

## **Minutes of the Division C-2 Crop Physiology and Metabolism**

**18 November 2015 (Minneapolis)**

Meeting was called to order at 1:00 pm by C2 Chair Vara Prasad. Meeting attendance fluctuated averaging approximately 25 members.

1. Michael Grusak, President Elect CSSA made general comments on the status and activities of the CSSA. Specific highlights included:
  - 2016 Annual Meeting will be in Phoenix, AZ, Nov. 6-9. The theme for the 2016 meeting is: Resilience Emerging from Scarcity and Abundance
  - The planning committee of the 2016 meeting recommends
    - introducing sessions consisting of 5 minute presentations
    - shorter symposia (no more than 2 h) with a reduced number of speakers
  - the science policy office in Washington DC is moving to a new building (owned by ASA, CSSA will pay rent)
  - CSSA budget is in good standing
  - Encouraged C-2 to update the website
  - Recognized Vara Prasad for his leadership in CSSA as C2 Division Chair.
2. Michael Grusak and Vara Prasad presented the graduate student award winners for oral and poster presentations:

### **Oral presentations:**

#### **First place: Yunfei Jiang**

[Effect of Heat Stress and Its Timing on Reproductive Organs and Seed Set in Field Pea.](#)

Yunfei Jiang, University of Saskatchewan; Thomas D. Warkentin, University of Saskatchewan; Arthur Davis, University of Saskatchewan; Rachid Lahlali, Canadian Light Source; Chithra Karunakaran, Canadian Light Source; Rosalind A. Bueckert, University of Saskatchewan

#### **Second place: Walaa Mousa**

[An Ancient African Crop Hosts a Beneficial Microbe That Co-Evolved to Combat the Toxigenic Fungus, Fusarium Graminearum.](#)

Walaa Mousa, University of Guelph; Manish Raizada, University of Guelph; Charles Shearer, University of Guelph; Jonathan Eisen, University of California; Cassie Ettinger, University of California

#### **Third place: Marie Bourguignon**

[Optimal Agricultural Practices for Growing Kenaf in Iowa.](#)

Marie Bourguignon, Iowa State University; Kenneth J. Moore, Iowa State University; Andrew W. Lenssen, Iowa State University; Sotiris V Archontoulis, Iowa State University

**Honorable Mention: Bailey McHenry**

[Balanced Nutrition and Crop Production Practices for Closing Grain Sorghum Yield Gaps.](#)

Bailey McHenry, Kansas State University; Ignacio Antonio Ciampitti, Kansas State University; P.V. Vara Prasad, Kansas State University; Eric A. Adee, Kansas State University; Gary Cramer, Kansas State University

**Poster presentations:**

**First place: Viviana Medina**

[Physiological Tradeoffs of Stomatal Closure Under High Evaporative Gradients in Field Grown Soybean.](#)

Viviana Medina, University of California-Davis; Matthew E Gilbert, University of California-Davis

**Second place: Brett Naylor**

[Influence of Water Availability on Photosynthetic Characteristics of Diverse Soybean \(\*Glycine max\*\) Genotypes.](#)

Brett Naylor, University of Missouri; Felix B. Fritschi, University of Missouri

**Third place: Magali Nico**

[Soybean Fruit Development and Establishment at the Node Level Under Combined Photoperiod and Radiation Environments.](#)

Magali Nico, Facultad de Agronomía de la Universidad de Buenos Aires; Anita Ida Mantese, Facultad de Agronomía de la Universidad de Buenos Aires; Daniel Julio Miralles, CONICET (Consejo Nacional de Investigaciones Científicas y Técnicas); Adriana Graciela Kantolic, Facultad de Agronomía de la Universidad de Buenos Aires

**Honorable Mention: Calvin Meeks**

[Assessing the Utility of Primed Acclimation for Improving Water Use Efficiency in a Sensor-Based Irrigation Scheduling System](#)

Calvin Meeks, University of Georgia - Tifton; John Snider, University of Georgia - Tifton; Wesley M Porter, University of Georgia; George Vellidis, University of Georgia; Gary Hawkins, University of Georgia

Vara Prasad thanked the judges for efforts and time to select the winners in the two competitions.

3. Shawn Kaeppler, Editor of Crop Science, provided an update on the status of the journal. The journal impact factor increased slightly reaching 1.575 for 2014 and is now ranked 23<sup>rd</sup> (up from 27<sup>th</sup>) in the 'Agronomy' category. Shawn Kaeppler reminded the attendees that Crop Science encourages efforts to publish

special issues and review articles. Further, he indicated that manuscripts submitted by foreign authors have higher rejection rates. Some discussion ensued relative to the importance of language vs content as reasons underlying the higher rejection rates (both appear to be important factors).

4. Diane Rowland, C2 Board Representative, provided a summary on the status of the society, complementing introductory comments made by Michael Grusak.
  - a. In 2015, the journals Applied Turfgrass Science, Crop Management, and Forage & Grazinglands were merged into a single journal titled Crop, Forage & Turfgrass Management.
  - b. CSSA Membership as of September 30, 2015 is 5,928 – up 73 from the end of 2014.
  - c. New dues structure for the Tri-Societies will go into effect for 2016 as members renew. Discounts for multiple-society membership will be reduced for regular members.
5. Vara Prasad requested approval of the minutes from last year meeting at Long Beach. Minutes were approved. Relative to the action items from last year's business meeting, Vara Prasad commented that the scoring systems for oral and poster presentation competitions had been posted on the website prior to the annual meeting, and that there is a need to continue/renew efforts to upgrade the C2 website.
6. Howard Skinner provided a brief historian report. This year 105 papers were presented, up from about 80 papers in the previous year. A printed list of all the major symposium topics from 1981-2015 was provided to meeting attendees.

Vara Prasad commented that this year's symposia were well attended, reaching a maximum of approximately 110 attendees.
7. New Chair – Felix Fritschi – requested ideas for symposia for the 2016 meeting. A number of ideas were proposed by different members, including:
  1. Root system architecture and uptake
  2. Uptake, translocation, and remobilization
  3. Utilization of omics approaches to improve stress tolerance
  4. Remote and proximal sensing for phenotyping – How do these data relate to physiological properties of crops? This topic might link with a tour to the USDA-ARS / U of AZ facilities in Maricopa. See below for additional notes on the proposed tour.

5. Differentiating between WUE and drought tolerance: a critical distinction for agricultural sustainability. This is a topic proposed by the ASA Irrigation community and could be co-sponsored by C2.
8. Organization of a tour of the USDA-ARS / U of AZ phenotyping facilities in Maricopa was suggested. Jeff White indicated that he would be willing to explore the feasibility of a tour. The group in Maricopa has considerable experience with a range of phenotyping vehicles and recently received funding to install a LemnaTec gantry. The ensuing discussion revealed great interest in such a tour. Meeting attendees indicated that they would prefer the tour to be scheduled for Sunday, Nov. 6<sup>th</sup>. Jeff White and Felix Fritschi will further explore the feasibility of a “Phenotyping Tour”.
9. Nominations for candidates for C-2 chair for the coming year’s election were identified.
10. Summary of Action Items:
  1. Update the website with new information and pictures.
  2. Explore the feasibility of the Phenotyping Tour.

Respectfully submitted,

Felix Fritschi

C2 Chair Elect

B. Participants that provided information on the attendance sheet:

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9. Yunfei Jiang [yunfei.jiang@usask.ca](mailto:yunfei.jiang@usask.ca)

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