

The background of the cover is a photograph of four people in a lush, green forest. On the left, a young woman with glasses and curly hair, wearing a black and white patterned shirt, holds a white net. In the center, a young woman with long dark hair, wearing a black shirt, is crouching and looking at a plant. To her right, a man with glasses and a beard, wearing a black polo shirt, is also looking at the plant. On the far right, a man with a beard, wearing a dark blue patterned shirt, holds a white net. The forest has large trees and dense foliage.

AgReport

College of Agriculture

Fall 2018

KANSAS STATE
UNIVERSITY

Student research program
opens career options



On July 1, I became interim dean of the College of Agriculture and interim director of K-State Research and Extension when John Floros accepted the position of president of New Mexico State University. We all wish John well in his new position and appreciate his leadership over the last six years.

As a strong proponent of the land-grant university system, I will work with the existing leadership team to maintain and advance our teaching, research, and extension programs.

Here's a brief description of my career. After completing master's and doctoral degrees at Oklahoma State University, I joined the K-State Department of Animal Sciences and Industry in 1983 with a research and teaching position. In 2008, I accepted the position of interim director of research and technology transfer and was named to the permanent position in 2009. In 2016, my duties and title expanded to include associate dean of research and graduate programs.

In 2013, I initiated the K-State Ag Research Scholars (K-StARS) program, which provides training for new faculty including taking them to Washington, D.C., to meet with federal funding agencies.

With four U.S. Agency for International Development, or USAID,

Feed the Future Innovation Labs, the college and K-State Research and Extension represent 54.38 percent of the university's research expenditures at K-State and reported to the National Science Foundation.

I believe my involvement in the strategic planning process, K-State 2025 vision, and day-to-day decision making for the college and K-State Research and Extension prepares me for this interim position.

New budget model

Over the next two years, K-State is implementing a new budget model that allows for college-level budget growth that is tied to increasing enrollment. We will immediately start comparing the new budget model with the old model to evaluate where efficiencies can be gained.

The College of Agriculture has a strong history of hands-on learning, excellent advising, and outstanding competition and judging teams. We remain committed to those strengths.

Staffing updates

During my tenure, we will pursue filling several department head and director positions created by retirements and job advancements. A survey by *Niche.com* ranked K-State's College of Agriculture fourth of the 2018 Best Colleges for Agricultural Sciences in America, which will help draw strong candidates for these positions.

We constantly evaluate our staffing and programs to ensure we are meeting the needs of Kansans.

I hope you enjoy reading about the awards earned by our faculty, staff, and students in this issue. I am honored to lead the organization as we search for a permanent dean and director.

J. Ernest "Ernie" Minton

Interim Dean and Director

AgReport

Fall 2018

College of Agriculture
and
Kansas State University
Agricultural Experiment Station
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and view previous
issues online at
ksu.edu/agreport

On the cover: Three students – Thomas Hempy, Valerie Nguyen, and Matt Hamblin – who participated in the entomology undergraduate research program search for specimens in Quinlan Natural Area on campus. Associate Professor Jeremy Marshall is second from right.

www.ksu.edu/agreport

Dan and Beth Bird awarded 2018 Medal of Excellence



Courtesy of KSU Foundation

Dan and Beth Bird, Manhattan, have been awarded the K-State Medal of Excellence. It recognizes those who have advanced Kansas State University through exceptional service, leadership, and philanthropic contributions.

Dan, '62 animal sciences and industry, and Beth, '61 business administration, have served on the Alumni Association board of directors. They are lifetime members of the Alumni Association and members of the Beach Museum Board of Visitors, of which Beth is past-chair.

They are past members and volunteers with K-State Catbackers. Beth serves on the board for K-State Libraries, and both Dan and Beth serve on the College of Agriculture's Innovation and Inspiration Campaign steering committee.

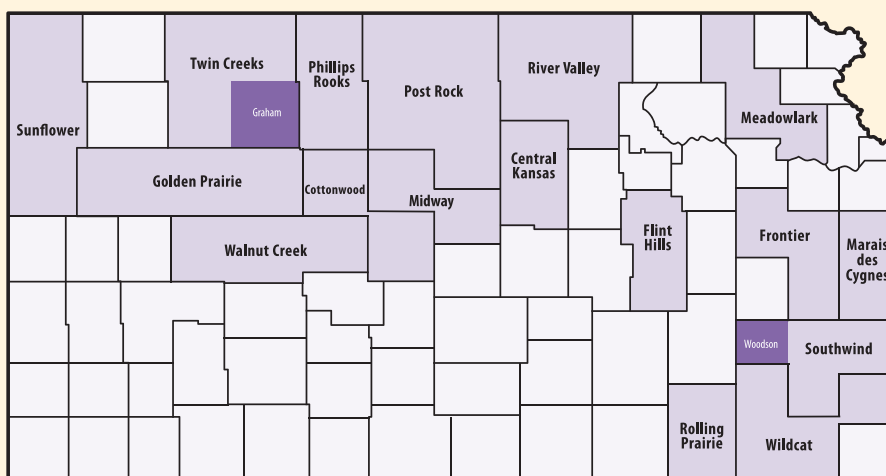
They have established five named funds and scholarships in the colleges of Agriculture and Business Administration, and across K-State through funds for Athletics, the Alumni Association, K-State Libraries, the marching band, K-State Gardens, McCain Auditorium, and the Berney Family Welcome Center.

Graham and Woodson counties join districts

In northwest Kansas, Graham County joined Decatur, Norton, and Sheridan counties to expand the Twin Creeks Extension District. In the southeastern corner of the state, Woodson County became part of the Southwind Extension District with Allen, Bourbon, and Neosho counties. Effective July 1, 2018, K-State Research and Extension has 50 counties organized into 17 districts.

The Kansas Extension District Law, passed in 1991, gives local extension councils the opportunity to partner with one or more counties to form a district. Forming a district involves agreements between the local extension councils and county commissioners.

Districting allows local citizens access to the expertise of additional agents. As part of a district team, agents can dedicate more time to a specific program area. At the same time, agents have access to more resources and support as they work together in a larger team.



Five students took part in the 13th annual, eight-week K-State Research and Extension Summer Research Fellowship Program. The fellows worked with K-State mentors on research projects then presented findings to faculty. Back row (l-r): **Bria Cooper**, Prairie View A&M University; **John Gonzalez**, associate professor of meat science; **Raymond Thomas**, Prairie View A&M University; **Lonnie Hobbs Jr.**, agricultural economics graduate student. Middle row: **Randy Phebus**, professor and interim Food Science Institute director; **Chelsea Triche**, Southern University; **Zelia Wiley**, assistant dean of diversity; **Ernie Minton**, interim dean of the College of Agriculture and interim director of K-State Research and Extension. Front row: **Scott Beyer**, associate professor of poultry nutrition; **Kaci Merriwether-Hawkins**, Tuskegee University; **Victoria Parker**, Prairie View A&M University. Wiley and Hobbs coordinate the program. Not pictured: **Vincent Amanor-Boadu**, professor of agricultural economics.

Students rank college life high in Princeton Review

The Kansas State University student experience is among the top in the nation, according to the national student survey published by The Princeton Review.

“The Best 384 Colleges,” a survey of more than 137,000 college students, lists Kansas State University students’ ranking as No. 3 for great town-gown relations; No. 4 for best quality of life; No. 6 for best athletic facilities; No. 7 for best health services; and No. 8 for happiest students.

The university’s postgraduation report showed 95 percent of undergraduates were employed or continuing their education within six months of graduation. In addition, a 2018 study by SmartAsset listed K-State students as garnering the highest starting salaries in Kansas for the fourth year in a row. In 2017, *Money* magazine named K-State the best tuition value in the state for the second year in a row.

As part of the student comments collected by The Princeton Review, students said the “community is extremely important” at Kansas State University, and K-Staters are “down-to-earth and family-oriented” and “consider success in college a very important aspect of their lives.”

The Princeton Review survey asks the students to rank schools in 62 categories. The book identifies the Top 20 schools in each category. The Princeton Review is an education services company.



Grant addresses water scarcity

The Foundation for Food and Agriculture Research (FFAR) funded a \$5 million grant to launch the Irrigation Innovation Consortium, a collaborative research effort to accelerate the development and adoption of efficient irrigation technologies and practices through public-private partnerships.

K-State, in partnership with four other universities and several industry partners, will match the FFAR grant money for a total initial investment of \$10 million to support irrigation technology research and collaboration costs over five years.

“The new Irrigation Innovation Consortium unites top university research talent with industry to promote practical advancements in irrigation technology and water management practices,” said Sally Rockey, executive director of FFAR. “We are optimistic that outcomes from this collaborative effort will help producers grow more food with smart water management and strengthen the resilience of our food supply.”



Detecting emerald ash borer



Two ash trees near Dole Hall have been girdled – a ring of bark has been removed. Who would do this and why?

According to Cathie Lavis, professor of landscape management, the K-State Manhattan campus is home to approximately 250 ash trees. The university’s Tree Campus USA/Landscape Advisory Committee is preparing for the imminent arrival of the emerald ash borer, or EAB, an invasive species highly destructive to ash trees. The committee includes K-State facilities, K-State Research and Extension and teaching faculty, community arborists, and arboriculture students who have developed a five-year strategic plan.

Studies conducted by Michigan State University and USDA Forest Service suggest that girdled ash trees are an effective detection tool. Adult emerald ash borer are attracted to stressed ash trees and lay more eggs on them.

Girdled trees stand for a growing season, then all the bark is removed to search out larval feeding galleries and emerald ash borer life stages. Although girdling and bark peeling are labor intensive and involve the sacrifice of a live tree, girdled trap trees are a good option for detection of EAB. This will help determine if emerald ash borer have arrived on campus ash trees.

Visit campus,

find a career

The days of a wide-eyed college freshman wandering through campus on the first day of classes is quickly becoming a thing of the past.

High school juniors and seniors – and even much younger youth – are attending events hosted by the College of Agriculture to see what college life is all about.

College officials hope the events help prospective students become increasingly familiar with their career options, and how K-State can get them there.

“Overall, it’s the experience of ‘test driving’ K-State from a student perspective that is most valuable,” said Sandy Klein ’06, ’11, assistant dean of academic programs.

Klein notes that one particular program, Ag Experience Days, provides “a different type of campus experience for prospective students,” in that they spend a day attending a class, getting ice cream, visiting labs or other work spaces

in their department of interest, and touring sites around town – all of their own choosing.

“Ag Experience Days allow students to shed the purple campus visit folder and experience campus as a regular student, where there isn’t a big flashing light saying, ‘Be nice to me, I’m visiting,’” Klein said. “In my opinion, this allows them to really experience the culture of K-State: Are the people nice? What are college classes like? What does it really feel like to be a student here?”

Already this year, thousands of high school students have been on the K-State campus participating in events hosted at least in part by the college. Some of those include:

FFA Career Development Events

One of the largest events is the Kansas FFA Career Development Events (CDE), held in late April and early May. This year, 1,820 Kansas youths participated, representing 158 of the 200 FFA chapters in the state.

The CDE is a week-long competition between Kansas FFA members, who go head-to-head in such areas as veterinary science, horticulture, entomology, journalism, and many other fields of study. Each chapter scores points based on their members’ finish in the individual events, and the winning team in each contest represents Kansas FFA at the national convention later in the year.

“The FFA organization has done an excellent job in providing opportunities for students to experience agriculture and connecting their high school experiences to future careers related to agriculture,” said Alyson Lister ’12 ’14, former events coordinator for the college. “State CDEs are just part of the equation for FFA members being exposed to opportunities and a future career, but I know from my own experience, being on K-State’s campus for State CDEs played a role in my decision.”



Left: Kansas 4-H'er Nathan Profitt is among 22 teens teaching the Discovery Days class, "Monarchs on the Move," to communicate the plight of the monarch butterfly, which is currently under consideration as an endangered species. Right: Kansas FFA members judge swine during a Career Development Event.

Courtesy of Angela Denton



Courtesy of Angela Denton

Kansas FFA members participate in a Career Development Event in Weber Arena. It was part of week-long competition with 1,820 kids from 158 chapters.

4-H Discovery Days

Another large event is 4-H Discovery Days, a four-day, three-night event held the last weekend of May.

"Discovery Days is paramount for so many of our 4-H'ers to receive exposure to the many different opportunities across campus," said Sarah Keatley events coordinator for the Kansas 4-H program.

Keatley describes the event as "a mini college experience" for youth ages 13-18, who stay in residence halls, take classes on campus, and participate in social activities in the evening.

"We have had numerous 4-H'ers who have taken a class at Discovery Days that sparked their interest in a specific department on campus," Keatley said. "These young people have then received degrees in these fields once they attended college, all because of a 75-minute class that they took at Discovery Days."

This year marked the 94th year of Discovery Days at K-State. There were 475 youth who attended (188 of them for the first time) representing 59 extension units in Kansas.

Animal Science Youth Leadership Academy

Now in its 10th year, the Kansas Animal Science Leadership Academy regularly brings youth from across the United States to develop young leaders within the livestock industry.

Twenty students take part each June, which means the academy has now helped 200 students from 13 states.

The program includes interactive workshops, tours, and mentoring by K-State faculty. The students also get to interact with industry leaders, including a popular bus tour to a Kansas livestock business.

"Our faculty mentor program pairs small groups of five students with a current K-State student counselor and an animal science faculty member to complete a group project," said Sharon Breiner '05, '07, academy coordinator. "This unique opportunity allows them to connect to our department, university, and faculty in a meaningful way. Beyond the project, the faculty mentor often serves as a bridge to our students who choose to attend K-State."

Other campus events

For the past three years, students in the Department of Agricultural Communications and Education have hosted the Ag Ed VIP Day. The February event focuses on career opportunities within agricultural education.

This year, 39 students from Kansas and three other states participated, according to faculty advisor Brandie Disberger '01, '03. She noted that family members are encouraged to attend alongside students.

K-State also hosts the World Food Prize Kansas Youth Institute each spring, giving students an opportunity to present research and ideas for solving the global food crisis. They are exposed to university research, helping them develop a deeper understanding of global food issues.

Twenty-five students participated this year. K-State sends delegates from this event to the World Food Prize Global Youth Institute in Des Moines, Iowa. ■

Spreading the Word

Local offices are ground zero for research-based info

It's a Tuesday morning in Topeka, and Ariel Whitely-Noll '14 arrives at her office thinking about her to-do list. That list may include a Facebook post, an interview with the Topeka Capitol-Journal newspaper, or making room arrangements for a program she's presenting. She knows that emails, phone calls, or visitors may change her day, but that's the way she likes it.

In her role as a K-State Research and Extension horticulture agent, questions may come in about lawn irrigation or insect problems in a vegetable garden, or guiding an Extension Master Gardener who's speaking to a community group.

Whitely-Noll relies on the latest research from K-State and other universities to provide information to local residents, whether they're first-time homeowners or seasoned gardeners.

Statewide network

Farther west, agriculture and natural resources agent, Tom Maxwell '78 '80, relays crop production and farm management information to farmers in the Central Kansas District (Saline and Ottawa counties). It's enhanced by his 37-plus years working with K-State researchers and specialists, disseminating information to the public.

Maxwell and Whitely-Noll are two of about 225 K-State Research and Extension educators working across the state to deliver information on topics from personal financial management to growing soybeans to fitness and health programs, planting your garden, and more. All have bachelor's degrees and many have master's degrees or beyond, plus experience in the business world. Most of the information, focused on improving lives, businesses and communities, is either free or low cost and available to all Kansans.

Through classes, field days, newspaper columns, radio and newsletters, plus social media – Twitter, Facebook, Pinterest, YouTube, and others – agents take research results and convey it to Kansans.

"I often highlight 'Dining with Diabetes' as an example of a popular program built on solid research findings," said Gregg Hadley, K-State director for extension. The program consists of classes where Kansans learn

about nutritional and physical activity changes they can make to lessen the health risks of diabetes, which affects one in 10 adults in the state.

Hadley cited Erin Yelland, specialist in health and wellness, for her work in opioid education and aging populations. Agents in communities large and small work with Yelland to educate Kansans.

Nora Rhoades, family and youth development agent in the Post Rock District – which spans five counties



Ariel Whitely-Noll, K-State Research and Extension horticulture agent, educates Shawnee County Extension Master Gardeners about plants growing in the demonstration garden.

Courtesy of Ariel Whitely-Noll

My primary job is to get unbiased, research-based information into farmers' hands.

— Jeanne Falk Jones

in north central Kansas – uses a multidimensional approach to expand a culture of health and wellness across the age spectrum.

“In some cases, I provide direct services to the public as an educator, and other times I train professionals so they can better serve their audiences,” said Rhoades, adding that partnerships with community coalitions, management teams, and volunteers help spread research-based information further and magnifies the reach.

Agronomy specialist Jeanne Falk Jones '02, '04, works with crop producers in Cheyenne, Sherman, and Wallace counties. “Being trained as a weed scientist, I think weed control is a big concern,” said Jones.

She has four county wheat demonstration plots and conducts tours,

plus works with specialists to present three research-related field days.

“My primary job is to get unbiased, research-based information into farmers' hands, for them to apply it on their farm,” said Falk Jones, who uses social media and email to send timely alerts, videos, and photos to farmers.

Keith Martin in Labette County (Wildcat District) and Dale Hellwig in Cherokee County are among the agents who work with Kansas beef producers through the Sunflower Supreme Heifer Program. Led by southwest area beef specialist, Jaymelynn Farney '07, '12, the program focuses on best management guidelines for replacement heifers.

Agents and staff in the Wildcat District (Crawford, Montgomery, Wilson, and Labette counties) are reaching out to longtime and new

audiences via social media plus two weekly television segments, *Wildcat Wednesday* and *Wildcat Cooking* on KOAM-TV. The team produces a monthly e-magazine, *Wildcat Connection*, which features print articles, photos, and audio podcasts on an array of topics, and uses Facebook, Twitter, and other social media to reach out to residents.

Community support

K-State Research and Extension works to strengthen communities, by offering grant-writing workshops, helping communities assess their strengths and weaknesses, hosting First Friday webinars for small businesses, and facilitating public meetings, Hadley said. He also noted K-State's role in recent critical water-related public discussions and a meeting in Coffeyville about the prospect of a new poultry facility.

“We're putting research into action by helping the public decide what direction to go,” Hadley said. “One of the biggest challenges we face is the speed at which something can be transmitted. We're all used to getting things at our fingertips. Our information may not come at the speed that society is used to. Speed is important, but it's more important to be accurate.”

Even with more than 100 years of delivering information, some aren't aware of our services, Hadley said. It's tough that people don't know that their local agent is just a call, email, or visit away when they have a question about irrigating their yard or irrigating 10,000 acres.

The information we provide is unbiased. K-State Research and Extension agents and specialists do not profit from sales of a particular product.

Because K-State Research and Extension is taxpayer supported, it generally can't spend money to advertise, so many people learn about programs by word of mouth and through traditional or social media.

Go to ksre.ksu.edu for more information about K-State Research and Extension. ■



Multicounty specialist Jeanne Falk Jones uses social media and email to send timely alerts, videos, and photos to farmers. She also uses traditional methods such as field day presentations.

Tech on the Rise

More farmers are using precision agriculture for management decisions

As an increasing number of Kansas farmers use automated equipment, camera images, and various forms of data to manage their operations, K-State's footprint in precision agriculture continues to grow.

Terry Griffin, an assistant professor in the Department of Agricultural Economics, released figures in May showing that since 2010, the proportion of Kansas farmers adopting eight of the more popular technologies has doubled – and closely matches the proportion of farmers who adopted those technologies the previous 20 years.

Griffin said precision agriculture's automated technologies can require less human capital and skillset to perform the same operation. The benefits also include increased amounts of farm data from yield monitors, soil sampling, imagery, and in-field sensors.

For producers, precision agriculture means being able to farm more precisely. After the drones have been flown, images collected from satellites and data gathered from in-ground sensors, farmers care most about whether the technology reduced expenses and allowed them to farm more efficiently.

Identifying problems

Therein lies the sweet spot for researchers like Ignacio Ciampitti, associate professor of agronomy who studies the use of satellite images to forecast crop yields.

"Companies bombard farmers with information, but don't necessarily give them an actionable item," Ciampitti said. "We try to show them how to put together information, so they can really consider using technology. We use satellites to identify a problem before the problem becomes apparent."

Researchers use satellite images to identify areas of stress in a field, often determined by what is known as the Normalized Difference Vegetation Index (NDVI). Paired with information on the ground – and sometimes historical pictures of the same field – the satellite images can pinpoint areas of the field that may not yield well due to various factors, including soil health, disease, or pest problems.

Satellites have made it possible for farmers to look at images and have a pretty good idea of how that field will yield later.

"Satellites are not replacing agronomists," Ciampitti said. "A satellite picture is good for decoration, but you need interpretation. We educate farmers so they know what they can do because of what they see in the picture."

View from above

K-State faculty use unmanned aerial vehicles, or drones, to mostly scout crop fields. Drones also can be used to monitor livestock and water quality, among other uses.



Ajay Sharda, assistant professor of biological and agricultural engineering, leads a team scouting corn near Topeka to determine which areas of the field are getting too much, the right amount, or not enough water.

Armed with infrared and near-infrared cameras, the drones help researchers build crop water stress index (CWSI) maps, combined with information from ground sensors to measure soil moisture and additional equipment to measure air temperature, humidity, solar radiation, and sky temperature.

"We are taking data before irrigation and again after applying irrigation to determine plant stress and response to a management decision," Sharda said. "We can say, 'this is what it looked like, and we used that information to apply water and see if there is the expected response.'"

"K-State has excellent tools for irrigation scheduling, but if we get more information on a spatial (field) scale, we can do a much better job in providing irrigation scheduling, such as how we should move our pivots, and understanding how much we can extend irrigation timing and not hurt our yields."

Irrigation engineer Danny Rogers '76, '77, who has worked for K-State for more than 40 years, called technology use "an exciting time from the management aspect."

"I've been focused on irrigation management my entire career, and this is a whole new level that will let us pinpoint what is going on so you'll know where to go in the field to address problems," he said. "As we continue improving the technology, we may even be able to do some of the diagnostic work without even entering the field, based on the layers of information we have on that history and current conditions."

Monitoring nitrogen

K-State agronomist Romulo Lollato said he has provided information to farmers about active crop sensors that can indicate crop health status and be used to provide nitrogen rate recommendations.

It has helped many to better manage nitrogen in crop fields, often times saving time and money while adding another layer of protection for the environment.

"Year after year, producers go out and put on 60 to 70 pounds of nitrogen fertilizer during the growing season because their parents did that and their grandparents did that,"

*We use satellites to identify
a problem before the
problem becomes apparent.*

— Ignacio Ciampitti

Lollato said. “Well, 60 to 70 pounds ... that’s a guess.

“We run into different situations – the most classic is over-applying nitrogen. Many years, we have that nitrogen in the profile, and we don’t need that 70 pounds of nitrogen. And some years, like these last two years, we may be under-applying nitrogen.”

Active crop sensors, which Lollato says are accurate “85-90 percent of the time in central Kansas and Oklahoma,” bring vital data to farmers, so they can apply nitrogen where it’s needed and in the needed amount.

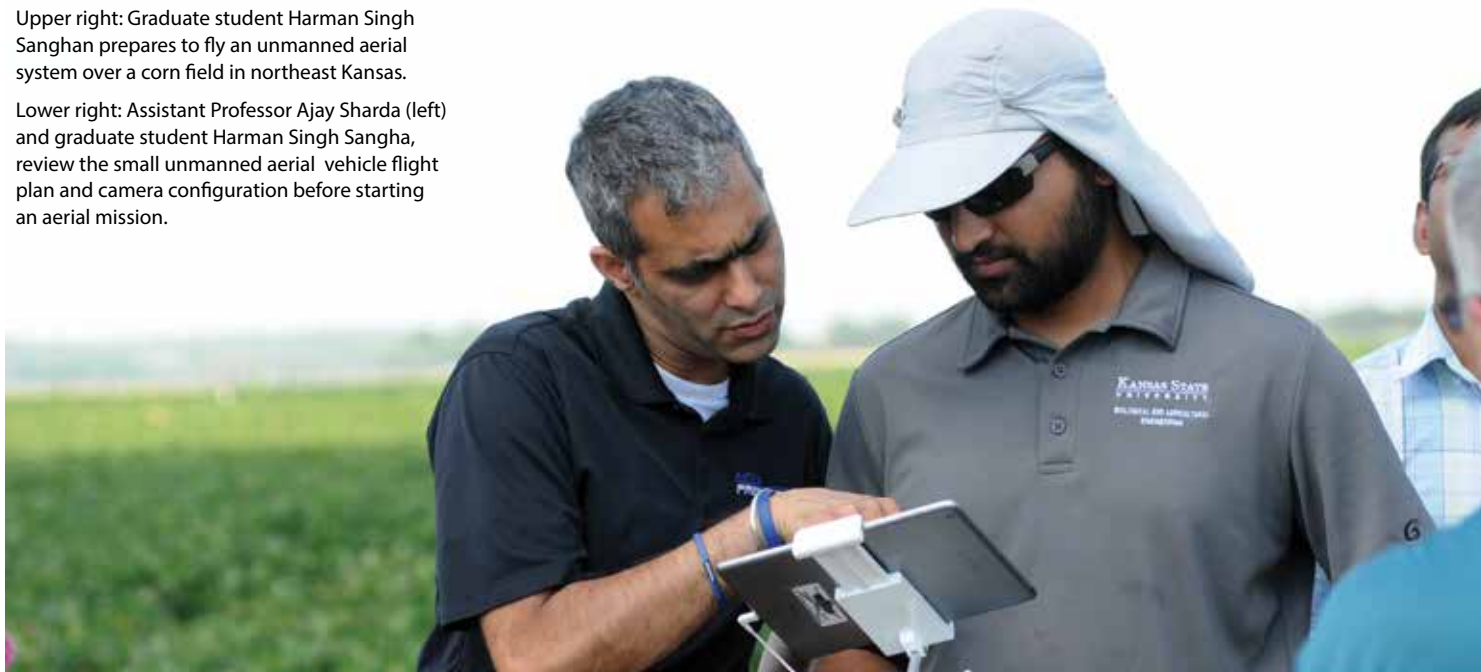
“Before precision ag, producers needed to take a soil sample before planting. Now he or she can plant that crop as long there’s enough nitrogen in the fall, and monitor that crop using active sensors,” Lollato said.

More information is available at www.ksu.edu/precisionag. ■



Upper right: Graduate student Harman Singh Sanghan prepares to fly an unmanned aerial system over a corn field in northeast Kansas.

Lower right: Assistant Professor Ajay Sharda (left) and graduate student Harman Singh Sangha, review the small unmanned aerial vehicle flight plan and camera configuration before starting an aerial mission.



Insect Interest

"It's funny how something that you do on a whim winds up changing the entire course of your academic life."

— Matt Hamblin



Top (l-r): Students Thomas Hempy and Valerie Nguyen and Associate Professor Jeremy Marshall admire the eastern tiger swallowtail held by master's student Matt Hamblin.

Bottom: Matt Hamblin holds his catch – an eastern tiger swallowtail.

Even though K-State's Department of Entomology grants only master's and doctoral degrees, it offers a variety of classes for K-State students pursuing bachelor's degrees in various majors. Many of those students are also looking to the department for valuable research experience.

Jeremy Marshall, associate professor/undergraduate research and extension coordinator, realized that many K-State students don't participate in research. He approached Department Head John Ruberson about initiating a program to help students incorporate research projects early in their academic careers.

The concept involved enlisting faculty members as mentors and recruiting students from introductory entomology classes, who could learn research fundamentals then continue working on projects. Marshall met with interested students to match them with a mentor who conducts research in their area of interest.

"The first year we had 35 interested students, 25 met with me and were placed with mentors, with 19 completing their projects," Marshall said. "Last year, 32 students completed the program."

Because of the program, students are enrolling in entomology. "Students see how much we care and are coming back for entomology minors or as graduate students," added Marshall.

Student Experiences

About half of the participants are not enrolled in the College of Agriculture. They come from a broad range of majors such as computer engineering, education, and biology.

Three students, who learned about the research opportunity while enrolled in Jeremy Marshall's General Entomology class, explain how the student research program influenced their career paths. In addition to department faculty, all of them worked with faculty at the USDA Center for Grain and Animal Health Research located in Manhattan.

Matt Hamblin, who was majoring in biology and fisheries, wildlife and conservation biology, was part of the inaugural student research program in 2016.



Thomas Hempy (l-r), Valerie Nguyen, Jeremy Marshall, and Matt Hamblin search for specimens in the Quinlan Natural Area on campus.

His mentor, Professor Tom Phillips, offered simple, yet effective, experiment design options. With Phillips' help, he came up with an experiment using a variety of compounds in hexane to test for repellency to the red flour beetle.

"Dr. Phillips gave me a lot of freedom when it came to the actual experimental design and modifications and was always willing to answer questions and offer suggestions," Hamblin said.

When Hamblin had enough data, Marshall provided a poster template with information, purpose, methods, and findings for the department symposium.

Hamblin said he was surprised how low pressure the symposium was. Department faculty, staff, and students talked to them about their projects and offered advice on continuing their research. Hamblin was selected for a Dean's Scholarship.

"After going through the program, I found out about a student position at the USDA lab and applied. Because I had research experience with stored product pests, I was offered the position and have been working in Dr. Rob Morrison's lab for the last year. With the time that I've spent in the lab and the experiences that I've had with numerous projects, posters and meetings, I'm closer to the path of getting my master's in entomology.

"And truly, it's all because I signed up for the undergraduate research program. It's funny how something that you do on a whim winds up changing the entire course of your academic life. The program changed my mindset on research and opened doors to possibilities I never knew existed and would have never dared to try."

Valerie Nguyen, a horticulture major with an emphasis on natural resources, added a minor in entomology.

"My research was about aphids and their attraction to different types of mosaic viruses that attack various types of plants," said Nguyen. "After completing the research, I found that I really

enjoyed working with insects. The Department of Entomology gave me many opportunities to pursue this interest.

"The undergraduate research program was an amazing opportunity for me to gain hands-on experience and opened many gateways into other interests I had yet to explore. I also had a great chance to work with and meet so many of the wonderful and unique people within K-State's Department of Entomology.

Thomas Hempy, a fisheries, wildlife and conservation biology major, was eager to participate in the program. He hadn't worked in a lab outside of class and thought it would be a great way to network and gain lab skills.

"I was recommended to work at the USDA and would go there two or three times a week," said Hempy. "My mentor explained what he wanted, but I was able to approach it however I wanted, with help if needed. I learned how to design experiments, how to interpret data, how to create a research poster, and how to present research. I learned what it is like to work in the field of science in a non-school environment."

He added a minor in entomology and received a small scholarship because of the research program.

"My mentor liked my work ethic and offered me a paid internship with the USDA. I continued working on the same experiment from the program and have started others. I gave a student presentation at the American Mosquito Control Association Conference. I learned how to design models and 3-D print them, which I never imagined myself doing. The research program provided me with many opportunities."

Research papers and posters are uploaded to the K-State Research Exchange, or K-Rex, a searchable digital repository.

"Having digital resources posted in the university library system is awesome for students," said Marshall. "It looks great on a résumé." ■

Time to Burn

Study examines best season for prescribed burns

As researchers continue exploring the benefits of summer prescribed burning, Kansas land managers may be on the brink of a real opportunity to explore this alternative on their own property.

KC Olson '98, K-State professor of range beef cattle nutrition and management, has been researching the benefits of moving prescribed burning from spring to late summer.

Olson's research began in 2014. The data from that four-year study shows late-summer burning dramatically reduces the incidence of sericea lespedeza, a noxious weed found in at least one-third of the Flint Hills. The plant is known to out-compete native plants for water and nutrients, and it contains high levels of condensed tannins that make it undesirable for cattle grazing.

"We've started data collection for a six-year trial, which will involve livestock performance as a primary metric," he said. "We're going to test the influences of a traditional spring burn, a summertime burn in the August-September interval, and a fall burn in the September-October interval, to see how those options influence subsequent livestock performance."

Olson hopes to make a significant contribution to the growing pile of data, confirming the benefits of summer burning.

Poor weather conditions this past April prompted some landowners to postpone pasture burning. Many worried that the moisture was inadequate to fuel the lush regrowth, which is the impetus for burning. Olson hopes pasture managers try summer burning.

Spring versus summer

Like a spring burn, you're still applying fire to plant material. "I recommend people hang their old fire management paradigms on a hook and look at it with fresh eyes, because this is a different animal," Olson said.

"Expect it to move at about one quarter of the surface wind speed. For example, if the surface wind speed is 10 miles an hour, expect that fire to move at about 2½ miles an hour. You can walk and keep up with these things."

In summer, green and growing foliage contains more water. For the people working the fire, as well as neighbors, the experience is less irritating.

"As the fire makes contact, that water flash boils," Olson said. "The smoke cloud looks dense, more intimidating, but that's because of all the steam."



Courtesy of KC Olson

To reduce walking in extreme heat, Olson modified his prescribed fire team. “We’re using more small vehicles – think all-terrain vehicles – to work that fire line. If possible, no one walks more than a few feet to spare our people unnecessary exertion in extremely hot temperatures.”

Olson added that his summer burn teams generally employ fewer people than his spring burn teams.

“The aftermath of a spring fire usually looks like a pool table – slick, black, and little residual material,” Olson observed. “In the summer, fire intensity is much lower. Chances are most of the above ground vegetation is not going to go away completely. You will see standing green material immediately after the fire passes, and it looks like the fire didn’t have any effect at all. But maybe 48 hours after the fire, what was standing green material the day of the fire is now brown, dead, and top-killed. You’ve just caused the whole plant community to reboot itself.”

While those are the major differences between spring and summer burns, all the rules and ordinances apply. You still have to contact your county government for a burn permit. You still have to advise local emergency management teams of your fire, both before you light it and after it’s out. ■

Below: Professor KC Olson, left, initiates a summer pasture burn to reduce the incidence of *sericea lespedeza*, a noxious weed found in at least one-third of the Flint Hills.

Courtesy of KC Olson



Benefits of long-term research

Research studies can be only a few days or weeks or stretch over decades. Long-term research studies often note trends not evident in a single growing season.

For the past seven years, Eric Adee ’86, ’88, has been the agronomist in charge for two experiment fields operated by the Department of Agronomy: Kansas River Valley near Topeka and East Central near Ottawa. A fertility study at one of those fields was established by the predecessor of his predecessor, about 48 years ago.

Adee says that long-term studies have the benefit of working around the unexpected.

“Weather-related events like flooding, drought, hail, or wind can cause data loss,” Adee said. “There are also man-made events, such as spray-drift. Long-term studies provide averages over many years to give a more accurate representation of a specific treatment or process.”

Bob Gillen, head of K-State’s western Kansas centers in Hays, Colby, Garden City, and Tribune, says the bumps in the road can offer valuable data.

“It also tells us how long such bumps last,” Gillen said. “For instance, on a 20-year rangeland study at Hays, we went through a five-year drought period and a two-year drought. In both cases, we were able to determine how quickly the rangeland recovered. This allowed us to make recommendations to ranchers on how long they should reduce stocking rates or other measures to encourage recovery.”

Kansas temperature, rainfall, elevation, soil types, and insect pests vary widely across the state. K-State Research and Extension operates centers and experiment fields across the state to accurately determine the best crops and plants for those varied conditions.



Administrative Merger

Southeast Kansas center combines research and extension leadership

In fall 2015, researchers from the Southeast Agricultural Research Center and specialists from the Southeast Area Extension Office moved into a new 13,289 square-foot building in Parsons, forming the Southeast Research and Extension Center. Research faculty had been housed at the Parsons State Hospital and Training Center and extension specialists were located in Chanute.

Having the research and extension faculty in one building mirrors the system established in western Kansas with the Northwest Research-Extension Center in Colby and Southwest Research-Extension Center in Garden City. With the physical move completed, the two groups are merging leadership.

“We are blending the research and extension programs under one administrator,” said Ernie Minton, interim dean of the College of Agriculture and interim director of K-State Research and Extension.

Lyle Lomas joined the staff in 1979 as animal scientist, served as head from 1985 to 1994, and both head and animal scientist from 1994 to 2018. He will continue his research for at least another

year. In July, J.D. McNutt, who has been southeast regional extension director since 2004, was appointed to lead the center.

“I am honored to be the first department head to oversee both research and extension,” said McNutt. “Our facility is like no other in southeast Kansas, and we are proud to be a Kansas State University presence in the area.”

Regional programs

The region has highly diverse soils and average rainfall ranges from 30 to 45 or more inches.

Faculty at the center include Dan Sweeney, professor of soil and water management; Gretchen Sassenrath, associate professor of crop production; Beth Hinshaw, 4-H and Youth Development specialist; Gayle Price, family and consumer sciences specialist; and Jamelynn Farney '07, '12, beef systems specialist.

According to Sassenrath, faculty manage replicated test plots at the Parsons crop and pasture facilities, as well as fields in Columbus. The center also has cattle and forage resources to conduct various projects, including

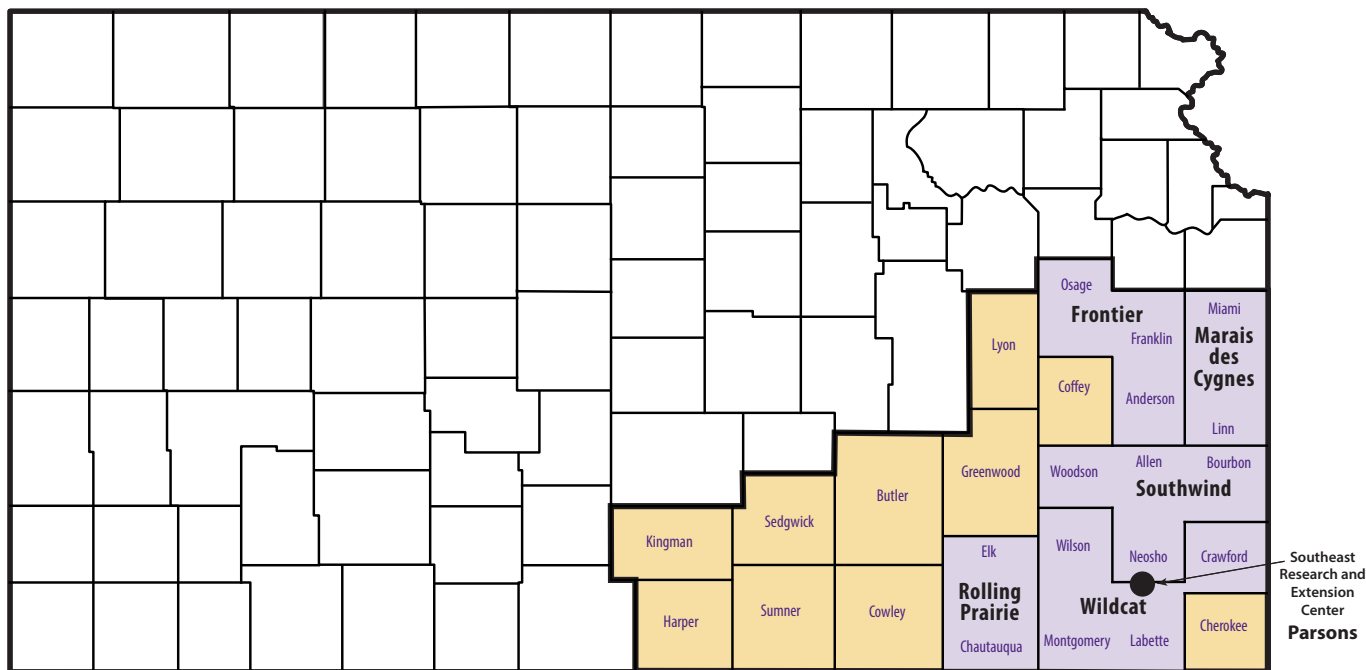
multiple pastures of four grass species and a feedlot at Mound Valley. Grazing research is conducted with introduced species of grass rather than native grass, which differs from other K-State locations.

Grazing projects often follow up with a finishing phase to determine the effect of grazing treatment on finishing performance.

Common production systems produce three crops in two years, with a rotation of corn, winter wheat, and double-cropped soybeans.

Family and consumer sciences programs related to diabetes, healthful eating, exercise, money management, aging issues, the Supplemental Nutrition Assistance Program Education (SNAP-Ed), food safety, and “Better Brains for Babies” help transform the lives of individuals, families, and communities.

The area has a strong 4-H community club program with about 5,100 4-H members ages 7 to 18 supported by 1,480 adult volunteers. Staff are committed to teaching leadership skills to 4-H'ers, and through schools, community groups, and community colleges, said Hinshaw. ■



The Southeast Research and Extension Center serves 25 counties, grouped into five multicounty districts and 10 independent county offices.

This little piggy went to market

Study looks at how transportation affects pig health

K-State researchers are planning a road trip, actually 40 of them, to learn how transporting pigs affects muscle fatigue in those animals.

They plan to follow trucks around the Midwest, specifically Iowa, Kansas, Missouri, Nebraska, and Oklahoma, to measure vibration in the trailers and the stress it may cause animals.

Our primary concern is animal welfare, but we are also concerned about the loss to the industry, said John Gonzalez, associate professor of meat science.

An estimated 120 million pigs are transported on U.S. roads and highways each year, or about 750,000 loads of pigs. Previous research has identified fatigue – from various factors and possibly the constant shaking the animals endure during transportation – as the cause of an estimated loss of .3 percent, or 360,000 pigs per year, according to Gonzalez.

That's equivalent to about 109 million pork meals lost per year, and just over \$17 lost per pig, a total of \$61 million lost by the pork industry.

Gonzalez works with a team of K-State specialists: animal scientists Tim Rozell and Jason Woodworth '97; biological and agricultural engineers Dan Flippo '94 and Ed Brokesh '83, '06; and kinesiology professor Tom Barstow.

The team received \$125,000 from the Agriculture and Food Research Initiative, which is administered by the U.S. Department of Agriculture's National Institute of Food and Agriculture, to gather data on how to make pigs more comfortable during transportation.

"We are looking at different locations within the truck," Gonzalez said. "Let's say we find out the bottom level of the

nose near the axle of the truck vibrates a lot more than the other compartments. So, you can actually tell producers, 'OK, these pigs at the far end of the hog house will have to walk a long way and be more fatigued than those close to the door. Maybe you don't put them in the nose of the trailer.'"

They intend to develop strategies for loading the pigs so those that might be more fatigued are not put where the vibration is strongest.

Gonzalez said he often uses an analogy to explain the process. "The effects of transporting pigs is much like a homeowner using a weed eater or a chain saw that vibrates heavily. At the end you have no strength in your hands."

The team will collect data on 40 loads of pigs using accelerometers placed in the trucks to measure movement from side-to-side, forward-to-backward, and up-and-down.

The measurements will help researchers understand differences, such as a bumpy ride along a county road compared to a ride along an interstate highway.

"We can take those variables and see how it's affecting our pigs," Gonzalez said.

After determining the vibration profile, the information can be used to address other transportation factors and create a better overall trip for the pigs. The team will collect a vast amount of data, possibly 100 data points a second, during a 3- to 4-hour load.

Once all of that information is gathered, the team will design and build a live simulator to test the effects of transportation and vibration in a controlled university setting. Eventually, the work can also include other animal species. ■



Courtesy of John Gonzalez

An estimated 120 million pigs are transported on U.S. roads and highways each year, or about 750,000 loads of pigs.

Student Highlights

Maria Martinez, senior in animal sciences and industry from Queens, New York, was chosen to join the K-State Student Alumni Board and was selected for the 2018-2019 class of the Snyder Leadership Legacy Fellows program.

Jayden Meyer, junior in agricultural economics from Athol, is one of 10 U.S. students selected as a Cargill Global Scholar. The program, administered by the Institute of International Education, provides scholarships, leadership seminars, and a Cargill mentor.



The Staley School of Leadership Studies, in partnership with Cargill, selected 20 students as the inaugural cohort of Cargill Fellows. Nine are from the College of Agriculture: **Kinzie Alexander**, agribusiness, Logan; **Sara Gammon**, agricultural economics and global food systems leadership, Drexel, Missouri; **Jenna Goetzmann**, agribusiness and global food systems leadership, Gardner; **Katheryn Gregerson**, food science and global food systems leadership, Herman, Nebraska; **Hector Rojas**, animal sciences and industry, South Elgin, Illinois; **Noah Scrimsher**, agribusiness, Oskaloosa; **Ingrid Silva**, feed science and management, Kansas City; **Mardi Traskowsky**, milling science and management and global food systems leadership, Herington; and **Clara Wicoff**, agricultural economics and global food systems leadership, Iola.

Agricultural Education Club members volunteered more than 50 hours building and painting beehives to help the Kansas Department of Agriculture with a service project for Servicemember Agricultural Vocation Education Farm. Proceeds from hive sales help hire veterans and support the farm.

American Society of Animal Science regional meeting: **Roger Cochran**, doctoral student in feed safety, was named a Midwest Young Scholar. K-State students won first place in six of eight research abstract categories. Bachelor's posters – **Abbie Smith**, **Ethan Sylvester**, **Haley Wecker**; Bachelor's oral – **Katelyn Thomson**; Ph.D. poster – **Henrique Cemin**; and Ph.D. oral – **Mariana Menegat**.

Ag Media Summit awards: K-State Agricultural Communicators of Tomorrow (ACT) chapter was named best overall chapter; **Jill Seiler**, senior in agricultural communications and journalism/animal sciences and industry, earned one of four Agricultural and Applied Economics Association ACT scholarships.

The Midwest Poultry Consortium awarded a 2018 Center of Excellence scholarship to **Lindsey Leiser**, junior in animal sciences and industry, Burlington. She will study avian health, poultry nutrition, and poultry enterprise management.

Students who earned scholarships through K-State's Office of International Programs to study abroad: **Kendra Christman**, animal sciences and industry, \$250 University Study Abroad Consortium K-State Scholarship for Costa Rica, Kansas City; **Savannah Langley**, animal sciences and industry, Lansing, \$5,000 Goss Discovery Scholarship for Ireland; **Molly Roach**, animal sciences and industry, Rantoul, \$5,000 Goss Discovery Scholarship for Ireland; and **Sara Gammon**, agricultural economics, Drexel, Missouri, \$500 Doris Hays Fenton Memorial Scholarship for Kenya.

Maridee Weber, junior in food science, natural resources and environmental sciences, and global food systems leadership, Shawnee, has been awarded the Blue Key Study Abroad Scholarship. **Abbey Nutsch** '93, '98, is her advisor.

Competition Teams

A team from the Center for Risk Management Education and Research took second place in an intensive four-week competition organized by the

Chicago Mercantile and Exchange with 500 teams from 37 countries. The team included seniors **Del Adcock** (leader), agricultural economics; **Nils Bergsten** and **Trenton Covington**, agribusiness; and **Kyle Rogers**, finance. They took on graduate and undergraduate students in a trading competition played out on a global scale. For second place, each student earned a \$1,000.

The combined placing of nine competition teams earned K-State reserve champion in the Sweepstakes Award at the North American Colleges and Teachers of Agriculture, or NACTA, Judging Conference. They placed first in Equine Judging and Precision Agriculture, second in Crops, Soils, Knowledge Bowl, Dairy Judging, Agriculture Sales/Communications, and Computer Applications, and third in Livestock Management. Several students competed on multiple teams.

Graduate Students

Larry Corah Outstanding Graduate Student Award winners: **Cashley Ahlberg**, Longmont, Colorado, is pursuing a Ph.D. in animal breeding and genetics. Her research project is related to water intake and water efficiency in beef cattle. **Allie Hobson** '15, Hermiston, Oregon, is a graduate teaching assistant pursuing a master's degree in meat science. Her research efforts focus on bacon quality.

Three students earned North American Colleges and Teachers of Agriculture graduate student teaching awards: Doctoral candidates **Tiffany Carter** '14 and **Che-Jen "Jerry" Hsiao** and master's student **Erin Bush** '16. All three taught lab sections of an introductory soil science course under the supervision of Colby Moorberg. Bush also serves as a coach for the soil judging team and helps teach a class in soils judging.

A team of food science graduate students — **Yuda Ou**, **Priyamvada Thorakkattu**, and **Karthik Sajith Babu** — earned the \$8,000 first prize at the National Dairy Council's annual New Product Competition. They created two flavors of **Quick-Quark** a creamy, German-style drinkable

quark (unripened cheese) packaged in a flexible, spouted pouch. The students worked together on formulation, processing, packaging, pricing, and marketing. Associate professors Jayendra Amamcharla and Kelly Getty mentor the team.



Courtesy of Yoda Ou

Acai blueberry and pina colada Quick-Quark snacks created by food science students.

Ashley Kelly and **Andres Leon-Reyes**, park management and conservation graduate students, earned two of three Freeman Tilden Graduate Student scholarships from the National Association for Interpretation at the organization's annual conference in Dallas, Texas.

Stuart Sprague, doctoral student in horticulture, received statewide recognition at the 15th Capitol Graduate Research Summit at the State Capitol in Topeka. His research focuses on increasing heat tolerance in corn. His adviser is Sunghun Park, associate professor of horticulture and natural resources.

Danny Unruh '12, '18, was named the National Beef Packing Company's 2018 Outstanding Food Science Graduate

Student. He recently completed his Ph.D. at the Olathe campus focusing on food safety research and food safety policy. He accepted a position in the meat safety and quality group at Corbion in Lenexa, an international provider of ingredients and processing aids to the food industry.

2018 Richard Elmore Brown Outstanding College of Agriculture Graduate Student Teaching awards:

Braden Hoch '15, horticulture master's student advised by Associate Professor Chad Miller and Professor Jason Griffin; **Tiffany Carter '14**, agronomy doctoral candidate advised by University Distinguished Professor Chuck Rice.



Courtesy of Angela Denton

It's a three-peat!

K-State's Meat Animal Evaluation Team earned national champion honors for the third consecutive year at the 2018 Collegiate Meat Animal Evaluation Contest in Lubbock, Texas.

Team members: (front row, l-r) **Chris Mullinix**, coach; **Lauren Prill**, assistant coach; **Wyatt Durst**, Morrowville, Kansas; **Shayne Myers**, Colusa, California; **Cara Comstock**, Deerfield, Missouri; **Whitney Whitaker**, Templeton, California; **Hannah Frobose**, Pemberville, Ohio; **Nicole Kibler**, Edinburg, Virginia; **Emilee Holt**, Caldwell, Idaho; **Rachel Footit**, Meriden, Connecticut; **Jake Pettigrew**, Columbia City, Indiana; **Cody LaFrentz**, Bienfait, Saskatchewan, Canada; and **Travis O'Quinn**, coach; (back row, l-r) **Kolton Aubuchon**, Trinidad, Colorado; **Dean Klahr**, Holton, Kansas; **Cameron Hayden**, Cassopolis, Michigan; **Payton Dahmer**, Nevada, Missouri; **Trevor DeHaan**, Taylor, Missouri; **Shilo Schaake**, Westmoreland, Kansas; **Cody Boden**, Clear Brook, Virginia; and **Lucas Tuck**, Bowling Green, Ohio.

Students of the month

Each month, college organizations nominate candidates for student of the month. Selection is based on scholarships and honors, activities both on- and off-campus, résumé, grade point average and significant experiences during his or her college career. Kansas Farm Bureau Foundation sponsors a monetary recognition for each recipient.

September: **Mary Marsh**, agricultural communications and journalism, Arbuckle, California

October: **Samantha Albers**, senior in agricultural communications and journalism, Bendena

November: **Gage Nichols**, animal sciences and industry with a minor in feed science, Russell

December: **Jeffrey Hadachek**, agricultural economics with minors in statistics and international agriculture, Cuba

January: **Callahan Grund**, animal sciences and industry with a business option, Wallace

February: **Darby Schmidt**, agribusiness with a minor in animal sciences and industry, Defiance, Missouri

March: **Aubrey Davis**, agricultural economics, Scott City

April: **Kyler Langvardt**, agricultural communications and journalism, Chapman

Student of the Year and May commencement speaker: **Jeffrey Hadachek**

Record Scholarship Total

Horticulture students earned \$91,600 in scholarships from national and regional horticultural organizations. The major awards include **Megan Haresnape**, Joseph Shinoda Scholarship and the Bettinger Scholarship from the American Floral Endowment; **Conner Nickerson** and **Geregly Motolai**, Vic and Margaret Ball Internship scholarships; **ShayeAlta Naaf** and **Alissa Wells**, Professional Grounds Management Society; and **Michael Reece**, Trans-Mississippi Golf Association.



Courtesy of FFA Foundation

FFA State Officers

These K-State students were elected as the 2018-2019 officers at the State FFA Convention on the Manhattan campus. Their office, name, major, and FFA chapter: Back row (l-r): Secretary, **Scuylar Zenger**, food science and industry, Washington County; President, **Max Harman**, biochemistry, Inman; Sentinel, **Garrett Craig**, agricultural education, Clay Center. Front row: Treasurer, **Kristin Isle**, biology and pre-vet, Coffeyville; Vice President, **Michael Dowd**, animal sciences and industry, Spring Hill; Reporter, **Miranda Depenbusch**, agricultural education, Udall.



Students representing 14 majors were recognized for excellence in the classroom and involvement in various organizations and internships at the College of Agriculture Honors Reception. Back row (l-r): **Jeffrey Hadachek**, agricultural economics, Cuba; **Alexandra Walters**, agricultural education, Halstead; **Karen Schneck**, horticulture, Lawrence; **Darby-Rose Patterson**, feed science and management, Kearneysville, West Virginia; **Bennett Uhl**, food science and industry, Overland Park. Middle row: **Asa Lee**, wildlife and outdoor enterprise management, Fowler; **Sarah Zerger**, agronomy, Cheney; **Gwyn Schuler**, park management and conservation, Wichita; **Jill Seiler**, agricultural communications and journalism, Valley Center. Front row: **Leah Scholz**, animal sciences and industry, Lancaster; **Even Rennell**, bakery science and management, Olathe; **Carlee Overturf**, agribusiness, Johnson; **Jonah Webber**, milling science and management. Not pictured: **Lukas Koch**, agricultural technology management, Centralia.



Mary Beth Kirkham, university distinguished professor of agronomy, goes over lab notes with graduate student Reshma Antony in a Throckmorton Hall lab.

University bestows highest faculty award to soil scientist

As a world-renowned soil scientist and author of three textbooks, Mary Beth Kirkham indirectly followed the paths of both parents – her soil physicist father and English professor mother.

Kirkham was recently named a 2018 university distinguished professor of agronomy, a lifetime title and the highest honor Kansas State University bestows on its faculty members. She will receive a personalized plaque and medallion at the university's fall 2018 commencement ceremonies.

Research excellence

She joined the Department of Agronomy in 1980 and is now regarded as an international authority on the plant-water relations of winter wheat and the uptake of heavy metals by crops grown on polluted soil. She was the first researcher to document the effects of elevated levels of carbon dioxide on crops grown under semiarid conditions.

"In Kansas, Mary Beth is perhaps best known for the work she and her students have done to elucidate, or explain, the

physiological mechanisms responsible for drought resistance in wheat, maize, and sorghum," said Gerard Kluitenberg, K-State professor of agronomy. "These and other contributions have gained her the respect of peers and colleagues, nationally and internationally."

Her research has been supported by multiple organizations including the National Science Foundation, the U.S. departments of Energy and Agriculture, and the U.S. Office of Water Research and Technology.

She has contributed to more than 300 articles in scientific publications and edited four books. She has served on the editorial board for 21 journals, helping other scientists improve their writing skills and have their articles published.

Multiple honors

Kirkham is a fellow of the American Society of Agronomy, the Soil Science Society of America, the American Association for the Advancement of Science, the Crop Science Society of America, and the Royal Meteorological

Society. In 2016, she was the first American woman elected an honorary member of the International Union of Soil Sciences and was recognized at the World Congress of Soil Science in August 2018.

Other honors include: Distinguished Alumni Award from the University of Wisconsin-Madison's College of Agricultural and Life Sciences in 2017; Carl Sprengel Agronomic Research Award from the American Society of Agronomy; 2010 Crop Science Research Award; 2013 Irvin E. Youngberg Award in Applied Science, one of the Higuchi-University of Kansas Endowment Research Achievement awards, and the 2010 Dr. Ron and Rae Iman Outstanding Faculty Award for Research from K-State.

"Mary Beth Kirkham is an outstanding example of dedication, service, and commitment to the disciplines of agronomy, crop science, and soil science," said Ellen Bergfeld, CEO of the Alliance of Crop, Soil, and Environmental Science Societies. ■

Department Updates

Agricultural Economics

Professor **Andy Barkley** received the David J. Mugler Outstanding Teaching Award; **Charles Munson** '65 was named the college distinguished alumnus; and **Chuck Warta** '91 was the college Alumni Fellow.

Graduate students – **Florence Lwiza**, **Eva Kyereboah**, and **Sidonia McKenzie** – presented a poster at the Southern Agricultural Economics Association conference on biogas technologies being adopted in rural Uganda. They placed third in the outstanding poster category.

Agronomy

Colby Moorberg, assistant professor, received a \$141,885 grant from the National Science Foundation Established Program to Stimulate Competitive Research. He is developing a camera system to automate image capture and analysis to examine the effects of intense drought followed by intense rainfall.

Michel “Mickey” Ransom, professor, assistant head for teaching, and soil judging team coach, was named interim

department head, effective July 1. **Gary Pierzynski**, department head and university distinguished professor, assumed a new administrative position at The Ohio State University. **Ransom** also received the Educator Award from the North American Colleges and Teachers of Agriculture.

Nathan Nelson '98, professor of soil fertility and nutrient management, will receive the Soil Science Education and Extension Award from the Soil Science Society of America at the organization's annual meeting in January.

Animal Sciences and Industry

U.S. Secretary of Agriculture **Sonny Perdue** appointed **Valentina Trinetta**, assistant professor, to a two-year term on the National Advisory Committee on Microbiological Criteria for Foods, and **Randall Phebus**, professor/interim Food Science Institute director, to a second term on the National Advisory Committee on Meat and Poultry Inspection.

The department hosted more than 130 youth from nearly 20 states and Canada

in its annual livestock judging camps. A trio of three-day camps help students advance their evaluation skills in cattle, swine, sheep, and meat goats and developing oral reasons.

Biological and Agricultural Engineering

Ronaldo Maghirang, professor and associate dean for research and graduate programs, was named a fellow of the American Society of Agricultural and Biological Engineers.

Communications and Agricultural Education

Gloria Holcombe, **Phylicia Mau**, **Megan Macy**, **Jason Hackett**, **Brad Beckman**, **Dan Donnert**, **Amy Hartman**, **Mark Stadtlander**, **Mary Lou Peter**, **Jeff Wichman**, **Eric Atkinson**, and **Randall Kowalik**, received a silver award from the Association for Communication Excellence for a marketing campaign.

Entomology

Results at the 2018 Entomology Society of America North Central Branch meeting: **Matt Hamblin** received second place in the undergraduate poster competition and third place in the Triplehorn Pinning Challenge. **Jackie Maille** earned third place in the master's student paper competition. **Ryan Schmid** received a student travel grant and brought home first place in the Ph.D. paper competition.

Feed the Future Innovation Labs

Nathanael Bascom '87, '91, assistant director of the Sorghum and Millet Innovation Lab, received the President's Award of Excellence for Unclassified Professionals in the Belonging category. He plays a crucial role in helping people with diverse personal and academic backgrounds come together as a cohesive team. The labs successful research team, from five institutions on two continents, is a testament to his ability to make everyone feel as though they belong.

Grain Science and Industry

Researchers received a three-year, \$450,486 grant from the U.S.



Gamma Sigma Delta, agricultural honorary, presented these awards at its annual spring reception. Back row (l-r): Outstanding Master's Graduate Student Teaching – **Garrison Gundy**, agronomy; Early Career – **Adam Ahlers**, horticulture and natural resources; Outstanding Undergraduate Student Research – **Gage Nichols**, animal sciences and industry; Extension – **Ignacio Ciampitti**, agronomy; Outstanding Doctoral Graduate Student Research – **Guillermo Balboa**, agronomy. Front row: Excellence in Research – **Sunghun Park**, horticulture and natural resources; Outstanding Master's Graduate Student – **Osler Ortez**, agronomy; Outstanding Undergraduate Student Research – **Chloe Creager**, animal sciences and industry; Outstanding Teacher – **Walt Fick**, agronomy; Outstanding Doctoral Graduate Student Teaching – **Tiffany Carter**, agronomy.

Department of Agriculture to study the relationships between the digestion of starch and its effect on human health, particularly diet-related disorders such as obesity, diabetes, and cardiovascular disease. Professor **Yong-Cheng Shi** '89, '93, leads the team that includes Mark Haub and Sara Rosenkranz, Department of Food, Nutrition, Dietetics and Health.

The Bakery Science Club is hosting the Grain Science Friends and Alumni Golf Tournament September 28 at the Stag Hill Golf Club to raise funds for bakery lab improvement. Contact Jason Watt '08 at jwatt1@ksu.edu.

Horticulture and Natural Resources

Jason Griffin, professor and director of the John C. Pair Horticultural Center, and **Tim McDonnell** '81, district forester, Kansas Forest Service, received an Extension Materials Award from the American Society of Horticulture Science.

Jeremy Cowan, assistant professor of sustainable food production systems, joined the faculty in May. He previously worked at Washington State University as a county extension director and regional horticulture specialist.

Kansas Forest Service

On March 23, the Kansas Senate passed Senate Resolution 1779, recognizing the Kansas Forest Service's Fire Management Program "for the incredible steps they take to ensure that Kansas is adequately prepared to combat wildfires and protect its citizens."

K-State Research and Extension

National Association of County Agricultural Agents results: **Richard Fechter** '93, '00, Rolling Prairie District agriculture and natural resources agent, was installed as the 2018-19 president; **Dennis Patton** '82, '89, Johnson County horticulture agent, earned the National Communication Award in the personal column category; **Andrea Burns** '99, Ford County agriculture and natural resources agent, received a Distinguished Service Award.

Retirees honored for nearly 600 years of service

K-State President Richard Myers and Provost April Mason recognized retirees at the K-State Alumni Center on April 17. The College of Agriculture and K-State Research and Extension recognized 22 retirees for their combined 577 years of service. Each retiree received a written citation, an engraved writing pen, lapel pin, and a presidential medallion. Thank you for your dedication.

Name, most recent location, and years of service: **Linda Beech**, Cottonwood District, 39; **Susan Bilderback**, extension nutrition program, 16; **Kathy Bloom**, Seward County, 10; **Diane Burnett**, Marais des Cygnes District, 27; **Gary Cramer**, agronomy, 15; **Duane Davis**, animal sciences and industry, 40; **Bikram Gill**, plant pathology, 38; **James Huschka**, Kansas Farm Management Association, 40; **Jamie Kidd**, Shawnee County, 8; **David Krishock**, grain science and industry, 11; **David Lambert**, agricultural economics, 8; **Richard Miller**, Johnson County, 34; **Pamela Muntz**, Kiowa County, 31; **Martha Murphy**, Wildcat District, 32; **James Nechols**, entomology, 34; **Mark Ploger**, Pratt County, 25; **Brian Swisher**, Wildcat District, 40; **Brenda Taxeras**, Leavenworth County, 13; **Curtis Thompson**, agronomy, 24; **Marlene VerBrugge**, family studies and human services, 24; **Stephen Watson**, agronomy, 24; and **David Wetzel**, grain science and industry, 44.



Back row (l-r): David Lambert, Susan Bilderback, Brenda Taxeras, Diane Burnett, and Linda Beech
Middle row: David Wetzel, Marlene VerBrugge, James Huschka, Brian Swisher, and Bikram Gill,
Front row: John Floros, dean of the College of Agriculture and director of K-State Research and Extension; Pamela Muntz, Curtis Thompson, Mark Ploger, and Duane Davis.

Erin Yelland, assistant professor and extension specialist, received the Jeanne M. Priester Award for Outstanding Individual and/or Family Programming at the National Health Outreach Conference for her program, Keys to Embracing Aging 30-Day Challenge.

Plant Pathology

James Stack, professor and director of the Great Plains Diagnostic Network, discussed wheat blast and improving global food security at an April 25 Blue Ribbon Study Panel on Biodefense in Washington, D.C., focused on transnational biological threats and global security.

Barbara Valent, university distinguished professor, earned the 2018 Noel T.

Keen Award for Research Excellence in Molecular Plant Pathology from the American Phytopathological Society for her work on the blast diseases of rice and wheat.

Christian Webb completed his master's degree and is continuing his research with the Great Plains Diagnostic Network on campus.

In Memorium

Fred D. Atchison Sr., 93, Manhattan, died April 4, 2018. He served as an area extension forester in Hays from 1964 to 1978 then in Manhattan until retirement in 1987. Fred was the father of Bob Atchison, rural forestry coordinator, Kansas Forest Service.

'60s

Fred Fairchild '63, '64, professor emeritus of grain science and industry, earned the Feed Manufacturing Lifetime Achievement Award from the American Feed Industry Association.

George Teagarden '66, was named Outstanding Stockman at the May 7 Block and Bridle banquet.

Ken Odde '78, '82, '83, professor and former animal sciences and industry department head, received the Jay B. Dillingham Award for Agricultural Leadership and Excellence from the Agricultural Business Council of Kansas City – the council's highest award.

'80s

Karen Blakeslee '86, '97, extension associate, earned the 2018 Distinguish Service Award for her contributions and dedication to Kansas 4-H youth and the Department of 4-H Youth Development.

Kelly Getty '88, '99, associate professor, received the 2017-2018 Eustis-Farnam FFA Honorary Chapter Degree for providing the Food Science Workout for the Nebraska FFA food science team.

Mike Tokach '88, university distinguished professor, completed a three-year term on the American Society of Animal Science Board.

'90s

Rebecca Miller-Regan '90, '92, '96, has been named assistant professor of bakery science and management in the grain science and industry department. She previously was a research professor and director of the Wheat Quality Lab.

Jon Bergstrom '96, '11, received the Outstanding Early Career Agribusiness Award at the American Society of Animal Science Midwest meeting.

Brent Wiedeman '97, '05, president and CEO of Farmers and Merchants Bank of Colby, joined the K-State Alumni Association board of directors.

Joel DeRouchey '99, '01, professor and extension specialist, earned the American Society of Animal Science Extension Award.

'00s

Derek Falk '02, received the John Deere Agriculture and Turf Division Presidents' Award of Excellence for aligned high-performance teamwork for his work in the self-propelled forage harvester XB Program.

U.S. Secretary of Agriculture Sonny Perdue appointed **Manpreet Singh** '02, University of Georgia poultry science professor, to a second two-year term on the National Advisory Committee on Meat and Poultry Inspection.

Brad Kim '04, assistant professor of animal sciences at Purdue University, earned the Outstanding Young Research Award at the American Society of Animal Science Midwest meeting.

Brandi Miller '05, '13, is the president and CEO of Kansas Co-Op Council. She previously was associate director for the IGP Institute.

Shawn Thiele '05 is interim associate director for the IGP Institute. He handles day-to-day administrative duties along with leading the flour milling and grain processing curriculum.

Emilie Fink '06, has changed positions with the KSU Foundation from director of development for the College of Agriculture to lead the College of Veterinary Medicine's development team.

Sheridan Wimmer '08, earned the Best Member/Leader Newsletter Award at the Farm Bureau National Communications Conference.

In Memoriam

Trevor Rees '49, Emporia, 93, died April 4, 2018. He is the father of Brian Rees, K-State Research and Extension – Lyon County agriculture and natural resources agent.

Herbert W. Bulk '49, Topeka, 97, died July 16, 2018. He served as county agricultural agent in Leavenworth, Nemaha, and Shawnee counties from 1949 to 1972 when he was promoted to county extension director. He retired in 1984.

Calvin Drake '55, '64, Manhattan, 84, died April 3, 2018. He worked with the Livestock and Meat Industry Council and taught in the Department of Animal Sciences and Industry (1979-2000). He continued to play basketball with graduate students until he was 81.

Chris Rea '14, Lakebluff, Illinois, 27, died March 15, 2018. He worked for Mariani Landscape. He participated in the National Collegiate Landscape Competition as a student and continued to support the event as an alumnus.

'10s

Chris Mullins '10, '16, is the new 4-H Youth Development program coordinator with responsibilities for statewide volunteer screening processes, and event and program logistics related to military youth and shooting sports education.

Megan Torline '13 received the Emerging Leaders Network Award at the 2018 Institute of Food Technologists Annual Meeting and Food Expo. She is an R&D food scientist for Blend Tech Inc.

Meg Drake '13, editor, and **Melissa Grimm Schaake** '16, graphic designer, create *Ranch House Journal* magazine for Ranch House Designs.

Cassie Kniebel '14, is the program director of the new CattleTrace pilot project, a public-private partnership that will develop and test a cattle disease traceability infrastructure in Kansas over the next two years.

Elizabeth Clark '14, '16, was chosen president-elect of the Institute of Food Technologists Student Association. She is working toward a Ph.D. at Virginia Tech University.

Roger Cochrane '15, Ph.D. student in feed safety, was named a Midwest Young Scholar at the American Society of Animal Science Midwest Meeting.

Angela Bausch '16 is a Kansas Farm Management Association extension agricultural economist in Chanute.

New K-State Research and Extension Agents

Brett Melton '13, River Valley District livestock production agent

Madison Mackley '18, Thomas County agriculture and natural resources agent

Elizabeth Rogers Kissick '18, Grant County agriculture and natural resources agent

Elizabeth Espino '18, Cowley County agriculture and natural resources agent

50 Kansans You Should Know: 2018

These College of Agriculture alumni were included in the eighth annual 50 Kansans You Should Know by Ingram's

E.C. Brookover Jr. '76, Brookover Feed Yards, Garden City

Ron Wilson '78, '99, Huck Boyd Institute, Manhattan

Tracey Mann '00, Kansas Lieutenant Governor, Salina

Chad Bontrager '03, '09, Yoder Meats, Yoder

Keep us updated

Let your fellow College of Agriculture alums know what you've been up to. Send news and address changes to:

Mail: Gloria Holcombe
Kansas State University
208 Umberger Hall
1612 Claflin Road
Manhattan, KS 66506

Online: ksu.edu/agreport

Email: gloria@ksu.edu



Department Honors Students and Alumni

The Department of Grain Science and Industry hosted its 10th annual Student Scholarship and Industry Awards Banquet on April 3. Four alumni were recognized at the event.

Thanks to the generosity of alumni, friends, and corporate partners, a total of \$250,000 was awarded in scholarships to undergraduate students for the 2017–2018 academic year.

Outstanding Alumnae

D'Anne Hayman '88, '90, vice president, global innovation and nutrition, R&D at the Kellogg Company. She serves on AACC International committees – annual meeting technical program, student research paper competition, and new product development competition – and the foundation board. Her experience spans across new product innovation, core product restage, and extensive work with open innovation partnerships.

Deirdre Ortiz '91, '95, has been with the Kellogg Company for more than 22 years, working on virtually every snack product that Kellogg produces. She also leads the Kellogg Global Grain+ Program, which works on processing grains and potatoes from breeding, to growing and processing. Ortiz says her grain science education enriched her life in many ways and is grateful for the unique and valuable program.

Outstanding Service Recipients

Jeff Hole '94, '04, worked for Cereal Food Processors, Inc., Grain Millers in St. Ansgar, Iowa, and Grain Craft. In 2017, he became vice president of operations with Miller Milling Company. He serves as the vice president for the International Association of Operative Millers. Hole supports students, the department, and the Milling Science Club through wheat and flour donations and participating in campus events.

Ryan Roberts '10, '13, quality assurance director Animal Nutrition Inc. in Bern, has led the company in the development and maintenance of Global Food Safety Initiative. The company has hosted tours for the Qualities of Feed and Feed Ingredients (1 or 2 classes) class since 2015. He also facilitated work with the IGP Institute and led demonstrations during the annual Pet Food Innovation Workshop.



Left to right: Gordon Smith, grain science and industry department head; Ryan Roberts, Jeff Hole, D'Anne Hayman, and Deirdre Ortiz.

Courtesy of Pat Hackenberg

Alumni Board Acknowledges Excellence



Left to right: On April 28, the College of Agriculture Alumni Board honored Professor Andrew Barkley with the David J. Mugler Outstanding Teaching Award; Charles Munson as distinguished alumnus; and Associate Professor Justin Kastner, as outstanding young alumnus.

A fourth-generation farmer, a nationally recognized agricultural economics professor, and a food safety and security expert were honored by the Agricultural Alumni Board at a reception at the K-State Alumni Center on April 28. The annual awards recognize two alumni and a College of Agriculture teacher for their commitment to the college, university, and their communities.

Distinguished Alumnus

As Charles Munson accepted the 2018 Distinguished Alumnus Award, he proudly introduced his extended family and their various ties to K-State. "It's all about family," he said.

Munson earned a bachelor's degree in agricultural economics in 1965 and is the owner-operator of Munson Angus Farms, LLC; Munson Premium Angus Beef, LLC; and Munson Angus Farms Black Horse Hitch, LLC.

In January 2014, the family bought a closed restaurant building in Junction City and renovated it into Munson's Prime, which features Munson Premium Angus Beef and other locally grown products.

In addition to his business ventures, Munson contributes to his community and various organizations.

He is a trustee for the K-State Foundation, Landon Lecture Patron, scholarship donor to the agricultural economics department, and President's Club Member. He served as director of the K-State Alumni Association, chairman of the Kansas State Extension Council Advisory Committee, and the first president and founder of Kansas

Citizens for Extension Education. He is also involved with numerous boards and councils throughout the state including the Geary County Extension Council, Geary County Conservation District, and the Kansas Livestock Association.

The Department of Agricultural Economics recognized him as its distinguished alumnus in 2009. Munson Angus Farm, located in the Flint Hills region of the Tallgrass Prairie, won the 2013 American Royal Steak Contest and earned one of six regional Environmental Stewardship Program awards in 2017.

The family has a long history of support for 4-H activities and the Kansas 4-H Foundation, including supplying horses and carriages and homemade ice cream for Friends of 4-H.

David J. Mugler Outstanding Teacher

Professor Andrew Barkley has taught 3,900 undergraduate and graduate students, mentors students and faculty, and maintains an active research program. He earned the David J. Mugler Outstanding Teaching Award.

At the award reception, Barkley shared his memories of being hired by Associate Dean Dave Mugler. "During the interview, Mugler said, 'We have outstanding students. I love working with them, and you will too.' Mugler was a champion of students, and I am privileged to work at K-State where students are thought of so highly."

Many graduating seniors name Barkley as one of the professors who most inspired them during their years at K-State, both in his classes and as a trusted academic advisor.

On the national level, he has been recognized for teaching excellence by the Agricultural and Applied Economics and the Western Agricultural Economics associations, North American Colleges and Teachers of Agriculture, USDA, and the Council for the Advancement and Support of Education. K-State granted him the Iman Outstanding Faculty Award for Teaching and selected him as a Coffman Chair for University Distinguished Teaching Scholars.

His research includes the study of effective teaching and learning; labor issues in agriculture and broader questions of agricultural policy; and the economics of wheat improvement programs, international wheat trade, and the impact of climate on wheat production.

Barkley co-authored two books adopted in agricultural economics courses in the United States and throughout the world. He and his wife, Mary Ellen, have led four study-abroad courses to Brazil, South Africa, China, and India.

Outstanding Young Alumnus

Justin Kastner '98 received the 2018 Outstanding Young Alumnus Award. He credited the strong mentoring tradition in the college and thanked his mentors, including his father Curtis, for sharing decades of experience, advice, and counsel. As an associate professor in the Department of Diagnostic Medicine/Pathobiology, he teaches graduate and undergraduate courses on the Manhattan and Olathe campuses and through Global Campus.

While a K-State student pursuing a bachelor's degree in food science and industry, Kastner served as a city commissioner and was named Truman, Fulbright, and Rotary scholars.

After completing a master's degree in food safety and control at the London South Bank University, United Kingdom, and a doctorate in food science at the University of Guelph, Canada, he returned to the K-State Department of Animal Sciences and Industry. He moved to the College of Veterinary Medicine in 2006. From 2013 to 2016, he served as the university honors program director.

Using his experience working with international trade policy at the World Trade Organization in Geneva, Switzerland, he co-founded the Frontier Program. It allows students to visit trade ports, private firms, and other groups involved with international trade.

He has served as principal investigator for \$2 million in federal grants related to science, technology, engineering and math (STEM), trade policy, trade facilitation, or capacity building. In 2015–16, he led a State of Kansas-funded project providing experiential learning for students exploring global food system careers. Kastner also is president of K-State's chapter of Phi Kappa Phi and an ordained Anglican minister.

Jacob Lauer '07, who nominated Kastner, said "He guided me through my first research project with patience and confidence, allowing me to receive my first peer-reviewed publication. He imparted to me research skills that I continue to use this day." ■

College of Agriculture Alumni Board 2018–2019

Michael Burns '06, '08

President, Dodge City

Brandi Buzzard Frobose '09, '12

President Elect, Greeley

Kim Nash '01

Secretary, Parsons

Keith Bryant '05

Past President, Garden City

Weylan Bosse '03, Manhattan

Jill Casten '02, Manhattan

Joe Curran '89, Farlington

Cory Epler, '01, '03, Lincoln, Nebraska

Abby Janssen '97, Genesco

Marcine Moldenhauer '86, Valley Center

Kelly Perrier '02, Wichita

Wyatt Rundel '10, '16, Wichita

Larry Smart '87, '91, Frankfort

Scott Winter '05, Hillsboro

Don Boggs '77

Associate Dean, Manhattan

Megan Rolf '05

Faculty Representative, Manhattan

Beth Yeager '07, '11

Faculty Representative, Manhattan

Drew Goering '12

KSU Foundation Representative

Students Benefit from



Alumni Experience

Since 1983, Kansas State University has been inviting alumni with distinguished careers to the Manhattan campus. Each college, the Graduate School, and Global Campus select successful alumni to meet with students and faculty and share their expertise. Two College of Agriculture graduates were chosen Alumni Fellows.

Chuck Warta, president of Cargill Premix and Nutrition, was chosen as the College of Agriculture Alumni Fellow and Rolando Flores, dean and chief administrative officer for the College of Agricultural, Consumer and Environmental Sciences at New Mexico State University, represented the Graduate School.

Warta, a native of Ellsworth, earned an agricultural economics degree in 1991 and accepted a job with Cargill.

He spent 22 years in various roles across Cargill Animal Nutrition with responsibilities for leading business growth in many key markets such as the U.S., China, Korea, Indonesia, and the Philippines.

Before being named president of Cargill Premix and Nutrition, he was the business unit leader of Cargill Meats Thailand, an integrated poultry and food company with production, processing and cooking capabilities, which exports products to more than 27 countries.

Warta said, "People remind me that I made this statement early in my career, 'Move me anywhere you want, as many times as you want, wherever in the world you want – as long I'm getting growth and experience.' Cargill took me up on that challenge, and we've been on quite a journey."

During his three-day campus visit, Warta met with college administrators and spoke to students in 10 classes. With students, he shared his career path, the importance of technology and being open to change, and future challenges facing the food industry. He also encouraged students to "be learners" and "ask questions to overcome natural cultural biases."

"I think having an alumni fellow like Chuck Warta come to speak in our classes is extremely valuable," said Sara Gammon, student in agricultural economics and global food systems leadership from Drexel, Missouri. "We are able to listen to and ask questions of someone who has graduated from K-State and doing incredible work in his field. He's someone who relates to us and holds a position we could see

Above: Chuck Warta beside a banner on the south entrance to Waters Hall. He spoke to students about how his K-State education influenced his career.

ourselves having in the future. I believe that motivates us to pursue bigger goals and excites us about being Wildcats.”

Warta remains actively invested in his family’s farming operations in Kansas. He and his wife, Denise, endowed a scholarship at K-State for students in the College of Agriculture.

Graduate School Fellow

Flores spent about 12 years in Manhattan, where he earned a doctorate in grain science with specialization in international trade in 1989. In addition to his time in the Department of Grain Science and Industry, he also worked in the Department of Biological and Agricultural Engineering. While in Manhattan for the Alumni Fellows recognition, he met with faculty and students in the two departments and the Graduate School.



During a lunchtime seminar, he acknowledged his K-State mentors – professors Do Sup Chung ’60, ’66, Richard Phillips, Elieser Posner ’69, Charles Deyoe ’55, and Paul Seib – and encouraged students to learn and distill information from faculty. Flores praised the effectiveness of U.S. agriculture production and credited the efficiency of the land-grant university system of teaching, research, and extension.

“Agriculture in the U.S. is the best in the world, but we need more technology to meet the needs of a global population,” Flores said. “We have a very efficient system, but it is not well understood. Be relentless and proactive. Find new ways to get information to the people. We need to make stakeholders see the value in what we are doing.”

Before his position at New Mexico State University, Flores was professor and head of the Department of Food

Science and Technology and director of The Food Processing Center at the University of Nebraska–Lincoln. He also served on the faculty at Iowa State University.

He is a member of AACC International (formerly the American Association of Cereal Chemists), the Institute of Food Technologists, and the Agriculture Future of America Board of Directors in Kansas City, Missouri.

“Throughout Dr. Flores’ career, he has made significant contributions to advancing his profession through teaching, research, and academic administration,” said Carol Shanklin, dean of the Graduate School. “He has influenced the lives and careers of a significant number of students, faculty, and peers through his mentorship and support. Several organizations and industry partners have recognized his significant contributions. In 2017, he received the Outstanding Alumni Award from K-State’s Department of Grain Science and in 2014 was recognized as a Robert B. Daugherty Water for Food Institute Fellow.”

The K-State Alumni Fellows Program is sponsored by the Deans Council, the President’s Office, and the Alumni Association. ■



Rolando Flores, Alumni Fellow for the Graduate School, presented a seminar for students and faculty about his time at K-State and his career path. He is the dean and chief administrative officer for the College of Agricultural, Consumer and Environmental Sciences at New Mexico State University.

Share the Harvest

For many individuals, gifting grain is a great way to make a philanthropic impact to the Kansas State University area of their choice, such as a student scholarship, faculty award, building project, or college/departmental excellence fund.

Longtime K-State supporters Richard and Sarah Porter, Reading, have adopted the practice.

“Several years ago, I started gifting grain that was delivered to an elevator,” said Richard ’74, ’04. “Over the years I had looked at many different gifting strategies, and for me gifting grain was the only one that worked better than just writing a check.”

How it works

You can support K-State by contributing commodities such as wheat, corn, soybeans, grain sorghum or other grain directly from an account at a local cooperative or grain elevator to a foundation account established at the elevator.

Tax benefits

This type of transaction minimizes your income taxation. By transferring the grain directly, rather than selling it and writing a check to the Kansas State University Foundation, donors have no reportable income on that portion of production. The expenses to produce that grain are still deductible expenses. The foundation also gives the donor full credit for the grain sale proceeds.



Helping K-State remain competitive

For John Niemann, ’93 agribusiness, the College of Agriculture prepared him to be the leader he is today. Like many K-Staters, he was influenced by 4-H, FFA, his church, fraternity, and family. Niemann, president of Protein Ingredients and International for Cargill, has remained involved in the university, including serving as chair of the College of Agriculture/K-State Research and Extension Advisory Council.

This is why John and his family created the John Niemann Family Agriculture Facilities Fund and the John Niemann Family Agriculture Scholarship.

“Our students and faculty need better facilities if we want K-State’s College

of Agriculture to continue as a top five research and teaching college,” Niemann said. “It’s a very competitive market for student and faculty talent. To remain competitive and continue to provide a high-quality education, we need to invest in new research and learning facilities. I am extremely proud of all the college does that stretches the budget and progresses important research to positively impact local and global needs.”

Niemann hopes others will look at ways they can give and become involved sharing time and talent.

When a fellow alumnus explained how he could make a planned gift to K-State and the College of Agriculture through a life insurance policy, Niemann knew it was a way to give back.



Courtesy of KSU Foundation

He said, “I read recently, ‘Plant a tree that you’ll never see the shade of.’ I’m inspired by that. Many trees were planted for me by people who never saw their shade. I feel it’s my turn to do the same.”

For more information, contact

Kim J. Schirer
Senior Director of Development
College of Agriculture
785-532-7517
800-432-1578
kims@found.ksu.edu

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Henry C. Gardiner
Global Food Systems Lecture



Sara Menker

Founder and CEO of Gro Intelligence

Monday, October 8, 2018, at 7 p.m.

Kansas State University, McCain Auditorium

Lecture Title:

Why there doesn't need to be a global food crisis

www.k-state.edu/globalfood/lecture-series

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