Technological Contributions Awards

Heermann Sprinkler Irrigation Award

The Heermann Sprinkler Irrigation Award encourages and recognizes engineering excellence in the design, evaluation, operation, or management of sprinkler irrigation systems that effectively conserve our valuable resources. The award recognizes those professionals in research, development, extension, education or industry that have made significant contributions to the improvement of efficient and effective sprinkler irrigation.

The award was endowed by Dale Heermann upon his retirement from the USDA-ARS. Honoree receives an engraved plaque.

Previous Heermann Sprinkler Irrigation Award Winners

2007..................................................Leslie W. Jochens
2008..................................................Terry A. Howell
2009..................................................Ronald E. Sneed
2010..................................................Dennis C. Kincaid
2011..................................................Darrell W. DeBoer
2012..................................................Derrel L. Martin
2013..................................................James P. Bordovsky
2014..................................................Suat Irmak
2015..................................................William Kranz
2016..................................................Robert D. von Bernuth
2017..................................................Danny H. Rogers
2018..................................................Kenneth C. Stone
2019..................................................Michael D. Dukes

Bradley King

Bradley A. King, PE is the recipient of the 2020 Heermann Sprinkler Irrigation award for his career dedicated to improving sprinkler irrigation design and management.

King is a research agricultural engineer with the USDA Agricultural Research Service Northwest Irrigation and Soils Research in Kimberly, Idaho. There, he formulates and conducts research on irrigation water management, irrigation automation, irrigation efficiency, irrigation induced runoff and erosion, and optimal crop production systems to reduce the environmental footprint of irrigated agriculture in an arid environment while sustaining economic return.

King is an international authority of sprinkler irrigation system design and irrigation management and throughout his career, has been involved in a number of research projects that have resulted in a number of significant changes to modern irrigation systems. King was instrumental in developing and evaluating several precision irrigation technologies. He characterized sprinkler droplet kinetic energy flux of commercial center pivot sprinklers and summarized the results as a runoff avoidance index. King also developed data driven models to compute daily crop water stress of wine grapes delivered via a webpage and adopted by vineyard managers in Idaho for irrigation management.

King and a group of collaborators developed a precision irrigation control system that used the 480 VAC 3-phase power cable on the center pivot as the communication medium. His evaluation of site-specific irrigation for potato showed a yield increase and greater gross return. Site-specific irrigation, however, did not reduce water use or increase water use efficiency, indicating that site-specific irrigation will not likely reduce total water use in arid areas.

A 40-year member of ASABE, King has served as a member and leader on a number of ASABE committees. He is currently a member of ASABE Natural Resources and Environmental Sciences Irrigation Management, Sprinkler Irrigation, and the Irrigation Group committees. King also maintains membership with the Idaho Irrigation Equipment Dealers Association. He is also a past associate editor for the Journal of Soil and Water Conservation.

King is author or coauthor of more than 150 peer-reviewed articles, book chapters, and other publications. He also holds one US patent. Throughout his career, King has received a number of awards including an Educational Materials Certificate of Excellence from the American Society of Agronomy and was named the Engineer of the Year by the ASABE Pacific Northwest section. He has also received an ASABE Honorable Mention Paper award and a Superior Paper award.