



Water for Food
DAUGHERTY GLOBAL INSTITUTE
at the University of Nebraska

WATER FOR FOOD DIGEST

February 1, 2021

News and updates

One Health Seminar Series brings together experts for a U.S. and Latin American perspective

The One Health Seminar Series discusses the collaboration of human and animal science, environmental science, policy and law to advance science and improve overall community health. Emerging diseases such as Covid, Malaria, Avian Influenza, Ebola and Zika have highlighted the importance of collaborative/One Health efforts between the medical and other professions.

The seminar brings together animal and human healthcare professionals, lawyers and engineers under one roof to discuss critical and relevant One Health topics with experts in the field. We are committed to creating healthy, resilient communities by promoting and sustaining the health and well-being of humans, animals, and the environment.

Focuses of the series include:

- Aligning education and communication efforts
- Creating and enhancing multidisciplinary community partnerships
- Promoting One Health principles

This seminar series is a collaboration between the Daugherty Water for Food Global Institute, Federal University of Paraná and [Nebraska One Health](#).

The four-part series will be held 4-5:30 p.m. CST | 7 p.m. BRT each of the following dates:

- **Monday, February 8** - One Health Concepts and Healthy Water for a Changing World | [Register now](#)
- **Wednesday, February 10** - Water and Diseases | [Register now](#)
- **Monday, February 22** - The Future of Water Uses and Conservation in a Changing World | [Register now](#)
- **Wednesday, February 24** - Climate Change, Water and One Health | [Register now](#)



[View full schedule](#)



DAUGHERTY WATER FOR FOOD PODCAST

Daugherty Water for Food Podcast - Episode 5

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Latest Water for Food Podcast dives into water law, rights and regulations

The newest episode of the Water for Food Podcast features a collaboration with the [Nebraska Governance and Technology Center](#) at the University of Nebraska (NGTC). Co-host and DWFI Executive Director Peter McCornick is joined by Gus Hurwitz, the Menard director of the NGTC.

NGTC studies the ever-changing relationship between law and technology. It is housed in the College of Law, but is an interdisciplinary team of faculty, students, and researchers across the University, engaging in research with the Colleges of Business, Engineering, and Journalism and Mass Communications.

Water rights and regulations, and the incentives and penalties that are used to operationalize them, are challenging to develop and even more difficult to change if they aren't working. Climate change is impacting our water resources with increased severity and frequency of droughts and floods. It is critical to adapt our water rights and regulations systems as the conditions dictate.

McCornick and Hurwitz discussed these topics with experts:

- Felicia Marcus, DWFI Board Member, William C. Landreth Visiting Fellow at Stanford University's Water in the West Program, attorney, consultant and member of the [Water Policy Group](#)
- Anthony Schutz, DWFI Faculty Fellow, Associate Dean for Faculty & Associate Professor of Law, director of the Rural Law Opportunities Program, [Nebraska College of Law](#)
- Francisco Muñoz-Arriola, DWFI Faculty Fellow, NGTC Faculty Fellow, Associate Professor of Hydroinformatics and Integrated Hydroclimate, Department of Biological Systems Engineering and the School of Natural Resources, University of Nebraska–Lincoln

- Rob Cifelli, Radar Meteorologist, National Oceanic and Atmospheric Administration ([NOAA](#)) Physical Sciences Laboratory.

The Daugherty Water for Food Podcast is available now on [iTunes](#), [Spotify](#) and [Stitcher](#). New episodes will be available about once a month. Please subscribe to be notified when the next episode comes online.



[Listen to the podcast](#)

Nitrate working groups continue work to provide all Nebraskans with safe drinking water

Leaders from around Nebraska continue to meet this winter to find solutions to the state's nitrate challenge. Three Nebraska Nitrate Strategy working groups are addressing key priorities: awareness, producer education and policy. In January, they put pen to paper and began discussing specific proposals. The goal of these proposals is to provide all Nebraskans with safe drinking water. To do this they are looking for opportunities where sectors throughout the state - including agriculture, conservation, academia and government – can work together.

“The Nitrate Working Group has provided valuable input to better understand the concerns and level of knowledge of various stakeholders. One of the significant benefits has been our understanding of the importance of communicating with non-traditional stakeholders as they have an important role in implementing Best Management Practice to protect our groundwater,” said Marty Stange, environmental director, Hastings Utilities.

These groups are being led by Katie Pekarek, extension educator with UNL's School of Natural Resources and Crystal Powers, research and extension communication specialist for the Nebraska Water Center, Nebraska Extension and DWFI. More than 65 people have participated in the nitrate meetings, representing nearly as many organizations and growers from across the state.

To learn more or get involved, contact Crystal Powers at cpowers@nebraska.edu.



Water Seminar Series kicks off, explores environmental law related to race and justice

The Nebraska Water Center (NWC), in partnership with the University of Nebraska-Lincoln's School of Natural Resources, will begin its annual Spring Water Seminar Series this Wednesday. The series will focus on race, justice and the environment and features Nebraska, national and international speakers.

Click the video above to preview the 2021 speakers and their talks.

The series kicks off this Wednesday, Feb 3, 3:30-4:30 p.m. with Anthony Schutz, Associate Professor of Law, University of Nebraska-Lincoln. Water, agriculture and environmental law operate to govern people's relationships with one another and with the environment. Schutz's discussion will examine a number of ways in which our legal system has operated to facilitate racially disparate outcomes in and around agriculture.

The series continues throughout the spring, with sessions held every other week on Wednesdays at 3:30 p.m.

[View full line-up](#)

[Register now](#)

Nebraska Launch of the 2020 Lancet Countdown Report features DWFI Director of Water, Climate and Health

The links between health and climate change are undeniable. The 2020 Lancet Countdown Report on Health and Climate Change includes findings from 120 world-leading experts, from more than 35 academic institutions and UN agencies, who have reviewed more than 40 health and climate indicators..

Nebraska Launch of the 2020 Lancet Countdown Report on Health and Climate

Thursday, February, 19, 2021

Noon-1:30 CST

The University of Nebraska is hosting the regional launch and will bring local context to the report results, featuring leading academics and other community leaders. Speakers and panelists include:

- Jesse Bell, PhD, Claire M. Hubbard Professor of Health and Environment, Director of the Water, Climate and Health Program, Director of Water, Climate and Health at Daugherty Water for Food Global Institute
- Monica Cleveland, BA, Environmental Health Specialist, Winnebago Tribe of Nebraska
- Christ Dethlefs, UNMC College of Medicine class of 2023 and President of Healthy Earth Alliance
- Linda Emanuel, Community Health Director of the AgriSafe Network, RN and Ag Producer
- Rachel Lookadoo, JD, Director of Legal and Public Health Preparedness, Center for Preparedness Education
- Martha Schulski, PhD, Nebraska State Climatologist



[Register now](#)

Nance transitions to new part-time role

For the past six years, as director of public relations and communications, Molly Nance has led planning for the institute's Water for Food Global Conferences; developed annual reports, news releases, articles and white papers; collaborated with stakeholders and partners within Nebraska, as well as internationally; and has managed the communication team's efforts to inform global audiences of the institute's work to improve water and food security. Starting this year, Nance is transitioning to a part-time role, supporting DWFI special projects.

"It has truly been an honor to promote the outstanding work of our staff, faculty, students and partners in our shared mission to ensure water and food security for our world," Nance said. "I'm excited for the opportunity to spend more time with my family while still working with the DWFI team on a part-time basis."

Frances Hayes is serving as Interim Director of Communications Director and may be reached at fhayes@nebraska.edu. A candidate search for the position will commence later this spring.

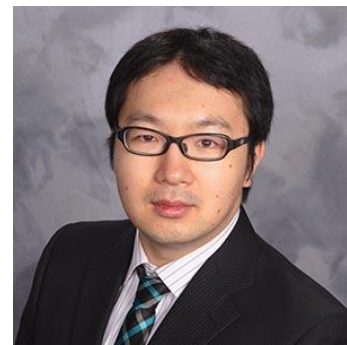


Faculty Fellow News

Mieno earns 2020 Junior Faculty Excellence in Research Award

DWFI Faculty Fellow Taro Mieno received the 2020 Junior Faculty Excellence in Research Award by the Agricultural Research Division (ARD) and the ARD Faculty Advisory Council. The honor attests to the excellence of Mieno's research program and outstanding professional contributions. As part of the recognition, Mieno receives \$3,000 from ARD to use for research or professional development activities.

Mieno's research focuses on economic analyses of precision agriculture technology and practices, and water resources management, in the hopes of informing decision makers (agricultural producers and policy makers) so that they can enhance farming profitability and water resources availability for high-productivity agriculture in arid regions.



Grassini presented with ASA award

Published by *IANR News*

Patricio Grassini, associate professor in agronomy and horticulture, has been honored with the 2020 Werner L. Nelson Award for Diagnosis of Yield-Limiting Factors by the American Society of Agronomy. The ASA presented the award during the society's virtual annual meeting Nov. 11.

The ASA annual awards are presented for outstanding contributions to agronomy through education, national and international service and research. Grassini was chosen because of his creativity, innovation and involvement in the development, acceptance, and implementation of diagnostic services in higher, more profitable crop production.



Read more

Staff, Fellow and Supported Student Publications

Reviews and syntheses: Ongoing and emerging opportunities to improve environmental science using observations from the Advanced Baseline Imager on the Geostationary Operational Environmental Satellites

By Anam M. Khan, Christopher Hain, et al.

Extreme Weather and Climate Change: Population Health and Health System Implications

By Kristie L. Ebi, Jesse Bell, et al.

Public Health Policy Actions to Address Health Issues Associated with Drought in a Changing Climate

By Rachel Lookadoo and Jesse Bell

Molecular-assisted breeding for soybean with high oleic/low linolenic acid and elevated vitamin E in the seed oil

A model-based exploratory study of sulfur dioxide dispersions from concentrated animal feeding operations in the Southeastern United States

By Jesse Winchester, Rezaul Mahmood, et al.

Biophysical Characterization and Monitoring Large-Scale Water and Vegetation Anomalies by Remote Sensing in the Agricultural Growing Areas of the Brazilian Semi-Arid Region

By Antônio Heriberto de Castro Teixeira, et al.

Response of Palmer Amaranth and Sugarbeet to Desmedipham and Phenmedipham

By Clint W Beiermann, Cody F Creech, et al.

Co-Regulated Information Consensus with Delays for Multi-Agent UAS*

By Katherine Hagely, Edgar Cahoon, et al.

Female and male-controlled livestock holdings impact pastoralist food security and women's dietary diversity

By H. Gitungwa, Christopher Gustafson, Elizabeth VanWormer, et al.

By Chandima Fernando, Carrick Detweiler, and Justin Bradley

Modelling viability of Listeria monocytogenes in paneer

By Dipon Sarkar, Bing Wang, et al.

Events + Calendar

Nebraska Water Center Seminar Series

Anthony Schutz, Associate Professor of Law, University of Nebraska–Lincoln

February 3 | 3:30 p.m. CST

[via Zoom](#)

Environmental and Water Resources Engineering Seminar Series

Developing an Integrated Technology-Environment-Economics Model to Simulate Food-Energy-Water Systems in Corn Belt Watersheds

Event co-hosted with UNL Department of Civil and Environmental Engineering

February 5 | 11-11:50 p.m. CST

[via Zoom](#)

One Health Approach for Global Healthy Water: USA and Latin America Perspectives

One Health Concepts and Healthy Water for a Changing World

February 8 | 4-5:30 p.m. CST (7-8:30 p.m. BRT) | via Zoom

[Register now](#)

Groundwater Sustainability in Central Asia:

Remote sensing and GIS applications

February 8 | 8-9:30 p.m. CST | via Zoom

(8-9:30 a.m. ALMT/2-3:30 a.m. UTC the following day)

[Register now](#)

One Health Approach for Global Healthy Water: USA and Latin America Perspectives

Water and Diseases

February 10 | 4-5:30 p.m. CST (7-8:30 p.m. BRT) | via Zoom

[Register now](#)

Nebraska Water Center Seminar Series

Doug Crow Ghost, Water Resources Administrator, Standing Rock Sioux Tribe

February 17 | 3:30 p.m. CST

[via Zoom](#)

Human-Water Systems Monthly

Managing uncertainty in human-water systems

A new professional networking and research seminar series centered on human-water systems and hosted by

February 19 | Noon-1 p.m. CST

[Register now](#)

University of Nebraska Launch of the

2020 Lancet Countdown on Health and Climate Change

February 19 | 12-1:30 p.m. CST | via Zoom

No continent, country or community is immune from the health impacts of climate change. The latest findings related to health impacts of our changing climate will be shared, along with what these findings mean for Nebraskans.

[Register now](#)

One Health Approach for Global Healthy Water: USA and Latin America Perspectives

Climate Change, Water and One Health

February 22 | 4-5:30 p.m. CST (7-8:30 p.m. BRT) | via Zoom

[Register now](#)

One Health Approach for Global Healthy Water: USA and Latin America Perspectives

The Future Water Uses and Conservation in a Changing World

February 24 | 4-5:30 p.m. CST (7-8:30 p.m. BRT) | via Zoom

[Register now](#)

Staff Spotlight:

Jesse E. Bell, Ph.D.

Director of Water, Climate and Health, DWFI

Claire M. Hubbard Professor of Water, Climate and Health

Director of Water, Climate and Health Program at UNMC

Jesse E. Bell is the Claire M. Hubbard Professor of Water, Climate, and Health in the Department of Environmental, Agricultural, and Occupational Health at the University of Nebraska Medical Center and the School of Natural Resources within the Institute of Agriculture and Natural Resources at the University of Nebraska-Lincoln. He is also the director of the Water, Climate and Health Program at UNMC and the new Director of Water, Climate and Health at DWFI.

Bell's expertise and research are focused on understanding the impacts of changes in the environment and climate on natural and human processes. Before coming to UNMC, Dr. Bell developed and served as the first holder of an interagency position between the National Oceanic and Atmospheric Administration (NOAA) and the Centers for Disease Control and Prevention (CDC). During his time in this role, he worked on a variety of innovative health projects that made use of his knowledge of climate processes and ability to analyze climate data. He was able to unite their efforts toward better understanding climate's impact on health. His research and efforts there built the foundation for future, novel, and inventive approaches to use climate data to assist with health research. During this time, he was a lead author for the U.S. Global Change Research Program report "The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment" that was released by the White House in 2016. He is also adjunct faculty for the Department of Environmental Health at Emory University. Dr. Bell is a native Nebraskan and received his Ph.D. from the University of Oklahoma.



About us

The Robert B. Daugherty Water for Food Global Institute at the University of Nebraska was founded in 2010 by the Robert B. Daugherty Foundation to address the global challenge of achieving food security with less stress on water resources through improved water management in agricultural and food systems. The institute is committed to ensuring a water and food secure world while maintaining the use of water for other human and environmental needs.

waterforfood.nebraska.edu | +1 402.472.5145

The Nebraska Water Center, established by Congress in 1964, focuses on helping the University of Nebraska become an international leader in water research, teaching, extension and outreach by facilitating programs that will result in UNL becoming a premiere institution in the study of agricultural and domestic water use.

watercenter.unl.edu | +1 402.472.3305

Connect with us



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