

PROGRAMME

Saturday, June 19:

18:00 to 21:00 Financial Advisory Committee Meeting Mary Murrin Lounge
(Gage Towers lobby)

Sunday, June 20:

8:00 to 5:00 CPS Outgoing Executive Board Meeting Mary Murrin Lounge

14:00 to 19:30 Registration Fireplace Lounge
(Gage Towers lobby)

19:00 to 21:00 Opening Reception Sage Bistro

Monday, June 21:

8:00 to 14:00 **Registration**
Poster Setup **Forest Sciences
Centre Atrium**

8:30 to 9:00 **Welcome and Opening Addresses** **FSC 1005**

8:30 Local arrangements committee - housekeeping

8:35 To be determined

8:40 CPS President

8:45 APS President

8:50 **Symposium 1:**
Emerging stresses on forests and agro-ecosystems
resulting from climate change
Chair: Tom Forge **FSC 1005**

8:50 **Introduction:** *Tom Forge, Agriculture & Agri-Food Canada*

9:00 [S-1] **Climate change: Direct and indirect impacts on forests.** *Lori Daniels, Geography, University of British Columbia, Vancouver.*

9:40 [S-2] **Building resilience in agricultural systems to climate change and variability.**
Denise Neilsen, Alex Cannon, Bill Taylor, Scott Smith, Ted Van der Gulik and Tom Forge, Agriculture and Agri-Food Canada; Environment Canada; BC Ministry of Agriculture and Lands.

10:20 **Break**

10:40 [S-3] **Are the forests of British Columbia providing early indications of the influence of climate change on forest health, and if so could we have predicted them?** *Alex Woods, BC Forest Service, Smithers, BC.*

11:20 [S-4] **Climate change and plant disease: Will new technological advances keep pace**

with the new challenges? *Karen Garrett*, Kansas State University, Manhattan, Kansas, USA.

12:00 to 13:30	Lunch	Totem Cafeteria
	APS-PD Business meeting	Totem Cafeteria ‘annex’

13:30 to 17:00 **Contributed Paper Session 1 (Student Competition):
Ecology, Epidemiology and Management**
Chair: Jim Menzies **FSC 1005**

13:30 [O-1] (CPS) **Wax and pigment for turfgrass disease control.** *B. Nash, T. Hsiang and P.H. Goodwin*

13:45 [O-2] (CPS) **Identification, tissue susceptibility and chemical control of volutella blight of boxwood in Ontario.** *F. Shi and T. Hsiang.*

14:00 [O-3] (CPS) **Study of silicon transport to improve plant disease resistance.** *J. Montpetit, J. Vivancos, W. Remus-Borel, C. Gregoire, J.G. Menzies, F. Belzile and R.R. Belanger.*

14:15 [O-4] (CPS) **Efficacy of fungicides on 3ADON and 15ADON *Fusarium graminearum* isolates infecting spring wheat.** *C. Amarasinghe, L. Tamburic-Ilincic, A. Brule-Babel and W.G. Dilantha Fernando.*

14:30 [O-5] (CPS) **Comparison of methods to assess the sensitivity of *Ascochyta rabiei* to strobilurin fungicides.** *N.H. Thaher, B.D. Gossen and M.R. McDonald.*

14:45 **Break**

15:00 [O-6] (CPS) **Use of small crab-shell powder and fermented mushroom to control Purple spot (*Alternaria porii*) and Fusarium wilt (*Fusarium oxysporum*) in onion (*Allium cepa*).** *Nuswandari Eti, Nelly Sapta Yanti, Dedi Purnomo and Suryo Wiyono.*

15:15 [O-7] (APS) **Optimum timing for spraying out greenbridge with glyphosate to control rhizoctonia root rot in barley.** *E.M. Babiker, S. H. Hulbert, K. L. Schroeder and T. C. Paulitz.*

15:30 [O-8] (APS) **Relationship among kernel drydown rates, environmental factors and resistance to gibberella ear rot, fusarium kernel rot and common smut of corn.** *K. Xiang, L. M. Reid and X. Zhu.*

15:45 [O-9] (APS) **Cross-pathogenicity of *Verticillium dahliae* isolates from skullcap and peppermint.** *J. K. Dung, L. J. du Toit, E. W. Gatch and D. A. Johnson.*

16:00 [O-10] (APS) **Development of a quantitative real-time PCR assay for assessment of *Phytophthora rubi* in soil.** *J.A. Gigot and T. Walters*

16:15 [O-11] (CPS) **Exploring bacterial communities that influence plant health under different cropping systems using Terminal-Restriction Fragment Length Polymorphism (T-RFLP) and pyrosequencing.** *R. Li, E. Khafipour, D.O. Krause, M.H. Entz, T.R. de Kievit and W.G.D. Fernando.*

16:30 [O-12] (CPS) **Physical separation of germinating *Ustilago maydis* teliospores for gene expression analysis.** *A.M. Seto and B.J. Saville*

16:45 [O-13] (CPS) **Identification of quantitative trait loci for tolerance against sclerotinia stem rot in three double haploid populations of *Brassica napus* L.** *R.S. Behla, W.G.D. Fernando, P.B.E. McVetty and G. Li.*

[P-1] (CPS)* **Isolation and characterization of new *Pseudomonas* strains antagonistic to major fungal pathogens of wheat.** *Q. Chen, T. T. T. Tran, R. Xu and J. T. Tambong.*

[P-2] (CPS)* **VdNEP is both a pathogenicity factor and an elicitor in the interaction between *Verticillium dahliae* and *Helianthus annuus*.** *Z. Yao, L.R. Adam, K.Y. Rashid, and F. Daayf*

[P-3](CPS)* **Effect of root exudates on the germination of resting spores of *Plasmodiophora brassicae* under laboratory conditions.** *Q. Xiao, S.F. Hwang, H. Ahmed, and S.E. Strelkov*

[P-4] (CPS)* **Recognition and molecular discrimination of severe and mild PVY^O variants of *Potato virus Y* in potatoes.** *Bihua Nie, Mathuresh Singh, Andrew Sullivan, Rudra P. Singh, Conghua Xie, and Xianzhou Nie*

[P-5] (CPS)*
Genetic diversity of pea downy mildew, *Peronospora viciae* f.sp. *lisi* in Alberta, Canada. *J.F Liu, K.F. Chang, S.F. Hwang, and S.E. Strelkov.*

[P-6] (CPS)* **Comparative histological examination of morphologically distinct clubroot galls in Crucifers.** *D. C. Rennie, V. P. Manolii, M. Plishka, S. F. Hwang, and S. E. Strelkov*

[P-7] (APS)* **Purification and characterization of novel glucanases from *Trichoderma harzianum* ETS 323.** *S. LIU, H. Jhan, C. Chen, K. Peng*

[P-8] (APS)* ***Verticillium dahliae* genes putatively involved in microsclerotia development.** *N. P. Morales, K. F. Dobinson*

[P-9] (APS)* **Characterization of *ATG8* autophagy gene homologs in *Verticillium dahliae* and *Verticillium albo-atrum*.** *S. M. Van Twest, S. J. Grant, J. Cucullo, K. F. Dobinson*

[P-10] **Pest Management Centre: Successes in Plant Pathology.** *Karen Bedford and Cezarina Kora.*

[P-11] **Impacts of ring nematodes (*Mesocriconema xenoplax* (Raski) Loof & De Grisse, 1989) on self-rooted Merlot and selected rootstocks under Okanagan Valley growing conditions.** *R. Smit, T.A. Forge, C. Koch, G.H. Neilsen, and D. Neilsen.*

[P-12] **Influences of organic mulches on development of root-lesion nematode populations in relation to indicators of soil food web structure during apple orchard establishment.** *T.A. Forge, D. Neilsen, G. Neilsen, and E. Hogue*

[P-13] **Nutrient requirements for enhanced cellulase production in *Trichoderma* strains.** *S-Y. Liu, W-C. Liao, P-L Lin, W-H. Chao, K-C. Peng, C-T. Lo*

[P-14] **Pyrolysis of plant biomass to produce chemicals of bactericidal and fungicidal value.** *K.L. Conn, M.M. Hossain, L.A. Caceres, C.J. Booker, I.M. Scott, B.D. McGarvey, K.K.-C. Yeung, C. Briens, and F. Berruti.*

[P-15] **A Canadian Spore Trapping Network: monitoring Asian Soybean Rust and beyond.** *S. Hambleton, K. Oliver, H. Saeed, R. Tropiano, J. Chapados, C. Lewis, C.A.*

Lévesque, C. Van Herk, A. Tenuta.

[P-16] **Chestnut Fruit Rot Caused by a Anthracnose fungus, *Colletotrichum gloeosporioides*, and Their Chemical Control.** Lee. Sang Hyun, Seo. Sang Tae¹, Kim. kyung Hee, and Lee. Jong Kyu.

[P-17] **Management of clubroot disease on Brassica crops in the Fraser Valley: Area-wide mapping and fungicide efficacy trials.** L. Syrový, R. Prasad, and S. L. Smith.

[P-18] **Forecast distribution and severity of clubroot of canola in the Canadian prairies under incremental temperature and precipitation, and potential climate change scenarios.** H. Klein-Gebbinck, T.K. Turkington, O.O. Olfert, R. M. Weiss, D. Kriticos, H.R. Kutcher, K.C. Falk, and S.E. Strelkov

[P-19] **Ascochyta blight resistance of selected wild *Cicer* accessions in relation to plant age and infection process.** C. Armstrong-Cho, M. Krone, M. Lulsdorf and S. Banniza.

[P-20] **Occurrence, impact and management of root rot on faba bean in Alberta** K.F. Chang, R.L. Conner, S.F. Hwang, B.D. Gossen, D.L. McLaren, S.E. Strelkov, and G.D. Turnbull

[P-21] **Effects of seed maturity, seed size and seeding depth on seedling blight of canola.** S.F. Hwang, Q. Zhou, R. Hwang, S.E. Strelkov, B.D. Gossen and G.D. Turnbull.

[P-22] **Influence of cultivar resistance and pathogen inoculum concentration on root hair colonization by *Plasmodiophora brassicae* on canola.** S.F. Hwang, H. Ahmed, S.E. Strelkov, B.D. Gossen, G. Peng, and G.D. Turnbull.

[P-23] **The race structure of *Leptosphaeria maculans* in western Canada.** H.R. Kutcher, D. Cross, B. Marquer, C.L. Kirkham, A.-M. Chèvre, R. Delourme, M.-H. Balesdent, T. Rouxel and H. Brun

[P-24] **Carrot's central root rot.** L. Fucikovsky

[P-25] **Semi-quantitative-PCR and fluorescence microscopy analysis of the progression *Puccinia triticina* (Eriks) in the compatible and incompatible interaction using Thatcher near-isogenic wheat lines with leaf rust resistance genes *Lr2a*, *Lr3* and *LrB*.** X. Wang, B.D. McCallum, T. Fetch, G. Bakkeren, G. F. Marais, and B. Saville

[P-26] **Response of potato cultivars to *Potato virus Y* strain groups.** Xianzhou Nie, Bihua Nie, Mathuresh Singh, Rudra P. Singh, Andrew Sullivan, and Conghua Xie.

[P-27] **Genetic diversity of pathotypes of *Plasmodiophora brassicae*, causal agent of clubroot of crucifers, from Canada.** T. Cao, S. Xue, S.F. Hwang, D. An, and S.E. Strelkov.

[P-28] **Genetic association study in the white pine blister rust pathosystem.** J.-J. Liu, R.A. Sniezko, and A.K.M. Ekramoddoullah.

[P-29] **Molecular characterization of a triglyceride lipase Lip1 from *Stagonospora nodorum*.** J. Feng, R. Hwang, S.F. Hwang, D. Gaudet and S. E. Strelkov

[P-30] **The re-emergence of spotted net blotch (SNB) in Manitoba.** A. Tekauz and M. Desjardins.

[P-31] **Simple sequence repeats and diversity of globally distributed *Pyrenophora tritici-repentis* populations.** R. Aboukhaddour, S. Cloutier, L. Lamari, and S.E. Strelkov.

- [P-32] **Impact of climate change on clubroot of canola on the Canadian prairies.** *B.D. Gossen, M.R. McDonald, Kalpana K.C., S.F. Hwang, S.E. Strelkov, and G. Peng.*
- [P-33] **Antimicrobial efficacy of ginger extracts against spoilage pathogens.** *H.N. Mvuemba, R.J. Tweddell, A. Tsopmo, and T.J. Avis.*
- [P-34] **Antimicrobial efficacy of cinnamon extracts against spoilage pathogens.** *S.E. Green, R.J. Tweddell, A. Tsopmo, and T.J. Avis.*
- [P-35] **Inhibitory effect of aluminum salts on mycelial growth of postharvest pathogens and development of potato dry rot.** *C. Cenatus, R.J. Tweddell, and T.J. Avis.*
- [P-36] **Effect of water activity on the production of antimicrobial volatile compounds by *Muscodor albus*.** *R. Corcuff, J. Mercier, R.J. Tweddell, and J. Arul.*
- [P-37] **Occurrence of *Botryosphaeria* Canker Disease of Grapevines in the Okanagan Valley.** *Haag, P. and O’Gorman, D.T.*
- [P-38] **Detection of DMI Fungicide Resistance in Grape Powdery Mildew in the Okanagan Valley.** *Leung, C., Haag, P., Sholberg P.L. and O’Gorman D.T.*
- [P-39] **Induced fruiting of *Phellinus sulphurascens*.** *Kevin W. Pellow and Rona N. Sturrock.*
- [P-40] **Characterization of resistance against white pine blister rust using *in vitro* techniques.** *D. Noshad, J. N. King, and A. Ekramoddoullah.*
- [P-41] **Stopping the enemy in its tracks – towards understanding the role of monoglignol biosynthesis in resistance of *Camelina sativa* to *Sclerotinia sclerotiorum*.** *Christina Eynck, Wayne Clarke, Ginette Séguin-Swartz, Isobel Parkin.*
- [P-42] **Biocontrol of *Fusarium* head blight in wheat using ACM941-CL01, a formulated product of *Clonostachys rosea* strain ACM941.** *A.G. Xue, Y.H. Chen, H.D. Voldeng, G. Fedak, M.E. Savard, and S.Z. Zhang.*
- [P-43] **Investigation on modes of action for the biofungicides Serenade and Prestop in clubroot control.** *Rachid Lahlali, Gary Peng, Bruce D. Gossen, Russell H. Hynes, Susan M. Boyetchko, Sheau-Fang Hwang, and Mary Ruth McDonald.*
- [P-44] **Construction of subtractive cDNA library and identification of differentially expressed genes from wheat cv. Sumai-3 under *Fusarium graminearum* infection.** *K. Al-Taweel, X. Guo, W.G.D. Fernando, and A. Brûlé-Babel.*
- [P-45] **Plant growth promotion and disease suppression by a biocontrol strain of *Bacillus cereus*.** *C.-J. Huang, H.-P. Yang, H.-D. Chang, C.-F. Tsai, and C.-Y. Chen*
- [P-46] **Biofumigation against endogenous and quarantine plant parasitic nematodes of vegetable crops in the Pacific Northwest.** *Ekaterini Riga*
- [P-47] **Characterization of *VvBsl-1* and *VvBsl-2* genes of *Vitis vinifera* in response to *Botrytis cinerea* infection.** *J. Serrano-Acevedo, D. Herrera, and P. Arce-Johnson*
- [P-48] **Analysis of dopa oxidase activity of a tyrosinase in a purple-colored *Fusarium oxysporum*.** *Seong Hwan Kim, Myung Yong Shim, Chang Won Choi and Young Shick Kim*
- [P-49] **Evidence for interspecies-recombination for a monopartite DNA-A genome of Tobacco leaf curl virus (TbLCJV)-Jeju in Korea.** *Yuan Wang, Jing Ji, Tae-Kyun Oh, Sue*

Hoon Kim, Hyun Ju Lee¹, Rajangam Udayakumar, Myoung Yong Shim, Chang Won Choi, Seong Hwan Kim, Il-Seop Kim, and Young Shik Kim

[P-50] **Reducing incidence and severity of tomato diseases using novel, silver-based compounds.** *M.W. Harding, R.J. Howard, M.A. Robinson, M.J. Unruh, D.A. Sowa, and M.E. Olson.*

[P-51] **Potential for forecasting late blight on specialty potatoes in western Washington of the U.S.** *G. Babette, D. A. Inglis*

[P-52] **A community-based stream monitoring program in western Washington for early detection of invasive *Phytophthora* spp.** *M. Elliott, G. Chastagner, K. P. Coats, A. DeBauw, K. Riley*

[P-53] **Further studies on zoospore germination inhibition of three lineages of *Phytophthora ramorum* by chemical fungicides, and identification of a potential bacterial biocontrol agent.** *M. Elliott, S. F. Shamoun, G. Sumampong, D. James, S. Masri, A. Varga*

[P-54] ***Ophiostoma* and *Geosmithia* spp. associated with western oak bark beetle damage on declining California black oak and coast live oak in southern California.** *S. C. Lynch, A. Eskalen, P. Zambino, T. Scott*

[P-55] **Resident biology restricts proliferation of *Macrophomina phaseolina* in brassicaceae seed meal amended soil.** *M. Mazzola*

[P-56] **Particle size affects *Brassica juncea* seed meal-induced pathogen suppression of *Rhizoctonia solani* AG-5.** *M. Mazzola*

[P-57] **Biofungicides as transplant and soil treatment in the control of *Phytophthora* blight on chile pepper.** *S. Sanogo, L. Liess*

[P-58] **Influence of thrips control programs on TSWV incidence in Fresno County processing tomatoes.** *T. A. Turini, M. Le Strange, R. L. Gilbertson*

[P-59] **Characterization of the powdery mildew fungus occurring on evergreen *Rhododendrons* in the Pacific Northwest.** *L. S. Tymon Putnicki, D. A. Glawe*

[P-60] **Characterization and overexpression of L-amino acid oxidase from *Trichoderma harzianum* ETS-323.** *C. Yang, C. Cheng, S. Liu, K. Peng*

Evening

Student Social - Location to be determined

Non-students: - On your own for dinner and exploration

Tuesday, June 22:

8:30-12:00	Symposium 2: Contributions of Genomics to Plant Pathology Chair: Richard Hamelin	FSC 1005
8:30	Introduction: <i>Richard C. Hamelin</i> , University of British Columbia	
8:35	[S-5] The <i>Mycosphaerella</i> Genomics Consortium: Understanding pathogenicity and adaptation. <i>S.B. Goodwin, I. Stergiopoulos, P.J.G.M. De Wit and G.H.J. Kema.</i> USDA-Agricultural Research Service, Purdue University, West Lafayette, Indiana	
9:05	[S-6] Contributions of Genomics to Forest Pathology. <i>Richard C. Hamelin.</i> NRCan-CFS & Department of Forest Sciences, University of British Columbia, Vancouver.	
9:35	[S-7] Functional genomics approaches in Cereal Rusts. <i>Guus Bakkeren, Xiao Song, Vinay Panwar, Rob Linning and Barry Saville.</i> AAFC-Pacific Agri-Food Research Center, Summerland, British Columbia.	
10:05	Break	
10:30	[S-8] Metabolomics in systems biology: Are we there yet? <i>S. Jabaji and K.A. Aliferis.</i> Department of Plant Sciences, McGill University, Montreal, Quebec.	
11:00	[S-9] Mining <i>Phytophthora</i> genomes to manage plant disease. <i>Niklaus J. Grunwald.</i> USDA-Agriculture Research Service, Horticultural Crops Research Lab, Corvallis, Oregon.	
12:00 to 13:30	Lunch	Totem Cafeteria
	CPS Business meeting	Totem Cafeteria 'annex'
13:30 to 16:45	Contributed Paper Session 2 (Student): Molecular and Physiological Pathology Chair: TBA	FSC 1005
13:30	[O-14] (APS) Novel promoter elements from plant pararetroviruses for potential use in foreign gene expression in plants. <i>C.V. Almeyda, K. L. Druffel and H.R. Pappu</i>	
13:45	[O-15] (APS) Genetic diversity within a vegetative compatibility group of aflatoxin-producing fungi. <i>A. Ortega-Beltran, L. Grubisha and P.J. Cotty</i>	
14:00	[O-16] (CPS) Genetic analyses of crown rust resistance in <i>Avena sterilis</i> accessions. <i>Y. Lin, C.A. McCartney, and J. Chong</i>	
14:15	[O-17] (CPS) Transcriptome analysis between a plant pathogen and a biocontrol agent. <i>R. Chamoun and S. Jabaji.</i>	
14:30	[O-18] (CPS) Isolation, cloning and sequence analysis of four pathogenicity-related genes in highly vs. weakly <i>Verticillium dahliae</i> aggressive isolates. <i>A.F. El-Bebany, N. Yao, A. Venturino, and F. Daayf</i>	
14:45	[O-19] (CPS) Screening for potato genes expressed differentially in the compatible and incompatible virus-potato interactions. <i>B. Nie, C. Xie, and X. Nie</i>	
15:00	Break	
15:15	[O-20] (CPS) Bioinformatic analysis of full-length cDNAs to identify transcript features in <i>Ustilago maydis</i>. <i>C. Doyle and B.J. Saville.</i>	

- 15:30 [O-21] (CPS) **Uncovering a putative function for natural antisense transcripts in the fungal pathogen *Ustilago maydis*.** *M.E. Donaldson and B.J. Saville*
- 15:45 [O-22] (CPS) **Genetics and pathogenicity of *Microdochium nivale*.** *L.E. Jewell and T. Hsiang*
- 16:00 [O-23] (CPS) **Can phylogenetically useful oligonucleotide primers be obtained from comparative genomic analyses of filamentous ascomycetes?** *C.H. Huang and T. Hsiang*
- 16:15 [O-24] (CPS) **Raging hormones: The role of hormone defense signaling in the potato-*Verticillium dahliae* interaction.** *H. Derksen, M. Badawi, M.A. Henriquez and F. Daayf*
- 16:30 [O-25] (CPS) **Hydrolytic enzymes production by the plant pathogenic bacterium *S. scabiei* EF-35.** *D. Komeil, A. M. Simao-Beaunoir and C. Beaulieu*

13:30 to 16:15 **Contributed Paper Session 3:
Ecology, Epidemiology and Management**
Chair: TBA

FSC 1221

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- 13:30 [O-26] **Comparison of biofungicides and boscalid for management of *Sclerotinia* drop of lettuce.** *M.E. Matheron and M. Porchas*
- 13:45 [O-27] **Effects of fungicides on a mycophagous coccinellid may represent integration failure in disease management.** *A.M. Sutherland, W.D. Gubler and M.P. Parrella*
- 14:00 [O-28] **Forecasting the potential distribution and severity of fusarium head blight of wheat in the Canadian prairies under potential climate change scenarios.** *T.K. Turkington, O.O. Olfert, R.M. Weiss, H. Klein-Gebbinck, K. Xi and D. Kriticos*
- 14:15 [O-29] **Root disease inoculum reduction and tree species mixtures for stand resiliency and yield.** *M.G. Cruickshank, D.J. Morrison and A. Lalumière.*
- 14:30 [O-30] **Foliage and stem susceptibility of six eastern Canadian forest species to *Phytophthora ramorum*.** *D. Rioux, M. Simard, A. Jinek, S.C. Brière, A.K. Watson and R.J. Tweddell*
- 14:45 [O-31] **Interaction between flax genotypes and *Septoria linicola* isolates from Western Canada.** *K.Y. Rashid*
- 15:00 **Break**
- 15:15 [O-32] **Effect of multiple repeated applications of low rates of fish emulsion to soils from different commercial fields on potato scab and tuber yield.** *P.A. Abbasi.*
- 15:30 [O-33] **Epidemiology and management of potato late blight in Punjab, India.** *S.S. Sokhi and P.S. Sekhon*
- 15:45 [O-34] **Managing late blight and pink rot of potatoes with foliar and post-harvest applications of phosphorous acid.** *R.D. Peters, R.H. Coffin, H.W. Platt, K.I. Al-Mughrabi, G. Wang-Pruski, D. Pinto, S. Lim, I.K. Macdonald, K.A. Drake, R. Poirier, S. Veenhuis-MacNeill, W. Hardy and T. Astatkie*
- 16:00 [O-35] **Identification of type I polyketide synthases from fungal proteomes and transcriptomes.** *R.S. Goswami, J. A. Delgado, O. Al-Azzam, A.M. Denton and S.G. Markell*
- 16:30 **Poster take-down**
- 18:15 **Harbour cruise dinner and awards ceremony**

Wednesday, June 23

8:30 to 11:30	Symposium 3: Canadian Forum for Biological Control Chair: Gary Peng	FSC 1005
8:30	Introduction: Gary Peng	
8:35	[S-10] 25 years in discovering, developing and marketing biopesticides- lessons learned. <i>Tim Johnson.</i> Product Development Manager, Marrone Bio Innovations, Inc. Davis, CA, USA	
9:00	[S-11] Biocontrol of clubroot using the endophytic fungus <i>Heteroconium chaetospora</i>. <i>Kan Narisawa.</i> Agricultural College, Ibaraki University, JAPAN	
9:25	[S-12] From laboratory bench to marketplace — The “Chontrol®” Story: A legacy to government-academia-industry partnerships. <i>Simon F. Shamoun.</i> Pacific Forestry Centre, Department of Forest Sciences, Victoria, BC	
9:50	[S-13] <i>Phoma macrostoma</i>: The making of a new bioherbicide for broadleaf weed control. <i>Karen Bailey and Stuart Falk.</i> Agriculture & Agri-Food Canada and The Scotts Company.	
10:15	Break	
10:30	[S-14] <i>Trichoderma</i> — Not just for biocontrol anymore. <i>G.E. Harman and F. Mastouri.</i> Department of Horticultural Sciences, Cornell University, New York State Agricultural Experiment Station, Geneva, NY, USA	
10:55	Panel Discussions	
11:30	CFBC Annual General Meeting (30 minutes)	
11:30 to 13:00	Lunch CPS Incoming Board Meeting	Totem Cafeteria Mary Murrin Lounge
13:00 to 15:45	Contributed Paper Session 4: Molecular and Physiological Plant Pathology Chair TBA	FSC 1005
13:00	[O-36] The genome of <i>Pythium ultimum</i> provides insight into pathogenicity mechanisms and evolution of oomycetes. <i>C.A. Lévesque, G.P. Robideau, A.W.A.M. de Cock, K. Bala, Q.A. Eggertson, T.L. Rintoul, J. Hamilton, N. Tisserat and C.R. Buell</i>	
13:15	[O-37] Identification of expressed sequences in lily under pathogen attack and rhizobacterium induction. <i>Y. Liu, K. Yang and C. Chen</i>	
13:30	[O-38] Quantitative and qualitative variations in expression of pathogenicity genes of <i>Pythium aphanidermatum</i> during root rot infection of different hosts. <i>K. Bala, G.P. Robideau, T.L. Rintoul, N. Tisserat, J.P. Hamilton, R.C. Buell, A.C. Lévesque and B. Saville</i>	
13:45	[O-39] Low temperature induced defence gene expression in winter wheat in relation to resistance to snow moulds and other wheat diseases. <i>D.A. Gaudet, Y. Wang, M. Frick, B. Puchalski, C. Penniket, T. Ouellette, L. Robert, J. Singh and A. Laroche</i>	

- 14:00 [O-40] **Early dying innate immunity involves ligand dependent endocytosis of cell surface receptors.** *M. Kalischuk, I. Kovalchuk, A. Fusaro, P. Waterhouse, D. Prüfer and L. Kawchuk*
- 14:15 **Break**
- 14:30 [O-41] **Deciphering plant-pathogen interactions applying metabolomics: Principles and applications.** *K.A. Aliferis and S. Jabaji*
- 14:45 [O-42] **Structural and functional genomics of the Dutch elm disease fungus *Ophiostoma novo-ulmi*.** *L. Bernier, V. Jacobi, J. Dufour, K.V. Plourde, G.F. Bouvet, W.E. Hintz, R.C. Levesque, V. Forgetta and K. Dewar*
- 15:00 [O-43] **Genetics of resistance to leaf spotting diseases of wheat based on seedling and field experiments.** *C.A. McCartney, R.G. Stonehouse, R. Goodwin, P. Singh and G. Hughes*
- 15:15 [O-44] **Evolution *de novo* of stable, heritable resistance to leaf rust (*Puccinia triticina* Eriks.) in susceptible wheat following cycles of infection with *wheat streak mosaic virus* (WSMV).** *S. Haber, D.L. Seifers, P. Seto-Goh and B. McCallum*
- 15:30 [O-45] **Induced systemic resistance against three foliar diseases of *Agrostis stolonifera* by an Isoparaffin mixture.** *A.M. Cortes-Barco, T. Hsiang and P.H. Goodwin*
- 13:00 to 15:30 **Contributed Paper Session 5:
Detection, Identification and Taxonomy**
Chair: TBA FSC 1221
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- 13:00 [O-46] **Another step closer to implementing inoculum detection as a method to time initiation of fungicide applications for management of grape powdery mildew.** *W.F. Mahaffee, G.G. Grove, D. Martin and A.S. Albrecht*
- 13:15 [O-47] **Fungal species associated with coast live oak (*Quercus agrifolia*) mortality in Southern California.** *A. Eskalen, S.C. Lynch, P. Zambino and T. Scott*
- 13:30 [O-48] **Species of *Neofabraea* responsible for anthracnose canker of apple trees in western Washington State.** *R. Zang, L. Huang and C.L. Xiao*
- 13:45 [O-49] **Development of a soil bioassay to assess the risk of spinach *Fusarium* wilt.** *E.W. Gatch and L.J. du Toit*
- 14:00 [O-50] **New Canadian records for *Gymnosporangium sabinae* and *G. yamadae*.** *S. Hambleton, M. Liu, J.A. Parmelee, M.J. Celetti and J. Llewellyn*
- 14:15 **Break**
- 14:30 [O-51] **A molecular test for the detection of the potato wart pathogen, *Synchytrium endobioticum*.** *D.S. Smith, C.A. Lévesque and S.H. De Boer*
- 14:45 [O-52] **Polymerase chain reaction protocol for detection of *Pyrenophora teres* in natural field soils.** *R.T. Lartey, T.C. Caesar-TonThat, A.J. Caesar, A.W. Lenssen, S. Hanson and R.G. Evans*
- 15:00 [O-53] **Morphological and Molecular Characterization of *Ditylenchus dipsaci* (Kühn, 1857) Filipjev, 1936 (Nematoda: Anguinidae), infesting garlic in Ontario, Canada.** *Q. Yu, W. Ye, A. Badiss and F. Sun*
- 15:15 [O-54] **Pathogenic races of *Exserohilum turcicum* on corn in Ontario and Québec.** *X. Zhu, L. M. Reid and T. Woldemariam*