Producers, University, Food Banks Partner to Put Pork on the Table

Also in this issue:
- Nebraska Extension Dean & Director Retires
- Nebraska Program Launched From Argentina
- Mary Drewnoski, MSASAS Awardee
Inside This Issue

1. A Message From the Department Head .............................................. 1

FEATURE STORIES ............................................................................... 2-8
2. Producers, University, Food Banks Partner to Put Pork on the Table ...... 2
3. Mitigating Heat Stress in Cattle Via the Nebraska Mesonet ............... 5
4. Panhandle Perspective: Beef Feedlot Specialist Launches Nebraska Program From Argentina During Pandemic ......................... 6
5. Nebraska Duo Eyes End to Costly Swine Diseases ............................ 8

FACULTY NEWS .............................................................................. 9-14
6. Jones, Burson Retire .......................................................................... 9
7. Sullivan Receives Achievement Award ............................................. 10
8. Dr. Mary Drewnoski Receives the Outstanding Young Extension Specialist Award ................................................................. 11
9. FACULTY SPOTLIGHT:
   Matt Spangler .................................................................................. 12
   Tom Burkey ..................................................................................... 13
10. Seven Faculty Receive Promotion, Tenure ...................................... 14
11. Miller Receives Distinguished Professorship ................................... 14

NEW HIRES .................................................................................... 15-17
12. Brianna Buseman ............................................................................ 15
13. Ruth Woiwode .................................................................................. 16
14. Yijie Xiong ...................................................................................... 17

STUDENT NEWS ........................................................................... 18-23
15. Department Appoints Two New Student Ambassadors ................. 18
16. Undergraduate Alumni .................................................................... 19
17. Fall New Graduate Students ............................................................. 19
18. Awards & Recognitions .................................................................. 20
19. Graduate Student’s Research Potential Earns Her The Arthur W. Sampson Fellowship Fund Award ................................................. 22
20. IANR Spotlight:
   Tatiana Jones .................................................................................. 23

ALUMNI NEWS ............................................................................. 24-26
21. Nebraska Extension Dean and Director Retires ............................ 24
22. Gregory A. Ibach Receives Alumni Service Award .......................... 26

SAVE THE DATE ............................................................................ 27
23. Alumni & Friends Weekend ............................................................ 27
Dear Animal Science Alumni and Friends,

We are pleased to present the Fall 2020 Edition of the “Animal Science Nsider”. As I write this letter, we have just completed the Fall 2020 semester on November 20, 2020 and finals will be completed on the Wednesday before we break for Thanksgiving. Twenty-twenty is a year we will not soon forget due to all the complications associated with the novel human coronavirus (SARS-CoV-2) commonly referred to as COVID-19. I could not be more proud of our students, faculty, staff, and alumni for how they have navigated the necessary changes that occurred in our teaching and learning, research, and outreach as a result of this pandemic. Caring, compassionate, resilient, gritty are a few words to describe what has been witnessed during the past eight months. In this edition you will read a few of the many stories which exemplify the great character of our people striving together for excellence during a pandemic.

For example, our featured story involves an alumnus-lead idea that brought together Nebraska Pork Producers, the Department of Animal Science, and area Food Banks to keep pork on the tables of consumers during the COVID-19 pandemic. We are very grateful for alumni, like Bill Luckey, who continue to engage our department when opportunities exist for us to help meet the needs of the people we serve. We also share the story of Dr. Pablo Loza, a new faculty member who is currently not able to join us from Argentina due to the pandemic. Pablo is working hard for Nebraskans in spite of his situation. He is a true example of resilience. In addition to Pablo, you will meet several other new faculty in this edition. We are excited that Brianna Buseman has joined the department in Youth Meat Animal Extension, Dr. Ruth Woiwode in Animal Behavior and Welfare, and Dr. Yijie Xiong in Precision Livestock Management. Each of these individuals bring tremendous talent and energy to our team.

This edition also features several articles regarding faculty, student, and alumni achievements and awards. You will also meet our undergraduate student ambassadors. As we continue to build on a tradition of excellence, I encourage you to join us on April 10, 2021 for our Block & Bridle Banquet and or Animal Science Alumni & Friends Reunion. We will host our annual Animal Science Alumni & Friends Celebration Weekend here in Lincoln on April 10 and celebrate our undergraduate scholarship recipients and donors on April 11. Registration materials will be available on our website. Fingers crossed that we will be able to hold these events in person. Please mark your calendars and join us in April!

Enjoy this 2020 Fall Edition of the Animal Science Nsider!

Sincerely,

Clinton R. Krehbiel, Ph.D.,
PAS Marvel L. Baker Head and Professor of Animal Science
Producers, university, food banks partner to put pork on the table

By: Cara Pesek, IANR Media
Published June 4, 2020, Nebraska Today

On a rainy afternoon in late May, the Food Bank of Lincoln paid a visit to the University of Nebraska–Lincoln Animal Science Complex and loaded up 1,500 pounds of fresh pork onto a truck for distribution to Nebraskans in need across the southeastern part of the state.

The pork, donated by pig farmer and University of Nebraska–Lincoln animal science alumnus Bill Luckey, was the result of generosity, ingenuity, collaboration and a spirit of Nebraskans helping Nebraskans among the state’s pork producers, the Food Bank of Lincoln and the University of Nebraska–Lincoln.

A week prior, Luckey delivered 12 pigs to University of Nebraska–Lincoln’s Loeffel Meat Lab. Luckey’s operation near Columbus, like many swine operations throughout Nebraska and across the country, was hit hard by COVID-19. Outbreaks of COVID-19 among workers at some large processing plants diminished processing capacity at some facilities and temporarily closed others. With large plants’ capacity reduced, small, locally-owned meat processors saw demand spike and their schedules filled into fall and even beyond. With so much stress on processors, pork producers like Luckey found it difficult to sell their pigs; some farmers made the excruciating decision to euthanize animals.
Luckey did not want to do that. He had worked at the Loeffel Meat Lab in the University of Nebraska–Lincoln’s Animal Science Department as an undergrad years before, and he wondered if perhaps his old employer would be able to process some pigs so they wouldn’t go to waste. Luckey knew many Nebraskans were struggling to put food on the table. Surely, they would appreciate fresh, Nebraska-grown pork.

Luckey made some phone calls to people he knew at the university to see if there was some way to make use of his pigs. Unbeknownst to Luckey, a group of faculty and staff, including Swine Extension Specialist Benny Mote and associate professor of meat science Gary Sullivan, were wondering the same thing. Soon, the Nebraska Pork Producers Association joined the conversation, too. Within a few days, the Pork Cares Campaign, which allows pork producers to donate pigs to Nebraska food banks, with the university taking care of the processing, was born.

“The Pork Cares Campaign is the epitome of the Nebraska spirit,” said Mote. “Producers are trying to help those in need regardless of how much help they might need themselves. Those of us at the University that are helping with the harvest are humbled to be part of this campaign.”

Next came the logistics. Loeffel Meat Lab employees had to get special permission to operate when most campus buildings were closed due to COVID-19. The lab was able to obtain hand sanitizer made by University of Nebraska–Lincoln’s Food Processing Center. They coordinated with Luckey to schedule the drop-off, and with the Food Bank of Lincoln to schedule a pick-up.

Through a combination of hard work, perseverance
and luck, everything fell into place.

The same day the Food Bank of Lincoln picked up the first 1,500 pounds of donated pork, Luckey dropped off another 12 pigs for processing. This time, the pork will be donated to Food Bank of the Heartland in Omaha. The Nebraska Pork Producers Association set up an online donation platform to help cover the costs associated with processing, and they’ve already raised nearly enough money to keep the program going for a third week. If they are able to raise enough money, they’ll also be able to pay pig farmers who donate animals to the program a small fee.

Processors are still backed up, and pig farmers are still having trouble selling their animals, Luckey said. He thinks it will be a few months at least until things return to normal. In the meantime, he said, he hopes the Pork Cares Program carries on.

“As long as there is a need, it would great to keep this program going,” he said. “We’re still in a spot where we have a lot of pigs.”
Mitigating heat stress in cattle via the Nebraska Mesonet

By: Natalie Jones, IANR Media
Published Aug. 4, 2020, IANR Media

Extreme summer heat can be a cause for concern for feedlot operators and cattle producers in Nebraska. Heat causes stress and other negative impacts in cattle production. Cattle at a comfortable temperature are more productive, gain weight more efficiently and maintain a higher level of health.

“I think our producers, for cattle welfare interests and good business sense, are very interested in managing that stress to maintain performance and prevent losses,” said Galen Erickson, Nebraska cattle industry professor in the Animal Science Department at the University of Nebraska-Lincoln. “There are tools that many feed yards have implemented that really are to aid in cattle welfare in these heat stress events.”

One helpful tool that producers can use to monitor weather and best manage agricultural resources with is the Nebraska State Climate Office’s Nebraska Mesonet calculator.

Data pulled from the Nebraska Mesonet can be used to determine the cattle comfort index, a formula that accounts for temperature, humidity, wind, precipitation and sunlight and how those factors affect cattle health. The Nebraska Mesonet is a statewide weather observation network of nearly 70 stations, which records weather conditions every five minutes, 365 days a year.

“It’s the comprehensive look at how stressed the cattle were leading up to now and how stressed will they be going forward,” Erickson said.

The Mesonet Cattle Comfort Index, which is used worldwide, was developed and introduced as the Comprehensive Climate Index by Terry L. Mader and Leslie J. Johnson at the University of Nebraska, along with and John B. Gaughan at the University of Queensland in Gatton, Australia.

“We can run the same equation year-round and give a value of what it feels like if you’re a cow out there, in real-time,” said Martha Shulski, State Climatologist and associate professor of Applied Climate Science. The Mesonet also runs an experimental forecast tool that can help producers make prepare for conditions ahead.

“The current weather, and how long cattle have been in certain conditions is important, but also looking at what conditions will be over the next two weeks may be more important,” Shulski said.

In Nebraska, cattle can experience both heat and cold stress, but we have many tools to mitigate heat stress and heat stress tends to be a bigger issue for cattle producers than cold-related stress, Erickson said. To help cattle stay comfortable in hot weather, Erickson recommends producers focus on three main heat-mitigation strategies: sprinkling the ground with water to cool it down, providing cattle access to shade...
and creating additional water tank space. Air flow challenges may or may not be something that can be modified, but in some cases cannot be addressed. Cattle producers can also keep up with weekly and monthly weather updates from the Nebraska State Climate office to monitor current and upcoming heat index forecasts.

“Farmers and ranchers do a good job of watching the weather and we want them to watch these indices, as well, to help them prepare. Not just ‘is it going to rain,’ but how comfortable are the cattle going to be tomorrow or this week.”

Panhandle Perspectives: Beef feedlot specialist launches Nebraska program from Argentina during pandemic

By: Dave Ostdiek, Panhandle Research & Extension Center
Published Aug. 6, 2020, Nebraska Today

In February, Dr. Pablo Loza was making plans to relocate from Argentina to Scottsbluff to assume his duties as the new feedlot management and nutrition specialist at the University of Nebraska-Lincoln Panhandle Research Feedlot on May 1.

Five months later he remains grounded from traveling by the COVID-19 pandemic, as are so many others. But Loza is stuck farther from his workplace than most. In his apartment in Cordoba, Argentina, he awaits the lifting of restrictions on work visas in the United States.

Meanwhile he is remotely launching research and Extension activities in western Nebraska: conducting a research study, hunting for funding, and meeting virtually with colleagues and with cattle feeders in western Nebraska using the online meeting platforms.

Dr. Clint Krehbiel, head of the Animal Science Department at the UNL Institute of Agriculture and Natural Resources (IANR), said Loza was caught up in the U.S. federal government’s ban on H-1B work visas (for highly trained specialty occupations), and might not be able to move to Scottsbluff until January 2021. He added, “In the interim, we have hired him as an adjunct professor and he will continue to work from
Argentina. Pablo has interacted with western Nebraska producers and has an experiment underway at the Panhandle Feedlot.”

At the time of his UNL appointment, Loza was director of a research farm about 15 miles south of Cordoba, Argentina’s second largest city. He moved to the city in May, the time when he had been scheduled to begin duties in Nebraska. But he didn’t think he would be in Cordoba for three months and counting. In Argentina movement is highly restricted and the economy has been hurting since before the pandemic.

Loza also has experience in the United States, including Nebraska. He received a Ph.D. from UNL in 2008 in ruminant nutrition, a master’s degree in ruminant nutrition from Colorado State University, in addition to his degree in agricultural engineering from the National University of Cordoba. He has conducted research in Nebraska, Colorado and Louisiana.

Loza has been trying to build relationships with his new clientele in western Nebraska. “We did a pretty decent zoom meeting with a group of producers from the area. We talked about things that worried them, how to serve them from a distance, things that could be related to problems they had at the time,” he said.

He also has started a research trial into how cattle behave with a sudden change in their rations due to temporary production cutbacks in ethanol plants, which reduced the availability of an ethanol coproduct, distillers grains, to feedlots.

The project is intended to begin establishing a baseline and provide information about options for replacing important feedstuffs in the event of a disruption – which also could happen in the future under different circumstances, Loza points out. “We take things for granted that things will never change sometimes.”

There are not many potential replacements for distillers grain, according to Loza. The closest would be soybean meals, but cattle feeders in the Panhandle would need to transport soy meal a long way. Another potential replacement would be sunflower meal, also not exactly an abundant product in Nebraska.

Other, more local replacements such as field peas or other peas could be researched, but Loza said their volume would be limited and their protein content and quality variable. “There are probably other sources of vegetable proteins, but might not be as economical, and not in that volume.”

During the pandemic Loza also has been meeting with colleagues in Extension and the U.S. Department of Agriculture, searching for programs, opportunities, and funding, as well as potential channels for getting information and advice to producers.

He is eager to be able to meet in person with his clientele, the feedlot operators. Online meetings are the best option available, but are not the same as in-person visits to feedlots, especially early in a working relationship. “You can’t jump out of your screen and talk to them for a half hour,” he said. “You want to go visit their operation, see what they’re doing, what they need, to get a feeling.”

Loza is working on having an invitational meeting for producers that would include a presentation on a technical topic and then a period of questions, answers and general discussion – “how they are doing, sharing information on how they are coping with the challenges of their operations.”

In Scottsbluff, meantime, Loza said fellow faculty member Dr. Karla Wilke, Cow-Calf Systems and Stocker Management Specialist at the Panhandle Center, has been helpful in seeing that activities are carried out at the Panhandle Research Feedlot, as have research technicians Nabor Guzman and Doug Pieper.

He also has regular virtual meetings with the research technicians, as well as graduate students and Animal Science faculty. “Everybody’s trying to do what they can. But I’m ready to be there in person.”

After the pandemic, Loza also hopes to conduct research into alternative local rations such as small grains or sugarbeet pulp. His ideal research program would address two types of issues: those that are local to the Panhandle, and those that are applicable to the high plains region.
Nebraska duo eyes end to costly swine diseases

By: Natalie Jones, IANR Media
Published May 28, 2020, Nebraska Today

Two University of Nebraska–Lincoln researchers have received $1 million in grant funding to continue research that could lead to the development of vaccines and genetic-selection tools to fight some of the world’s costliest swine diseases.

Huskers Daniel Ciobanu and Hiep Vu have each recently been awarded a three-year, $500,000 grant from the U.S. Department of Agriculture’s National Institute of Food and Agriculture. It is the third NIFA grant for each.

Ciobanu, an associate professor of molecular genetics in the Department of Animal Science, is working to identify the role a pig’s genes play in resistance to viral diseases. His research mostly focuses on porcine circovirus 2, a pathogen found in global swine populations that costs U.S. pork producers more than $250 million annually.

Vu, an assistant professor in the Nebraska Center for Virology and Department of Animal Science, is engaged in developing vaccines to protect pigs against viruses such as swine influenza and porcine reproductive and respiratory syndrome virus, which affect swine production worldwide.

Their work may seem to go against each other in some ways, Ciobanu said. If the gene variant that makes an animal susceptible to a viral disease can be identified and over time eliminated from the swine population, is a vaccine even needed? But Ciobanu said their research actually complements each other.

“Hiep and I will have totally opposite kinds of objectives, but they tie together way more than other people believe,” Ciobanu said. “You can use both vaccination and host genome profiling to provide a better immune response. You can vaccinate only certain animals that are susceptible, and you don’t need to vaccinate everyone. This is valid in humans and could be valid in animals, as well.”

Ciobanu’s research will build upon data he began...
collecting eight years ago from more than 1,000 pigs infected with porcine circovirus 2 at the university’s Animal Science Complex. After genotyping the pigs with 60,000 data markers and conducting extensive DNA and RNA sequencing, a breakthrough discovery was made. The team has identified a gene called Synapogyrin 2 that is associated with resistance to porcine circovirus 2, the smallest virus that infects mammalian cells.

Early identification of pigs susceptible to the virus would improve the general health and welfare of swine populations worldwide, Ciobanu said, with potential benefits for other livestock species and even humans.

“If the swine industry can use this gene variant or mutation as a DNA marker to select for disease resistance, then they can assess its impact in cattle and other livestock and even in humans,” Ciobanu said.

The next phase of Ciobanu’s work will be done in vitro, using cell lines engineered with different mutations of Synapogyrin 2. Ciobanu and his team will test the different cell lines to see if the gene impacts susceptibility for viruses other than porcine circovirus 2.

Vu will use his grant to utilize molecular methods in his efforts to engineer a broadly protective vaccine that could protect against multiple, if not all, variants of swine influenza virus.

Dr. Steven Jones, a professor of muscle biology, and Dr. Dennis Burson, a professor of meat science, retired June 30, 2020. Jones and Burson began working in the Department of Animal Science in 1984, and have had exemplary careers in meat science. Jones’ career evolved to predominantly teaching and he has been at the forefront of bringing computerized technologies into the classroom. He recently received the Holling Family Award for Teaching Excellence in March.

Burson served in a predominantly Extension role delivering HACCP and food safety training to stakeholders across the state and the region. Both Burson and Jones received a long list of awards at the local, regional, and national levels for their impact across the spectrum. They will be greatly missed by their profession and Department of Animal Science.

We’re excited to announce that Marshal Peterson has been hired as Lecturer and the UNL Rodeo Coach.
Sullivan receives achievement award

Dr. Gary Sullivan was among two others who received an American Meat Science Association Distinguished Achievement Award. Dr. Dustin Boler, Dr. Travis O’Quinn and Dr. Sullivan were honored Aug. 6, 2020, during a virtual 66th International Congress of Meat Science and Technology and the AMSA 73rd Reciprocal Meat Conference awards presentation.

The Achievement Award was established in 1992 and is designed to recognize and foster the development of young AMSA members who have demonstrated significant skills and contribution to the animal products industry and the AMSA. The award is sponsored by Burke Corporation.

Dr. Gary Sullivan is an Associate Professor of Meat Processing in the Department of Animal Science at the University of Nebraska-Lincoln. Sullivan was raised in Earling, Iowa and was active in 4-H, FFA, and with the World Food Prize. He received his B.S. in Animal Science and International Agriculture from Iowa State University, a M.S. in Animal Science from the University of Nebraska-Lincoln under the supervision of Dr. Chris Calkins and completed his Ph.D. in Meat Science and Food Science and Technology at Iowa State University under Dr. Joe Sebranek and Dr. Ken Prusa.

In 2011, he started as an Assistant Professor in the Department of Animal Science at University of Nebraska-Lincoln with a research and teaching appointment focused on Meat Processing. His research centers on the impacts of ingredients and processing techniques on the quality, safety, and shelf life of meat products. Research topics have included meat curing, sodium reduction, high pressure processing, influences of ingredients and processing on the spoilage microbiota in processed meats, and effects of cattle diets on processed meats shelf life. He has published 20 peer-reviewed manuscripts, 1 book chapter, 3 conference proceeding papers, 35 conference abstracts, and 26 university research reports. He has been the PI or Co-PI on $1.05 million in competitive research grants and industry service projects. He has advised 6 M.S. and 2 Ph.D. students and served on the examining committee for 16 additional students. In addition, 7 undergraduate students have conducted research projects under his supervision.

Sullivan teaches Meat Processing, Meat Technology, and leads the Meat Industry Study Tour. To introduce students to meat science, Sullivan has developed, and taught Meat Science laboratory activities included in the introductory the Animal Science and Food Science courses. His involvement in the Nebraska Youth Beef Leadership Symposium and Nebraska Youth Pork Conference programs for high schoolers connects students to the beef and pork they produce. He helped create and advises the Meat Science Club, has advised the Block and Bridle Club and the Animal Science Graduate Student Association, and provides faculty oversight of the Loeffel Meat Laboratory.

Sullivan is an active member of AMSA and IFT. He has been on the RMC technical planning committee since 2014 and has helped plan several processed meat focused sessions. He was also part of the RMC host committee in 2015. He is currently serving on the IFT Muscle Foods Division Leadership Team as an at-large member. He has judged at the AAMP American Cured Meats Championship and several state Cured Meats Championships.

Source: https://meatscience.org/ (Story edited and cut to fit copy.)
Dr. Mary Drewnoski Receives the Outstanding Young Extension Specialist Award from the Midwest Section of the American Society of Animal Science

March 2, 2020 – Dr. Mary Drewnoski is the recipient of the 2020 Midwest Section of the American Society of Animal Science Outstanding Young Extension Specialist Award, presented to her this week during the annual 2020 ASAS-ADSA Meeting held in Omaha, Nebraska.

Mary Drewnoski grew up in Appalachia, attended Berea College and North Carolina State followed by a 3 year post doc at Iowa State and 2 years on faculty at University of Idaho. She was hired by University of Nebraska in 2014 as part of an interdisciplinary team focused on developing integrated crop and cattle production systems in Nebraska. Mary’s extension and research program is focused on the utilization of crop residues and cover crop forages for backgrounding calves and beef cows. She has been instrumental in developing a $4.8 million Nebraska Beef Systems Initiative and leads the extension component. Mary has made 87 presentations at extension meetings and has authored or co-authored 31 extension articles and done 45 interviews over the past 3 years. She instigated the development of an exchange for farmers with crop residues or cover crops to connect with cattlemen looking for grazing opportunities. Mary has certainly achieved the goals envisioned as a Beef Systems Specialist.

The ASAS Outstanding Young Extension Specialist Award recognizes an individual currently employed as an extension specialist by a state or federal service and is engaged in outreach education conducting programs in animal or dairy science. This person actively works with people that produce livestock animals or with people in the meat industry and uses their connections to initiate and develop educational programs dedicated to increasing education in areas such as breeding, milk production, nutrition, management, physiology, and many other areas that promote the growth of the industry. This award is sponsored by Purina Animal Nutrition.

About the ASAS Midwestern Section/ADSA Midwestern Branch: This joint organization is composed of the ASAS Midwestern Section and the ADSA Midwest Branch. Members of either ASAS or ADSA that are associated with the organizations in Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin are automatically considered members. The purpose of this joint group is to advance research and education in animal sciences through providing a regional forum for exchange of scientific and technical information, and to promote interaction and collaboration among animal industries, scientists, trainees, and students.
By: Matt Spangler  
Published Oct. 19, 2020, IANR News

About Matthew  
I grew up on a farm and ranch in Kansas and developed a passion of agriculture in general and beef cattle specifically there. I developed an interest in animal breeding and genetics during my undergraduate studies at Kansas State University, which led me to pursue a master’s degree at Iowa State and doctorate degree at University of Georgia. I was fortunate to have joined the faculty at UNL in 2008.

What is your position at the University of Nebraska-Lincoln?  
I am a professor of animal genetics and Extension beef cattle genetics specialist.

What drew you to the University of Nebraska-Lincoln?  
Some of the greatest animal breeders in history were faculty members at UNL. This legacy coupled with the opportunity to work with scientists at the United States Meat Animal Research Center was a huge draw for me. The chair of the search committee at the time, Merlyn Nielsen, was very persistent (I am smiling) and convinced me that UNL and I were a match; he was correct.

What aspect of working in an educational setting do you enjoy the most?  
The opportunity to continually learn. I enjoy research, seeing research results deployed to effect positive change in the livestock industry and helping students grow into the talented young scientists that they are capable of being.

What do you consider your greatest achievement?  
I always struggle to answer questions like this. I cannot think of a single professional accomplishment that I feel comfortable in saying was “mine”. I am honored to have worked with several very talented graduate students and postdoctorates who have proven to be far more clever than I am; they just needed help to uncover their abilities. I am continually humbled to work with very close academic colleagues and industry colleagues. If I have helped any of these people achieve something important to them, then I would consider that a great personal achievement.

What is something that most people don’t know about you?  
I prefer solitude. That might be surprising for someone that has an Extension appointment and travels and much as I do.

What is your life like outside of work?  
I am horrible at maintaining boundaries between work and home, so it is not often that I am “outside of work”. However, I greatly enjoy the outdoors and like to go hunting and fishing. My wife and I have a 2-year-old son, so life outside of work generally revolves around him.
By: Tom Burkey  
Published July 13, 2020, IANR News

About Tom Burkey
I was born and raised in Lincoln, Neb. attending Ruth Pyrtle Elementary and Lincoln East High School (back when LEHS was home to 7th through 12th graders!). After graduating high school, I matriculated at Rockford University (Rockford, Ill.) where I earned a Bachelor’s degree in biology with a minor in secondary education. Following my undergraduate degree I taught secondary science (biology, chemistry, physics, etc.) at three different high schools in the northern Illinois area. In 2001, I made the decision to return to school and accepted a graduate teaching/research assistantship at Kansas State University in the Department of Animal Sciences and Industry. After I completed my doctoral degree in 2006, I was hired by the University of Nebraska as a nonruminant nutritionist with teaching and research appointments.

What is your position at the University of Nebraska—Lincoln?
I am a professor in the Department of Animal Science conducting research related to investigating the interactions between nutrition, gut microbes, and immunity in pigs. I teach a graduate-level nutrition course (Protein and Amino Acid Nutrition) and I am also part of the teaching faculty in the UNL/ISU Professional Program in Veterinary Medicine (Veterinary Nutrition). Currently, I am also serving a half-time, interim role as the CASNR Associate Dean for Graduate Education and Partnership Engagement working towards advancing the IANR/CASNR Strategic Framework for Graduate Education.

What drew you to the University of Nebraska—Lincoln?
Lincoln has been and will likely always be my home. I don’t think there is a better place to work and to raise a family than Lincoln, Neb. As an added bonus, our family farm is near Milford, Neb. and is home to many members of my immediate and extended family. The opportunity to work at the University of Nebraska and to be near family is something that I cannot show enough appreciation for.

What aspect of working in an educational setting do you enjoy the most?
I have always had a passion for working with the generations that will shape our future. Working in academia has allowed me to do what I love to do all the time and to interact with people from all over the world.

What do you consider your greatest achievement?
I consider my family my greatest achievement and source of pride. During my time in Illinois, I was fortunate to meet my wife (Jen), who is currently a pre-K teacher in Lincoln, and we have four children ranging in age from 12 to 21. Auren, 12, is actively involved in raising and showing 4-H club lambs; Kieran, 19, will be a sophomore at Ogelthorpe University, in Atlanta, Ga., studying psychology and competing on the women’s soccer team; Kelsey, 20, will be a junior at Missouri Western University, in St. Joseph, Mo., studying to be a nurse and competing on the women’s soccer team; and Kyley, 21, recently graduated from the University of Kansas with a degree in chemical engineering and has been admitted to the University of Kansas M.D.-Ph.D. physician-scientist program.
Seven faculty receive promotion, tenure

UNL awarded tenure and our promotion to seven animal science faculty, July 1, 2020. Drs. Lena Luck, Jessica Petersen, and Dustin Yates are promoted with tenure to associate professors; Drs. Daniel Ciobanu, Lisa Karr, and Jennifer Wood are promoted to full professors; and Kimberly Clark is promoted to associate Extension educator. We are proud of our colleagues.

Miller receives distinguished professorship

Dr. Phil Miller has been named the Kermit Wagner Distinguished Professor in Animal Science by President Ted Carter on behalf of the University of Nebraska Board of Regents. The Kermit Wagner Distinguished Professorship was established in 1987 to commemorate the life of Kermit Wagner, who was a member of the NU Board of Regents from 1970 to 1982, and was active in agri-business and banking. The recipient of the professorship is selected on the basis of his or her accomplishments in teaching and research.

Dr. Miller’s commitment to his duties in the Department of Animal Science, his discipline, and his professional societies fully embody the spirit of the Kermit Wagner professorship. He joins the ranks of Drs. Terry Klopfenstein, Merlyn Nielsen, and Dennis Brink, who were earlier recipients of this honor.

Photos by: Peta-Gaye Clachar / Greg Nathan, University Communication
By: Clint Krehbiel

Brianna Buseman was hired, in June, as an assistant professor, Youth Meat Animal Extension.

Buseman grew up on a ranch in southeast South Dakota. She received a bachelor’s degree from South Dakota State University and a Master of Science degree with emphasis in meat science from the University of Idaho. Buseman’s research focused on improving tenderness of beef through greater understanding of caplain-2. She gained excellent teaching experience in Live Animal and Carcass Evaluation and Animal Disease Management courses and served as assistant coach for the Meat Animal Evaluation Team.

Buseman engages the youth in Nebraska in meat animal production and processing, coaches the Meats Judging Team, and co-coaches the Meat Animal Evaluation Team along with Blaine French.

Buseman brings excellent hands-on and academic experiences to this position, and we are excited to have her on board!
New hires

Ruth Woiwode

By: Clint Krehbiel

We are excited to welcome Dr. Ruth Woiwode to our Animal Science faculty!

Dr. Woiwode began Aug. 17 and brings a new area of expertise as well as talent to our department — Animal Behavior and Well-Being.

She has a joint appointment and responsibilities in each part of the land grant mission with 50 percent Extension, 30 percent research, and 20 percent teaching. She aims to build a program that is relevant to Nebraska beef producers as well as other livestock, equine, and companion animal species.

In her Extension appointment, Dr. Woiwode works with educators across the state for broader implementation of third-party welfare audits and the beef quality assurance program. She also develops educational materials to help support the current educators already teaching statewide and brings industry-specific experience that for research can help develop humane handling plans for a number of programs.

Dr. Woiwode is a North Dakota native and received a graduate education at Colorado State University with Dr. Temple Grandin, who is well known to many for her trailblazing work as a spokesperson for people with autism and her lifelong work with animal behavior.

Welcome, Dr. Woiwode!
Dr. Yijie Xiong has been appointed as assistant professor of precision livestock management in the Department of Animal Science. She also contributes 25 percent to the Department of Biological Systems Engineering.

Dr. Xiong brings new capacity in precision livestock management. This is not a brand-new area for us, but she will be first to develop technologies to advance management of beef cattle that can translate to all livestock species.

Dr. Xiong works to provide opportunities that develop research and Extension programs toward integrating technology for intensive and extensive livestock production — especially beef production. She has excellent experience with many species of animals including: swine, poultry, and both beef cattle and dairy cows.

Dr. Xiong hopes to solve the great challenge of balancing profitable beef production with environmental stewardship.

Dr. Xiong received a bachelor’s degree from China Agricultural University and received a master’s and doctorate degree in agricultural engineering at the University of Illinois Urbana—Champaign.

We are excited to welcome Dr. Xiong!
The Department of Animal Science appoints two new student ambassadors for the 2020-2021 academic year.

After in-depth interviews with department faculty and second-year ambassadors, two students were selected out of a pool of eight applicants:

- Kelsey Loseke, a junior from Blair, Neb.
- Shaye Koester, a junior from Steele, N.D.

The two new ambassadors serve alongside current second-year ambassadors:

- Kathlyn Hauxwell, a junior from McCook, Neb.
- Felicia Knoerzer, a junior from Elwood, Neb.

The ambassadors will interact with prospective animal science students by visiting high schools and attending various university admissions events. In addition to attending and supporting events, each ambassador will also take on the responsibility of planning one recruitment activity per year.

The Animal Science Student Ambassador program, which started in 1999, selects two animal science majors as ambassadors to promote the animal science program each year. Students receive a $2,000 scholarship ($500 each semester) and serve for two years supporting the department’s recruitment efforts.

For more information on the Animal Science Student Ambassador program, visit http://animalscience.unl.edu/. Follow the department on Facebook at “UNL Animal Science,” on Twitter at @UNL_AniSci, and Instagram “UNL Animal Science” to stay up to date on upcoming events and current happenings in the department.
UNDERGRADUATE ALUMNI

MAY 2020 B.S. GRADUATES

Alexandria Allison
Alexa Barber
Colten Bergt
Jillian Black
Erin Blucher
Jade Bottger
Fina Choat
Sarah Dannehl
Dawn Eckel
Morgan Eggleston
Hannah Esch
Austin Freeman
Kayla Gadeken
Blaire Gibbens
Avery Ewen
Madison Jones

Anna Kobza
Ronald Kramer
Shelby Kuhr
Sophia Lentfer
Mary Lewandowski
Kenzie Lingenfelter
Benjamin McMullin
Josie Mickey
Brent Miller
Cooper O'Connor
Felicia Pandorf
Rudy Pooch
Charmayne Popp
Gregory Rechberger
Elizabeth Ruskamp
Keeley Russman
Emily Schildberg
Bailey Schroeder
Katharine Schudel

Trevor Schultz
Lexie Schuster
Christina Sindelar
Chasity Smetter
Lily Steen
Ali Stout
Kaitlyn Thesenvitz
Jayden Thies
Sloane Tiarks
Patrick Vossler
Jasmine Wilson
Nicole Woita

AUGUST 2020 B.S. GRADUATES

Leslie Benitez
Brianna Davis
Alexia Hamilton
Katelyn Petersen
Kelsey Petersen

FALL NEW GRADUATE STUDENTS

M.S.
Brian Arisman
Alexa Barber
Aaron Holliday
Blaire Gibbens
Devin Jakub
Alexa Johnson
Taylor Lacey
Savannah Millburn
Micah Most
Arena See
Jason Stypinski
Nicole Woita
Samantha Wagner
Selby Boerman

PH.D.
Haley Beer
Kassidy Buse
Rachel Gibbs
Dalton Obermier
CONGRATULATIONS

Renae Sieck
Photo by: Peta-Gaye Clachar

Johnna Baller
Contributed photo

Katie Bidne
Photo by: Peta-Gaye Clachar
AWARDS & RECOGNITIONS

The following students received awards:

- Katie Bidne, Ph.D. (Wood): Lalor Foundation Merit Award, Society for the Study of Reproduction
- Renae Sieck, M.S. (Petersen): 2020 Nebraska Beef State Scholarship, Nebraska Cattlemen
- Johnna Baller, Ph.D. (Spangler): Baker/Cundiff Essay Award, Beef Improvement Federation
- Lindsay Upperman, Ph.D. (Spangler): Roy Wallace Memorial Scholarship Award, Beef Improvement Federation
- Alex Snider, Post-Doctoral (Cupp): 2020 USDA-NIFA-AFRI Merit Award, Society for the Study of Reproduction

CONGRATULATIONS

Lindsay Upperman

Alex Snider
Photos by: Peta-Gaye Clachar
Selby Boerman's drive and passion fuel her hunger for knowledge and ways that it can be applied to impact the future of the agriculture industry.

Boerman, a graduate student working on a master’s degree in animal science and a graduate research assistant for the University of Nebraska-Lincoln, began learning the basic skills of ranching after moving onto a family friend’s ranch in Northern California her freshman year of high school. After falling in love with cattle, Boerman attended California Polytechnic State University, San Luis Obispo, studying animal science and rangeland resources.

To broaden her perspective of rangeland management in cattle production, Boerman moved to Nebraska in January 2020 to become a calving intern at the Gudmundsen Sandhills Laboratory. The Sandhills presented a very different ranching style to her. “In the Sandhills, there’s way more forage available than in California, so there’s a lot of concerns that you would have to worry about if you were ranching in California that aren’t a problem here,” observes Boerman.

It was here that Boerman decided she wanted to pursue a master’s degree in animal science with an emphasis on cow-calf production and grazing behavior, igniting a research project.

Boerman’s research project is comprised of two components: cow-calf performance and grazing behavior. She is comparing the cow-calf pairs of low milk-producing cattle and high milk-producing cattle and seeing if there are grazing behavior differences between the two groups. Each calf is fitted with GPS collars and the calves have accelerometers around their necks to assess the calf’s head movements, proximity to the cow
and behavior. This is a method by which they can measure nursing and grazing behavior.

This research will allow for the selection of the most efficient animals and ultimately give producers information they can use to better match cattle with specific environments – for example the forage resources they have available.

Boerman’s impactful research has earned her the Arthur W. Sampson Fellowship Fund award. This award grants fellowships to support graduate students with a special interest in pasture and range management in the state of Nebraska. Students must have high potential for research accomplishments in their chosen thesis, degree project or dissertation topic.

This award is a great honor for Boerman to receive, as up until college, she did not have much knowledge about rangeland, or agriculture in general. She aspires to use her newfound passion to benefit agriculture. “I’m pretty excited about the research I’m about to start and eager to see what the results end up being,” said Boerman. “I have a passion for applied research that is going to benefit the beef industry.”

The move to Nebraska has been a positive experience for Boerman, as she has been able to take in the unique beauty of the Sandhills, gain newfound knowledge on large-scale production systems and make an impact with what she has learned.

“I just have a better appreciation for beef cattle production on this bigger scale and some of the challenges that come with running cattle at this level,” she said.

Why did you decide to come to the University of Nebraska-Lincoln?
I decided to attend UNL after attending NAYI the summer in between the junior and senior years of high school. The “small town” campus feel was hard to beat! The diversity of the students and faculty also played a role in deciding with UNL because I would be able to make connections with people from all backgrounds.

How has diversity and inclusive excellence played a role in your CASNR experience?
I have been exposed to people I wouldn’t have normally been around, and I have learned from my peers. Although we all have the same love for knowledge, our backgrounds are not the same. But somehow, we all come together to make the best of situations!

What is your favorite class you have taken so far and why?
ASCI 181 with Dr. Thomas Field was my favorite class. I have never had such an inspirational professor that made me more engaged and craving knowledge like Dr. Field.

What are your plans for post-graduation?
I plan to apply to veterinary schools and master’s programs and then return to small-town Nebraska to promote agriculture.
Nebraska Extension dean and director retires

By: Cara Pesek
Published June 30, 2020, IANR News

Nebraska Extension Dean and Director Chuck Hibberd, a Lexington native who fostered a spirit of innovation and collaboration within the organization, retired June 30.

Hibberd spent seven years at the helm of Nebraska Extension. Under his leadership, Nebraska Extension, housed within the Institute of Agriculture and Natural Resources at the University of Nebraska-Lincoln, has moved toward a new way of thinking about the role of Extension, one that’s less about providing answers to questions and more about working with farmers, ranchers, community leaders and families to learn from each other and solve problems together.

“There is so much indigenous knowledge in Nebraska,” Hibberd said. “We’re not going to solve the most vexing problems in this state if we don’t gather information from all sources and use that collective knowledge to create robust solutions.”

Hibberd's professional path started at the University of Nebraska-Lincoln, where he received his bachelor's degree in animal science. It was his fourth major, but the first one that stuck, thanks in large part to a professor who helped him figure out how to make the courses from his first three majors count toward an animal science degree. That same professor, Merlyn Nielsen, also encouraged him to attend graduate school.

Hibberd received his master's and doctorate degrees from Oklahoma State University, and upon graduation, he joined the faculty there. His expertise was in beef cattle nutrition and management, and he quickly became involved in Extension programs across Oklahoma, sharing his own research of how beef cows might benefit from various nutritional and management strategies. Hibberd holds two patents from his work at Oklahoma State University.

Hibberd loved the teaching opportunities Extension provided and the opportunity to work with producers and allied industry partners. He also quickly came to love teaching students, eventually chairing a university-wide committee on first-year student success and winning the top teaching award at OSU for his work.

He worked at Oklahoma for 12 years then moved with his family to Scottsbluff to lead the Panhandle Research and Education Center. Among the most memorable projects Hibberd worked on was positioning western Nebraska as a hotbed for the production of chicory, which can be roasted, ground, and combined with or used in place of coffee.

Panhandle Research and Education Center faculty and staff, local business leaders, and community members all worked together to start a chicory processing plant in Scottsbluff that kicked off a local chicory industry. “The community helped fund that project,” Hibberd said. “We couldn’t have done it without them, and they couldn’t have done it without us, a great example of a public/private partnership that worked.”

After nearly 13 years in Scottsbluff, Hibberd moved with his family to Indiana, where he became the director for Purdue Extension.
Five years later, when the Extension dean and director position opened at the University of Nebraska-Lincoln, he returned to his home state, drawn by Nebraska Extension’s reputation for excellence and creativity.

“I didn’t come back to Nebraska because I’m from Nebraska,” Hibberd said. “I didn’t come back because I wanted to work for the University of Nebraska. I came back because I really thought that Nebraska Extension was in a place to continue to grow and evolve in ways that would be fun and exciting and valuable for Nebraskans.”

Over the seven-plus years Hibberd has served as dean and director of Nebraska Extension, he has found that to be true.

During his tenure at the university, more than 100 Extension professionals at all 83 county offices responded to the worst natural disaster in recent Nebraska history during the floods and blizzard in March of 2019. Immediately, Extension professionals jumped to action to coordinate volunteers from across the state and country who came to help, to assist producers with myriad issues related to livestock, crops and equipment, and to help homeowners and neighborhoods deal with flood water. A year later, Hibberd fostered Nebraska Extension’s efforts to provide resources to producers dealing with market disruptions, parents trying to balance working with suddenly homeschooling their children, rural Nebraskans struggling with their mental health and more during the state’s response to COVID-19.

Nebraska’s 4-H program, which has always been strong, has grown to 142,000 participants statewide — that’s one in three Nebraska youth between the ages of 8 and 18, including over 40,000 4-Hers in Omaha and Lincoln. It’s the highest participation rate in the country.

Under Hibberd, Nebraska Extension also shifted to a new model of service. Extension professionals across the state have continued to serve local producers, communities, businesses and families, but they also work in interdisciplinary teams designed to take on statewide issues important to Nebraskans, such as integrated crop and livestock systems, irrigation efficiency, food access and early childhood development.

“Nebraska has a strong tradition of excellence in Extension, and under Chuck’s leadership, Extension has become even stronger and better equipped to serve all Nebraskans,” said Mike Boehm, University of Nebraska vice president and Harlan Vice Chancellor for the Institute of Agriculture and Natural Resources. “He is strategic, extremely collaborative and he has empowered Extension professionals all across Nebraska to deepen their relationships with community leaders, producers, gardeners, parents, educators and many others across the state. His commitment to county-based partnering and his impacts across Nebraska and beyond will be felt for years to come.”

Dave Varner, associate dean and director of Nebraska Extension, will serve as interim dean and director until a permanent replacement is found via a national search.

Varner began his Extension career with a college internship in 1986. Since then, he has served as an Extension assistant, educator, associate district director, and held interim director positions at the Southeast Research and Extension Center and the Eastern Nebraska Research and Extension Center, both located near Mead. He also has co-led the Nebraska Extension disaster response and recovery team. He has served as associate dean and director since January 2017.

“Extension professionals care so deeply about the well-being of Nebraskans and make a difference in the lives of Nebraskans every day,” Varner said. “Nebraska Extension is deeply committed to the residents of our state and always ready for the next challenge. That’s what I love about the organization.”

In his retirement, Hibberd plans to stay involved with the university as a volunteer, as well as spend time with his family. Beyond that, he plans to continue to learn and teach, as he has his entire life. And he’ll continue to draw inspiration from his experiences in Nebraska.

“I’ve never seen a place where people get stuff done like they do here. And that spirit of accomplishment is delivered in ways that aren’t just valuable for them, but they’re truly valuable for other people, their communities and their state,” Hibberd said. “That spirit of can-do, that spirit of generosity...I think that’s pretty unique to Nebraska, and that’s why it’s been really special not only to grow up here, but also to finish my career in this amazing place.”
ALUMNI NEWS

Gregory A. Ibach receives alumni service award

Published Aug. 21, 2020, IANR News

The Department of Agricultural Economics at the University of Nebraska-Lincoln has recognized Jamie B. Kruse and Gregory A. Ibach as recipients of its 2020 Outstanding Alumni Awards, and Ag Processing Inc., as the recipient of its 2020 Outstanding Service Award.

The three honors are awarded annually to individuals and organizations in recognition of their significant contributions to agriculture, which align with the department’s research, teaching and outreach in agricultural production and profitability, natural resources, rural development and industrial organization.

Kruse is a THCAS distinguished professor of economics and director of the Center for Natural Hazards Research at East Carolina University. Her research focuses on experimental economics, industrial organization, natural hazards economics and risk and decision-making. Kruse has published 65 articles and has been awarded $50 million in grant funding over the course of her career. After graduating from the university with a bachelor’s degree with distinction in Ag Honors in 1979, she went on to earn a master’s from Colorado State University and a Ph.D. from the University of Arizona. Kruse has also been a faculty member at Texas Tech University and the University of Colorado at Boulder. She served as chief economist at the National Oceanic and Atmospheric Administration in 2010 and has been a member of numerous panels and committees with the National Science Foundation, Department of Homeland Security and the White House, among many others.

Ibach is the undersecretary for marketing and regulatory programs at the United States Department of Agriculture. He earned bachelor’s degrees in agricultural economics and animal science in 1984. At USDA, he has led reform efforts in biotechnology regulation, promoted traceability, expanded animal disease prevention and implemented hemp production regulations. He previously served as director of the Nebraska Department of Agriculture, where he led efforts to establish the state as a national leader in the export of agricultural products, established plans to grow the livestock industry and created opportunities for youth and young and beginning farmers. A farmer and rancher from Sumner, Neb., Ibach is co-owner of GTI, Inc., a sixth-generation family farm.

Ag Processing Inc., in Hastings, Neb., was organized in 1983 as a leading agribusiness cooperative engaged in procuring, processing, marketing and transporting oilseeds, grains and related products. Its owners include 145 local and regional cooperatives, representing more than 250,000 farmers throughout the U.S. and Canada. AGP employs approximately 1,100 people and markets domestic agricultural products around the world. The cooperative is a generous contributor to the Department of Agricultural Economics’ Commodity Trading Room and agribusiness club, provides scholarships for department students and employs several alumni.
WHAT TO EXPECT:
SATURDAY:
• 8:00 a.m. - Alumni & Emeriti Breakfast - Animal Science Complex
• 9:30 a.m. - Old Timers Judging Contest - Animal Science Complex
• 1:00 p.m. - Bull Sale - Animal Science Complex
• 5:00 p.m. - Block & Bridle Honors Banquet/Alumni & Friends Reunion:
  • Alumni Awards
  • Block & Bridle Honoree
  • Recognition of Judging Teams
  • Live & Silent Auctions (including cake auction)

SUNDAY: 3:00 pm – Scholarship Reception

For more information on the 2021 Alumni & Friends Weekend, visit: https://go.unl.edu/b7jv.
Where are you now???

BLOCK & BRIDLE ALUMNI

Block and Bridle Alumni we'd love to know where you are now and where you've been. Please go to our website, click on the "where are you now" icon and fill in the form. We'd like to put it in our next annual for the rest of the alumni to see!

www.animalscience.unl/block-and-bridle

DEPARTMENT OF

ANIMAL SCIENCE

UNIVERSITY OF

Nebraska

Lincoln

28 FALL 2020
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Follow us on Instagram @unl_anisci.

Department of Animal Science alumni website:
https://animalscience.unl.edu/alumni

Update contact information:
Alumni can update their contact information by contacting the Nebraska Alumni Association at https://go.unl.edu/neb_alum.

Connect to job opportunities with Handshake
Handshake is UNL’s free online service that connects UNL students and alumni with employers. The site allows students and alumni to post and send resumes, view upcoming local and on-campus career events, learn which employers are attending upcoming career fairs, research contact information for local and national employers, and search for and apply to open positions. For more information, visit Handshake at: https://careers.unl.edu/handshake.

The University of Nebraska-Lincoln Department of Animal Science publishes the Animal Science Nsider semi-annually. To request a printed issue of the Animal Science Nsider, please visit https://animalscience.unl.edu/alumni-friends-news or scan QR code below.

Read alumni stories:
https://animalscience.unl.edu/alumni-stories

Where are you now?
Attention alumni! We want to know where you are and what you are doing!

Please take a moment to answer the following questions and return your responses by mail to:

University of Nebraska–Lincoln
Department of Animal Science
3940 Fair Street
P.O. Box 830908
Lincoln, NE 68583-0908

Or, email your responses to:
pclachar2@unl.edu

Name: ____________________________
Degree: __________________________
Year Earned: _____________________
UNL Advisor: ____________________
Email: __________________________
Current and past career positions: __________________________
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Please let us know of any significant events in your life and/or career since leaving the University of Nebraska–Lincoln. Also, please feel free to send any photos and/or recollections of your time at UNL to Peta-Gaye Clachar at pclachar2@unl.edu or visit: https://go.unl.edu/share-stories or scan QR code below.
Pork carcasses are fabricated into cuts for donation to the Food Bank of Lincoln and Food Bank for the Heartland.

Cover photos by: Craig Chandler, University Communication