. of PSES and Bioinformatics and Computational Biology Program, University of Idaho, Moscow, ID 83844, USA.

11:45 a.m. \textbf{(G83) Range, Stability and Broad-Sense Heritabilities of Total Anthocyanins, Total Carotenoids and Oxygen Radical Absorbance Capacities (ORAC) in Advanced Potato Germplasm.} Brown, Charles\textsuperscript{1}, Kathleen Haynes\textsuperscript{2}, Brian Charlton\textsuperscript{3}, Solomon Yilma\textsuperscript{4}, Steven James\textsuperscript{5}, and Jeff Stark\textsuperscript{6}. \textsuperscript{1}USDA/ARS, Prosser, WA 99350; \textsuperscript{2}USDA/ARS, Beltsville, MD 20705, USA; \textsuperscript{3}KREC, Oregon State University, Klamath Falls, OR 97603, USA; \textsuperscript{4}Crop Science, Oregon State University, Corvallis, OR 97331, USA; \textsuperscript{5}COARC, Oregon State University, Redmond, OR 97756, USA; \textsuperscript{6}University of Idaho, Idaho Falls, ID 83402, USA.

12:00 p.m. \textbf{Delegate's Luncheon} \textit{Marie Antoinette}

1:30 p.m.–4:00 p.m. PAA Business Meeting \textit{Marie Antoinette}

6:00 p.m.–6:30 p.m. PAA Awards Reception \textit{Flowerfield Room and Mezzanine}

6:30 p.m.–9:00 p.m. PAA Awards Banquet \textit{Marie Antoinette}