**Murcia, Spain**

**PROGRAM**

**Tuesday, February 13, 2018**

**3:00 – 5:00 pm** Early Registration (Hotel Lobby)

**7:00 - 9:00 pm** Welcome reception at the hotel Occidental Murcia Siete Coronas

**Wednesday February 14, 2018**

**Occidental Murcia Siete Coronas**

**7:00 – 8:00 am** Pick-up registration materials

**8:00 - 8:15 am** Welcome to the 2018 International Spinach Conference

Jim Correll, University of Arkansas and Alec Roberts, Tozer Seed Co.

**8:15 – 10:15 am Challenges of Spinach Seed / Product Production**

**Jim Correll, presiding**

**8:15 - 8:30 am** Spinach seed production in the Pacific Northwest USA.

Lindsey du Toit, Washington State University

**8:30 – 8:45 am** Can French Coastal areas be a new solution for spinach seed production? Anthony Gorin, Haden Seeds

**8:45 - 9:00 am** Spinach seed production in New Zealand.

Jay Schafer, Schafer Ag Services

**9:00 - 9:15 am** Spinach production in the European Union.

Alec Roberts, Tozer Seed Co.

**9:15 – 9:30 am** Conventional and organic spinach production in the US; Perspective from an organic grower / shipper.

Ramy Colfer, Earthbound Farm DanoneWave

**9:30 – 9:45 am** California Seed Association’s Organic Spinach Committee’s Support of the Organic Spinach Community.

Dale Krolikowski and Donna Boggs, Germain’s Seed Technology and California Seed Association

**9:45 – 10:00 am** Developing a new spinach breeding program for California.

E. Charles Brummer, Allen Van Deynze, Juliana Osorio-Marin, Rachel Greenhut, Steve Klosterman, Steve Koike, Richard Smith. University of California, Davis.

**10:00– 10:15 am** Water challenges in vegetable production in California.

Amy L. White, MPP, Two Girls Ranch, LLC

**10:15 – 10:30 am** **Break**

**10:30 – 1:00 pm Spinach Molecular Approaches and Downy Mildew**

 **Lindsey du Toit, presiding**

**10:30 – 10:45 am** Genetic diversity, genome-wide association study and genomic selection in spinach.

Ainong Shi, Jun Qin, Yuejin Weng, Jim Correll, Chunda Feng, Gehendra Bhattarai, Waltram Ravelombola, Bazgha Zia, Wei Zhou, and Beiquan Mou. University of Arkansas, Fayetteville, AR USDA-ARS, Salinas, CA

**10:45 – 11:00 am** Spinach genome and its transcriptome variation provide insights into evolution, domestication and important nutrient traits.

Zhangjun Fei, Cornell University

**11:00 – 11:15 am** Combining high-throughput genotyping and phenotyping to improve spinach breeding efficiency.

Carlos A. Avila, Juan Enciso, Jinha Jung, Thiago Marconi, and Henry Awika

**11:15 -11:30 am** Molecular markers for spinach sex determination gene.

Chunda Feng, Bo Liu, Braham Dhillon, Maria Isabel Villarroel-Zeballos, Burt Bluhm, Ainong Shi, James Correll. University of Arkansas, Fayetteville, AR

**11:30 – 11:45 am** A reference genome sequence for *Peronospora effusa*: towards the molecular dissection of race specificity.

Burt Bluhm, Chunda Feng, Jim Correll. University of Arkansas, Fayetteville, AR

**11:45 -12:00 pm** Overview of downy mildew disease resistance and race diversity.

Jim Correll and Chunda Feng, University of Arkansas, Fayetteville, AR

**12:00 – 12:15 pm** Whole genome variation in 2016 field populations of spinach downy mildew.

Kurt Lamour, Sandesh Shrestha, Bo Liu, Chunda Feng, and Jim Correll

University of Tennessee and the University of Arkansas

**12:15 – 12:30 pm** Oospore production, viability, and incidence on spinach seed.

Shyam Kandel, Beiquan Mou, Sridhara G. Kunjeti, Krishna V. Subbarao, Steven J. Klosterman, USDA/ARS, Salinas, CA.

**12:30 – 12:45 pm** Seed health protocol development for spinach downy mildew.

Sierra L. Hartney and Philip Brown, Sakata Seed, Mt. Vernon, WA

**12:45 – 1:00 pm** Evaluation of oospores on spinach seed.

Bo Liu, Chunda Feng, Jim Correll, University of Arkansas, Fayetteville, AR

**1:00 – 2:00 pm Lunch**

**2:00 – 3:45 pm Diseases and Management**

**Larry Stein, presiding**

**2:00 – 2:15 pm** Characterization of spinach leaf spot pathogens and fungicide efficacy.

Liu, B., Feng, C., Cochran, K., Stein, L., du Toit, L. J., and Correll, J. C., University of Arkansas, Fayetteville, AR, and Texas A&M University

**2:15 - 2:30 pm** Determining the genetic basis of pathogenicity of *Fusarium oxysporum* f. sp. *spinaciae* on spinach.

Alex Batson, Tobin Peever, and Lindsey du Toit, Washington State University

**2:30 -2:45 pm** Soilborne disease management in Australia.

Len Tesoriero

**2:45 - 3:00 pm** *Rhizoctonia*: seedling disease or web blight in Texas spinach?

Cochran, K.A., Spurlock, T.N., Stein, L., and Drury, D., Texas A&M

**3:00 – 3:15 pm** A multidisciplinary approach to improve damping-off tolerance in spinach.

K.J.H. (Kim) Magnée, S.P.C. (Steven) Groot, J. (Joeke) Postma, E.T. (Edith) Lammerts van Bueren, O.E. (Olga) Scholten, Wageningen University & Research, Netherlands

**3:15 – 3:30 pm** Development of a spinach white rust management strategy in Texas

Larry A. Stein, Texas A&M

**3:30 – 3:45 pm** White rust: beyond borders.

Jim Correll, Chunda Feng, Ainong Shi, University of Arkansas, Fayetteville, AR

**3:45 - 4:15 pm Break**

**4:15 – 5:45 pm Spinach Research (potpourri)**

 **Alec Roberts, presiding**

**4:15 – 4:30 pm** Tissue culture approaches for spinach research on disease resistance.

Maria Isabel Villarroel-Zeballos, Braham Deep Singh Dhillon, Chunda Feng, Jim Correll, University of Arkansas, Fayetteville, AR

**4:30 – 4:45 pm** Spinach genome sequence overview including NIL1 and candidate resistance genes.

Braham Deep Singh Dhillon, Chunda Feng, Ainong Shi, Quighua Pan, and Jim Correll, University of Arkansas, Fayetteville, AR

**4:45 – 5:00 pm** Evaluation of natamycin seed treatments for *Stemphylium botryosum* and other necrotrophic fungi on spinach seed.

Lindsey du Toit and Michael Derie, Washington State University

**5:00 – 5:15 pm** PurGrow: a novel methodology for cleaning seed and managing diseases.

 Chunda Feng and Jim Correll, University of Arkansas, Fayetteville, AR

**5:15 – 5:30 pm** Subterranean collembola, a challenging pest of spinach seed production.

Beverly Gerdeman, G. Hollis Spitler, and Lynell Tanigoshi, Washington State University

**5:30 – 5:45 pm** Food safety strategies for preventing the contamination of spinach with foodborne pathogens-A Texas and global approach.

Marcel Valdez, Texas A&M University

7:00 pm Group Dinner

 Occidental Murcia Siete Coronas

 Short Program (Sponsorships, Industry Service Award, Field Day)

**Thursday, February 15, 2018**

**Sakata Hosted Spinach field Trial**

**9:00 am** Bus departs Occidental Murcia Siete Coronas for field trial

**10:00 am** Arrival at Sakata Field Trial

**Noon** Box lunch at Sakata Field Trial

**1:00 pm** Bus departs to Occidental Murcia Siete Coronas

**Dinner** On your own