Technology Transfer Efforts for Center Pivot Irrigation (CP)
January 1, 2017 – January 29, 2019

BOOK CHAPTERS

REFEREED PUBLICATIONS AND PATENTS


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**NATIONAL AND INTERNATIONAL CONFERENCES**


CENTRAL PLAINS IRRIGATION CONFERENCE


OTHER REGIONAL CONFERENCES


**MISCELLANEOUS TECHNOLOGY TRANSFER**


Marek, T., G.W. Marek and Dana Porter. **Innovative center pivot research and soils sensor study- 2018.** USDA-ARS /Texas AgriLife Summer Crops / Ogallala Aquifer Program Center Pivot Irrigation Field Day, Bushland Texas, August 9, 2018.

Porter, Dana, Dan Rogers, Thomas Marek, Paul Colaizzi, Jourdan Bell, and Jim Bordovsky. **Applying OAP Outcomes to Improve Technical Standards and Continuing Education.** Poster. 2018 Annual Research Planning Meeting of the Ogallala Aquifer Program. Lubbock, TX, March 27-29, 2018.


Marek, G. and T. Marek. 2018. Participated in presentations and scientific discussions of Texas A&M AgriLife and Bushland center pivot system efforts/lysimeter designs/water management efforts for two Chinese delegations and two Ukrainian scientists and grower groups.


Poster presentation of Lamm F. R. 2018. The importance of pressure regulators for sprinkler irrigation systems at the Center Pivot Technology Field Day at Roth Farm, Garden City, Kansas, August 15, 2018.

Poster presentation of Lamm F. R. 2018. The Importance of Reliable Irrigation Systems at the Center Pivot Technology Field Day at Roth Farm, Garden City, Kansas, August 15, 2018.


Poster presentation of Lamm, F. R. 2018. Increasing water productivity through advanced irrigation scheduling, Kansas State University at Roth Farm, Garden City, Kansas, August 15, 2018.

Poster presentation of Lamm, F. R. 2018. The importance of pressure regulators for sprinkler irrigation systems at the Center Pivot Technology Field Day at USDA-ARS CPRL, Bushland, TX, Aug. 9, 2018.

Poster presentation of Lamm F. R. 2018. The Importance of Reliable Irrigation Systems at the Center Pivot Technology Field Day at USDA-ARS CPRL, Bushland, TX, Aug. 9, 2018.


Poster presentation of Lamm, F. R. 2018. **Increasing water productivity through advanced irrigation scheduling**, Kansas State University at USDA-ARS CPRL, Bushland, TX, Aug. 9, 2018.

Evett, S. 2018. Participated in the workshop, “The Future of Water for Irrigation in California and Israel”, July 16-18, 2018, at the University of California, Davis. Dr. Evett facilitated a discussion of Irrigation Water Quality and Water Reuse and described research results on comparative irrigation and crop water use efficiencies of SDI and sprinkler irrigation systems, and variable rate center pivot decision support systems and sensors.

Evett, S. 2018. Presentation of “**Precision Agriculture and Irrigation - Current U.S. Perspectives**” at the 2018 American Society of Agricultural and Biological Engineers Annual International Meeting in Detroit, MI, Aug 1, 2018.

O’Shaughnessy, S. 2018. Presentation of **“Advantages and Disadvantages of Variable Rate Irrigation Using Mechanical Move Systems”** at the 2018 American Society of Agricultural and Biological Engineers Annual International Meeting in Detroit, MI, Aug 1, 2018.

Stone, K. 2018. Presentation of **“Variable Rate Irrigation Decision Support System: Evaluation and Experiences”** at the 2018 American Society of Agricultural and Biological Engineers Annual International Meeting in Detroit, MI, Aug 1, 2018. The talk centered on a system developed and patented by ARS at Bushland, TX, for center pivot systems.

Evett, S. 2018. Presentation of presented, **“Evaporative Losses from Sprinkler and Subsurface Drip Irrigation in a Region of Large Evaporative Demand”** at the 2018 American Society of Agricultural and Biological Engineers Annual International Meeting in Detroit, MI, Aug 1, 2018.

Evett, S. 2018. Participated in a panel discussion on, “Producing More Food with Less Water: Does technology, management, or policy provide the best bang for our buck?”, in the General Session of the 2018 American Society of Agricultural and Biological Engineers Annual International Meeting in Detroit, MI, July 30, 2018.


Evett, S.  Attended the Roundtable Discussion on the report, “Internet of Water: Sharing and Integrating Water Data for Sustainability” on February 23, 2018 in St. Louis, MO, with other irrigation and water resource professionals.

Evett, S.  Attended the Water Resource Research Planning Meeting, March 14-15, 2018 at Arkansas State University, Jonesboro, AR, where variable rate center pivot irrigation and partial drying techniques for rice cultivation under center pivots were discussed.

Evett, S.  Attended the Annual Meeting of the Alberta Alfalfa Seed Commission, March 27, 2018 in Brooks, Alberta, CA where he presented "Precision irrigation based on crop water stress", a discussion of the ARS irrigation scheduling supervisory control and data acquisition system for control of variable rate center pivot irrigation systems in response to plant and soil water status.

Evett, S.  Traveled to Amman, Jordan on April 8-13 where he assessed soil water monitoring data, developed plans for further soil water monitoring, and cooperated in developing a training program on precision irrigation management.

Evett, S.  Attended the Second Research Coordination Meeting – IAEA Coordinated Research Project D1.50.17, on April 15-20, 2018 in Rabat, Morocco where he presented on the relative efficacy of electromagnetic soil water sensors compared with the cosmic ray neutron probe (CRNP), and demonstrated that the CRNP was not suitable for irrigation management due to its shallow effective depth of reading.

Evett, S.  Met in Washington, DC, on May 24-25, 2018 with other national and international irrigation experts at the National Academy of Sciences, Engineering and Medicine BANR meeting to inform GAO on agricultural (irrigation) technologies and management practices for reducing demand on water supplies, and collaborated on sprinkler irrigation research work with ARS Beltsville MD.

Evett, S.  Met in Washington, DC, on June 21-22, 2018, with research funding agencies to discuss the important of irrigation research in the face of water scarcity and a changing climate. He met with representatives of ARS, DOE, DARPA-E, FFAR, NIFA and NSF.


Presentation at the Kansas Youth Advocate Water Conference, Manhattan, KS. July 12, 2017.


Lamm, F. R. Discussion and brief tour of sprinkler irrigation technology with two producers from Iowa, July 29, 2017.

Center Pivot Irrigation Retreat, **Brainstorming and Brainstretching Event,** March 28-29, 2017, Amarillo, Texas.

Lamm, F. R. 2017. Summarization of all center pivot irrigation papers 1989 to 2017 from the Central Plains Irrigation Conference. Complete papers in Adobe PDF and MS-Excel file to access and search by author, year, title, and/or keyword.

Evett, S. R. 2017. Summarization of all center pivot irrigation papers from USDA-ARS-CPRL Soil and Water Management Research Unit (SWMRU) from 1983-2017. All papers in Adobe PDF files can be accessed chronologically by year.


All project participants, miscellaneous producer and media contacts, 2017-2019.