

**2019 PAA Annual Meeting
DELEGATE PROGRAM**

SUNDAY, July 28

| | | |
|-------------------------|--|------------------------|
| 11:30 a.m. – 7:00 p.m. | Registration Desk/Information | Mezzanine |
| 10:30 a.m. – 12:00 p.m. | Finance Committee Meeting | St. Vital |
| 12:00 p.m. – 4:00 p.m. | Graduate Student Networking Boston Pizza & Activate Games | Meet at Boston Pizza |
| 1:00 p.m. – 5:00 p.m. | Board of Directors Meeting | Tuxedo (Main Floor) |
| 1:00 p.m. – | Goldeyes Baseball Game at Shaw Park | Meet at Reception Desk |
| 1:00 p.m. – 6:00 p.m. | Poster Set-up | Ballroom A |
| 6:00 p.m. – 8:00 p.m. | President’s Reception | Charleswood |

MONDAY, July 29

| | | |
|-------------------------|---|--------------|
| 6:30 a.m. – 8:00 a.m. | BREAKFAST | Ballroom |
| 6:30 a.m. – 5:00 p.m. | Registration Desk/Information | Mezzanine |
| 6:30 a.m. – 8:00 a.m. | AJPR Editorial Board Breakfast | St. Vital |
| 6:30 a.m. – 8:00 a.m. | Physiology Section Breakfast | St. Boniface |
| 6:30 a.m. – 4:30 p.m. | Silent Auction | Ballroom |
| 8:00 a.m. – 9:30 a.m. | Breeding & Genetics Section Meeting | Assiniboia A |
| 8:00 a.m. – 9:30 a.m. | Plant Protection Section Meeting | Assiniboia B |
| 9:30 a.m. – 10:00 a.m. | BREAK – Coffee/Snacks | |
| TBD | Companion Program – Shopping Tour | |
| 10:00 a.m. – 11:30 a.m. | CONCURRENT SESSION A Breeding & Genetics I | Assiniboia A |

Moderator: Shelley Jansky

- 10:00 a.m. **Dihaploid Potato Induction and Ploidy Confirmation**
 (1) Husain I. Agha*, David Eickholt, Rachel Figueroa, Cari Schmitz Carley, Laura Shannon
Frank L. Haynes Graduate Student Research Award Competition
- 10:15 a.m. **Potato Haploid Induction Crosses Result in Chromosome-scale Introgression from the Haploid Inducer**
 (2) Kirk R. Amundson*, Benny Ordoñez, Monica Santayana, Ek Han Tan, Isabelle Henry, Awais Khan, Merideth Bonierbale, Luca Comai
Frank L. Haynes Graduate Student Research Award Competition
- 10:30 a.m. **Breaking Self-incompatibility in Diploid Potato Using the CRISPR/Cas9 System**
 (3) Felix E. Enciso-Rodriguez*, Norma Manrique-Carpintero, Satya Nadakuduti, Robin Buell, Daniel Zarka, David Douches
Frank L. Haynes Graduate Student Research Award Competition
- 10:45 a.m. **Introgressing Self-compatibility to *Solanum tuberosum* L. Dihaploids for Diploid Variety Development**
 (4) Maher A. Alsahlany*, Joseph Coombs, David Douches
Frank L. Haynes Graduate Student Research Award Competition
- 11:00 a.m. **Evaluating Regeneration Capability of Selected Diploid Potato Germplasm to Accelerate Diploid Breeding**
 (5) Thilani Jayakody*, Satya Nadakuduti, Gabriela Massa, David Douches
Frank L. Haynes Graduate Student Research Award Competition
- 11:15 a.m. **Evaluation of F1 and F2 Diploid Potato Populations for Self-fertility and Tuber Production**
 (6) Lin Song*, Peyton Sorensen, Grace Christensen, Becky Eddy, Shelley Jansky, Jeffrey Endelman
Frank L. Haynes Graduate Student Research Award Competition

10:00 a.m. – 11:30 p.m. **CONCURRENT SESSION B**
Plant Protection I Assiniboia B

Moderator: Jeff Miller

- 10:00 a.m. **Improved Multiplex IC-RT-PCR Assay for the Strain Identification of *Potato Virus Y***
 (7) Mohamad Chikh-Ali* and Alexander Karasev
- 10:15 a.m. **Towards the Identification of PVY Genomic Determinants Triggering the Potato Tuber Necrotic Ringspot Disease: A Comparison Study of PVY Reference Isolates Represent PVY Strains in North America**
 (8) Mohamad Chikh-Ali* and Alexander Karasev
- 10:30 a.m. **Grower Economic Loss from Seedborne Potato Virus Y Infection Varies by Strain and Variety**
 (9) Mark J. Pavsek*, Babette Gundersen, Debra Inglis, Alexander Karasev, Zachary Holden
- 10:45 a.m. **Salicylic Acid in Potato Influenced by Late Blight and Fungicides II**
 (10) Gevri Juárez-Herrera, Hector Lozoya-Saldaña*, Maria Colinas-León, Efraim Contreras-Magaña

| | | |
|-------------------------------|---|--------------|
| 11:00 a.m. (11) | <i>Streptomyces</i> in Potato Production: The Causative Agent of Common Scab Disease and Potential Biocontrol Agents Christopher Clarke*, Matthew Kramer, Kathleen Haynes, Charles Kramer, Curtis Frederick, Shae Taylor, Bradley Geary | |
| 11:15 a.m. (12) | The Growth of Fungal Pathogens is Inhibited by the Sprout Inhibitor 1,4-dimethylnaphthalene Michael A. Campbell*, Rachael Adams, Emily Dobry, Kara Dobson, Veronica Stefanick, Jessica Till | |
| 11:45 p.m. – 12:45 p.m. | LUNCH | Ballroom |
| 11:45 p.m. – 12:45 p.m. | Finance & Endowment Committee Lunch Meeting | St. Vital |
| 11:45 p.m. – 12:45 p.m. | Site Selection Committee Lunch Meeting | St. Boniface |
| 12:45 p.m. – 1:10 p.m. | Welcome from 2019 LAC Vikram Bisht and Tracy Shinnars-Carnelley | Ballroom |
| 1:10 p.m. – 2:00 p.m. (13) | <u>Association and Industry Outreach Committee</u> <u>International Guest Speaker</u> Unlocking the Potential of Potato in Sub-Saharan Africa Monica L. Parker, International Potato Center, Nairobi | Ballroom |
| 2:00 p.m. – 5:15 p.m. | <u>SYMPOSIUM 2019</u> Changes and Challenges in Potato Marketing Sectors Organized by the Utilization & Marketing Section | Ballroom |
| 2:00 p.m. – 2:05 p.m. | Symposium Introduction Tina Brandt | |
| 2:05 p.m. – 2:30 p.m. (14) | Innovative Fresh Market Packaging Audrey Boulianne, Quebec Parmentier | |
| 2:30 p.m. – 3:00 p.m. (15) | Trends in the Potato Processing Sector Catherine Cantley, Tech Help | |
| 3:00 p.m. – 3:30 p.m. | BREAK – Coffee/Snacks | Mezzanine |
| 3:30 p.m. – 4:15 p.m. (16) | CIPC Status in Europe/European Markets Seshadri Iyengar, Bayer Crop Science | |
| 4:15 p.m. – 4:45 p.m. (17) | Understanding MRLs and Their Impact on Global Marketing TBA, Bryant Christy | |
| 4:45 p.m. – 5:15 p.m. (18) | “Imagine a World without Potatoes” Marketing Campaign Marc de Beaufort, CIP (International Potato Center) | |

| | | |
|------------------------|---|--------------------------------|
| 6:00 p.m. – 8:30 p.m. | Past President and Honorary Life Member Dinner (Attendance is by invitation only.) | Charleswood |
| 6:00 p.m. – 10:00 p.m. | The Forks/Exchange District Self-directed Tour | Shuttle Departs from the Lobby |
| 6:15 p.m. – 7:15 p.m. | Graduate Student Committee Meeting | St. Boniface |

TUESDAY, July 30

| | | |
|------------------------|--|--------------|
| 6:30 a.m. – 8:30 a.m. | BREAKFAST | Ballroom |
| 6:30 a.m. – 5:00 p.m. | Registration Desk/Information | Mezzanine |
| 6:30 a.m. – 8:00 a.m. | Extension, Production & Mgt. Section Breakfast | St. Vital |
| 6:30 a.m. – 8:00 a.m. | Potato Crop Germplasm Committee Meeting | St. Boniface |
| 6:30 a.m. – 4:00 p.m. | Silent Auction | Ballroom |
| TBD | Companion Program – 2-Hour Winnipeg Tour | |
| 8:30 a.m. – 12:00 p.m. | Board of Directors Meeting | Tuxedo |
| 8:30 a.m. – 12:00 p.m. | CONCURRENT SESSION C Extension, Production & Management I | Assiniboia A |

Moderator: Zack Frederick

| | |
|-------------------|--|
| 8:30 a.m. (19) | Timing Those Tank-mixes for Beautiful Weed Control in Potatoes Pamela J.S. Hutchinson* |
| 8:45 a.m. (20) | Impact of Sublethal Dicamba and Glyphosate Drift on Three Chipping Potato Cultivars Matthew J. Brooke*, John Stenger, Collin Auwarter, Harlene Hatterman-Valenti <i>Frank L. Haynes Graduate Student Research Award Competition</i> |
| 9:00 a.m. (21) | Predicting Potato Yield Losses Due to Metribuzin Sensitivity Matthew J. Brooke*, Razi Ibrahim, John Stenger, Harlene Hatterman-Valenti, Asunta Thompson <i>Frank L. Haynes Graduate Student Research Award Competition</i> |
| 9:15 a.m. (22) | Exploring Fumigation as a Strategy to Manage Potato Early Dying in Southern Alberta Colby Robertson*, Emily Snowden, Michael Harding, Dmytro Yevtushenko <i>Frank L. Haynes Graduate Student Research Award Competition</i> |
| 9:30 a.m. | Evaluation of Variable Rate Nitrogen and Reduced Irrigation Management on Nitrate Leaching for Potato |

- (23) Brian J. Bohman*, Carl Rosen, David Mulla
Frank L. Haynes Graduate Student Research Award Competition
- 9:45 a.m. **Response of Dakota Russet to Seed Spacing and Harvest Timing**
(24) Travis Chase*, Mike Thornton, Christopher McIntosh, Xi Liang
Frank L. Haynes Graduate Student Research Award Competition
- 10:00 a.m. BREAK – Coffee/Snacks
- 10:30 a.m. **Assessment of Non-traditional Soil and Foliar Additives for Enhanced Potato Yield and Economic Return**
(25) Colton Thurgood*, Mark Pavek, Francisco Gonzalez, Zachary Holden
Frank L. Haynes Graduate Student Research Award Competition
- 10:45 a.m. **Efficacy of Soil Treatments for the Control of Potato Powdery Scab**
(26) Leah L. Tsrer*
- 11:00 a.m. **Can Potatoes Recover from One or More Hail Events?**
(27) Harlene M. Hatterman-Valenti*, Collin Auwarter, Matthew Brooke
- 11:15 a.m. **Nutrient Management and Improved Efficiency of Drip Irrigated Processing Potatoes in Idaho**
(28) Galen Mooso* and Terry Tindall
- 11:30 a.m. **N-fertilizer Rate and Timing for Potato Irrigated with Seepage and Subsurface Drain-tile in Florida**
(29) Andre da Silva, Luis Pesantes, Lincoln Zotarelli*, Wendy Mussoline, Gary England
- 11:45 a.m. **Potato Rotation: Crop Performance and Nitrogen Dynamics**
(30) Jazeem M. Wahab*, Alison Nelson, Reynald Lemke, Dale Tomasiewicz, Benoit Bizimungu, Lindsey Andronak, Greg Larson

8:30 a.m. – 12:00 p.m. **CONCURRENT SESSION D**
Breeding & Genetics II

Assiniboia B

Moderator: Jonathon Whitworth

- 8:30 a.m. **Malfunctional *StPA* Negatively Affects Potato Pollen Germination and Tube Growth**
(31) Xijian Zhu, Dongli Gao, Shuanshuang Feng, Jibing Jiang, Yi Shang, Peter VanderZaag*, Canhui Li, Sanwen Huang, Jinzhe Zhang
- 8:45 a.m. **Mapping of *Sli* Gene in Diploid Potato Populations**
(32) Ling Ma*, Fei Tang, Futing Li, Chunzhi Zhang, Canhui Li, Yi Shang, Sanwen Huang, Peter VanderZaag
- 9:00 a.m. **Leveraging Genome Elimination for Potato Breeding and Improvement Efforts**
(33) Ek Han Tan*, Oluwafemi Alaba, Kristen Brown-Donovan, Gregory Porter
- 9:15 a.m. **Recombinant Inbred Lines in Potato**
(34) Shelley H. Jansky*, Ryan Alpers, Jeffrey Endelman, David Douches

- 9:30 a.m. (35) **Phased, Scaffold Level Assemblies of the Autopolyploid Potato Genome**
Paul Chomet*, Kobi Baruch, Gil Ben-Zvi
- 9:45 a.m. (36) **SolCAP Array Ascertainment Bias in South American Potatoes Eucidates the History of Array SNPs**
Laura M. Shannon*, Cari Schmitz Carley, Julian Soto, David Ellis, Noelle Anglin
- 10:00 a.m. BREAK – Coffee/Snacks
- 10:30 a.m. (37) **Genetic Markers for Potato Mop Top and Tobacco Rattle Virus Resistance in Russet Mapping Populations**
Joseph Coombs*, Vidyasagar Sathuvalli, David Douches, Shashi K.R. Yellareddygari, Neil Gudmestad, Richard Novy, Chuck Brown, Jonathan Whitworth
- 10:45 a.m. (38) **Transcriptional Evaluation of Resistance Response to Race 1 *Melidogyne chitwoodi* in Potato and its Breakdown by an Emerging Pathotype Roza**
Sapinder Bali, Kelly Vining, Chuck Brown, Cynthia Gleason, Vidyasagar Sathuvalli*
- 11:00 a.m. (39) **Tuber Transcriptome Profiling of Eight Potato Cultivars with Different Cold-induced Sweetening Responses to Cold Storage**
Helen H. Tai*, Martin Lagüe, Susan Thomson, Frederique Auroseau, Jonathan Neilson, Agnes Murphy, Benoit Bizimungu, Jeanne Jacobs
- 11:15 a.m. (40) **Characterization and Assembly of a Core Set for the US Potato Genebank Using Genotyping-by-sequencing and GATK**
Heather K. Tuttle*, Alfonso Del Rio, John Bamberg, Laura Shannon
Frank L. Haynes Graduate Student Research Award Competition
- 11:30 a.m. (41) **Identification of Genes Involved in the Sugar-end Disorder in Tetraploid Potato (*Solanum tuberosum* L.)**
Felicity Merritt* and Asunta Thompson
Frank L. Haynes Graduate Student Research Award Competition
- 11:45 a.m. (42) **Fine Mapping Colorado Potato Beetle Host Plant Resistance in Diploid Potato**
Natalie R. Kaiser, David Douches, Joseph Coombs, Robin Buell, Norma Manrique-Carpintero, Christina Difonzo
Frank L. Haynes Graduate Student Research Award Competition
- 12:00 p.m. – 1:00 p.m. LUNCH Ballroom
- 1:00 p.m. – 3:00 p.m. **CONCURRENT SESSION E
Physiology I** Assiniboia A
- Moderator: Mario Tenuta
- 1:00 p.m. **Estimating Crop Nitrogen Status Using Aerial Imaging**

- (43) William Hills, Nanfeng Liu, Erin Hokanson Wagner, Yi Wang, Mack Naber, Paul C. Bethke*, Phillip Townsend
- 1:15 a.m.
(44) **Impact of In-season PVY Infection on Chipping Potato Yield and Quality**
Erin Weber, James Busse, Paul C. Bethke*
- 1:30 p.m.
(45) **Morpho-physiological Response of Potato Cultivars to Abiotic Stress Associated with Climate Change in New Zealand**
Allan B. Siano*, Huub Kerckhoffs, Svetla Sofkova-Bobcheva
Frank L. Haynes Graduate Student Research Award Competition
- 1:45 p.m.
(46) **Potato Tuber Metabolic Processes as Affected by Nitrogen Fertilizer Rate**
Sanjay K. Gupta*, Carl Rosen, Emerson Souza
- 2:00 p.m.
(47) **Identifying Heat-tolerant Genotypes for Retention of the Cold Sweetening-resistant Phenotype in Potato (*Solanum tuberosum* L.)**
Graham D. Ellis*, Lisa Knowles, N. Richard Knowles
- 2:15 p.m.
(48) **Characterization of a Putative PAMP-induced Secreted Peptide in the Hypersensitive Response of Potato to PVY**
Max Combest and Aymeric J. Goyer*
- 1:00 p.m. – 3:00 p.m. **CONCURRENT SESSION F**
Plant Protection II Assiniboia B
- Moderator: Vikram Bisht
- 1:00 p.m.
(49) **Relative Importance of Non-crop Reservoirs, Seed Quality, and Transmission Efficiency in PVY Spread**
Andrei Alyokhin*
- 1:15 p.m.
(50) **Evaluation of Foliar Insecticide Spray Alternatives for Management of PVY Spread**
Mathuresh Singh*, Xianzhou Nie, Tyler Mackenzie
- 1:30 p.m.
(51) **Lessons from Seven Years of Potato Psyllid Monitoring in the Columbia Basin of Washington**
Carrie H. Wohleb* and Timothy D. Waters
- 1:45 p.m.
(52) **Effect of Interval between Phosphite Fungicide Application and Irrigation on Pink Rot Incidence**
Jeff S. Miller*, Trent Tayson, Cheryn Clayton, Shane Hansen, Donald Anderson
- 2:00 p.m.
(53) **Effect of Different Concentrations of *Pythium ultimum* in the Soil on Disease Incidence and Severity in Storage**
Sandesh Dangi*, James Woodhall, Katie Fairchild, Phillip Wharton
Frank L. Haynes Graduate Student Research Award Competition
- 2:15 p.m. **Synergistic Effect of Co-inoculation with *Dickeya dianthicola* and *Pectobacterium parmentieri* on Potato**

- (54) Tongling Ge*, Kedi Li, Fatemeh Ekbatanimiri, Steven Johnson, Robert Larkin, Jianjun Hao
Frank L. Haynes Graduate Student Research Award Competition

2:45 p.m. – 4:30 p.m.

POSTER SESSION (authors present)

Ballroom A

Breeding & Genetics

- (55) **Developing Self-compatible Diploid Potato Germplasm through Recurrent Selection**
Maher A. Alsahlany*, Felix Enciso-Rodriguez, Marco Lopez-Cruz, Joseph Coombs, David Douches
- (56) **Adaptability of Double Cropping of Potato Breeding Lines of Korea in Vietnam**
Jang Gyu Choi*, JiHong Cho, Boncheol Koo, Yeongeun Park, Kwangsoo Cho, Dongchil Chang, Jusung Im, Younggyu Lee, Seungho Cho, Hyeonjin Park, Jinhui Seo, Gyubin Lee, Chungki Cheon
- (57) **Biotechnology Potato Partnership: Late Blight Resistant Potatoes For Bangladesh And Indonesia: Generation and Molecular Characterization**
David Douches*, Kelly Zarka, John Medendorp, Karen Hokanson, Phillip Wharton, Cholani Weebadde, Hui Duan, Rachael Barron, Carolina Escobar-Ochoa, Craig Richael
- (58) **Evaluating *S. chacoense* Mediated Host Plant Resistance Durability and Informing Colorado Potato Beetle Management**
Natalie R. Kaiser*, Joseph Coombs, David Douches, Brian Nault, Asunta Thompson, Craig Yencho, Carrie Wohleb, Russell Groves, Ruth Genger, Sean Schoville
- (59) **Development of Mid-late Maturing Potato Variety ‘Oryun’ with High Starch Content in South Korea**
Jeanhee Maeng*, Suyeoung Ahn, Seongjin Choi, Kisun Kim, Byungsup Kim
- (60) **Multiple Transgene Stacking in Potato Using the GAANTRY System**
Kent F. McCue*, Ethan Gardner, Roger Thilmony, James Thomson
- (61) **La Belle Russet: An Early Maturing, Dual-purpose Variety with Wide Adaptability and Long Tuber Dormancy**
Richard Novy*, Jonathan Whitworth, Jeff Stark, Mike Thornton, Tina Brandt, Nora Olsen, Mark Pavek, N. Richard Knowles, Vidyasagar Sathuvalli, Brian Charlton, Soloman Yilma, Chuck Brown, Jeanne Debons
- (62) **Exploiting Genetic Diversity of Diploid Potato and Screening for Resistance Allele for *Ralstonia solanacearum* (Rs) Resistance in Wild Cultivar Crosses**
Susan A. Otieno*, Joseph Coombs, Caitlyn Allen, Thiago Mendez, Daniel Zarka, David Douches
- (63) **Potato Breeding with Vacuolar Invertase Silencing to Reduce Cold-induced Sweetening**
Kathleen M. Shaw*, Daniel Zarka, Chen Zhang, David Douches
- (64) **Evaluation of Genetic Diversity among Experimental Clones and Varieties Maintained *in vitro* by the Texas A&M Potato Breeding and Variety Development Program**
Jeewan Pandey, Douglass Scheuring, Jeffrey Koym, Angel Chappell, Julian Miller Jr., Joseph Coombs, David Douches, Maria I. Vales*

Extension Production & Management

- (65) **Rate of Blackspot Bruise Development within the First 24 Hours after Impact**
Rabecka L. Hendricks*, Nora Olsen, Mike Thornton, Lynn Woodell
- (66) **Impact of *Potato Mop Top Virus* on Potato in Storage**
Lynn Woodell*, Nora Olsen, Alexander Karasev, Neil Gudmestad
- (67) **Nitrogen Fertilizer Management Practices to Reduce N₂O Emissions from Irrigated Processing Potato in Manitoba**
Xiaopeng Gao, Mario Tenuta*, Sally Parsonage, Alison Nelson
- (68) **Yield and Nitrogen Use of Irrigated Processing Potato in Response to Placement, Timing and Source of Nitrogen Fertilizer in Manitoba**
Xiaopeng Gao, William Shaw, Mario Tenuta*, Darin Gibson

Plant Protection

- (69) **Soil Fumigation to Determine Yield Loss of Russet Burbank Irrigated Processing Potato from Potato Early Dying Caused by *Verticillium dahliae***
Mario Tenuta*, Darin Gibson, Vikram Bisht
- (70) **Long Term Patterns in the Resistance of *Alternaria solani* and *A. alternata* Species to Commonly Used SDHI Fungicides in Idaho**
Katie L. Fairchild*, Alan Malek, Phillip Wharton
- (71) **Evaluation of Fungicide Programs for the Control of Early Die in Potato in Idaho**
Alan L. Malek*, Katie Fairchild, Sandesh Dangi, Phillip Wharton
- (72) **Genotypic and Phenotypic Analysis of *Streptomyces* spp. Causing Common Scab Recovered from Potato in Michigan**
Saltanat Mambetova*, Ray Hammerschmidt, Noah Rosenzweig
- (73) **Managing Fungicide-resistant Populations of *Phytophthora erythroseptica* in Canada**
Rick D. Peters*, Bennett Crane, Dorothy Gregory, Kim MacDonald, Anne MacPhail
- (74) ***Potato Virus Y* Necrotic Tuber Symptoms in Varieties from Different Market Classes**
Jonathan Whitworth*, Stewart Gray, Alexander Karasev

Utilization & Marketing

- (75) **Starch Morphology, Sugars, and Thermal Properties Characterization of Processing Potato Cultivars Developed in Korea**
Induck Choi*, Hye-Sun Choi, Jiyoung Park, Nam-Geol Kim, Seuk-Kee Lee, Jang-Hwan Park, JiHong Cho, Kwangsoo Cho, Jung-Whan Nam

Physiology

(76) **Vascular Occlusion is Associated with Reduced Sprouting Ability of Zebra Chip-afflicted Tubers**
Daniel L. Mullendore*, GNM Kumar, N. Richard Knowles

(77) **Effects of Storage Temperature on Sugar Changes and Acrylamide Formation in Potato**
Zhen-Xiang Lu*, Yuchuan Zhang, Benoit Bizimungu

5:30 pm - 10:00 pm Journey to Churchill, Assiniboine Park Zoo Shuttle Departs from the Lobby

WEDNESDAY, July 31

6:30 a.m. – 8:30 a.m. BREAKFAST Ballroom

6:30 a.m. – 5:00 p.m. Registration Desk/Information Mezzanine

6:30 a.m. – 8:30 a.m. Graduate Student Awards Committee Breakfast St. Boniface

7:00 a.m. – 8:30 a.m. Utilization & Marketing Section Meeting St. Vital

TBD Companion Program –
Canadian Museum for Human Rights

8:30 a.m. – 12:00 p.m. **CONCURRENT SESSION G**
Breeding & Genetics III Assiniboia A

Moderator: Helen Tai

8:30 a.m. **Breaking Down Resistance – Molecular Mechanisms that Allow Pathogens to Overcome Resistance Genes in Potato**
(78) Dennis Halterman*

8:45 a.m. **Building a Digital Ecosystem for Potato Breeding**
(79) David De Koeyer*, Martin Lagüe, Virginia Dickison, Kyle Gardner, Helen Tai, Lukas Mueller

9:00 a.m. **Modernization of the Agriculture and Agri-Food Canada Potato Breeding Program**
(80) Virginia L. Dickison*, David De Koeyer, Helen Tai, Benoit Bizimungu, Kyle Gardner, Xianzhou Nie, Dahu Chen, Jonathan Neilson, David Main, Claudia Goyer, Anne Smith, Larry Kawchuck

9:15 a.m. **Genome-wide Association and Prediction Studies of Tuber Dormancy**
(81) Jeffrey B. Endelman, Maria Caraza-Harter, Becky Eddy

9:30 a.m. **TubAR: A Method for Quantifying Tuber Shape Traits**
(82) Cari Schmitz Carley*, Rachel Figueroa, Colin Jones, Laura Shannon

9:45 a.m. **Characterizing XERICO Drought Tolerance Technology for Cultivated Potato**
(83) Daniel Zarka, Kaitlyn Acheson, David Douches*

- 10:00 a.m. BREAK – Coffee/Snacks
- 10:30 a.m. **Potato Diversity to Address Abiotic Stresses: Use of *S. commersonii* to Improve Frost Tolerance in Andean Potatoes**
(84) Alfonso H. Del Rio*, John Bamberg, Jiwan Palta, Jesus Arcos, Alberto Salas, Rene Gomez, David Ellis
- 10:45 a.m. **USDA-ARS Evaluation of Public Breeding Clones for Improved Postharvest Processing Quality**
(85) Darrin M. Haagenson
- 11:00 a.m. **A Purple-flesh Potato Suitable for French Fry- Adding Nutrition Value to Processing Cultivars**
(86) Benoit Bizimungu*
- 11:15 a.m. **Genetics of Skin Set and Color in Red Potatoes**
(87) Maria V. Caraza-Harter* and Jeffrey Endelman
- 11:30 a.m. **Characteristics of Nitrogen Use Efficiency in Red Fresh Market Varieties**
(88) Colin Jones, Cari Schmitz Carley, Rachel Figueroa*, Carl Rosen, Laura Shannon, Thomas Michaels
- 11:45 a.m. **Challenges and Discoveries in Selecting Agile Potato Varieties under Long Daylengths in China and Canada**
(89) Peter VanderZaag*, Canhui Li, Tung Xuan Pham
- 12:00 p.m. Concurrent Session G Adjourns

9:00 a.m. – 11:45 a.m.

CONCURRENT SESSION H
Extension, Production & Management II
Plant Protection II

Assiniboia B

Moderator: Mathuresh Singh

- 9:00 a.m. **In-season Nitrogen Management for New Promising Potato Cultivars**
(90) Yi Wang* and Mack Naber
- 9:30 a.m. **Effects of Late-season Irrigation Management on Potato Production in Wisconsin**
(91) Yi Wang* and Mack Naber
- 9:45 a.m. **Nitrogen Requirements for Various Potato Varieties for the Columbia Basin of Oregon**
(92) Ruijun Qin* and Vidyasagar Sathuvalli
- 10:00 a.m. BREAK – Coffee/Snacks
- 10:30 a.m. **Impact of Seedborne PVY on Commercial Potato Tuber Yield and Quality**
(93) Nora Olsen*, Lynn Woodell, Alexander Karasev, Kenneth Frost
- 10:45 a.m. **Understanding the Role of Vectors Population, Inoculum Level & Variety Susceptibility in Transmission of PVY in Seed Potato – India**

- (94) Surendra P. Singh*
- 11:00 a.m. **Impact of Phos-acid Fungicides on Seed Potato Performance**
(95) Vikram Bisht*
- 11:15 a.m. **Genotypic Characterization of *Phytophthora infestans* Isolates from Indonesia**
(96) Sandesh Dangi, David Douches, Phillip Wharton*
- 11:30 a.m. **In-furrow Applications of AZteroid FC with Starter Fertilizer for the Control of Rhizoctonia in Potato**
(97) Gary Poon*

11:45 a.m. Concurrent Session H Adjourns

11:45 a.m. – 1:30 p.m. LUNCH (on your own)

12:00 p.m. – 1:00 p.m. Dismantle Posters Ballroom A

1:30 p.m. – 3:30 p.m. PAA Business Meeting Charleswood

3:30 p.m. – 4:30 p.m. Diploid Breeding Research Meeting Charleswood

3:30 p.m. – 5:30 p.m. SCRI Potato Soil Health Project Research Meeting Assiniboia A

4:30 p.m. – 5:30 p.m. Potato Pan Genome Sequencing Group Meeting Assiniboia B

6:00 p.m. – 7:00 p.m. PAA Awards Banquet Reception Delta BC

7:00 p.m. – 10:00 p.m. PAA Awards Banquet Delta BC

10:00 p.m. – 11:00 p.m. Hospitality Suite Manitoba Suite

THURSDAY, August 1

Morning BREAKFAST (On Your Own)

9:00 a.m. – 1:00 p.m. Agricultural Tour - Meet at Mezzanine
Canadian Malting Barley Technical Center