

K-State researcher awarded Irrigation Innovation Consortium grant

LAS VEGAS, Nev. December 5, 2019 – The Irrigation Innovation Consortium, a university and industry collaboration that accelerates the development and adoption of water- and energy-efficient irrigation technology, has announced funding for seven research projects in the upcoming year, including one led by Eduardo Santos in the Department of Agronomy at Kansas State University. K-State is a founding member of the consortium, which is headquartered at Colorado State University.

Launched in 2018 with a \$5 million contribution from the Foundation for Food and Agriculture Research, the consortium, also supported by matching funds from participants, promotes and enhances water and energy efficiency in irrigation. Its ultimate goal is creating greater resiliency in food and agriculture. Through the consortium, industry and the public sector co-develop, test, prototype and improve equipment, technology, and decision and information systems. Their work is equipping farms of the future with cutting-edge technologies for irrigation efficiency.

The funding announcement came during the Irrigation Show and Education Week in Las Vegas, Nevada. Awardees were selected through a competitive review process that weighed and prioritized projects according to scientific merit, novelty, level of industry involvement, and inter-institution collaboration.

“The proposal review process has resulted in a robust portfolio of funded proposals that fit our mission goals of advancing knowledge, tools, and available technologies and practices that can transform and improve irrigation efficiency,” said LaKisha Odom, chair of the consortium’s Research Steering Committee and a scientific program director for FFAR.

Selected projects

- Deployment and Maintenance of Flux Towers in Kansas to be Integrated to the Parallel 21 Flux Networks to Support Multi-State Real-Time Evapotranspiration Estimates (Principal Investigator: Eduardo Santos, Kansas State University)
- Advancing Development of the Parallel 41 Flux Network for Real-Time Evapotranspiration Monitoring (Principal Investigator: Christopher Neale, University of Nebraska-Lincoln)
- Optimizing Irrigation of Turfgrass Using Sensors, IOT, Lora Technology and Artificial Intelligence (Principal Investigator: Jay Ham, Colorado State University)
- Toward pivot automation with proximal sensing for Maize and Soybean in the Great Plains (Principal Investigator: Derek Heeren, University of Nebraska-Lincoln)

- A Remote Sensing Approach to Identify Critical Areas in California Orchards for Improving Irrigation Water Management through Precision Agriculture Technology (Principal Investigator Dilruba Yeasmin, University of California-Fresno)

The consortium also selected two “industry pitch” projects, a new option this year to encourage projects initiated by industry members:

- An Economic Impact Study of the Irrigation Industry (Principal Investigator: John Farner, Irrigation Association)
- Connecting field scale performance to watershed health: the added power of sharing data/Calculating producer water use in real time (Principal Investigator: John Heaston, Aquamart)

“The industry-driven project pitches increase industry participation and drive university researchers to increased collaboration and meaningful impacts,” according to Reagan Waskom, the Irrigation Innovation Consortium’s project director.

Members of the consortium’s research network also provided updates at the Irrigation Association show in Las Vegas on current research and innovation projects underway at the participating universities.

The Irrigation Innovation Consortium is composed of the following members: Aqua Engineering Inc.; California State University-Fresno; Climate Corporation; Colorado State University; Colorado Corn; Daugherty Water for Food Global Institute at the University of Nebraska; the Foundation for Food and Agriculture Research; Hunter; Irrigation Association; Jain Irrigation; Kansas State Research and Extension; Kansas State University; Li-Cor; Lindsay Corporation; Northern Water; Rubicon Water; Senninger Irrigation Inc.; Toro; Texas A&M AgriLife Research; Valmont; Vertical Irrigation; Watertronics; and Western Sugar.

More information: <https://irrigationinnovation.org/>.