

Purdue University

# Agricultural Economics





## A Note From Jayson

The Department of Agricultural Economics will turn 100 years old in 2020. That landmark affords the opportunity to take stock of what has led to past successes and look forward to ensure we are just as impactful over the next century.

Our Department did that recently. We underwent a process to document and articulate who we are and what is important to us. You'll be glad to know that our faculty and staff's core values are much as they have always been. Those values have served us — the department, the College of Agriculture, Purdue University, the state of Indiana and our stakeholders — well for decades.

What we do, and the way we do it, impacts our students. In 2017, the department graduated 187 seniors, more than any year in recent history, twice as many as a decade ago, and more than any other department in the College of Agriculture. And 99% of those students are either continuing their education or have a job with salaries that are almost 6% higher than the prior year.

We are fortunate to have such outstanding students, faculty, and staff.

The department is also fortunate to have extraordinarily generous alumni and stakeholders. They are the reasons why we will add three new endowed chairs in years to come:

- The Schrader Chair in Farmland Economics;
- The Clearing Corporation Chair in Food and Agricultural Marketing; and
- A deferred gift from the Haldeman family for an endowed chair in farm management.

Endowed chairs are created with a sizable gift; earnings that come from the endowment go to support a faculty member's research, teaching, and outreach programs in the area of interest. The new chairs will allow us to recruit and retain outstanding faculty and will create a long-standing commitment from the department to continue work in the endowed focus areas.

The three new chairs will join two already in the department — the Land O'Lakes Chair in Food and Agribusiness, and the James and Lois Ackerman Chair in Agricultural Economics.

Four new faculty joined us this summer. (Read more about them in the pages that follow.) In addition, we have a new undergraduate coordinator (Scott Downey), graduate coordinator and associate head (Nicole Widmar), Extension coordinator (Maria Marshall), and director of the Center for Food and Agribusiness (Michael Gunderson), and I have

now been in the department head role for just over a year. We are grateful to Craig Dobbins, Jerry Shively, Chris Hurt, Allan Gray, and Ken Foster, who previously held those positions. They all remain with the department and are looking forward to turning their attention to new projects.

The department recently launched two peer-reviewed, open-access journals: *Journal of Applied Farm Economics* and *Journal of Global Economic Analysis*. Anticipating increased demand for information about the development of the new farm bill, the Department released an outreach publication and website, *Policy Briefs* by the Purdue Agricultural Economics Department, which complements our long-running outreach publication, the *Purdue Agricultural Economics Report*.

The agricultural economy continues to be under significant stress. Consolidation, new and proposed tariffs — the challenges are many. But so are the opportunities. Sensors and data analytics, supply chain coordination, and consumer willingness to pay for value-added products, to list just a few, make it an exciting time to be in agriculture. Thank you for your continued engagement with the department. Let me know how we can better serve you.

### Jayson Lusk

*Department Head/Distinguished Professor*  
jlusk@purdue.edu; 765-494-4191

## OUR CORE VALUES

The Department of Agricultural Economics consists of faculty and staff whose core values are:

- **Engaged** – helping solve real-world problems and having real-world impact; being present and working with stakeholders, our colleagues, and students.
- **Collegial** – being respectful of talents, opinions, and backgrounds; appreciative of people's comparative advantages; contributors to the common good.
- **Entrepreneurial** – creative in seeking new opportunities and new ways of conducting research, teaching, and knowledge dissemination.
- **Of high integrity** – honest brokers who are transparent, cognizant of tradeoffs, fairly presenting alternatives and consequences, and offering new solutions.
- **Dedicated** to long-term value of scholarship – using and developing analytical and quantitative tools, methods, and theories to produce cutting-edge knowledge to the benefit of future generations.
- **Enthusiastic** about students and impacting the lives of future leaders.
- **Rooted** in the economics of agriculture and natural resources.

# By the numbers

## ALUMNI

Home to the

### 2017 World Food Prize Laureate

Dr. Akinwumi Ayodeji Adesina

M.A. Agricultural Economics (1985)

PhD Agricultural Economics (1988)



## GRADUATE PROGRAMS

96% 1<sup>st</sup> year retention

63 graduate degrees conferred in 2017-18

37% of AGEC graduate students are international

39% women

## FACULTY



### Dr. Tom Hertel

named Fellow for American Association for the Advancement of Science, 2018

3 new endowed chairs

4 new faculty members in Fall 2018

## UNDERGRADUATE PROGRAM

99% of 2017 AGEC graduates report they were employed or continuing their education.

More than 80% of AGEC students have 1 or more internship experiences

\$47,429 average starting salary of an AGEC graduate

\$233,200 awarded across 78 undergraduate scholarships (Fall of 2018)

AGEC awards more undergraduate degrees than any other department in the College of Agriculture

# NEWS

## Website takes clear-eyed look at complex issues

› Kami Goodwin, Communication & Marketing Specialist,  
Department of Agricultural Economics

In a highly charged political environment, the word “policy” gets an upgrade from its dry, boring reputation. A casual glance at news headlines — tariffs, anyone? — proves the point.

The Department of Agricultural Economics “works on a wide range of issues,” says Professor Maria Marshall, who coordinates Extension efforts. “The farm bill, energy, trade, climate change, and firm and consumer behavior — all of which affect many Hoosiers. The public needs access to the alternatives and consequences of policies that could affect their lives.”

That need, plus the availability of considerable expertise in the halls of Krannert, led Marshall and Department Head Jayson Lusk to launch the Purdue AgEcon Policy Briefs website. It aims to provide short insights, in language meant for the general public, on policy issues that are national in scope with an Indiana flair.

“Initially the plan was to focus on timely analysis leading up to 2018 farm bill discussions,” Lusk says. “However, the breadth of expertise in the department and the ongoing policy discussions related to farm, food, environment, trade, and development issues warranted a longer view and broader scope.”

The department hopes the briefs will enrich policy debates by providing data and context, quantifying impacts, and offering alternatives. “Unbiased information from trusted sources is increasingly important in the policy arena,” Lusk says. “This department has a long history of engagement in farm and food policy, and this effort helps continue that tradition.”

Early policy briefs have focused on crop insurance, the impacts of Chinese and American tariffs, federal food service assistance programs, and historical overviews of farm bill processes.

You’ll find the briefs at [ag.purdue.edu/agecon](http://ag.purdue.edu/agecon).



## Agrimarketing team's Puppermint Pin gets noticed

› Rachel Stowers, Senior 2018, Agribusiness

A collar attachment for dogs earned enough attention to pull Purdue's Agrimarketing team into the semifinals at the 2018 National Agri-Marketing Association (NAMA) conference in Kansas City, Missouri.

Called the Puppermint Pin, the attachment contains a scent pad infused with Indiana-grown peppermint oil and a proprietary blend to repel fleas and ticks. The competition required the 35 teams to create a marketing plan for their product. Purdue's team ended up finishing 12th overall at the annual conference, which included career building sessions, a career fair and networking opportunities.

Wes Davis (AgEcon graduate student; Agribusiness) was the Purdue team's advisor. Team members were seniors Abbie McClelland (Agrimarketing) and Rachel Lowe (Applied Agricultural Economics); juniors Elizabeth Stephens (Agrimarketing) and Derek Berkshire (Agribusiness Marketing); and sophomores Noah Radde (Commodity Marketing), Samantha Klemme (Sales and Marketing), Jordan Michel (Sales and Marketing), and Gracen Jarrett (Agrimarketing).

"I gained hands-on marketing experience that you can't get from inside the classroom," Jordan Michel said. "I saw my education come full circle, which was really neat."



*Derek Berkshire, Jordan Michel, Gracen Jarrett, Noah Radde, Samantha Klemme, Abbie McClelland, Elizabeth Stephens, Emily Pfaffenbach, and Wes Davis (advisor).*



# Timely thoughts, useful information

*Ag Economy Barometer becomes a vital monthly filter*

› Libby Witham, Junior, Agricultural Communication

If you ask the right questions on a monthly survey taken by 400 agricultural producers, the accumulated information, perspectives and sentiments will be in demand. That's why the Purdue/CME Group Ag Economy Barometer is in its third year.

"In the ever-changing agricultural industry, providing timely updates to the various sectors on how farmers are doing and their future expectations is crucial," says James Mintert, the director of Purdue University's Center for Commercial Agriculture. The center collaborates with the CME Group, a leading derivatives marketplace, to produce the barometer. Mintert is the barometer's principal investigator.

"When industry players have updated information about the marketplace, they can make more educated business decisions that can help their operations or companies be more successful in the long run," Mintert says.

The barometer is a monthly measure of the health of the U.S. agricultural economy based on the responses of agricultural producers. This collaborative project was designed to be a way for producers, economists, traders, finance industry professionals and journalists to keep track of producers' economic sentiments.

The survey asks a series of questions about how producers are doing financially, how they estimate the industry will be doing in a year and what they think the market will look like in the next five years.

"The barometer is unique because the index is calculated each month using producers' responses regarding both current conditions and future expectations," Mintert says. "Additionally, the barometer surveys also ask producers for their perspectives on key economic drivers of the U.S. farm economy."

Economic drivers include farm profitability, farmland values and key commodity prices, as well as seasonal drivers, such as seed, fertilizer and feed ingredient prices. The primary agricultural enterprises targeted are producers of corn, soybeans, wheat, cotton, beef cattle, dairy and hogs.

The survey also poses supplemental questions on topics that range from large farm investments and used machinery values to agricultural trade.



Center for Commercial Agriculture  
COLLEGE OF AGRICULTURE



## *TV show gives barometer wider audience*

US Farm Report, a syndicated weekly television program that airs in hundreds of markets, featured the Purdue/CME Group Ag Economy Barometer on its April 7, 2018, show. Three members of the barometer's team — agricultural economists Jim Mintert, Chris Hurt and Michael Langemeier — were interviewed in the Krannert building by host Tyne Morgan.

[purdue.ag/agbarometer](http://purdue.ag/agbarometer)



## Reamer Club membership a Special experience

› Kendell Combs, Sophomore, Agribusiness Management & Agricultural Communication

The view from the Boilermaker Special VII is always at least a little bit, well, special. But when you're in Times Square?

"The best part of my trip was riding in the back of the Special while going through Times Square," Natalie Bragdon says. "It was such an unbelievable experience seeing New York City like that."

The Special VII is the official mascot of Purdue University, and its caretakers are members of the Reamer Club. Bragdon, a senior from McCordsville, Indiana, majoring in Agribusiness Management, has been a member since the fall semester of her freshman year. The Special is taken to every Purdue football game — home and away. The jaunt through Times Square came about because Purdue had a game at nearby Rutgers University. Bragdon and nine other Reamer Club members escorted the Special on that East Coast trip.

While Bragdon was wrapping up her Reamer Club experience, Jarrett Fischer was just beginning his. The freshman from Cory, Indiana, who is majoring in Farm Management, completed the pledging process, which involves learning roughly 60 different traditions, songs, cheers, etc. The tradition he found most interesting is the Ancient Order of Dormitory Devils, an organization of upperclassmen that lived in Purdue Hall from 1874 to 1963 and were notorious for their pranks on students and faculty.

The Reamer Club also is responsible for the Boilermaker Xtra Special VIII, a golf cart-size vehicle that leads the football team onto the field on game day and is a familiar sight on campus. He enjoys the attention the Extra Special receives. "My favorite part is watching people get excited or try to get a picture with it," he says.

### DID YOU KNOW?

- The Reamer Club is dedicated to observing the traditions of Purdue, supporting major and Olympic sports, and developing school spirit.
- All new Reamer Club members must go through an 8-week pledging process, where they learn the traditions and songs of the university.
- The Boilermaker Special attends every single football game, even the away ones – no matter how far. It can even drive up to 75 MPH on the highway!
- The Reamer Club contributes to local and campus philanthropy, including highway cleanups, Relay for Life, winterization, and much more.

[purdureamerclub.org](http://purdureamerclub.org)



## Purdue expertise a valuable ally for Colombia, on the rebound after years of civil strife

*Crop storage bags found to be effective profit-enhancing investment*

› Kami Goodwin, Communication & Marketing Specialist, Department of Agricultural Economics

Purdue Improved Crop Storage bags have proven widely effective at protecting staple crops, such as maize, rice, and beans, from insect pests and molds. But can PICS bags help Colombian coffee farmers make more money from their crop? It appears that they can.

Some of the world's best coffee is grown in Colombia, much of it on small farms. It is often sun-dried, then delivered to buyers or cooperatives at harvest time, when prices are low. World prices cycle with seasonal harvest patterns of Colombia.

Purdue Professor Ken Foster and graduate student Natalie Donovan collaborated with Professor Carlos Parra of Universidad de Caldas in Manizales, Colombia, to examine the effects of storing coffee in PICS bags.

Results of the experiments conducted from March 2017 to March 2018 at Universidad de Caldas and the Cooperative of Coffee Growers in Chinchina, Colombia, demonstrated that the PICS bags maintained moisture content, water activity, and sensory scores — and returned significant price premiums — for up to six months.

Donovan conducted analyses of the price premiums for her master's thesis, "Quality and Economics Analyses of Green Coffee Beans Stored in Purdue Improved Crop Storage Bags."

Donovan and Foster were able to show that PICS bags would be a profit-enhancing investment for small farmers or cooperatives in Colombia once a local manufacturer is found to produce the bags.



## Foster named President's Fellow for Purdue-Colombia Initiatives

In May 2018, Purdue Provost Jay Akridge and Suresh Garimella, executive vice president for research and partnerships, established a faculty steering committee to guide the next phase of the University's strategic partnerships with the nation of Colombia. Dr. Ken Foster has been appointed a President's Fellow, tapped to advance research and engagement activities with partners in Colombia.

"The 50-year conflict between the government of Colombia and the principal revolutionary groups has come to an end," Foster said. "This opens up important opportunities for Purdue faculty to collaborate with Colombian partners to enhance the livelihoods of rural Colombians through the development of agriculture, tourism, community development, environmental management and more."



## Revitalizing Colombia through sustainable tourism and improved agricultural practices

Several AgEcon professors have been contributing to research in Colombia. Recently, Professors John Sanders and Paul Preckel, along with Professor Jonathon Day of Hospitality and Tourism Management, have been working on a Purdue-Colombia collaboration project to suggest priority areas in agriculture and tourism for the Orinoquía region, a plains area just outside of the Amazon jungle.

The region has begun to stabilize after decades of civil war. Truces among several groups, new road connections, and the desire to become more self-sufficient have created pressure to revitalize the area. The project goals are to educate farmers, regional researchers, and policy makers regarding improved agricultural practices designed for decreasing food insecurity while increasing sustainable tourism to provide the area with a financial boost.

Sanders, along with Ph.D. student Carlos Fontanilla, interviewed farmers in the Altillanura and Piedemonte

regions to better understand their needs. With the assistance of Dr. Paul Preckel, the team utilized linear programs implemented in the General Algebraic Modeling System (GAMS) to determine the best combinations of enterprises for agricultural and tourism ventures for alternative regions within the Orinoquía. Potential enterprises included both perennial and annual crops.

The analysis was based on a one-year, steady-state LP model. Proposed follow-on work will focus on additional analysis to train local producers to assess how to transition from their current enterprises to the recommended portfolio of activities, as well as addressing issues of marketing and leadership development. AgEcon Emeritus Professor Jess Lowenberg-DeBoer led much of the field activities, managing the contract and maintaining liaisons with Colombian agencies. Presently a group led by Professor Ken Foster is working on follow-up proposals from this research.

# Student

## Introducing Kayla Fogg



- 2017-18 Outstanding Freshman
- Rising Professionals program hostess
- Ag Week Task Force team member

### **Major & Concentration**

Agribusiness Management

### **Favorite Purdue tradition**

The Boilermaker Special. I love seeing it around campus and especially before athletic events.

### **Favorite thing about AGEC**

The department gives me an endless amount of opportunities to experience the full impact of Purdue Agriculture. The AGEC staff are so supportive of each individual path students take.

### **Favorite quote**

"We can make our own plans, but the Lord gives the right answer." Proverbs 16:1

### **What intrigues you about the ag industry?**

The ag industry is so diverse and collaborative. There are numerous ways someone can be involved to help make an impact on our daily lives. Also, this industry is comprised of people across the world coming together to help solve local, state, national, and global food challenges. The agriculture industry is a community of hard-working people who are passionate about what they do. This is so fascinating to me because I love being involved within an industry that grows that level of passion and continues to develop future leaders.

### **Why did you come to Purdue?**

Coming to Purdue was a family tradition that I continued. Both of my parents and two of my older brothers graduated from Purdue. I often joke that I bleed black and gold!



Introducing  
**Nelson  
Knobloch**

- 2017-18 Outstanding Sophomore
- Farm Credit Mid-America Young Leaders Scholar
- 2018 Ag Council President
- 2018 College of Ag Ambassador

**Major & Concentration**

Agribusiness Management

**Favorite Purdue tradition**

Moonlight pancake breakfast

**Favorite thing about AGECE**

The phenomenal faculty who are passionate about the students and the material they teach and the awesome students who make up this fantastic department.

**Favorite quote**

“Do what you love, love what you do” and “You can’t be all things to all people, all the time. So stop killing yourself trying.”

**What intrigues you about the ag industry?**

The ever-advancing technology and the awesome people who are so passionate about feeding and clothing the world.

**Why did you come to Purdue?**

I chose Purdue because of its reputation and affordability. I chose the College of Agriculture and the Department of Ag Economics because of my passion for the agricultural industry and interest in business. I definitely made the right choice!



Introducing  
**Derek  
Berkshire**

- 2017-18 Outstanding Junior
- President, Purdue Foundation Student Board
- Member, 2018 Barbara Cook Chapter of Mortar Board

**Major & Concentration**

Agribusiness: Marketing; Agricultural Communication

**Favorite Purdue tradition**

Attending basketball games; having breakfast at Triple XXX

**Favorite thing about AGECE**

The endless career opportunities and friendships. The department connects you with alumni who allow you to better understand your field of study while building relationships along the way. The department is extremely well connected and involved across campus, and it is always exciting to see the impact of its students.

**Favorite quote**

“There’s nothing more frightening than having your dream come true. That doesn’t mean you shouldn’t do it anyway.”

**What intrigues you about the ag industry?**

Thomas Jefferson once said, “Agriculture ... is our wisest pursuit, because it will in the end contribute most to real wealth, good morals and happiness.” As somebody who grew up in the agricultural industry, I have always had a passion for it. Since the beginning of time, this industry has proved to be vital to the existence of man. What I find most intriguing is that despite the necessity, the industry continues to innovate and reinvent itself while providing the same thing it has for thousands of years: food.

**Why did you come to Purdue?**

Growing up an hour from campus meant that Purdue quickly became my home away from home during the summer. Many family members attended Purdue. Purdue has a history and reputation of being one of the premier schools to study agriculture. My background in the industry and the rigor of coursework and the university drew me to study here.

# Outstanding senior sees the big picture, embraces numerous opportunities

› Kendell Combs, Sophomore, Agribusiness Management/ Agricultural Communications

Rachel Stowers, a senior in Agribusiness Marketing from Kirklin, Indiana, has had an exceptional Boilermaker experience. In recognition of her dedication to academics, the department, college, and university, Stowers was named the 2018 David and Stacy Hefty Agricultural Economics Outstanding Senior.

Stowers, who carried on her family’s legacy by choosing Purdue, has been a peer consultant for the Center for Career Opportunities, a Rising Professionals host, and an executive board member for her sorority, Alpha Chi Omega. Her favorite extracurricular activity was representing the Agricultural Economics department as an Ag Envoy. Stowers also devoted time to philanthropy, pursuing such off-campus opportunities as volunteering with the Indy Honor Flight on the ground crew.

She traveled to Cap Haitien, Haiti, for a winter break study abroad service learning trip. While there she presented lessons she had developed to teach at the Universite Antenor Firmin. Her love for traveling and learning of other countries’ agriculture systems and traditions led her to spend a semester abroad in Ireland as a Purdue Study Abroad exchange student.

*“One thing I found was that my fellow peers and Purdue alumni are an incredible support system.”*

“My biggest takeaway from my time at Purdue is the importance of paying it forward. One thing I found was that my fellow peers and Purdue alumni are an incredible support system. Because of the advice, support, and guidance I received throughout my college career, my goal is to continue to pay it forward so that I may help future Purdue students pursue their goals and dreams, too.”





## Introducing **Rachel Stowers**

### **Hometown**

Kirklin, Indiana. Clinton Central High School

### **Major & concentration**

Agribusiness with a concentration in Marketing

### **Why did you come to Purdue?**

Because I enjoyed the Big Ten atmosphere, was looking for a top-notch agriculture program, and wanted to carry on our Purdue family legacy.

### **Favorite Purdue tradition**

Sledding down Slayter Hill in the wintertime.

### **Top three influences at Purdue**

Dr. Mark Russell, Mrs. Jill Zeller (a Purdue alumnae), Ali Mears

### **Top five highlights**

Beating the Purdue Big Bass Drum, Hosting President Mitch Daniels for dinner at Alpha Chi Omega. Listening to Gene Keady and Bob Knight speak at the 2016 Ag Alumni Fish Fry. Spending a semester abroad as an exchange student in Ireland. Working as a peer consultant for the Purdue Center for Career Opportunities.

### **Places you have been as a Purdue student**

Cap Haitien, Haiti, for a winter break study abroad, and Dublin, Ireland, for a semester-long study abroad. Kansas City, Missouri, and Raleigh, North Carolina, for AFA Crop Science Institute and the AFA Leaders Conference. Through internships, to Evansville, Indiana, and Ames, Iowa, as well.

### **Favorite club/organization**

Ag Econ Envoys

### **Favorite student-led event/initiative**

Ag Week

### **Favorite Purdue event**

The Purdue Christmas Show – my family comes to it every year!

### **Favorite place to study**

LaVazza Café on the outside patio when the weather is warm and sunny!

### **Favorite spot on campus**

Loeb Fountain. I would always stop there to sit outside and enjoy the nice weather.

### **Favorite thing about CoA**

The diversity of courses and clubs available to students.

### **Favorite thing about AGEC**

The faculty and staff and their involvement with students.

### **Favorite class**

AGEC 310

### **Favorite professor**

Dr. Mark Russell

### **Coolest project**

Developing lessons to take to teach at Universite Antenor Firmin through the Study Abroad Service Learning Trip in Cap Haitien, Haiti.

### **Three biggest accomplishments**

Being named the 2017 Department of Agricultural Economics Outstanding Junior. Receiving the Mid America CropLife Association Young Leader Scholarship. Successfully skiing the Bavarian Alps while I studied abroad.

### **Also on your resume**

I am a member of Alpha Chi Omega and served on the executive board for a year. I also currently volunteer with the Indy Honor Flight on the ground crew.

### **Three words to describe you**

Motivated, loyal, competitive

### **What intrigues you about the Ag industry?**

How quickly new technological advances are being made and how useful those technologies will be in my career.

### **Favorite quote**

"Life is 10 percent what happens to me and 90 percent of how I react to it." — Charles Swindoll

### **Personal motto**

Life is short so take a step back, look at the big picture, and make time for those who are important to you.

### **Advice for underclassman**

Take advantage of every good opportunity that you can, while still taking time to develop friendships and branch outside of your comfort zone.

# Meet Our Graduate Students



## Courtney Bir

After earning her first bachelor's degree (Animal Science, Oklahoma State University), Courtney Bir found work in an independent pharmaceutical lab. There she came to a realization that put her on a new academic course.

"I really enjoy finding the answers to important questions," she says. "Writing lab reports were not a chore but the highlight of my day."

Bir returned to Oklahoma State and earned a second BS, then a master's, in agricultural economics. "I knew I wanted to do more research," she says. "I had great mentors at the time who suggested that if I really wanted to challenge myself academically, and as a researcher, Purdue was the place to go." She began PhD studies in August 2015, working with Professor Nicole Olynk Widmar.

In her research, she elicits consumer preferences for agricultural products, then uses traditional production economics to determine if consumer preferences can be profitably incorporated by the producer. Recent research expands this work by evaluating consumer preferences and trends through social media. More specifically, through collaboration efforts with other researchers and other departments, Bir's work ranges from animal welfare topics — including chickens, dairy cows, and even dogs and cats — to more traditional topics, such as farmer risk preferences.

Bir recently published an article in the *Journal of Applied Animal Welfare Science* on the perception of welfare needs and information sources of breeding dogs in commercial dog-breeding kennels.

"My collaboration with other departments has helped me view research topics from other angles. Even if the topic may not be typical for your research program, applying the tools and methods you know to a new subject can help you elicit interesting insights and generate value for stakeholders."

Bir wants to continue research with a career in academics. "I have learned how to focus my energy. There are a lot of questions that don't have answers, but not all of them are meaningful. My goal is to continue to strive to find meaningful questions that affect people and find ways to help people make a more informed decision."



## Chinonso Etumnu

PhD student Chinonso Etumnu, right, completed the Anthony Grano Fellowship Program of the Agricultural & Applied Economics Association in Washington, D.C., this year. The fellowship is awarded to outstanding agricultural

economics students so they can observe and learn the role of economics in developing agricultural policy. The fellowship supports the recipient's travel to Washington to meet with senior staff from the U.S. Department of Agriculture, congressional offices, and agricultural trade associations and commodity organizations. One of the professionals Chinonso met was Dr. Warren Preston, left, Deputy Chief Economist at the USDA. Preston earned MS and PhD degrees from Purdue.



Associate Professor Michael Delgado, Ayoung Kim, Jayson Lusk

## Awards

### Outstanding MS thesis, 2017

Albert Alwang (advisor Jake Ricker-Gilbert) — "Short-term Returns to Agricultural Household Migration Decisions: Evidence from a Tracking Panel Data Study in Malawi"

### Outstanding PhD dissertation, 2017

Ayoung Kim (advisor Michael Delgado) — "Productivity in the US: The Economic Consequences of Regional Agglomeration and Immigration Policy"



### Hira Channa

In a family of medical doctors, Hira Channa charted a course toward business. The native of Pakistan completed her undergraduate studies at the Institute of Business Administration, Karachi, before coming to the U.S. as a Fulbright Scholar.

“Professionally and personally, the Fulbright program transformed my life,” she says. At Cornell University’s College of Agriculture and Life Sciences, where she earned a master’s degree in applied economics and management, she began to grasp the importance of agricultural economics to developing countries. Channa returned to Pakistan, where she was an analyst for two years with the Pakistan Strategy Support Program, a project of the International Food Policy Research Institute (part of the global research partnership CGIAR). The experience increased her understanding of the different perspectives in agricultural policymaking.

**“A lot of institutions are using the methodology we use, but at Purdue, it’s interdisciplinary. Centers bring people together here.”**

She applied to several U.S. graduate programs, but Purdue topped her list, and not just because her advisor at Cornell was an alumnus. “The faculty and peer group here are really supportive,” she explains. She began her PhD studies in August 2015 under the guidance of Associate Professor Jacob Ricker-Gilbert.

Channa hopes to help solve the puzzle of why farmers in the developing world sell grain at lower prices at harvest, only to buy it back at higher prices later in the year. Her dissertation, funded by USAID, provides smallholder farmers in Tanzania with PICS (Purdue Improved Crop Storage) bags and loans at harvest. The loans allow farmers to borrow against their grain to meet immediate financial needs while safely storing it in PICS bags. When grain prices inevitably rise later in the year, the grain can be sold for a higher price and farmers can then repay their loans.

In Tanzania, Channa set up the project as a randomized control trial, so that she can measure how the intervention impacts peoples’ incomes and food security. Channa

is working with commercial entities to lend money to farmers. She hopes the combination of PICS bags and credit can be scaled up to benefit more people if the initial intervention is successful.

A related part of her work involves evaluating demand for new technology and looking at why users choose to adopt or pass on it. “My research is practical in that results can be immediately useful, which is part of what attracts me to it,” she says. “Also, I’m learning research methods that have broad applicability.”

Her employment as a research analyst before coming to Purdue “helped crystallize the kind of work I hope to be doing,” she says. “Working on specific issues in connection with policymakers helps you be more realistic about who is going to use the research and the avenues you’ll use to put it forward.” How research results are communicated to busy policymakers is especially crucial, she says. “I realized that our audiences have a million things going on, and this may or may not be a priority for them. I have learned the importance of being direct and specific.”

Channa hopes to complete her PhD in two more years. Although she came to Purdue with career plans focused on working directly with policymakers, her thinking has broadened: “I’ve realized academic projects can also be closely connected to policymakers, so I’m hoping to build a career in academics.”



# Faculty

## Joining us this fall



### Meilin Ma

Meilin Ma joins us from the University of California, Davis as an Assistant Professor of Supply Chain Economics. With the growth of e-commerce and US-China agricultural trade, Meilin sees exciting research topics to pursue regarding supply chain innovation and changing food consumption patterns in both countries. Meilin plans to continue her research on issues in the interface between agricultural and development economics.



### Carson Reeling

Carson Reeling is rejoining Purdue as an Assistant Professor of Environmental Economics. He earned his MS in Agricultural Economics from Purdue in 2011. Carson's research focuses on designing policies to manage nonpoint source pollution from agricultural lands, with an eye toward enhancing both the environmental and financial sustainability of production agriculture. Currently Carson is working on a USDA-funded project that uses theoretical and experimental methods to assess policy design choices that will improve agricultural producers' participation in voluntary water quality and carbon trading programs.



### Nathan DeLay

Nathan DeLay joins us from Washington State University as an Assistant Professor of Agricultural Analytics and Production. He hopes to complement the Department's focus on data analytics and precision agriculture. He is especially interested in discovering how digital agriculture can be leveraged to improve producer decision making, farm policy, and rural community development.



### Brady Brewer

Brady Brewer joined us from the University of Georgia as an Assistant Professor of Food and Agricultural Business Management and Finance. His research agenda includes the broader topics of agribusiness and profitability, agricultural finance, and production/supply chain issues at the farm level. He has previously worked on Extension programs that include educating farmers on credit concerns and lending as well as working with agricultural banks across the state.



# Awards



**Tim Baker**

AAEA Agricultural and Finance Management Section Publication of Lasting Impact Award, 2018



**Jayson Lusk**

Borlaug Council for Agricultural Science and Technology Communication Award, 2017  
Fellow, Western Agricultural Economics Association, 2017



**Michael Boehlje**

Morrill Award, Purdue University, 2017



**Maria Marshall**

Corinne Alexander Spirit of the Land-Grant Mission Award, College of Agriculture, Purdue University, 2017



**James Eales**

Association of Environmental and Resource Economists Publication of Enduring Significance Award, 2018



**Paul Preckel**

Outstanding Graduate Mentor/Teacher, College of Agriculture, Purdue University, 2018



**Ken Foster**

President's Fellow for Purdue-Colombia Initiatives, Office of the Executive Vice President for Research & Partnerships, Purdue University, 2018



**Jacob Ricker-Gilbert**

Bruce Gardner Memorial Prize for Applied Analysis, Agricultural and Applied Economics Association, 2017



**Michael Gunderson**

Richard L. Kohls Outstanding Undergraduate Teacher, College of Agriculture, Purdue University, 2018

John Deere Award for Outstanding Teaching and Programs in Agribusiness, North American Colleges and Teachers of Agriculture, 2017



**Gerald Shively**

Distinguished Graduate Teaching Award, Agricultural and Applied Economics Association, 2018

Excellence in Research Award, Purdue Policy Research Institute, Purdue University, 2018



**Tom Hertel**

Fellow, American Association for the Advancement of Science, 2018

## In Memoriam



### *Professor Bob Taylor*

Dr. Bob Taylor taught over 40,000 students at Purdue from 1962 to 2011. He was well-known for his passion and concern for students. He not only challenged his student's thinking but had a sincere interest in them as individuals. Through his dynamic classes and caring connections with students, he built relationships that lasted a lifetime. His classes included undergraduate macroeconomics and farm management, as well as a graduate seminar on teaching agricultural economics.



### *Dr. Lee F. Schrader*

Dr. Lee F. Schrader joined the faculty as associate professor May 22, 1966. His activities included extension, research, and teaching. He achieved national recognition for his work on the economics of the poultry and egg industries and was a regular contributor to department outlook programs. He taught marketing, price analysis, cooperative management, and econometrics. Dr. Schrader served as associate head of department and extension coordinator from 1989-1995.

## Retirements



**Phil Paarlberg**, 33 years



**Kim Cook**, 40 years



**Carol Wood**, 27 years



**LouAnn Baugh**, 37 years

## Faculty publications of note

**Katare, B., & Kim, J. (2017).** Effects of the 2013 SNAP Benefit Cut on Food Security. *Applied Economics Policy and Perspective*, 49(4), 662-681.

In 2013, the Supplemental Nutrition Assistance Program (SNAP) benefits were cut for the first time in the program's history. SNAP accounts for approximately 50 percent of food-at-home spending of low income households and 10 to 15 percent of total U.S. food-at-home expenditures. With the growing importance of SNAP to many low-income households, the reduction to SNAP benefits in 2013 is predicted to worsen food security among the SNAP participants. This article is the first to quantify the effects of the 2013 SNAP benefit cut on food insecurity.

**Katare, B., Serebrennikov, D.G, Wang, H.H., & Wetzstein, M. (2017).** Social-Optimal Household Food Waste: Taxes and Government Incentives. *American Journal of Agricultural Economics*, 99(2), 499-509.

In 2010, 21% of the total food available for consumption in the United States was wasted at the household level. In response to this waste, a number of counties and U.S. localities have instituted policies (disposal taxes) directed toward reducing this waste. However, currently there is no federal food-waste disposal tax. The aim of this paper was to establish a theoretical foundation for household food waste, and based on this theory, to determine the social-optimal food-waste (disposal) tax, along with a government incentive.

**Lusk, J.L. (2017).** **Distributional Effects of Crop Insurance Subsidies.** *Applied Economic Perspectives and Policy*, 39(1), 1-15.

Subsidizing crop insurance increases farmer well-being, makes food more affordable for consumers, and increases citizens' tax burden. There are stark differences, however, across different types of farms. Farmers in the Midwest benefit from the program, and producers in the West are net losers.

---

**Moore, F.C., Baldos, U.L.C., & Hertel, T.W. (2017).** Economic impacts of climate change on agriculture: a comparison of process-based and statistical yield models. *Environmental Research Letters*, 12(6).

The social cost of carbon (SCC) is an important economic concept that's used by policymakers to weigh the value of climate change policies guiding energy regulations and other efforts that reduce greenhouse gas emissions. In simple terms, the SCC represents the economic damage caused by a ton of carbon dioxide emissions or its equivalent—damages like decreasing agricultural yields, increased flooding, property damage, lower worker productivity, and harm to human health. But the SCC is outdated and underestimated. Updated estimates focused on the agricultural sector alone more than double the social cost of carbon, according to a new analysis by Frances Moore, Uris Baldos and Thomas Hertel. Agriculture is a particularly important sector for climate change damages because it is both directly affected by climate change and has critical implications for future food security and social welfare.

---

**Moore, F.C., Baldos, U.L.C., Hertel, T.W., & Diaz, D. (2017).** New Science of Climate Change Impacts on Agriculture Implies Higher Social Cost of Carbon. *Nature Communications*, 8, 1607.

A large number of studies have been published examining the implications of climate change for agricultural productivity that, broadly speaking, can be divided into process-based modeling and statistical approaches. Despite a general perception that results from these methods differ substantially, there have been few direct comparisons. Here we use a data-base of yield impact studies compiled for the IPCC Fifth Assessment Report (Porter et al 2014) to systematically compare results from process-based and empirical studies. Controlling for differences in representation of CO<sub>2</sub> fertilization between the two methods, we find little evidence for differences in the yield response to warming. The magnitude of CO<sub>2</sub> fertilization is instead a much larger source of uncertainty. Based on this set of impact results, we find the studies conducted to date show very limited potential for on-farm adaptation to reduce yield impacts.

---

**Muller, L., Lacroix, A., Lusk, J.L., & Ruffieux, B. (2017).** Distributional Impacts of Fat Taxes and Thin Subsidies. *Economic Journal*, 127(604), 2066-2092.

Taxes on unhealthy food and subsidies for healthy food may help reduce obesity and dietary-related disease, but here we show that the economic benefits of these policies will primarily flow to richer consumers. Why? Relative to poorer consumers, richer consumers already eat fewer of the types of foods that would be taxed and more of the types of foods that will be subsidized.



*In 2017,  
the department's 41 faculty members  
published 88 articles in peer-reviewed  
academic journals, which amounts to  
2.1 publications per faculty member*

---

**Sesmero, J.P., Ricker-Gilbert, J.E., & Cook, A.G (2017).** How Do African Farm Households Respond to Changes in Current and Past Weather Patterns? A Structural Panel Data Analysis from Malawi. *American Journal of Agricultural Economics*, 100(1), 115-144.

This study finds that adverse weather history prompts smallholder farm households in Malawi, especially the most vulnerable ones with little assets, to devote more time to maize cultivation on their own farms, in detriment of other, possibly more remunerative income sources. Households also reduce application of productivity-enhancing inputs (fertilizer and improved varieties) in response to adverse weather history. Consequently, adverse changes in past weather seem to be regressive in nature, creating a "climate induced" poverty trap that locks poor smallholder households into low value maize cultivation from season to season. This finding calls for both the development of more weather-resilient maize varieties and promoting smallholder livelihood diversification strategies beyond maize cultivation.

---

**Shively, G.E. (2017).** Infrastructure mitigates the sensitivity of child growth to local agriculture and rainfall in Nepal and Uganda. *Proceedings of the National Academy of Science*, 114(5), 903-908.

Persistent malnutrition among young children continues to be a pressing 21st century policy problem that touches multiple disciplines, including agricultural economics. Isolating and clearly identifying the causes of malnutrition is an empirical challenge because many potential determinants of child health and nutrition are hidden or are interrelated. The research reported in this paper confronts this challenge in a highly interdisciplinary way by combining a wide range of observed data, including economic, social, health, agricultural and environmental data, to study patterns of growth among nearly 12,000 children below the age of 5 in Nepal and Uganda. The findings point to the need for agricultural adaptation to low rainfall, as well as broadly based economic development, including continued investments in health, market and transport infrastructure, to help improve child nutrition. This research has wide implications for public policies, especially those directed at agriculture, human health and nutrition, and climate change adaptation.

---

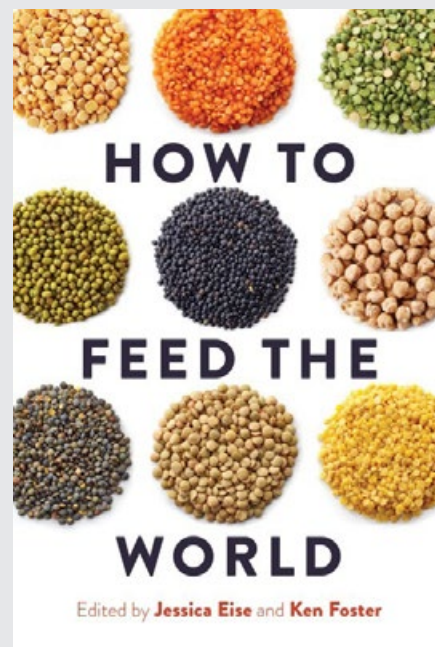
**Taheripour, F., Mahaffey, H.G., & Tyner, W.E. (2017).** Evaluation of Economic, Land Use, and Land-use Emission Impacts of Substituting Non-GMO Crops for GMO in the United States. *AgBioForum*, 19(2), 156-172.

The main objective was to evaluate what would be the economic and environmental consequences of losing the GMO traits in the U.S. for the major crops of corn, soybeans, and cotton. Their analyses confirmed that if we do not have access to the GMO technology, a significant amount of land would need to be converted from other crops, cropland pasture, pasture, and forest to meet global food demand. Furthermore, the conversion would trigger larger land use emissions, increase food costs in the U.S. and elsewhere each year, and cause welfare (economic well-being) to fall both in the U.S. and globally.

---

**Thompson, N.M., Brorsen, B.W., DeVuyst, E.A., & Lusk, J.L. (2017).** Genetic Testing to Signal Quality in Beef Cattle: Bayesian Methods for Optimal Sample Size. *American Journal of Agricultural Economics*, 99(5), 1287-1306.

New genetic testing technologies are allowing cattle producers to better project which cattle are likely to be most profitable, but the costs of the tests remain prohibitively high. We show that producers might still benefit from the genetic tests if they sample only a few cattle from a pen or herd to make inferences about the entire group.



### *How to Feed the World*

**Ken Foster, Jessica Eise, Michael Boehlje, Otto Doering, Michael Gunderson, Thomas Hertel, Rhonda Phillips, Gerald Shively, Brigitte Waldorf, Nicole Olynk Widmar and Steven Wu** (all from the Department of Agricultural Economics); **Laura Bowling** (Agronomy); **Keith Cherkauer** (Agricultural and Biological Engineering); **Jeff Dukes** (Purdue Climate Change Research Center); and **Ariana Torres** (Horticulture and Landscape Architecture and Agricultural Economics).

A new book of essays by a multidisciplinary team of researchers from Purdue University helps readers understand how decisions made today by farmers, scientists, policymakers, educators and consumers are vital to ensuring global food security in coming decades. The book's 12 chapters examine population growth, water scarcity, land use, climate change, technology adoption, competing food systems, international trade, food waste and loss, health, social license to operate, communication and achieving equal access to food.

**For more information or to purchase a copy go to:**  
[ag.purdue.edu/feedtheworld](http://ag.purdue.edu/feedtheworld)



## Apex Award

The Apex Award, presented by the Department of Agricultural Economics, recognizes individuals who have a strong connection to the department and have made outstanding contributions in their fields. The Apex Award represents the convergence of accomplishment in the lives of our honorees.

This year's recipients:



**Jason Grant**

PhD, Agricultural Economics,  
Purdue University, 2007



**Scott Irwin**

PhD, Agricultural Economics,  
Purdue University, 1986



**Katrina Hall**

BS, Home Economics,  
Purdue University, 1976



**Brian Briggeman**

PhD, Agricultural Economics,  
Purdue University, 2006

# Alumni.



## Anna Josephson

PhD, Agricultural Economics, Class of 2017

*After earning her Ph.D. in Agricultural Economics from the department in December 2017, Anna Josephson accepted a position at the University of Arizona as an Assistant Professor in the Department of Agriculture and Resource Economics. With her recent success, the department reached out to Anna to find out what drove her to choose Purdue and to see what advice she has for current and future students.*

### What made you choose Purdue AgEcon?

I was trying to decide between a few different programs but a conversation with one of the professors is what ultimately changed my thinking. During a talk with Professor Jerry Shively, he told me that one of his favorite things about Purdue AgEcon was the environment. He said it was one of good, smart people who like to challenge each other to do the best work possible, and that sounded like the type of place I'd like to be!

### What was your favorite thing about AgEcon?

I actually have two favorite things:

The first is the research opportunities and faculty resources that were available to me. I worked on my MS with Professor Jake Ricker-Gilbert, which introduced me to the field of development. For my PhD I worked with Jake and Jerry Shively, and was able to live in Zimbabwe, as a Global Food Security Borlaug Fellow, conducting my research and completing my dissertation there. Working with Jerry and Jake allowed me the flexibility to complete my research in Zimbabwe while still getting guidance and support. I was also able to collaborate with Professors Maria Marshall and Holly Schrank on their work about small businesses' preparation and survival after Hurricane Katrina. Additionally, I worked with Dr. Larry DeBoer and people from the Center of Instructional Excellence (Dr. Dave Nelson and Dr. Kiki Zissimopolous, in particular) to write some pedagogical papers about teaching and learning. Being at Purdue has really allowed me to work with bright and creative people on exciting projects.

The second thing is my partner. I met my husband, who was a second-year PhD student when I arrived at Purdue. We married in 2013, we've published one paper together and have three more in the works. I have a partner for work and for life! He's definitely one of my favorite things that I've taken away from Purdue.

### Any advice for current students as they prepare for the job market?

The job market can be a rough but enjoyable experience. You don't get many opportunities to travel around, talk about yourself, and discuss your research as much as you do on a job interview, so try to have fun!

“

*Being at Purdue has really allowed me to work with bright and creative people on exciting projects.*



## Distinguished Agriculture Alumni roster adds two 1999 AgEcon graduates

Stacy and David Hefty were inducted this spring as 2018 College of Agriculture Distinguished Agriculture Alumni.

They are the co-founders of Hefty Wealth Partners, an independent wealth management firm. Since its founding in 2000, the firm has grown significantly and now has more than \$225 million in assets under management.

They met as undergraduates at Purdue. David ('99) graduated summa cum laude with a degree in agricultural economics, was named the College of Agriculture's Outstanding Senior and was the recipient of the G.A. Ross Award for outstanding senior man on campus. Stacy ('99) graduated summa cum laude with a degree in agricultural economics with a concentration in food industry marketing and management. Stacy gave the student response at commencement and was one of the eight recipients of the Charles O. McGaughey Leadership Award.

Together they created the **David and Stacy Hefty Agricultural Economics Outstanding Senior Award** given to the top agricultural economics senior each year.





**AGRICULTURAL ECONOMICS**  
Krannert Building, Room 651  
403 West State Street  
West Lafayette, IN 47907

**PHONE:** (765) 494-4191  
**EMAIL:** [agecon1@purdue.edu](mailto:agecon1@purdue.edu)  
EA/EO

[ag.purdue.edu/agecon](http://ag.purdue.edu/agecon)

JULY 2018

