Monday, June 22, 2009

Registration 7:30 AM–4:00 PM
Registration Desk 2nd Floor Lory Student Center
Presiding: Kierra Jewell

General Program

SESSION NO. 1 9:00 AM–12:00 PM

WSSS & WSCS Plenary Session
West Ballroom, Lory Student Center, CSU
Presiding: Mark Brick, Raj Khasla

9:00 Introductory Remarks.
9:10 Opportunities for Crop and Soil Science in a Flat World. Paul Fixen*, International Plant Nutrition Institute
9:40 Sustaining Crop Production with Alternatives to Synthetic Fertilizers. William R. Horwath*, University of California, Davis
10:10 Break.
10:40 Breeding for Biomedical Traits, a New Facet in Contemporary Crop Improvement. Henry J. Thompson*, Colorado State University
11:10 Developing Camelia as a Crop and Fuel. Duane Johnson*, Montana State University.
11:40 Discussion.

SESSION NO. 2 1:10 PM–3:00 PM

Soils and Agricultural Systems
Room 214-216, Lory Student Center, CSU
Presiding: R. Khasla

1:10 Introductory Remarks.
1:15 Application of the Precision Agricultural Landscape Modeling System in Semiarid Environments. John Nelson*, Robert J. Lascano2 and Jon D. Booker1, (1)Texas Tech University, (2)USDA-ARS Crop Systems Research Laboratory
1:30 Precision Manure Management On Site-Specific Management Zones: Surface Soil Quality and Environmental Impact. Matshwene Moshiatse*, Raj Khasla1, J.G. Davis1, D.G. Westfall1, R. Reich2 and Kathy Doesken2, (1)Colorado State Univ., (2)Colorado State University
1:45 Effect of Seeding and Nitrogen Rates On Limited Irrigated Corn and Forage Sorghum Yield and Nutritive Value. Mark Marsalis*, Sangu Angadi and Francisco Contreras-Govea, New Mexico State Univ.
2:00 Evaluation of Best Management Practices (BMP’s) to Protect Groundwater Quality in Goshen County, Wyoming. Christopher R. Wenzel*, Eastern Wyoming College
2:30 Break.

SESSION NO. 3 3:00–4:45 PM

Crop Breeding and Genetics
Room 214-216, Lory Student Center, CSU
Presiding: Leonard Panella

3:00 Introductory Remarks.
3:05 QTL Detection for Bread Making Quality Traits in a Doubled Haploid Winter Wheat Population. Walid El-Feki*, Patrick Byrne, Scott Reid, Nora Lapitan and Scott Haley, Colorado State University
3:20 Molecular Markers Associated with Fusarium Wilt Resistance in Common Bean. David S. Favero*, Patrick Byrne, Mark A. Brick, Scott Reid, Jay Kalous, J.Barry Ogg and Austin Case, Colorado State University
3:35 Metabolomic Profiling of Rice to Assess Benefits to Human Nutrition & Health. Adam L. Heuberger*, Rebecca Davidson, Jan Leach, Henry Thompson, Mark Brick and Elizabeth Ryan, Colorado State University
4:20 Drag and Pleiotropy Among Hawaii’s 137 near-Isogenic Lines of Tropical Corn Inbred Hi27. James Brewbaker*, University of Hawaii
4:35 Discussion.

Tuesday, June 23, 2009

SESSION NO. 4 9:00–10:30 AM

Cereal Crops
Room 214-216, Lory Student Center, CSU
Presiding: Mark Brick

9:00 Introductory Remarks.
9:05 Utilization of Common Cereal Straws by Livestock. Lindsey A. Voigt*, Rachel Endecott, Dennis Cash, Phil Bruckner and John Paterson, Montana State University
9:20 Spring Grazing Winter Cereals in Montana. S. Dennis Cash4, Aimee Hafla5, Lisa Surber1, Andrew W. Lensen4, John Paterson1 and Alison Todd1, (1)Montana State University, (2)Texas A&M, (3)USDA-ARS
9:35 Agronomic and Fiber Characterization of Low Phytic Acid Barley. Mackenzie T. Ellison4, Thomas Koehler4, Jianli Chen4, Leland Sorensen2, Shulin Chen1 and Robert Zemetra1, (1)University of Idaho, (2)University of Idaho Research and Extension Center, (3)Washington State University
9:50 Discussion.
10:00 Break.

Highlight indicates student presentations.
SESSION NO. 5  10:30 AM–1:00 PM

Biofuels, Biomass and Crop Systems
Room 214-216, Lory Student Center, CSU
Presiding: Patrick Byrne

10:30   Introductory Remarks.
10:50   Wheat Production Meetings and Tours. Robert N. Klein*, University of Nebraska-Lincoln
11:35   Physiology and Biomass Productivity of Diverse Amaranth Biotypes. Sangu Angadi*1, Leonard Lauriault1, Mark Marsalis1, Janakiraman Maruthavanathan2, Tracy Sterling2 and David Brenner3, (1)New Mexico State Univ., (2)New Mexico State University, (3)Iowa State University
11:50   Discussion.
12:00   Lunch on your own.

SESSION NO. 6  1:00 PM–5:00 PM

Crop & Soil Posters  Authors Present 1:00–3:00 PM
Cherokee Park Ballroom, Lory Student Center, CSU
Presidings: R. Khosla; Mark Brick

4   Evaluation of Brassica Juncea, Camelina Sativa, and Brassica Carinata in Colorado Environments. Shusong Zheng*, Jean-Nicolas Enjalbert1, Patrick Byrne1 and Jerry Johnson2, (1)Colorado State University, (2)Colorado State Univ.
5   Short Periods of Heat and Water Stress at Flowering On Yield Formation of Green Bean Varieties. Sangu Angadi*1, Sultan Begna1, Mark Marsalis1 and Russ Wallace2, (1)New Mexico State Univ., (2)Texas AgriLife Extension Service
7   The Effect of Organic Annual Forages Grown in Rotation with Winter Vegetables On Soil Quality. Daniel A. Goldhamer*3, F.H. Stonaker1, Joe Brummer2, Maysoon Mikha3, Matt R. Boohoer1 and Jessica G. Davis1, (1)Colorado State University, (2)Colorado State Univ., (3)USDA-ARS
8   Soil Carbon Fractionation Under Perennial Forage. Dwi P. Widiasutti*4, Jessica G. Davis1, Maysoon M. Mikha2, Matthew R. Boohoer1 and Joe E. Brummer1, (1)Colorado State University, (2)USDA
9   Small Grain Crops in the Great Plains of Wyoming May Have a Potential Asannual Forages. Anowarul Islam1, Malay C. Saha2, Jack Cecil2 and Jerry Nachtman1, (1)University of Wyoming, (2)Samuel Roberts Noble Foundation
10   Plant Breeding for Drought Tolerance: A New Field-Oriented Short Course. Pat Byrne*1, John McKay1, Bjorn Martin2 and F. Stephen Baenziger2, (1)Colorado State University, (2)Oklahoma State University, (3)University of Nebraska
13   CSU Winter Wheat Drought Tolerance Research Program. Marc Moragues*, Pat Byrne and Scott Haley, Colorado State University
14   Decision Support System for Selection of Best Energy and Machinery Management Practices. Jaskarn Mahal*1, Pawan Gupta1, Rohit Sharma1 and Balwinder Panesar2, (1) Punjab Agricultural University, (2)SCS Engineers
16   Evaluation of the Bare Soil Line From Reflectance Measurements On Seven Dissimilar Soils. Stephan Maas and Nithya Rajan*, Texas Tech University

Refreshments will be served from 3:00 to 3:30.

SESSION NO. 7  3:30 PM–8:30 PM

Awards Ceremony, Business Meeting, and Barbecue Dinner
Cherokee Park Ballroom, Lory Student Center, CSU
Presidings: R. Khosla; Mark Brick

3:30   Awards Ceremony.
4:00   Joint Business Meeting of WSSS & WSCS.
5:00   Adjourn.
6:00   Barbecue Dinner – Montfort Quad

Wednesday, June 24, 2009

SESSION NO. 8  9:00 AM–11:00 AM

National Center for Genetic Resource Preservation
National Center for Genetic Resources Preservation
Presidings: Leonard Panella; Mark Brick
Opportunities for Crop and Soil Science in a Flat World, Paul Fixen

Paul Fixen is Senior Vice President of the International Plant Nutrition Institute where his primary responsibilities are coordination of the Institute's programs in the Americas and serving as director of the Institute's research efforts. His technical focus has been in the area of nutrient management and how soil fertility and fertilizer use fit into the overall scheme of crop production systems and the environment. Dr. Fixen is a Fellow in the American Society of Agronomy, the Soil Science Society of America, the American Association for the Advancement of Science, and the Fluid Fertilizer Foundation.

Sustaining Crop Production with Alternatives to Synthetic Fertilizers, William R. Horwath

Dr. Horwath is the Vice Chair of the Dept. of Land air and Water Resources and the J. G. Boswell Endowed Chair in Soil Science and Professor of Soil Biogeochemistry. Dr. Horwath's research emphasizes the biogeochemistry of agricultural and natural systems. His research programs deal with plant nutrient use efficiency, agriculture impacts on greenhouse gas emissions, and agricultural impacts on water quality. In his studies on plant nutrients, he emphasizes the role nutrient sources and of soil organic matter in affecting the efficiency of fertilizer uptake by crops. Dr. Horwath has extensive experience working in rice systems. He has written and published over 100 journal articles in the areas of soil sustainability, soil carbon dynamics, forest soils and the environment.

Breeding for Biomedical Traits, a New Facet in Contemporary Crop Improvement, Henry Thompson

Henry Thompson worked in the field human nutrition for over 30 years. During that time his lab has been involved in the development and evaluation of retinoids, selenium compounds, polyamine anti-metabolites, and cancer prevention diets using model systems. Dr. Thompson joined the faculty of Colorado State University in January 2003 and established the Cancer Prevention Laboratory (CPL) in the College of Agricultural Sciences. Dr. Thompson believes that plant breeders and biomedical scientists must work together to establish the link between human health and health beneficial characteristics of staple crops. Since establishing the Cancer Prevention Laboratory, he has determined that the diet can influence chronic disease incidence and biomarkers for chronic disease in dry beans, potato and rice, and his data support the hypothesis that staple crop varieties differ for their health protective ability.

Developing Camelina as a Crop and a Fuel, Duane Johnson

Dr. Duane Johnson is the Vice President for Agricultural Development for the Camelina Company, Bigfork, Montana. He began work on new crops and value-added products more than 30 years ago. He developed canola-based, four-stroke motor oils, then worked on improving functional properties of vegetable oils in lubricant applications. His research has led to the development of new, alternative crops such as quinoa, bluecorn, edamame soybean, canola, gluten free cereals (Indian Ricegrass, Timothy and Oats), and extended to horse-care products, and currently in bio-based energy products such as biodiesel from camelina. His recent research has focused on camelina as a source of low cost oil to replace petroleum diesel with Great Plains, the Camelina Company.