2018-2019 (FY19) Active Awards

Undergraduate:

Robert and Karla Baltzell Student Innovation Award: Megan Homolka, advised by Rick Koelsch, Professor, and Galen Erickson, Professor, UNL Animal Science, for the project: Predicting Nitrogen and Phosphorous Flows in Beef Open Lots

Platte Basin Timelapse Project: Mikaela Deptula, Hannah Gavle, Carlee Koehler, Erin McCready, and Sidney Parks, Production Interns, advised by Michael Farrell, Assistant Professor of Practice, UNL Agricultural Leadership, Education & Communication, and Michael Forsberg, Assistant Professor of Practice, UNL Agricultural Leadership, Education & Communication.

Round Five (first awarded in 2018)

– Cody Creech, Assistant Professor, UNL Agronomy & Horticulture, for the project: Wheat Residue Management to Enhance Soil Water Conservation
  Student: Luana Machado Simáo, for a M.S. in Agronomy

– Bruce Dvorak, Professor, UNL Civil Engineering & Biological Systems Engineering, for the project: Framework for assessing microbial reduction and environmental impacts of food systems: Implications on improving water conservation and wastewater quality in U.S. beef processing industry
  Student: Shaobin Li, for a Ph.D. in Civil Engineering with specialization in Environmental Engineering (expected graduation: August 2019)

– Roger Elmore, Professor, UNL Agronomy & Horticulture, for the project: Isolating Primary Factors for Corn Ear Formation Issues
  Student: Osler Antonio Ortez-Amador, for a Ph.D. in Agronomy

– Derek Heeren, Assistant Professor, UNL Biological Systems Engineering, for the project: Sensor-Based Irrigation Management for Maize and Soybean in the Great Plains
  Student: to begin Jan. 2019

– Deepak Keshwani, Associate Professor, UNL Biological Systems Engineering, for the project: Integrated modeling and analysis of the Corn-Water-Ethanol-Beef System
  Student: Luke Monhollon, for a M.S. in Biological Systems Engineering

– Tiffany Messer, Assistant Professor, UNL Biological Systems Engineering, for the project: Understanding Floating Treatment Wetland Potential for Toxic Algal Bloom Prevention in Recreational Lakes
  Student: Mary Keilhauer, for a M.S. in Hydrological Sciences, Minor in Biosystems Engineering (expected graduation: May 2019)

– Siamak Nejati, Assistant Professor, UNL Chemical & Biomolecular Engineering, for the project: Synthesis and Development of the Task-specific Nitrate Adsorbents
  Student: Elham Tavakoli, for a Ph.D. in Chemical & Biomolecular Engineering

– Amy Millmier Schmidt, Assistant Professor, UNL Biological Systems Engineering & Animal Science, for the project: Transforming Manure and Cedar Mulch from “Waste” to “Worth”
  Student: Agustin José Olivo, for a M.S. in Biological Systems Engineering
- Bing Wang, Assistant Professor, UNL Food Science & Technology, for the project: Treatments for Water Used at Pre-harvest Stage to Mitigate Human Exposure to Microbial Hazards through Consumption of Frozen and Fresh Raspberry in Chile. M.S. student to begin January 2019.

**Round Four (first awarded in 2017)**

- P. Stephen Baenziger, Professor, UNL Agronomy & Horticulture, for the project: Genetic Architecture of Male Traits for Hybrid Wheat Seed Production. Student: Nicholas Garst, for a Ph.D. in Agronomy (Plant Breeding and Genetics Emphasis).

- Yufeng Ge, Assistant Professor, UNL Biological Systems Engineering, for the project: Integrated crop and soil water sensor network to assist UAS and soil water simulation modeling in variable rate irrigation. Student: Jasreman Singh, for a Ph.D. in Biological Systems Engineering (Soil and Water Resources Engineering Emphasis).

- Jesse Korus, Assistant Professor, UNL School of Natural Resources, for the project: Improving Groundwater Characterization and Management through Integration of Airborne Electromagnetics (AEM) and Borehole Data. Student: Jaqueline Polashek, for a M.S. in Natural Resource Sciences.

- Taro Mieno, Assistant Professor, UNL Agricultural Economics, for the project: The Impacts of Crop Insurance on Irrigation Behavior. Student: Paloch Suchato, for a M.S. in Agricultural Economics.

- Xu Li, Associate Professor, UNL Civil Engineering, for the project: Determination of Setback Distance Requirements for Reducing Contaminants in Agricultural Runoff Following the Land Application of Swine Manure Slurry. Student: Cici Hall, for a M.S. in Environmental Engineering.

- Yusong Li, Associate Professor, UNL Civil Engineering, for the project: Influence of Climate and Agricultural Clustering on Groundwater Contamination by Trace Organics. Student: Chuyang Liu, for a Ph.D. in Civil Engineering.

- Adam Liska, Associate Professor, UNL Biological Systems Engineering and Agronomy & Horticulture, for the project: Livestock and Thermodynamic Limits to Food Security. Student: Calvin Harman, for a Ph.D. in the School of Natural Resources.

- James C. Schnable, Assistant Professor, UNL Agronomy & Horticulture, for the project: Optimizing the water use efficiency of C4 grain crops using comparative phenomics and crop models to guide breeding targets. Student: Daniel Santana de Carvalho, for a Ph.D. in Agronomy & Horticulture.

- Karina Schoengold, Associate Professor, UNL Agricultural Economics, for the project: The Effects of Groundwater Policies and Economic Factors on Well Drilling Decisions. Student: Qianyu Zhang, for a M.S. in Agricultural Economics.

- Karrie Weber, Associate Professor, UNL School of Biological Sciences, for the project: Mobilization of Naturally Occurring Uranium into Groundwater. Student: Jeffrey Westrop, for a Ph.D. in Geology.

Graduate research matching support was awarded to Aaron Mittelstet, who was awarded funding from the Nebraska Department of Natural Resources Water Sustainability Fund, which requires 40% match.

- Aaron Mittelstet, Assistant Professor, UNL Biological Systems Engineering, for the project: UNL Quantifying the Impact of Eastern Redcedar Encroachment on Recharge in the Nebraska Sandhills. Student: Nawaraj Shrestha, for a Ph.D. in Natural Resource Sciences.
Round Three (first awarded in 2016)

- **Yulie Meneses**, Research Assistant Professor, and **Jayne Stratton**, Research Associate Professor, UNL Food Science & Technology, for the project: *Reconditioning and reuse of processing wastewater. An application for the grain wet milling industry.*
  
  Student: **Xinjuan Hu**, for a Ph.D. in Food Science & Technology

- **Trenton Franz**, Assistant Professor of Hydrogeophysics, UNL School of Natural Resources, for the project: *Assessing the long-term water savings of reduced irrigation pumping in Western Nebraska*
  
  Student: **Justin Gibson**, for a Ph.D. in Natural Resource Sciences (specializing in Bio-Atmospheric Interactions)

- **Christopher Gustafson**, Assistant Professor, UNL Agricultural Economics, for the project: *Behaviors to Mitigate the Risk of Waterborne Illness: An Analysis of Pastoralist Households in Rural Tanzania*
  
  Student: **Mazbahul Ahamad**, for a Ph.D. in Natural Resource Sciences

- **Derek Heeren**, Assistant Professor of Irrigation Engineering, UNL Biological Systems Engineering, for the project: *Field Testing Variable Rate Irrigation (VRI) for Managing Spatial Variability in Soils and Evapotranspiration*
  
  Student: **Sandeep Bhatti**, for a M.S. in Biological Systems Engineering

- **Daran Rudnick**, Assistant Professor, UNL Biological Systems Engineering, for the project: *Sustaining Agriculture through Adaptive Management Resilient to a Declining Ogallala Aquifer and Changing Climate*
  
  Student: **Tsz Him (Himmy) Lo**, for a Ph.D. in Biological Systems Engineering

Round Two (first awarded in 2015)

**Junke Guo**, Associate Professor, UNL Civil Engineering, for the project: *Determinaton of River Ecological Discharge from Navier-Stokes-Forchheimer Equation.*

Student: **Narendra Kumar Patel**, for a Ph.D. in Civil Engineering (specializing in Hydraulics and Water Resources)

Round One (first awarded in 2014)

**Francisco Munoz-Arriola**, Assistant Professor in Hydroinformatics and Integrated Hydrology, UNL Biological Systems Engineering and School of Natural Resources, for the project: *Software Development for Water- and Agriculture-resources Data and Information Access: the case of the Water for Food Interoperability System (WaFIS)*