# KANSAS STATE

# **Agricultural Economics**

#### The Quarterly E-Newsletter of the Department of Agricultural Economics | March 2019



# From the desk of Allen Featherstone

Another spring semester is passing quickly. I would like to highlight some of our undergraduate accomplishments, share some of the graduate and faculty research within the department, and highlight a few of our continuing efforts to further develop global networking opportunities with faculty from around the world.

In this E-Newsletter we share stories from visiting scholars Dr. Geoff Cockfield and Dr. Lawrence Mapemba about their time within the Department of Agricultural Economics.

We will visit with KSU Student Body Vice President Lacy Pitts. She continues our tradition of student body undergraduate leaders. Pitts is wrapping up her term in May, and is looking forward to using her degree to give a voice to agriculture.

Dr. Nelson Villoria published a new article concerning technology and its impact in conserving resources. We share some highlights from a recent seminar in Nepal by Dr. Jisang Yu, and some of the findings from Ph.D. candidate Ralph Armah's recent research into reducing post harvest losses in Ghana. Dr. Brian Briggeman shares insights into his recent sabbatical in South Africa.

Finally, we share with you some of the details for the 2nd Kansas State University Commodity Futures Conference set to begin in April. Our achievements are directly related to the continued support of our alumni and corporate sponsorships. This support helps us provide our students and outreach programs the proper foundation to continue our tradition of excellence. We appreciate the dedication and engagement of our alumni and outside supporters. Thank-you to our generous donors who give back to the Department. If you have interest in knowing areas for investment, let me know.

Please take time to learn more about the activities of our department. We also encourage you to share your career and family developments so we can keep your fellow alumni informed. Please email me at afeather@ksu. edu or Thomas Reust, at tomreust@ksu.edu with information you would like to share with your fellow alumni.

#### Go Cats!

Dr. Allen Featherstone, Department Head, Professor, Master of Agribusiness Program Director



#### **Geoffrey Cockfield**

Visiting Fulbright Scholar Dr. Geoffrey Cockfield held the "Distinguished Chair in Agriculture and Life Sciences" at Kansas State University. Cockfield spent five months working alongside Department of Agricultural Economics colleagues studying governmental agricultural policy, and programs. Cockfield specifically researched local and national programs that would support producer operations in his native Australia, and ideas on protecting its natural resources.

Cockfield comes from a fourth generation farming family who harvested grain and raised livestock. He is a professor of government and economics at the School of Commerce at the University of Southern Queensland (USQ). Cockfield also serves as the Director of the Centre for Sustainable Agricultural Systems at USQ.

Cockfield says his research could benefit producers in Australia, "I am doing a comparison study of U.S. and Australian agricultural policy, and the main thing is we give our farmers almost no support beyond drastic crop loss."

Co-ops and insurance are two aspects of U.S. policy that are interesting to Cockfield as he believes there could be more done to support producers in Australia. Cockfield says the structure of the Australian government makes the Parliament of Australia particularly powerful, and communication to that governmental body of the benefits gained by these types of programs to both the producers and the markets. However, some of those ideas could face significant challenges making headway back home. "I think the crop insurance programs here are interesting, but the crop insurance here took off with government subsidies," Cockfield says. He doesn't think the Australian government would be keen to take up that task without further research and policy meetings. Cockfield looks forward to some interesting discussions upon his return to Australia.

Cockfield believes the problem might be tougher to bring to the fore in Australia due to there not being actual farm states such as Kansas being represented in the Australian government. Therefore, he thinks the U.S. system invites more cooperation on agriculture policies within the government. This makes visits like his more significant as a way of gaining insight into actual working models in the U.S.

Cockfield says he shared some of the resource conservation programs from Australia with his U.S. counterparts focusing on revegetation and water management. "Specifically, on water management we used both caps and water trading... there are lessons we learned that were both positive and negative. Looking at your current policies here in the U.S. you might be facing some challenges that could benefit from our lessons learned."

Looking back over his time here, Cockfield and says he appreciated the warmth when he arrived in September, and now appreciated seeing snow at the end of his visit.



#### Lawrence Mapemba

Dr. Lawrence D. Mapemba is a professor at Lilongwe University of Agriculture and Natural Resources (LUANAR), and is a visiting scholar working with the Department of Agricultural Economics to bolster legume producers and markets. He has been working on several papers over the past three years with the topic, and is updating his knowledge concerning modern teaching and administration techniques.

"The Department of Agricultural Economics was a natural choice to not only research, but also update my own research techniques and on technology advances, as a top agricultural university in the west."

Mapemba says modern techniques are important to communicate, and share ideas in journals with peers across the world. He believes these are important techniques to incorporate at LUANAR as it is an up and coming university in Malawi, and is looking to build capacity to serve their students. Mapemba taught a class and advised graduate students during his time at Kansas State University.

In fact, new ways of communicating with students and meeting their needs is one of the techniques Mapemba wants to bring back to his own work in Malawi, "When I went through my Ph.D. program, professors were seen as being exalted and almost unapproachable."

Mapemba also credits the Department of Agricultural Economics professor, Dr. Vincent Amanor-Boadu, for

expanding his views on building capacity within producers and markets. Traditionally, Mapemba says he was focused on finding the most efficient techniques to increase growth through technology, but Dr. Vincent believes focusing on enabling producers to be financially successful within the markets would provide a path to better practices as a natural process guided by market demands.

"It opened my eyes to a new way of looking at these issues, and showed me the effectiveness of allowing producers to make decisions based on market demands," says Mapemba.

Mapemba says he sees many opportunities to build the relationships between LUANAR and the Deparment of Agricultural Economics. Currently, a USAID program facilitates the current work with the departments. He sees more synergies to build on with his work in agricultural economics in Malawi and surrounding regions, and other programs such as the veterinarian and chemistry programs at K-State.

"I'm coming from a university that is young, and we have a growing market," says Mapemba "we are looking to the Department of Agricultural Economics as a successful program to learn from and bring back home."

"We want to capture our growing relationship with Kansas State University, and nurture it as a long term investment into both of our futures," says Mapemba.



#### Lacy Pitts: Student Body Vice President

Lacy Pitts, a Department of Agricultural Economics senior, is finishing her "year of service" as the Student Body Vice President at Kansas State University and is looking forward to her future. Pitts shared her experience as a student leader, and her work in improving communication in the agricultural industry. Pitts is proud of her agricultural roots and being a first-generation college graduate.

Pitts uses the term "year of service" as a nod to her experience in the past as a leader in the Future Farmers of America. She says she is privileged to represent over 20,000 undergraduate students at the university and working with university leaders to improve the university experience for her peers. Pitts believes her experiences had a lasting impact on her own growth and credits her mentors and the Department of Agricultural Economics for their support in her journey.

"Kansas Secretary of Agriculture Jackie McClaskey, a Department of Agricultural Economics alumna, told me to 'know who you serve', and I want to be sure and keep that mindset as a student leader," says Pitts.

Pitts says she started her role during a time that Kansas State University was undergoing large changes in the university budget, and this provided many opportunities to work with other leaders on campus to steer the university into the future. These challenges proved to her that she was making a difference that will have a large impact on the quality of life for students. "I want to show that a degree from the university is really worth it," says Pitts "a degree from K-State provides a high degree of value in the career market."

Starting from a young age, Pitts says she was able to work alongside other leaders from Kansas including Kansas Senator Pat Roberts, and other leaders in the state who ensure agriculture was well represented on the national level and on the world stage. She says she urges her fellow students to get engaged with leadership to make sure their issues are advocated to legislators and other key decision makers.

"My mother was a coordinator in Reno County, and she introduced me to Senator Pat Roberts while I was still in high school," says Pitts.

Pitts says her passion lies in being a communicator for agriculture and rural development. She believes her studies in the Department of Agricultural Economics will allow her to introduce those ideas to new audiences. Pitts is set to graduate in May and is looking forward to working to spread that message in her future career, in particular to facilitate college graduates to give back to the communities they came from.

"As the landscape of agriculture changes, and there are so many communities that depend on that, we have to determine how to modernize their purpose and actively revitalise those communities," says Pitts.



#### Nelson Villoria: Technology and Land Use

In a new study, Dr. Nelson Villoria is researching one of the biggest questions facing the global agricultural market, how does technology impact resource management? In particular, Villoria's research focuses on how interconnected markets are influencing the conservation of resources with the use of technology. As natural resources are being depleted, more efforts are being made to find the best solution to keep assets like the Amazon Rain Forest from being consumed by producers cutting down the forest to cultivate farmland.

The study compares land used in over 70 countries from the 1960s to 2014. The research focuses on the intersection of land use and technology, and the data was compiled by the Economic Research Service (ERS). With this comprehensive dataset, the research team hopes to track just how technology affects producer decisions to cultivate new acres into their operations.

Traditionally, the literature shows a paradox between technology being a tool to help producers to get more out of their current acres that lessens the need for producers to cultivate more land, and those cautioning that technology will speed the expansion of farmland to maximize profits.

Villoria's research points to the fact that both ideas are true but rely on the markets. An isolated farm in an isolated market means that any extra product put onto the market will push the price of the product down. When technology comes into the equation, producers in this situation will reduce acreage to maintain production levels and maximize profits.

However, if a farmer can sell on the larger global market prices are traditionally elastic. This means that no matter how much a farmer produces, they'll get the same prices. Therefore, if technology allows more production then the producer will expand acres to increase profits.

Additionally, Dr. Villoria's research sees that the decision of a farmer participating in the global market is becoming more interlinked with producers between countries... and not just on a continental scale. This implication could change the way policymakers and researchers approach the issue of resource management, and the type of impacts they will see on technology initiatives from the different levels and and types of farming operations found around the world.

As an example, Dr. Villoria provided a connection between seemingly disparate types of operations, and how in fact they do influence each other over a large spatial geographic difference and connection to markets . "As we see more integration, a farmer's choice in Nebraska can directly affect another producer's decision in Brazil," says Villoria.

"It's not that they're competing with their neighbors... they're competing globally", says Villoria.

# **Nepal: Nutrition Innovation** Lab Symposium







(Top and Bottom) Lintel and vegetable farms in rural Lalitpur area, Nepal Photo taken from General Store looking into town in Lalitpur

Dr. Jisang Yu recently visited Nepal to present preliminary results for the "Mycotoxin Study in Nepal" project funded by Post-Harvest Loss Reduction Innovation Lab and the USAID Nepal mission. The presentation was part of an USAID Feed the Future 6th Annual Innovation Lab for Nutrition Agriculture to Nutrition Scientific Symposium held in Nepal. The event itself was funded by USAID and the EU, and co-hosted by Johns Hopkins Bloomberg School of Public Health, Tufts Friedman School of Nutrition Science and Policy, UNICEF-Nepal, Government of Nepal, Tribhuvan University's Institute of Medicine, Community Medicine and Public Health Department, Nepal Agricultural Research Council and the Nepali Technical Advisory Group.

### **Graduate Research: Ghana Postharvest Loss**

Postharvest loss (PHL) in sub-Saharan Africa are reported as being equal to the annual food requirement of 48 million people. A new paper by Department of Agricultural Economics Ph.D. candidate, Ralph Armah, points to the challenge this creates for food availability amongst the poor in the region, and increased demand for loss reduction technology in Ghana. Armah's study, Demand for ZeroFly Hermetic Storage bags in Ghana: A Field Experiment, was funded by the USAID Feed the Future Innovation Lab.

The research focuses on 386 producers and their willingness to pay (WTP) for hermetic storage bags. A survey was conducted with the help of a field team of enumerators. Nearly 100% of the households used woven plastic sacks for storage at the time the data was collected. The study shows insect protection using these sacks over time is limited and may lead to significant infestations. Many of the producers tried to limit the damage to their harvests by using insecticides in spray or pellet form. Some of the farmers added the pellet form of the insecticides directly into bags of maize meant for home consumption.

The research used ZeroFly hermetic storage bags as an alternative to enhance postharvest loss protection. The study showed that about 61% of farmers would buy the hermetic storage bags at their regular price, and around 60% would buy the Zerofly bags if the price was above market price. The farmers indicated that one of the reasons they weren't using the hermetic storage bags was due to the lack of availability of the bags in the region. The study concluded the adoption of the Zerofly bags in this area in Ghana was due to strong supply-side constraints.

The research results showed that farmers in the study showed a high demand for effective storage technologies, but face significant hurdles from the supply side due to limited distributors for the product in the region. It proposes enhancement of the availability of the bags at market prices would lead to enhanced adoption and reduced loss of the farm's production.



Department of Agricultural Economics Ph.D. Candidate Ralph Armah, second from left, with his field team in Ghana

## South Africa Sabbatical: Dr. Brian Briggeman

Director of the Arthur Capper Cooperative Center, Dr. Brian Briggeman, recently took a sabbatical visiting South Africa. Briggeman says he traveled to Stellenbosch University in South Africa to both grow as an educator and find new ways to apply his expertise on issues concerning the international marketplace. Over the course of the sabbatical, Briggeman says he found deep connections with his fellow researchers in South Africa and is working to bring a new program online to assist producers across the continent of Africa.

Briggeman says he was prompted to do a sabbatical from his fellow faculty members "They said the experiences would go far beyond my expectations, and it was very true with my journey to South Africa."



Left to Right: Dr. Briggeman, Dr. Van Rooyen, Dr. Brink

Briggeman initially reached out to Dr. Johan Van Rooyen from Stellenbosch University Department of Agricultural Economics. He says this led to being connected to other faculty members including Dean of Agrisciences at Stellenbosch University, Dr. Danie Brink. Brink and his associates are working to develop a program to help producers in the region build their operations from subsistence farming levels to being competitive in the global marketplace. Briggeman says he was brought on board to this program due to his expertise in collective action business models and cooperatives. The prospective program is currently under development and awaiting possible funding from the Bill and Melinda Gates Foundation.



Dirk Van Papendorp (center) and Suurbraak farmers

During the visit, Briggeman was also able to see the earliest beginnings of a co-operative formed in a nearby communal farming operation. Briggeman was introduced to Dirk Van Papendorp, a successful commercial producer and former chairman of the Sentraal-Suid Co-operative Limited, who helped set-up a new co-operative program with the four farmers in a neighboring communal farming program. The producers told Papendorp they believed they needed access to modern equipment to improve their operations. Papendorp indicated that the group needed to formally form a co-operative and proceeded to mentor the group through applying for a grant to help with technology upgrades. Papendorp helped the producers form the Suurbraak Grain Farmers' Cooperative and use the new technology such as grid sampling and fertilizer application to increase production on the farms. Briggeman says four years later this co-operative is profitable and no longer relies on government funding.

"The mentorship of Papendorp in this situation made all the difference in the world, and helped the new coop survive some of the initial issues they faced as a new co-operative," says Briggeman.

As part of the fruits of his sabbatical, Briggeman says there are plans to continue to grow the relationship between the Kansas State University Department of Agricultural Economics and Stellenbosch University. Briggeman says he will continue to be involved with standing up the prospective program with Stellenbosch University to build capacity of African farmers. He says he is also inviting Dirk Van Papendorp to visit Kansas and give presentations to faculty at the Department of Agricultural Economics, and a presentation at a future Risk and Profit Conference.

Department of Agricultural Economics E-Newsletter March 2019

## 2019 Agricultural Commodity Futures Conference

Hosted by the Center for Risk Management Education and Research - Commodity Futures Trading Commission

The Commodity Futures Trading Commission (CFTC) and the Center for Risk Management Education and Research (CRMER) at Kansas State University will host the 2nd Annual Agricultural Commodity Futures Conference on April 11-12 2019 at Marriot Kansas City in Overland Park, Kansas.

The CFTC and CRMER will jointly host the conference, that brings together federal, state, and local governments within agribusiness and academia to discuss a range of topics that are important to the agricultural community who depend on the futures markets.

"We are excited to once again partner with K-State to discuss significant derivatives-markets issues affecting the agricultural community. The 2018 conference brought together stakeholders from industry, government and academia — to explore a wide range of topics facing the agricultural futures markets," said CFTC Chairman J. Christopher Giancarlo. "The robust presentations and insightful panel discussions from that first conference started important conversations on numerous issues facing the agricultural community. This year, we plan to continue those conversations with a focus on some key areas that sparked great interest including electronic trading and the use of matching algorithms and lack of convergence in certain contracts, and we will explore other emerging issues that affect users of agricultural futures markets."

The Center for Risk Management Education and Research at Kansas State University seeks to enhance the understanding of economic risks inherent in our global society through world-class experiential education and research. Leadership for the CRMER is provided by K-State's Department of Agricultural Economics, Finance and Industrial and Manufacturing Systems Engineering. Through undergraduate, graduate, executive and professional education, and collaborative research, CRMER contributes to facilitating effective risk management practices among new and established professionals alike. Additionally, CRMER eagerly, aggressively, and earnestly supports the greater University mission of advancing the well-being of our state, country and the international community.



# **Education and Research**

#### 2019 Agricultural Commodity Futures Conference

Thursday, April 11, 2019 12:30 p.m. - Friday, April 12, 2019 2:00 p.m.

Marriott Kansas City Overland Park 10800 Metcalf Avenue, Overland Park, Kansas 66210

#### **Register**