



## CANADIAN PULSE RESEARCH WORKSHOP

### **Preliminary Detailed Program**

The 7<sup>th</sup> CPRW will include oral presentations, short oral communications illustrating poster presentations and opportunities for network meetings. It will promote both formal and informal interactions. The final program will be provided by the beginning of October.

#### **Tuesday November 4, 2008**

Arrival of delegates

14:00-16:00 Tour of the Canadian International Grains Institute (CIGI) pilot pulse processing facility

#### **Wednesday November 5, 2008**

7:00 - 10:00 Registration

7:30 - 8:30 Breakfast

#### **SESSION 1: PLANT BREEDING INITIATIVES**

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| 8:30  | <b>Keynote Speaker: Noel Ellis</b>   | Genomic tools for genetics and breeding in legumes.  |
| 9:00  | Thavarajah, D., Warkentin, T., Tar'an, Bueckert, R., Pozniak, C., Hucl, P. and Vandenberg, A. *                                | Breeding For Nitrogen Fixation In Cereal-Legume Cropping Systems   |
| 9:15  | Yadegari, Z. * and Pauls, K.P.   | Molecular Mapping of Genes Involved in the Phenylpropanoid Pathway in Common Bean ( <i>Phaseolus vulgaris</i> L.)                |
| 9:30  | Balasubramanian, P. *, Conner, R.L., Hou, A., Yu, K., Navabi, A., Mündel, H.-H., Huang, H.C., Park, S., Liu, S. and Kiehn, F.A | Development Of Common Bacterial Blight And Anthracnose Resistant Dry Bean Cultivars By Use Of Molecular Markers And Backcrossing |
| 9:45  | Bett, K. *, P. Vijayan, V. Gurusamy, J. Martinez, and Vandenberg, A.   | Interspecies Hybridization to Enhance Chilling Tolerance in Common Bean  |
| 10:00 | Grewal, R. *, Lulsdorf, M., Croser, J., Ochatt, S., Vandenberg, A. and Warkentin, T.D.   | Double Haploid Production in Chickpea and Field Pea  |

- 10:15 COFFEE/ REFRESHMENTS
- 10:45 Lulsdorf, M. \*, Banniza, S., Diederichsen, A., Grewal, R., Tar'an, B., Vandenberg, A., and Warkentin, T.D. Improving *Ascochyta* Blight Resistance in Chickpea: A Talk on the Wild Side
- 11:00 Menat J. \*, Wei Y.D., and Banniza S. Mating System of *Colletotrichum truncatum*, the Causal Agent of Lentil Anthracnose
- 11:15 Perry G.E\*, Reinprecht Y., Chan J.K. and Pauls K.P., CBB Resistance In *Phaseolus Vulgaris*: Towards The Identification Of A Resistance Gene
- 11:30 Rehman, A.U. \*, Warkentin, T.D., Malhotra, R.S., Bett, K. and Bueckert, R. Characterization And Molecular Mapping Of Drought Tolerance In Chickpea
- 11:45 Tullu, A\*., Fiala J., Taran, B., Warkentin, T., Bett, K., and Vandenberg, A. Using Genes From Wild Species To Reduce Pesticide Use In Pulse Crops
- 12:00 Ubayasena L. \*, Warkentin T., Bett K., Tar'an B., Bing D. Identification Of Genomic Regions Controlling Key Visual Quality Traits Affecting The Market Value Of Field Pea
- 12:15 LUNCH

## SESSION 2: NOVEL USES OF PULSE CROPS

- 13:30 **Keynote Speaker: Wes Tay** Insecticidal Components from Pulse Crop Extracts
- 14:00 Liu, S., Low, N.H. and Nickerson M.T \* Novel Pulse-Based Protein Ingredients for Food and Bio Material Applications
- 14:15 Bellido, A.-S.\* , Malcolmson, L., Boux, G., Ebbinghaus, P., Lukie, C. Sopiwnyk, E., and Sarkar A.K. Use of Pea Fibre in the Formulation of Food Products.
- 14:30 Maskus, H.D.\* , Fulcher, R.G., and Arnfield, S.D. Texture Analysis of Pea Based Puffed Snack Food Product Using Sensory and Mechanical Texture Analysis Methods
- 14:45 Shand, P.J., Pietrasik, Z. and Wanasundara, P.K.J.P.D.\* Modified (Enzymatically Cross-Linked) Pea Proteins for Food and Meat Processing Applications
- 15:00 Fields, P.\* , Hou, X. And Taylor, W. Stored-product Insects Controlled with Pea Protein Flour and Parasitoids
- 15:15 COFFEE/ REFRESHMENTS
- 15:45 Ross, K.A.\* , Zhang, L. and Arnfield, S.D. Understanding Water Uptake through Processing Induced Changes in the Chemistry of Pinto and Navy Bean Seed

## Coats

- 16:00 Sanjeewa, W.G.T., Wanasundara, J.P.D.\* , Peitrazik, Z. and Shand, P.J. Potential of chickpea-based ingredients for food use.
- 16:15 Anton, A.A.\* , Fulcher, R.G., Lukow, O.M. and Arnfield, S.D. Fortification of Corn-based Snacks with Common Bean (*Phaseolus vulgaris* L.) Flour is Feasible
- 16:30 Roufik, S., Lajoie, V., Boye, J.I.\* , Mondor, M and Farnworth, E. Comparison of the Functional Properties of Pe, Chickpea and Lentil Protein Blends with Whey and Soy Protein
- 16:45 - RECEPTION/ POSTER DISPLAY  
18:00

Evening Dinner on own

### **Thursday November 6, 2008**

07:30 - 08:30 Breakfast and Registration

### **SESSION 3: NUTRITION AND HEALTH**

- 8:30 **Keynote Speaker: Peter Watts** Nutrition & Health
- 9:00 Gravel, K. , Lemieux, S., Asselin, G., Lemay, A., West, G. Forest, J.C., and Dodin, S.\* Effects of Pulses Consumption on the Components of Metabolic Syndrome, Body Fatness and Dietary Habits in Women: A Randomized Controlled Trial
- 9:15 Mollard R.C., Luhovyy B.L.\* , Anderson G.H. Effects of Pea Fractions on Appetite, Blood Glucose and Food Intake in Men
- 9:30 Baldwin, A.G.\* , Weighell, W.M., Guzman, R.P., Taylor, C.G., Zahradka, P.C. Exploring The Tolerability Of Daily Pulse Consumption In A Selected Population Of Participants Under Study
- 9:45 Wong, C.L\* , Mollard, R.C, Luhovyy, B.L., Anderson, G.H. Effects of Pulses Served Within a Meal on Appetite, Blood Glucose and Food Intake in Men.
- 10:00 COFFEE/ INTERACTIVE POSTERS

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| 11:00 | Taylor, C.G.* , Dunthorne K., Weighell W., Baldwin A., Guzman R., and Zahradka, P. | Increased Consumption Of Dietary Pulses Enhances Nutrient Intake And Reduces Body-Mass Index (Bmi) In Individuals With Peripheral Arterial Disease     |
| 11:15 | Nunez, M.F.* , Mollard, R., Wong C. and Anderson, G.H.                             | Effects Of Salt And Pre-Meal Water On Food Intake And Appetite In Young Men.   |
| 11:30 | Boye, J.I.* , Roufik S., and Pesta, N.   | Angiotensin 1-Converting Enzyme Inhibitory Properties Of Red Lentil Proteins   |
| 11:45 | Wang, N.* , Toews, R., Hatcher, D., Maximiuk, L. and Shaluk, D.                    | Effect Of Cooking On Nutrients And Anti-Nutrients Of Pulses  |
| 12:00 | Marsolais* , F., Taylor, M., Beyaert, R., Hernández-Sebastià, C. and Chapman, R.   | Seed Storage Protein Deficiency Improves Sulfur Amino Acid Content In Common Bean Through Re-Direction Of Sulfur From Gamma-Glutamyl-S-Methyl-Cysteine |
| 12:15 | <b>LUNCH</b>   |  |

#### **SESSION 4: ENVIRONMENT AND BIOTIC STRESS 1**

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|-------|--|---|
| 13:30 | <b>Keynote Speaker: Gord Kurbis</b>  | Environment & Pulses  |
| 14:00 | Goswami, R.S.* , Mathew, F., Gambhir, A., Barasubiye, T., Lamma, R.S., Bradley, C. and Markell, S.G                  | Fusarium Species Associated With Root Rots Of Pulse Crops In North Dakota.                    |
| 14:15 | Kishore, G.K., Sharpe, A. G., Booker, H.M., Tar'an, B. and Buchwaldt, L.*  | Elucidation of Ascochyta Blight Resistance in Kabuli, Desi and Wild Chickpea                  |
| 14:30 | Liu, L.P.* , Gan, Y.T. and Bueckert, R.  | Rooting Patterns and rhizospheric properties of Pulse Crops under Semiarid Growing Conditions |
| 14:45 | Johnson, E.N.* , Ulrich, D.J., Blackshaw, R.E., May, W.E., Gan, Y.T., Sapsford, K.L., Holm, F.A., and Oostlander, M. | Advances in Chemical Weed Control in Pulse Crops  |
| 15:00 | Oostlander, M.,* Forster, G. and Drew, L.  | Pre-seed applications of KIXOR for broadleaf weed control in pulse crops                      |
| 15:15 | Martens, G.M., Froese, N.T. *, Barton, W.R., Kuchuran, M.E.  | HEADLINE®: Plant Health in Field Peas   |

15:30- COFFEE/ INTERACTIVE POSTERS  
16:45

### **18:30 BANQUET**

## **Friday November 7, 2008**

07:30 – 08:30 Breakfast

09:00 - 09:30 **Keynote Speaker**

### **SESSION 5: ENVIRONMENT AND BIOTIC STRESS 2**

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| 8:30  | <b>Keynote Speaker: Phillip Miklis</b>  | Addressing Biotic Stresses  |
| 9:00  | Sharpe, A. G., Clarke, W., Kishore, G. K., Wang, S., Tar'an, B. and Buchwaldt, L.*                                    | Single Nucleotide Polymorphism in Cicer species as a Tool for Development of Molecular Linkage Maps |
| 9:15  | Dokken, F.L.*, Risula, D., Pearse, P.G., Gan, Y., McDonald, C., Gossen, B.D., Banniza, S., Ta'ran, B., and Goodwin, M | Chickpea Sentinel Plant Project - Developing An Early Warning System For Ascochyta Blight           |
| 9:30  | Gan, Y.*, Campbell, C.A., Janzen, H.H, Lemke, R., and Basnyat, P.   | Carbon Input to Soil from Pulse Crops   |
| 9:45  | COFFEE  |   |
| 10:15 | Knight, J.D.*, Usukh, B., Baird, J. and Walley F.L.   | Optimizing Lentil And Pea Seeding Rates For Organic Production                                      |
| 10:30 | Lupwayi, N.Z.*  | Impact Of Grain Legumes On Soil Biological Processes In Western Canada                              |
| 10:45 | Ahmad, M.*  | Pulse germplasm enhancement for abiotic stresses in Australia                                       |

### **11:00 WRAP UP**

### **POSTERS:**

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|----|--|---|
| p1 | Feng, J.1, Hwang, S.F.*, Conner, R.L., Chang, K.F., Gossen, B.D., McLaren, D.L. and Bing, D.J.       | Identification Of Microsatellite Marker (S) Linked To Fusarium Root Rot Resistance In Pea |
| p2 | Feng, J., Hwang, S.F.*, Chang, K.F., Gossen, B.D. and Conner, R.L.                                   | Microspore Culture In Pea   |
| p3 | Thavarajah, D. *, Ruskowski, J., Warkentin, T. Tar'an, B., Bueckert, R., Bett. K. and Vandenberg, A. | Biofortification Of Pulse Crops   |

p4	Bett, K.* and Banniza, S.	Variation In Isolates Of <i>Xanthomonas Axonopodis</i> Pv. Phaseoli, Causal Organism Of Common Bacterial Blight In Bean.
p5	Buhlers*, D.L., Pajak, A. and Marsolais, F.	Characterization Of The $\gamma$ -Glutamyl-S-Methyl-Cysteine Biosynthetic Pathway In Seeds Of Common Bean
p6	Chang, K.F.*, Hwang, S.F., Gossen, B.D., Turnbull, G.D., Conner, R.L., McLaren, D.L., and Bing, D.J.	Effect Of Seed Treatment And VAM On Fusarium Seedling Blight, Nodulation And Yield Of Field Pea In Alberta
p7	Chen, Y., Conner,R.L., Gillard, C.L., McLaren,D.L., Boland, G.J., Balasubramanian, P.M., Stasolla, C., Zhou, Q.X., Hwang S.F., Chang, K.F. and Babcock C.	A Quantitative Real-Time Pcr Detection Assay For <i>Colletotrichum Lindemuthianum</i> In Bean Seeds
p8	Cohen-Skali, A.* , Wei, Y.D., Vandenberg, A., Banniza, S.	Inheritance Of Virulence To Lentil In <i>Colletotrichum Truncatum</i>
p9	Conner, R.L. *, Balasubramanian, P., Erickson, R.S., Huang, H.C. and Mündel, H.-H.	Bacterial Wilt Resistant Kidney Beans.
p10	Gan, Y.* , Campbell, C.A., Janzen, H.H, Liu, L.P., Basnyat, P., and McDonald, C.L.	Pulse Crop Roots: Growth And Distribution In Soil Profile
p11	Gossen, B.D.* , Conner, R.L., Hwang, S.F., and McDonald, M.R.	Seed Infection By <i>Mycosphaerella Pinodes</i> Does Not Affect Foliar Disease Severity Or Seed Yield Of Field Pea.
p12	Marambe, H.K.* , Wanasundara, J. P.D. and Shand, P.J.	Bioactive Properties Of Hydrolysed Pea ( <i>Pisum Sativum</i> L.) Protein
p13	Markell, S.* , Wise, K., McKay, K., Schatz, B., Gudmestad, N., Bradley, C., and Goswami, R.	Assessment Of The Response Of The North Dakota State University Extension Service To The Identification Of Qoi Resistant <i>Ascochyta Rabiei</i> In North Dakota.
p14	McLaren, D.L.* , Huang, H.-C., Conner, R.L., Henderson, T.L., R. Erickson, S. and He, X.	Control Of White Mould Of Bean, Caused By <i>Sclerotinia Sclerotiorum</i> , In Western Canada With <i>Coniothyrium Minitans</i> : Foliar Application Strategies And Use Of Pollen

p15	Singh, N*., Perry, G. , Pauls, KP. , Chan, J. and Reinprecht, Y.	Molecular Characterization Of CBB Resistance In HR67, A Resistance Source Of Common Bean ( <i>Phaseolus Vulgaris</i> L.)
p16	Stoughton-Ens, M.D.* , Hatcher, D.W., Wang, N. and Warkentin, T.D.	Influence Of Genotype And Environment On Dietary Fibre Content Of Field Pea ( <i>Pisum Sativum</i> ) Grown In Canada
p17	Tar'an, B* , Holm, F.A., Banniza, S., Sapsford, K, Warkentin, T. Vandenberg, A., Ife, S. and Barlow, B.	Effects Of Herbicide Applications On <i>Ascochyta</i> Blight Disease In Chickpea
p18	Wang, N.* , Toews, R., Hatcher, D., Warkentin, T.D., Maximiuk, L. and Shaluk, D.	Physico-Chemical And Cooking Characteristics Of Field Pea As Affected By Genotype And Environment
p19	Holm, F.A.* , Sapsford, K.L., and Vandenberg, A.	Expanding Herbicide Options For Broad-Leaved Weed Control In Lentil ( <i>Lens Culinaris</i> Medik.).
p20	Marles, M.A.S.* and Warkentin, T.D.	Allelopathic Attributes Of Field Pea.
p21	Machado, S.* , Tuck, B. and Pritchett, L.	Winter Pea Contribution to Winter Wheat Productivity in a Mixture
p22	Alejo-Lucas, D*., Ross, K.A., Malcolmson, L., Cenkowski, S., and Arntfield, S.D.	Effect Of Storage Conditions On Dehulling Efficiency And Cooking Quality Of Red Lentils.
p23	Anderson, Vern	Diverse Diets: The Inclusion Of Field Peas And Distillers Dried Grains In Feedlot Rations With Corn Or Barley
p24	Kishore, G.K.* , Booker, H.M., and Buchwaldt, L.	Pathogenic and Genotypic Characterization of <i>Ascochyta rabiei</i> isolates form Chickpea in Different Parts of the World
p25	Ahmed, H.U., Hwang, S.F., Gossen, B.D., Chang, K.F.* , Howard, R.J. and Turnbull, G.D.	Influence of Repeated Infection of a Single Chickpea Cultivar on Aggressiveness of <i>Ascochyta rabiei</i> isolates
p26	Conner, R.L.* , Schwartz, H.F. and Langham, M.A.C.	Pipe - Pest Information Platform For Extension And Education

- p27 Marles, M.A.S.\* , Balasubramanian, P. and Bett, K.E. Seed Coat Pigmentation Traits of Black and Red Bean Phenotypes
- P28 Valarmathi, G.\* , Bett, K., Warkentin, T. and Vandenberg, A. Grafting As A Tool In Breeding Of Large-Seeded Pulse Crops (Bean, Pea And Faba Bean)