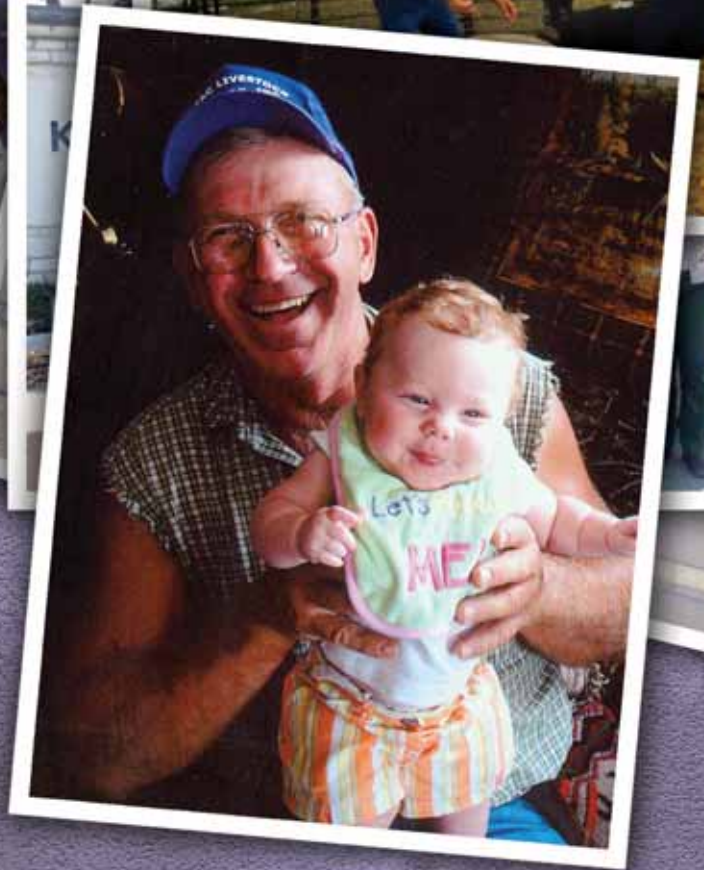
K-State College of Agriculture • Fall 2010

AgReport



A K-State Family

From the Dean and Director

I'm enjoying my time as interim dean and director, especially learning about the great work done throughout our system and the tremendous support we have from our alumni and stakeholders. People are our greatest resource, and we are truly fortunate to be able to work among and serve some of the best in the world.

The search for the permanent dean and director is going well. The search committee plans to have several candidates interview on campus this fall, with the new dean and director in place by early 2011.

President Kirk Schulz wants K-State to become a Top 50 public research university within the next 15 years. The College of Agriculture and K-State Research and Extension will have vital roles in K-State's plan to expand and promote its research mission.

For nearly 110 years, scientists at the Agricultural Research Center-Hays have conducted research relevant to the Kansas economy, and especially western Kansas producers. As agriculture has changed, the projects have evolved. And new technology has made it easier for faculty at centers and on campus to collaborate and share research results.

To attract outstanding graduate students to further our research initiative, K-State Research and Extension hosted four students from other universities through the multicultural student fellowship program. The program is beneficial to the students and can open new research opportunities among the partnering universities.

This issue has an impressive list of faculty named to leadership positions and recognized for excellence in advising and teaching. To continue the university's reputation for teaching excellence, Kim Williams, professor of greenhouse management, was selected as the 2010 Coffman Chair for Distinguished Teaching Scholars. Congratulations to our excellent faculty.

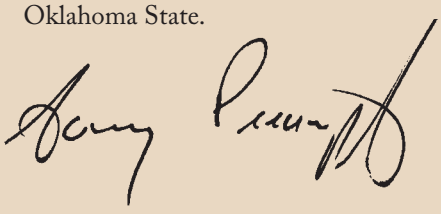
As dean and director, I have met many of our outstanding students, including Truman Scholar Amy Sents and Fulbright Scholar Hyatt Frobose. To date, our students have earned—four Rhodes, two Marshall, four Truman, two Udall, two Fulbright, 11 Rotary scholarships, and numerous individual and team awards.

I'm also impressed with the accomplishments of our alumni and enjoy hearing about their student experience. In this issue, the four Bosse siblings share their journey through the College of Ag and their mother offers advice for parents and students.

The last issue of the Ag Report was online only. I sent e-mails inviting alumni and friends to the new Ag Report website (*www.ksre.ksu.edu/agreport*). Thank you to those who submitted comments. I encourage you to go to the site and check out the various features.

Please share your e-mail address with us, so we can keep you informed about events in the College of Agriculture and K-State Research and Extension.

Mark your calendars for the College of Ag tailgate party on October 30 in Cat Town two hours before kickoff of the homecoming football game between K-State and Oklahoma State.



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College of Agriculture and the Kansas State University Agricultural Experiment Station and Cooperative Extension Service

Gary Pierzynski
Interim Dean of the College of Agriculture and Interim Director of K-State Research and Extension
785-532-6147; gmp@ksu.edu

Don Boggs
Associate Dean of Agriculture Academic Programs

Daryl Buchholz
Associate Director of Extension and Applied Research

Ernie Minton
Associate Director of Research and Technology Transfer

Sharon Thielen
Assistant Dean of Agriculture Academic Programs

Christine Wilson
Assistant Dean of Agriculture Academic Programs

Zelia Wiley
Assistant Dean for Diversity Programs

Steven Graham
Assistant to the Dean and Director

The Ag Report is published twice a year (spring and fall). It is written, edited, and designed by the Department of Communications.

Photos by Dan Donnert unless otherwise noted.

Send suggestions or comments to:
Gloria Holcombe
Department of Communications
315 Umberger Hall
Manhattan, KS 66506–3402

E-mail: gloria@ksu.edu

www.ag.ksu.edu

www.ksre.ksu.edu

POSTMASTER: Send address changes to Department of Communications, 315 Umberger Hall, Manhattan, KS 66506-3402.

On the cover
The Bosse family, whose four children earned degrees from the College of Agriculture, share family photos.

Contents

Scientist Earns $1 Million National Science Foundation Grant

Anna Whitfield, assistant professor of plant pathology, garnered a $1 million National Science Foundation CAREER Award to study how insects that serve as vectors in carrying viruses from one plant to another, respond to the virus themselves.

"The idea behind the proposal is that most viruses, particularly plant viruses, are transmitted by insect vectors," she said. "I am studying a virus that multiplies in the vector. I want to understand the effect of the virus on the insect vector.

"The virus I am working with, maize mosaic virus, infects corn and sorghum, as well as the insect vector. It infects the nervous system and brain of the insect, but we don't see any dramatic effect on these insects, at least none that's been documented. I'll be studying how the insect tolerates this infection and if it changes its behavior."

Whitfield also has an appointment with the Department of Entomology. Because outreach is a key part of the project, she will pass the information from the research to the public by developing an interactive exhibit titled "Arthropods as Vectors" for K-State's Insect Zoo.

She also will prepare new Web-based teaching tools for middle school science teachers that incorporate virology and virus-vector interactions. In addition, she plans to mentor undergraduate students from underrepresented groups as they conduct research projects studying the physiological outcomes of virus infection of arthropod vectors. A scientist-science fair participant "pen pal" program targeted to students in rural locations also is planned.

Entomologists May Silence Pesky Summer Pest

USDA Agricultural Research Service

Research conducted by K-State entomologists may help control mosquito populations.

Kun Yan Zhu, professor; Xin Zhang, graduate student; and Jianzhen Zhang, a visiting scientist, investigated using nanoparticles to deliver double-stranded ribonucleic acid (dsRNA)—a molecule capable of specifically triggering gene silencing—into mosquito larvae through their food. By silencing particular genes, Zhu said the dsRNA may kill the developing mosquitoes or make them more susceptible to pesticides. Though the silencing is not yet 100 percent effective in their study, Zhu said it does leave the mosquito's body with less ability to combat insecticides, which must penetrate the mosquito's exoskeleton. If the gene, called chitin synthase, could be completely silenced, the mosquitoes may die without the use of pesticides because the chitin biosynthesis pathway would be blocked, Zhu said.

Zhu theorized using nanoparticles to deliver dsRNA to mosquito larvae might work because of the low success of manually injecting larvae with dsRNA. Mosquito larvae live in water, but because dsRNA quickly dissipates in water, it can't be directly added to the larvae's food source. Zhu's group discovered that nanoparticles assembled from dsRNA don't dissolve in water.

"Now insects will have a much greater likelihood of getting these nanoparticles containing the dsRNA into their gut through feeding," Zhu said.

Potentially, bait containing dsRNA-based nanoparticles could be developed for insect control, Zhu said. "Because we can select specific genes for silencing, and the nanoparticles are formed from chitosan—a virtually non-toxic and biodegradable polymer—this pest control technology could target specific pest species while being environmentally friendly," he said.

Recruitment Campaign Recognized

The College of Agriculture recruitment campaign received the merit award in the category of Public Relations Campaign Directed to Consumers from the National Agri-Marketing Association (NAMA). The Best of NAMA awards program honors the best work in agricultural communications. Contestants qualify through regional competitions.

With the theme "Going Places" the campaign included: (1) "Where Do You Want to Go?" introductory brochure, (2) "Taking You Where You Want to Go" recruitment map, (3) "Which Way Do I Go?" scrapbook brochure, and (4) the Destination Guide.

The brochures are supported by college informational sheets, "The People You Meet" diversity programs brochure, a partnership with the FFA New Horizons "College Row" website section, videos on YouTube, note cards, and giveaways. The overall strategy and approach are also considered in the judging.

K-State Partners to Improve Wheat Breeding Program

A new public/private collaborative agreement is expected to result in improved wheat varieties for Kansas wheat growers. On June 11, K-State and Monsanto announced a relationship that will allow both to improve their wheat breeding programs.

"For K-State's program, this will provide breeders with accelerated wheat breeding processes, focusing our selection on plants that matter and targeting for critical traits," said Allan Fritz, K-State wheat breeder.

Fritz said K-State will continue to work with other public wheat breeding programs, as it has in the past. "It is essential we continue our interaction between the wheat breeding programs at other land-grant universities."

Stakeholders in the Kansas wheat industry offered important input about principles that should guide such collaborations.

"K-State has a long history of working with wheat and in addressing stakeholder needs," said Ernie Minton, associate director for research. "This relationship is beneficial for the wheat industry as the collaboration will create opportunities for the improvement of agronomic performance and grain quality characteristics."

In addition, the 2009 survey results from the National Association of Wheat Growers called for technology investment to improve profitability of wheat as a cropping option.

K-State will continue efforts to develop and release wheat varieties with improved traits through the Kansas Wheat Alliance, Minton said. The goal is to benefit the Kansas wheat producer and the related wheat industry with improved traits.

4-H youth gathered for a group shot on the lawn in front of Anderson Hall. A total of 653 4-H members and chaperones participated in 4-H Discovery Days, June 1-4, 2010, on the K-State campus.
The new 4-H year starts in October; however, enrollment is open year round.
Go to *www.kansas4h.org* for more information.

Multicultural Fellowship Program Benefits Students and K-State

Brielle Wright (left) inspects red elm seedlings with her mentors Charles Barden and Cheryl Boyer.

Four bright, enthusiastic students spent the summer in Manhattan learning about K-State, Kansas, and agricultural research as part of the 2010 Multicultural Fellows program sponsored by K-State Research and Extension.

The students lived in a K-State residence hall, experienced summer in Kansas, participated in research projects with faculty mentors, and presented their research to K-State faculty.

Brielle Wright, a senior in agricultural business and agricultural economics from North Carolina Agricultural and Technical State University, completed a two-fold project. She worked with Zelia Wiley, assistant dean of diversity programs, to help plan and coordinate the Nicodemus Summer Camp Program.

Camp participants visited the K-State campus in Manhattan and learned about the College of Agriculture. Campers then spent three days at the Veryl Switzer Camp in Nicodemus, a historical site that represents the involvement of African Americans in the western expansion and settlement of the Great Plains. Switzer, a third-generation descendant of Nicodemus and former K-State and professional football star, helps sponsor the camp.

"The purpose of this camp is to teach, inform, and engage young minority students in another part of African American history and the importance of agriculture," Wright explained.

The second part of her project involved growing red elm tree seedlings with Charles Barden, professor of forestry and state extension forester, and Cheryl Boyer, assistant professor of nursery crops.

Barden and Boyer have a grant with researchers at Haskell Indian Nations University in Lawrence to fund the propagation (creation of new plants from seeds or cuttings) of trees that have cultural significance. According to Barden, the red elm is important for Native American fire rituals and has medicinal uses.

Because the red elm is not produced commercially, seeds from trees in Lawrence and Leon, Kan., were used to start seedlings. Boyer's graduate student had started the project, so Wright was able to assist with an existing project and have results quickly.

"This project gave me an opportunity to learn research techniques and practice writing a research paper," said Wright. "I am researching graduate schools, including K-State, and many programs require applicants to have research experience."

Gabrielle "Gabby" Washington, a senior in agricultural economics from Prairie View A&M University near Houston, Texas, was paired with Ted Schroeder, professor of agricultural marketing.

"Gabby chose to study the evolution of meat quality grading," Schroeder said. "She has natural talent, patience, and tenacity for history—so the topic turned out to be very interesting for both of us."

"Meat grading had been done manually," said Washington. "Now video imaging is being used to scan beef cattle to help determine marbling—streaks of fat in lean meat."

As an added bonus, Washington connected her mentor with faculty at Prairie View. Both Schroeder and

Gabrielle Washington (left) and Daja Menefee listen as John Crespi, director of graduate studies for the Department of Agricultural Economics, explains their options for entering graduate school at K-State.

Washington are excited about future joint research projects between the two institutions.

"I applaud the recruitment efforts for this fellowship program," Schroeder stated. "Gabby is a good student and works hard. The internship worked out well. I would not have met Gabby or made the connections with Prairie View without this program."

David Lambert, head of the agricultural economics department, mentored Daja Menefee, an agricultural economics major from Fort Valley State University in Georgia.

Menefee's project looked at how the level of ethanol in motor fuel mixtures affects the price U.S. consumers pay at the pump.

Candace Rodgers reaches for a pipette as she tests snack produts for *Salmonella*.

"Dr. Lambert came up with the research topic, and I have been assisting him by finding related journal articles, collecting and organizing data (fuel prices, income, etc.), and writing the final paper," Menefee said.

Her focus is on marketing and consumer economics. She hopes to work for the Economic Research Service, which is the main source of economic information and research from the U.S. Department of Agriculture.

"I'm interested in why consumers choose products and how they make those choices," Menafee said.

The fourth student in the program was Candace Rodgers, who had just completed her bachelor's degree in fisheries biology from the University of Arkansas at Pine Bluff. Her project involved testing ready-to-eat snack bars for *Salmonella* under the supervision of food scientist Randy Phebus.

Rodgers will be attending graduate school at the University of Maryland Eastern Shore in the fall.

"I'm studying seafood safety, so the food safety project is a good bridge between my fisheries biology degree and seafood safety," Rodgers stated.

She said learning how to grow bacteria in a medium and watching things grow were two of the most interesting aspects of her research.

"For many of the students, this is their first exposure to high-level institutional research," Phebus said. "I assigned one of my graduate students to Candace as her personal mentor to check technique and data. It's a good experience for everyone."

This was the fifth year for the fellowhip program. Of the 16 students who have participated in the program, three have returned to K-State for graduate school.

Ian Smith, who participated in the fellowship program in 2007, is completing a master's degree in entomology; Kristen Walker (2008) and Herald Mellieon Jr. (2009) are pursuing master's degrees in animal science.

A Family Affair

Four siblings from the Bosse family attended the College of Agriculture between 1998 and 2010. Their mother Rosie, also a K-State alumnus, shared her journey as a student and the mother of four Wildcats.

Mom's View


The Bosse clan

Photos courtesy of Bosse Family

My husband, JR and I met in Aggieville in 1976 and married in 1979. I was a student in the College of Home Economics, and he was a rancher in Onaga. I had two more semesters until graduation when we married.

Weylan, our oldest, was born in July 1980, so I did my student teaching in spring 1980, took off the fall semester, and then graduated in May 1981. I remember taking Weylan into Justin Hall that semester before finals in his little blue jeans and boots and everyone thought he was so cute; however, all I could think was, "You have no idea how hard this semester has been with a baby! Nursing, 19 credit hours, two lab classes and a 45-minute commute one way." I graduated cum laude—and I didn't even know what it was! Weylan and JR attended graduation. It was emotional for me to see JR holding Weylan when they asked the spouses and families to stand at graduation.


An early family celebration

Alena, Clinton, and Austin were born in 1981, 1984, and 1986. Four kids under six makes you a little crazy, but it also makes them pretty independent. The rule at our house was the person who baked the cake was able to cut the first piece as big as he or she wanted, which seemed to encourage volunteers. Alena didn't care too much about cooking or eating, but the boys loved to eat so they cooked a lot.

All of the kids were in 4-H. In addition to livestock and other projects, they made all kinds of food and brought home many blue and purple ribbons. Clint made his first pie for 4-H, and he was so proud when he got a purple. However, when the judge didn't give him a bite and then sold his pie in the food sale, he was furious.


Clint at 4-H foods judging

Things were tight economically when the kids were small. I really wanted to be a stay-at-home mom, so I did not take a full-time teaching job. I was a substitute teacher for eight years then started a home-based business. I had taken some classes in baking science in college and loved it. I was delighted when the boys chose grain science as their field.

The kids were bright, and they watched and learned from each other. We talked about college from the time they were in grade school. They knew that we expected them to attend college but did not expect to finance them, so scholarships were very important.

As the oldest, Weylan blazed a lot of trails. We learned how important deadlines were and about the many scholarships that were available. If he qualified for a scholarship, he filled out the application. The key word here is HE. Any essays they wrote for school or scholarships, I critiqued for grammar and punctuation.

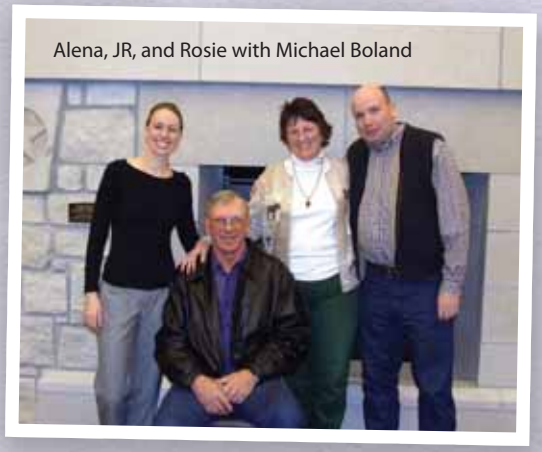
Weylan and his wife Jamie

Filling out the first financial aid application was a real nightmare. Thank heavens computers became the norm—we saved it the second year and referred back after that. Then Weylan helped Alena, Alena helped Clint, and they all helped Austin.

College visits and applications were a whole new world. We did several college visits, but Weylan had his heart set on K-State. JR and I both had warm memories of K-State, so we didn't argue.

He started out in agricultural education/animal sciences and industry. During his sophomore year, he found bakery science. Now he was talking about classes and truly showing an interest in what he was learning. Of course, as he shared this with his brothers, new seeds were planted. In addition, he gained lots of new skills from the jobs that he worked both on and off campus. He has truly shown us the value of networking in every area of life. It is amazing how K-State alumni seek and help each other out. That is also how he met his wife, Jamie (BS '03 family studies and human services).

Alena wanted to be a nurse, but K-State did not offer a nursing program. She decided to start with agricultural economics. That became one of the best decisions she ever made. Her first international experience was her study-abroad semester in Costa Rica. She worked four jobs for a year to save money to do that.


Alena, JR, and Rosie with Michael Boland

Through working for Dr. Boland in the ag economics department, she literally traveled all over the world. She became his student trip planner and was able to travel not only during undergraduate but on through grad school as well. After Alena earned her master's, she pursued nursing at St. Luke's in Kansas City, where she met her husband, Josh (BS '03 kinesiology).

Clint worked five summers for my brother in north central Kansas during wheat harvest. This was his first real exposure to crop production, and he loved it. He wanted to learn the entire process, from field to table.

Being close to Manhattan made it easy for the kids to visit and see firsthand what Weylan was studying. When Alena graduated first in her class, she was offered a one-year academic scholarship. Clint saw this and was determined to be first in his class as well. Money was always a great motivator for him. He also graduated with a 4.0 and received some fantastic scholarships. Clint always loved to eat, and that has guided much of his life. It also helped him to meet his wife, Josie (BS '06 agribusiness), who loves to cook.

Austin also graduated with a 4.0 and tied for first in his class. Again it paid off in scholarships.


Eric Maichel, (from left) Austin Bosse, and Trenton Huber in the K-State extrusion lab.

While all of our children graduated from the College of Agriculture, their fields are very different. JR and I are excited about the opportunities that are available to all of them. In addition, internships open many doors, and we recommend them to everyone we talk to. If you don't have a major, pick one that offers great scholarships – it may lead you to an exciting career! If not, at least you paid for a year while you were deciding.

My advice to parents with kids in college is this: "Feed them and they will come!" Of course, they will bring their friends. But that is OK as you will get to know them, too. We have loved having kids in college, and it was even better that they all went to K-State. We spent many hours learning about Greek life, attending college parties, tailgating, cooking for finals, and meeting their friends.

Now that Austin is out of college, I admit I do feel a little lost. We spent the last 12 years of our life with anywhere from one to three kids at K-State, and we have had nearly as much fun as they have had.

Rosie Bosse, *Mother and Proud K-State Grad*

The Kids' Side

Weylan Bosse (BS '03 bakery science and management) credits his mom and his friend Brock Kuhlman ('00 BSM) for encouraging him to look at grain science.


Rosie and Weylan

"Mom always bought flour from the grain science department and took us to Open House, so we grew up familiar with the program. She was also a home ec teacher by training and taught all of us how to cook at an early age. Brock encouraged me to check out bakery science, and I was immediately interested in the coursework, the scholarships, internship possibilities, and job opportunities."

Weylan took advantage of the internship opportunities. He worked for Earthgrains/Sara Lee Baking in San Antonio, Texas, and Kerry Ingredients in Beloit, Wis., where he accepted a job in research and development after college.

"The robust internship program was a great benefit," Weylan said. "A lot of people I've worked with had internships, but they were with local companies and were more like summer jobs. The internships that we got through grain science were structured, informational opportunities that truly prepare you for future success."

He now is an account manager for PURAC America Inc., where he is responsible for selling ingredients to the food industry for preservation, flavor, and mineral fortification on the West Coast.

"Coming from a very small town in northeast Kansas, the diversity of students and instructors at K-State was a very new thing for me. In retrospect, it was very important in preparing me to work for large, multinational companies operating in an increasingly global economy.

"Having a food science-related degree from K-State makes a big difference because the program is recognized across the food industry. It lends instant credibility."

As a caring big brother, Weylan admits to offering some advice to his younger siblings.

"I encouraged them to live somewhere that gave them an opportunity to network and to look at majors that gave them opportunities for scholarships, internships, and jobs," said Weylan. "I also strongly encouraged them to study abroad since that was the one thing I regretted not doing in college."

A More International Route

Alena (BS '04, MS '06 agricultural economics) looked up to her older brother and wanted to be in college with him.

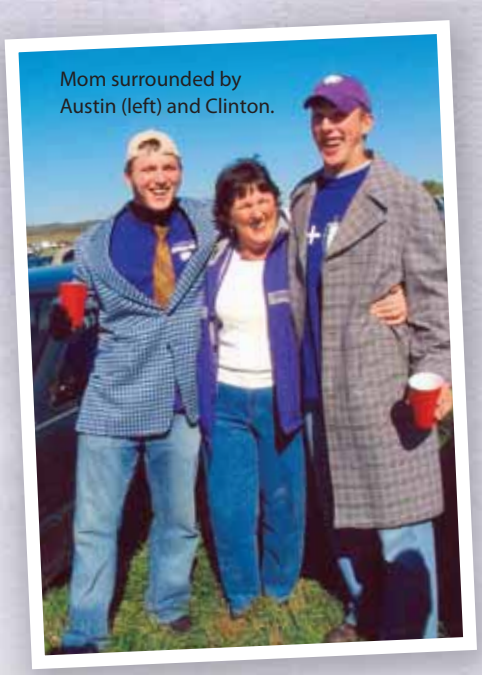
"Since I wasn't sure what I wanted to do, I knew I needed a degree that would provide me with a wide variety of career opportunities and ag econ fit the bill," said Alena. "I had incredible professors, made great friends, and gained a diverse background of ag, international development, math, and economics. It is a major that equips you with the ability to evaluate everyday life decisions with objectivity and practicality.

"I was the only Bosse who did not go Greek. I don't think I would have taken the international focus that became my passion if I hadn't lived in the dorms and befriended the Costa Ricans at Derby Dining Hall. They challenged me to learn Spanish and see the world.

"Working as trip coordinator for the International Agribusiness Study Tours was one of the best experiences of my life. It was fascinating to learn about ag in other countries and compare and contrast it to the way we do things."

After graduation, Alena worked in Romania for a summer,


From left: Austin, Weylan, Jamie, JR, Rosie, Josh, Alena, Clinton, and Josie holding Jaiton


Mom surrounded by Austin (left) and Clinton.

traveled Europe, then decided to get a master's degree focusing on international ag development. Her thesis led her back to health care. She and her husband recently moved to Nebraska for his medical residency with the U.S. Air Force.

"At K-State, I gained the ability to talk to anyone from any background regardless of their culture or country of origin," said Alena. "This ability is priceless regardless of what job or activity I am doing."

Choosing a Dual Major

Clinton (BS '07 milling science and baking science and management) was the next Bosse to choose K-State.

"With Weylan and Alena at K-State, I was more than excited to join them," said Clint. "Originally I chose milling science. After my first internship with ConAgra, I decided I wanted to open up my career choices to the broader food industry."

He also interned with American Italian Pasta Company in Excelsior Springs, Mo., and Quaker Oats Company in Cedar Rapids, Iowa.

Weylan arranged an interview at the extrusion lab in the Bioprocessing and Industrial Value-added Program building. Extrusion processing is a continuous-cooking technology used to make a variety of food and has nonfood industrial applications. Products commonly made by extrusion include cheese puffs, pasta, breakfast cereals, pet food, and aquatic feed.

Clint worked there throughout his five years at K-State. He now is production supervisor for Land O'Lakes Purina Feeds LLC, in Fremont, Neb.

"In addition to internships, I believe all the grain science classes played a part in my career choices," stated Clint. "Whether it was learning how to work for a different professor or the actual learning in the classroom, I got something from every class.

"Dave Krishock was one of my favorite baking professors. He brings so much practical knowledge and industry experience to the classroom that is absolutely priceless. Fred Fairchild also brought a lot of industry knowledge to the classroom and taught us a lot that I still use."

Born to Be a Wildcat

"Where I would go to college was never really a question for me," stated Austin, the youngest Bosse. "My mom and all of my siblings went there, so I was born to go to K-State.

"When it came to deciding on my major, I had no idea what I wanted to major in. Clint was in milling and bakery science, and I knew that Weylan had graduated from bakery science. Clint told me about all of the great scholarships, and I was sold. I also was able to get a job at the extrusion lab, where I worked for four and a half years.

"That experience made me realize the possibilities that are out there for grain science graduates. I decided to work in an industry that had extrusion as a major processing step. I have made a lot of contacts with extrusion companies that could potentially open doors for me in the future."

He completed internships with Flowers Baking Company in Denton, Texas; Quaker Oats in Cedar Rapids, Iowa; and Frito-Lay in Topeka. He also studied a semester in Ireland. After graduation, he accepted a full-time position with Frito-Lay. He commutes from Manhattan to stay close for K-State sporting events.

Austin noted, "So far, all the Bosse kids have married K-State alumni, and all of our cousins on my mom's side have gone to K-State as well. You can truly say our family bleeds purple!"


Clinton and Josie's wedding

Scientists work together to solve crop and livestock problems for Kansans

World Class in Western Kansas

During a tour, wheat breeder Joe Martin talks about the prospects for the 2010 crop.

Differences in geography and weather conditions affect plant growth, even from one side of Kansas to the other. Vegetation that grows well in southeastern Kansas with 40 plus inches of rain may not do well in the dryer, higher elevation of western Kansas. To help farmers, ranchers, and gardeners deal with the extremes of Kansas' growing conditions, K-State supports research centers in strategic areas of the state.

The Agricultural Research Center-Hays is the largest and most diverse research center with 2,422 acres of cropland and 5,120 acres of grazingland. The center was created as the Fort Hays Branch Experiment Station in 1901, and was adjacent to the site of the original Fort Hays. In fact, there are still wagon wheel ruts in the pasture from the supply wagon drives between Fort Dodge and Fort Hays.

As the landscape and agricultural practices have changed, research studies and faculty expertise have evolved. Active projects include developing new wheat and sorghum varieties resistant to diseases and pests, using environmentally friendly methods to control weeds and insects in crops and pastures, establishing best feedlot and grazing practices for beef cattle, and conducting research to preserve and enrich the soil.

Range scientist Bob Gillen heads the Hays research center as well as the Southwest Research-Extension centers in Garden City and Tribune and the Northwest Research-Extension Center in Colby under the umbrella of the Western Kansas Agricultural Research Centers.

"Much of our research is intertwined," Gillen said. "The researchers at Hays work closely with the scientists at the other centers, faculty at K-State and other universities, and the USDA Agricultural Research Service."

Wheat for Western Kansas

Shortly after the center was established, researchers started studying wheat varieties best adapted for western Kansas conditions. To date, more than 120 million acres have been planted with the 14 wheat varieties primarily developed at Hays. Joe Martin (MS '71 plant pathology), who began working at the center in 1974, collaborates with other researchers at the center and wheat breeders on the Manhattan campus.

The Hays unit primarily develops varieties for western Kansas but plants test plots of all K-State varieties. In response to worldwide demand for white wheat, Martin changed his focus from developing hard red winter wheat to hard winter wheats with a white seed coat in 1987. This effort was to increase demand for Kansas wheat because world markets prefer white wheat over red wheat. Danby, a white wheat developed at Hays and first distributed to seed producers in 2005, ranks as the most popular white wheat in Kansas and Colorado.

Martin's research has now shifted to about 50 percent white and red wheat to accommodate the preferences of wheat producers.

Fighting Diseases

Dallas Seifers, who has been studying plant diseases at the center since 1982, offers an example of how his job ties together with the wheat breeding program.

Seifers tests various wheat germplasm—the hereditary material transmitted from one generation to another—with wheat streak mosaic virus (WSMV). When a wheat strain shows resistance to spreading the virus, he retests it under several temperature conditions and with different WSMV isolates (biological

Weed scientist Phil Stahlman inspects no-till corn for weeds.

material that has been cultured for study).

"Wheat lines that pass these tests go to the wheat breeder who crosses them with elite wheat lines," Seifers said. "The plants from these crosses are then retested under WSMV pressure to identify plants with resistance, which are then used by the wheat breeder in further crossing. Again, the progeny from these crosses are tested and plants are identified for further use in crosses. These sources are then advanced and tested for other factors such as protein content, resistance to leaf rust, and other diseases."

This process demonstrates why it can take 10 years to develop a new wheat variety.

Impact of Weeds

Diseases aren't the only enemy of Kansas crops. Weed scientist Phil Stahlman, who has worked at the center since 1976, enjoys a national and international reputation. He conducts trials under various conditions to develop economical and environmentally friendly weed management strategies for crops.

"Weeds are by far the most costly of pests," Stahlman said. "More money is spent to control weeds than insects and disease combined. As soon as you think something is under control, nature throws you another challenge.

"In addition to working with Joe on herbicide resistance in wheat, I collaborate with Rob Aiken at the Northwest Research-Extension Center on sunflower tolerance to atrazine."

Stahlman notes that weed scientists at the research centers and on campus and several field agronomists and area extension agronomists work together on a variety of projects. They are involved with several multistate projects on kochia that has developed resistance to glyphosate, which was commercialized in 1973 as Roundup.

Pests Pose Problems

In addition to disease and weeds, insect pests can ravage Kansas crops and rangeland.

Entomologist J.P. Michaud, a native of Canada, studies the life history and ecology of lady beetles—natural enemies of aphids that are major pests of cereal crops. He also investigates the biology and management of sunflower insect pests.

"Nature is a beautifully balanced system where pests are very often controlled by their natural enemies," Michaud stated. "However, events don't always occur in the same sequence. A late cold snap in spring can delay the activity of predators, allowing aphids to escape control. Also many insects are migratory, so they can arrive suddenly and without their natural enemies."

Michaud says it's important to be vigilant and watch for infestations. Once a pest problem becomes well established, it can be too late to take action. He also studies how environmental factors, such as heat and drought, affect how insects damage crops.

In addition to field research, Michaud contributes articles to the Kansas Insect Newsletter and advises graduate students. He also collaborates on projects with researchers in other countries who study similar insects.

Entomologist J.P. Michaud stresses the importance of monitoring crop insect pests.

Preserving the Soil

Soil scientist Humberto Blanco, from Bolivia, joined the center in June 2008. His goal for the soils program is to identify and develop management practices that protect soil, water, and air resources while sustaining production and maintaining environmental quality. He recently completed a study with other K-State scientists on the benefits of no-till farming, a system of growing crops from year to year without tilling the soil.

"No-till farming has large and positive effects on improving soil structural properties, increasing soil organic carbon content, and reducing water erosion," said Blanco. "However, producers will have to maintain adequate surface crop residue levels for no-till to reduce wind erosion.

"The ability of no-till to control water erosion has enormous implications because intense rainstorms can cause large losses of soil in semiarid regions. Increasing soil organic concentration through no-till and other best management practices is crucial for reducing soil erosion, while also improving soil quality and sustaining crop production."

Scientist Humberto Blanco admires a fresh soil sample.

Analysis by Location

Pat Coyne, who was center head from 1985 to 2006, conducts several tallgrass prairie projects with K-State range scientist Clenton Owensby, a water management project with crops research scientist Rob Aiken at Colby, and quantifying soil surface crop residue and soil cracking with Blanco.

All of Coyne's projects incorporate geographical information system (GIS) software that captures, stores, analyzes, manages, and presents data linked to a specific location.

Coyne adapted to computer technology early in his career and used his expertise to keep statistics for the K-State football program.

"I started testing my program in 1981 around the time personal computers first came on the scene," said Coyne. "In 1985, I began doing every football game and have not missed a game since.

"K-State no longer uses my computer program. About three years into the Big 12, all members were required to standardize computerized football stats by adopting the program used by Texas; however, I am still on the football stats crew as a spotter."

Developing Sorghum Varieties

Ramasamy Perumal joined the faculty in May 2010 as sorghum breeder to replace Ken Kofoid, who retired after 23 years at the center. Perumal came to K-State after six years at Texas A&M University.

He said the major focus of the current sorghum research program is to increase yield potential by developing elite parental lines with drought resistance; herbicide tolerance; cold/heat tolerance; and resistance to *Fusarium* stalk rot, charcoal rot, anthracnose, and ergot. Resistance to chinch bug and greenbug and good forage quality are the next priority areas.

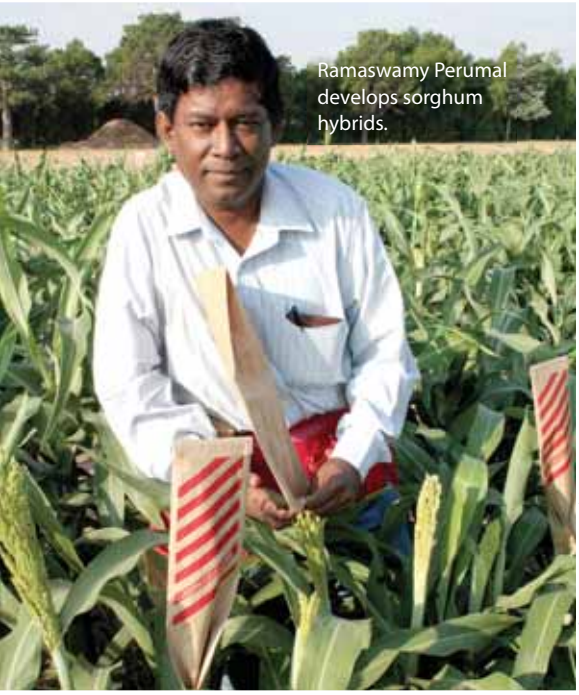
"I am also concentrating on unique germplasm lines received from the International Crops Research Institute for the Semi-Arid Tropics, India, for the identification of elite lines showing resistance to biotic (living) and abiotic (absence of living organisms) stresses," Perumal said.

Another Tradition: Beef Research

The center's long-standing beef research program is led by John Jaeger. He worked at the center from 1986 to 1994 as a research assistant and cow-calf herdsman. After completing his doctorate at Oregon State University, he returned to Hays in 2006.

Jaeger and animal scientist KC Olson, Manhattan, focus their research on the optimum time to wean calves and how it affects later performance.

"KC and I are looking at how early weaning of calves may be a low-cost sustainable system to reduce cow maintenance costs as well as improve cow performance and the carcass quality of their offspring," said Jaeger. "We also work with Justin Waggoner, beef cattle specialist at the Southwest Research-Extension Center. He brings a nice balance to our research by factoring in how our research applies to feedlots as well as individual producers."



Ramaswamy Perumal develops sorghum hybrids.

Courtesy of Ramaswamy Perumal

Animal scientist John Jaeger (left) and range scientist Keith Harmoney conduct various projects together and with other researchers.

Bob Holcombe

Jaeger and Waggoner also had a Kansas Corn Commission grant to look at low-cost storage of distillers grain (the cereal byproduct of the distillation process, such as an ethanol plant) plus solubles (the liquid removed during processing).

"At the conclusion of the storage study, we conducted an animal performance study using previously stored corn distillers product and finely ground sorghum as an easily digestible, efficient cattle feed ration," Jaeger said.

Importance of Grazing Studies

Jaeger's research on cattle grazing teams him with the center's range scientist, Keith Harmoney

"All of the cattle used in my grazing studies are fed through the feedlot here at the research center and are analyzed for feed efficiency and final carcass traits with John Jaeger," Harmoney said.

Harmoney has been at the center for 10 years and is collaborating with agronomists, weed scientists, plant pathologists, and engineers on a variety of active projects for Kansas and the north central region.

"I'd like to think that my projects all center around trying to find the most efficient way to produce beef without harming our natural resources or landscapes," stated Harmoney.

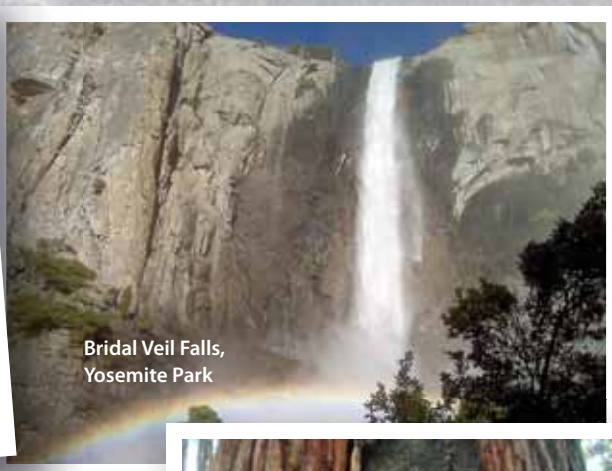
"My research directly applies to feedlots and ranchers because I am trying to make beef production more efficient using the same resources they would use, the same types of rangelands, the same type of croplands converted to grass forage, the same types of cattle, and the same type of feedlot and feeds. I'm basically trying to find forage species and grazing strategies that will help them to get the most efficient production out of what they have available."

"While many changes have occurred over the center's 109-year history, one enduring constant is our strong focus on solving real problems faced by agricultural producers in western Kansas," stated Bob Gillen, center head.

For more information about K-State's Western Kansas Agricultural Research Centers, go to *www.wkarc.org*.


Yosemite


Earthbound Farm


Bridal Veil Falls,
Yosemite Park


Yosemite

Shannon Washburn, associate professor of agricultural education, led an eight-day tour of California agriculture in mid-June. The tour included agricultural, natural resource, ecosystem, and tourist interests.

Participants were Andrea Barr and Brandon Barr (BS '01, animal science, MS '03 agricultural education), Council Grove High School; John Bergin (BS '09 ag ed), Goessel H.S.; Lindsey (George) Huseman (BS '06 ag ed, MS '10 curriculum and instruction), Wilson H.S.; Laura Klenda (BS '09 ag ed), Centre H.S. ; Rebecca (Lundquist) Morgan (BS '83, MS '89 home ec ed) and James Morgan (BS '82, MS '87 ag ed), Louisburg H.S.; Joelle and Walter Pitts, Chapman H.S.; Jon Pretz (BS '09 ag ed), Crest H.S; Krista Rice (BS '10 ag ed), Hoxie H.S.; Michael Strohschein, Spring Hill H.S.; Ashley Vann (BS '10 ag ed), Solomon H.S.; Andrea (Miner) Washburn (BS '95 speech ed, MS '99 secondary ed) and Shannon Washburn (BS '95 ag ed, MS '99 secondary ed); and Robert Kohman (BS '06 ag ed), Ellis H.S.

Photos courtesy of trip participants


Busseto Foods, Fresno


Goldsmith Seeds, Gilroy


Avila Beach


Maddox Dairy, Riverdale


Tolosa Winery


Foster Farms Hatchery, Caruthers


Clovis High School


Tolosa Winery, San Luis Obispo


Goldsmith Seeds, Gilroy


Fish hatchery,
Feather River

Courtesy of College of Agriculture

Frobose Named Fulbright Scholar

Hyatt Frobose (BS '09 animal science) was selected as a 2010 U.S. Fulbright Scholar. He received one of nine annual $25,000 awards from a pool of more than 120 applicants. He will spend a year at the University of Melbourne in Victoria, Australia. He plans to become a consultant on livestock production practices and their effect on the welfare and productivity of livestock, with an emphasis on swine.

Frobose, from Pemberville, Ohio, is pursuing a master's degree in swine nutrition and behavior. He had an abstract published in the *Journal of Animal Science* in 2009 and was recognized for having the best research presentation at the 2009 Midwest Animal Science meeting. He also participated in the JBS United Research Internship program and an internship with Danbred North America.

He served as head coach of K-State's Meat Animal Evaluation Team, assistant coach of the Livestock Judging Team, and a member of the Collegiate Beef Quiz Bowl and the Midwest Animal Science Quadrathlon national championship teams.

Each year, Agricultural Technology Management students clean and service more than 100 lawnmowers for Manhattan-area residents. The students remove and sharpen the blades; pressure wash the mowers; and change the oil, spark plugs, and air filter for a reasonable fee. The fundraiser helps members of the ATM Club attend industry tours, where they can interact with future employers. View the audio slide story for more details: *www.ksre.ksu.edu/slidestories*.

Courtesy of College of Agriculture

New Kansas FFA President

Andrew Strasburg, Elk City, was elected president of the Kansas FFA Association. He is majoring in agribusiness and agricultural communications and journalism. He also is a student employee for Kansas Agricultural Mediation Services.

Crops Team Wins Again

The K-State Crops Team took first place in the North American Colleges and Teachers of Agriculture national crops contest. It is the second straight national title and the team's ninth title in the last 12 years.

The contest has four components: laboratory practical, agronomic exam, math practical, and plant and seed identification. The K-State team placed first in the laboratory, math, and identification components and second in the exam. They also earned four of the top five individual placings. The agronomy students on the team are Eric Preston, Chad Huffman, Aaron Widmar, Ryan Cates, Jenae Skelton, Nicole Rezac, David Krehbiel, and Nathan Keep. Kevin Donnelly coaches the team.

Sents Earns Truman Scholarship

Amy Sents, senior in animal sciences and industry and pre-veterinary medicine with a minor in international agriculture, is K-State's 32nd Harry S. Truman Scholar. Sents, from McPherson, will receive as much as $30,000 for graduate studies toward a career in public service.

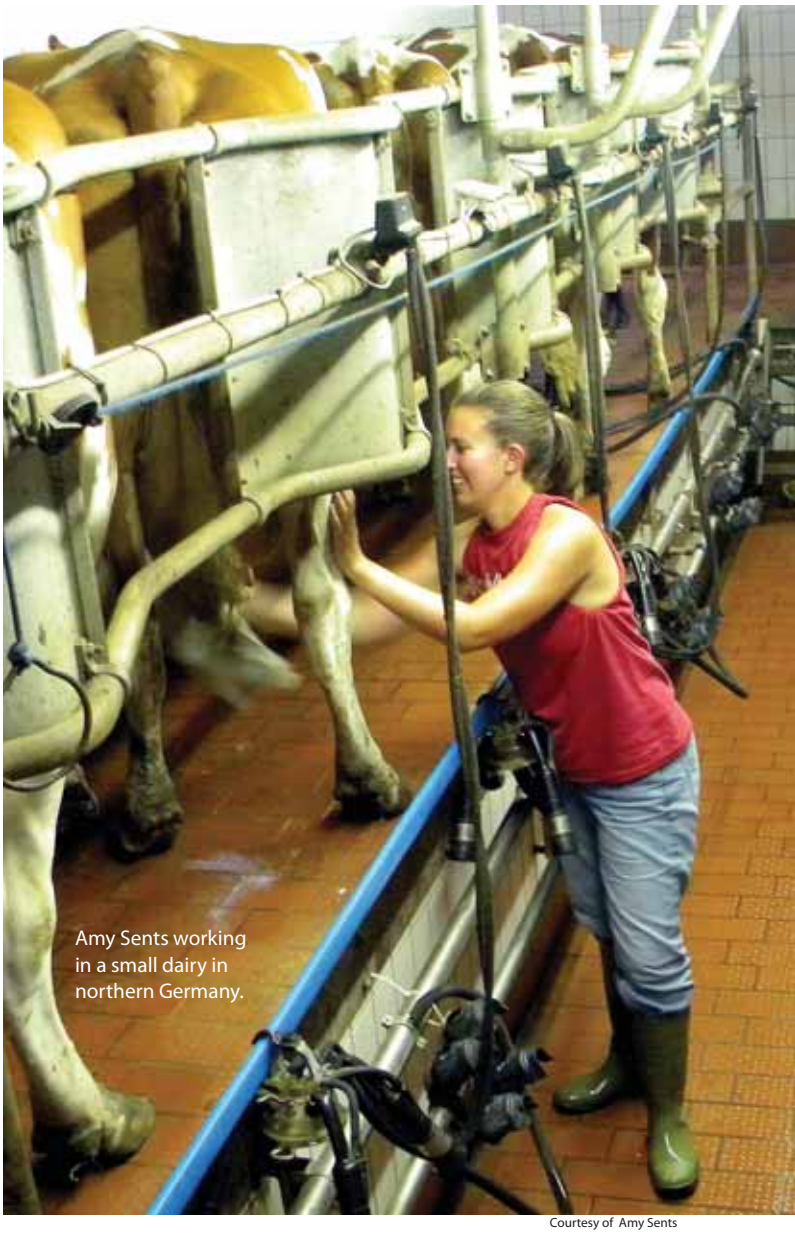
"Amy is a great representation of the caliber of K-State students, and she is continuing the university's ongoing success in the Truman scholarship competition," said K-State President Kirk Schulz. "She is committed to serving others and is on track for an excellent career in veterinary medicine."

She plans to obtain a doctorate of veterinary medicine and master's of public health at K-State. She then would like to work for the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) in veterinary services.

During summer 2009, Sents interned with the White House liaison office within the Office of the Secretary at the U.S. Department of Agriculture in Washington, D.C., and was able to visit APHIS. From June to December 2010, she is serving as an IFYE (international 4-H youth exchange) representative to Germany and Switzerland.

"By living and working with seven host families on their farms, I have the perfect opportunity to learn about agriculture practices and policies on a different continent," state Sents. "I am also enjoying learning the language and culture.

"My parents impressed upon me from a young age the need to serve others. Through my activities on the farm and in 4-H and FFA, I developed a true passion for animals. Through safeguarding the health of livestock, I aspire to help make this world a safer place for everyone to live."



Amy Sents working in a small dairy in northern Germany.

Courtesy of Amy Sents

Courtesy of College of Agriculture

Student of the Year

Miles Theurer, senior in animal sciences and industry from Wellington, was named the 2010 College of Agriculture Student of the Year. He is a member of College of Ag Ambassadors, Block and Bridle, Alpha Gamma Rho Fraternity, and the Kansas Junior Simmental Association. He served as president for Ag Student Council. He earned the American FFA degree and the Kansas State FFA Star Farmer Award.

Theurer said his most significant experience in college was having the opportunity to organize and run Ag Fest—a weeklong schedule of fun and educational events that highlight the importance of agriculture and conclude with a concert to benefit multiple sclerosis research.

Emily Schneider and the 2010 I-CAL team visited a feed mill in Taiwan.

Courtesy of Emily Schneider

Schneider Chosen for I-CAL

Emily Schneider, senior in agricultural communications and journalism, was one of 12 students chosen nationally for the 2010 International Collegiate Agricultural Leadership (I-CAL) Program.

The group recently returned from Malaysia and Taiwan, where they visited various Asian agricultural operations, including grain inspecting facilities; fruit/vegetable production farms; livestock operations; and open-air grain, meat, and animal markets.

"The I-CAL program was truly a once-in-a-lifetime experience," Schneider said. "It gave me the opportunity to see firsthand what agriculture is like on the other side of the world. I was excited to have the chance to get an up-close look into industries that I can't find in Kansas, such as the palm oil industry in Malaysia.

"Most of all, I appreciated that the trip gave me a better understanding of the importance of international agriculture markets to U.S. farmers, and I believe this knowledge will be extremely valuable as I pursue a career in agriculture policy."

Students Enter Next Big Thing

Grain science students in the Management Applications in the Grain Processing Industries class participated in the Next Big Thing competition, sponsored by the K-State Center for the Advancement of Entrepreneurship.

As their major class project, student worked in teams to write business feasibility plans. Eight teams from the class competed against 22 others from across campus, and six made the finals—four in the products division and two in the service division.

Integrated Bin Systems LLC, with Carl Tharman, Ryan Roberts, Aaron Bingham, and Andy Lindscot, won second place and a $2,000 prize in the product division.

Fred Fairchild, professor of grain science who teaches the class, earned the Entrepreneurship Support Award for his commitment to teaching transferrable skills.

FIPSE Sponsors Exchange

K-State students participated in an exchange program with European universities through a consortium sponsored by the U.S. Department of Education Fund for the Improvement of Postsecondary Education (FIPSE) program.

Nolan Rothe, graduate student in plant pathology, spent the spring 2010 semester at Ghent University in Ghent, Belgium, and Spencer Kepley, senior in biological and agricultural engineering, studied at National Polytechnic Institute of Toulouse in Toulouse, France.

Lauren Brewer, graduate student in grain science, is spending the summer at Karl Franzens University in Graz, Austria. Brewer also won the Structure of Polysaccharides and Analytical Problems poster contest at the 18th Annual International Starch Convention in Cracow, Poland.

One of a Kind: Celebrating 100 Years of Feeding the World

Centennial

Kansas State University

GRAIN SCIENCE & INDUSTRY

1910-2010

K-State's Department of Grain Science and Industry is a world leader in educating students and industry professionals and collaborating in research and development for the grain, feed, milling, and baking industries.

Established in 1910, the department develops new technologies, knowledge, and practices for the grain-based food, feed, fiber, fuel, and bioproduct supply chain.

Students get hands-on experience in K-State's modern pilot plants and laboratories, which include a bakery, feed manufacturing facility, industrial-scale flour mills, and extrusion center.

K-State is the only university in the world offering undergraduate and graduate degrees in bakery, feed, grain, and milling science.

The department will celebrate with the following events:

Friday, October 1, 2010

Golf Tournament Fundraiser
Colbert Hills
$125/person or $500/team
10 a.m.

Saturday, October 2

Open House and Tours
9 – 11:30 a.m.

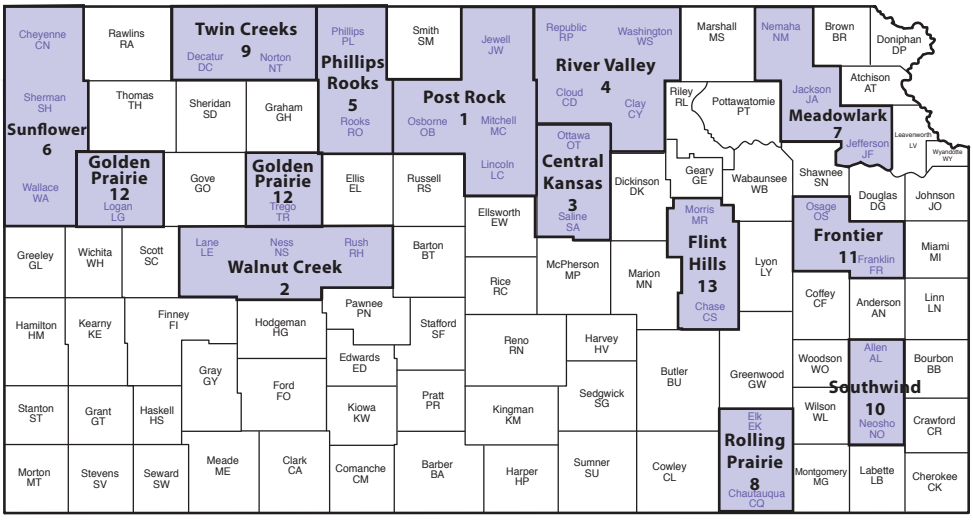
Science Forum
International Grains Program Auditorium
1:45 – 4:30 p.m.

Groundbreaking for O.H. Kruse Feed Mill and Biorefinery
5 p.m.

Evening Gala
International Grains Program Conference Center
$25/person
6 – 9 p.m.

To register or for more information:
www.grains.ksu.edu/centennial
or call 785-532-6161.

K-State Research and Extension Announces Four New Districts



Since 1991, any two or more Kansas counties can legally work together to form an extension district. On July 1, 2010, four new districts were created: Southwind District #10—Allen and Neosho counties, Frontier District #11—Franklin and Osage counties, Golden Prairie District #12—Logan and Trego counties, and Flint Hills District #13—Chase and Morris counties.

"We now have 33 counties that have completed the process to form 13 districts," stated Jim Lindquist, assistant director for extension field operations. "There are several counties, especially in the southern part of the state, that are discussing the formation of districts."

Lindquist explained that districting has several benefits including more efficient use of resources and the opportunity for personnel to specialize on fewer topics, which results in higher quality educational programs.

Williams Shares Love of Teaching

Kim Williams, professor of greenhouse management, oversees students as they plant seeds for the annual bedding plant sale.

Kimberly Williams was chosen as K-State's Coffman Chair for Distinguished Teaching Scholars and will help fellow faculty members turn their teaching into scholarship.

Williams, professor of greenhouse management, is the 16th faculty member appointed to the chair since it was created in 1995. The chair highlights K-State's commitment to excellence in undergraduate teaching and learning. Though the appointment lasts a year, Williams will retain the title throughout her career.

She defines the concept of teaching as scholarship as thoughtfully planning, conducting, evaluating, and finally publishing, via peer review, work associated with teaching and learning.

"One advantage of approaching teaching as scholarship is the improvement of undergraduate learning because these activities closely align with assessment of student learning," she said.

Williams (BS '88 horticulture) said teaching and learning are her passions.

"The opportunity to teach subjects that I personally find exciting and challenging has always been the driving force behind my desire to pursue a career in academia," she said.

"I enjoy the challenge of explaining a difficult subject and the reward of seeing the flash of recognition in students' eyes when they master it. It's extremely rewarding to walk with students during their undergraduate journey. It's an exciting time in their lives as they discover their own passions and set forth on careers."

More than 300 judging team members, family, and friends gathered to pay tribute to former department head and judging team coach Don Good at the annual judging team reunion on April 19.
Current and former judging coaches (standing from left): Terry Houser, meats 2007–present; Scott Schaake, livestock 1992–present; John Unruh, meats 1990–2006; Cliff Spaeth, wool 1976–2008; Michael Dikeman, meats 1967–1979; Bill Able, livestock 1971–1985; Dell Allen, meats 1967–1979; and Calvin Drake, livestock 1966, 68, 70, 1989–1991. Don Good is seated.

Behnke Honored for Service to Feed Industry

K-State Research and Extension files

Keith Behnke (BS '68 feed science and management, MS '73, PhD '75 grain science), professor of feed science, earned the Distinguished Service Award from the American Feed Industry Association (AFIA), the organization's highest honor.

"Keith is internationally recognized for his knowledge of the industry regarding manufacturing processes, government regulations, and the industry requirements," said Keith Epperson, AFIA vice president of manufacturing and training. "Combine Keith's knowledge with his unique ability to educate and communicate this information to both newcomers and veterans of the industry, and you can understand what makes Keith a valuable leader in every way."

Behnke recently retired after 33 years as a K-State faculty member, during which he taught and developed a number of courses. He is particularly associated with teaching the introductory feed course Feed Technology I, Qualities of Food and Feed Ingredients, and the development of an extrusion course.

Students have always been the focus of Behnke's efforts.

When former student Charles Lickteig (BS '01 feed science and management) was interviewed for *Grain Journal* magazine, he named Behnke as his "biggest career influence." Lickteig manages a Cargill feed mill in Martinsburg, Pa., which was selected as the 2008 Feed Mill of the Year in a competition sponsored by AFIA and Feedstuffs, a weekly newspaper.

"Dr. Behnke was the first person I talked to about the feed industry when I visited K-State," said Lickteig. "He was open and honest about the strengths and challenges facing the industry. He really cares about his students and what they learn in his classes."

In addition to teaching, Behnke typically advised 18 to 25 undergraduate students and as many as five or six graduate students in his department. He also served on various university, state, national, and international committees, including Food and Agriculture Organization/World Health Organization and National Academy of Science committees.

Behnke has traveled to 43 countries to make presentations, conduct in-country short courses, and provide technical consulting to improve feed processing.

"The feed industry has provided so many wonderful opportunities for me and, especially, our feed science graduates, that it has always been an honor for me to help the industry in any way possible to be successful and sustainable," stated Behnke.

The Gamma Sigma Delta agricultural honorary society presented faculty awards to (from left): Robert Goodband, swine nutritionist, Outstanding Teaching; Megan Kennelly, assistant professor of plant pathology, Early Career; Melvin Hunt, meat scientist, Distinguished Faculty; Joann Kouba, equine physiologist, Outstanding Advising; and Evan Titgemeyer, ruminant nutritionist, Outstanding Research.
Not pictured: Mike Tokach, swine nutritionist, Excellence in Extension.

Agricultural Economics

The *AgManager.info* website received the 2010 Outstanding Electronic Media Education Award from the Agricultural and Applied Economics Association.

Agronomy

Gary Pierzynski, interim dean of the College of Agriculture and interim director of K-State Research and Extension, has been chosen as president-elect of the Soil Science Society of America. Before accepting the interim position, he served as head of the Department of Agronomy and will return to that position when a permanent dean and director is chosen. Pierzynski will succeed **Chuck Rice**, university distinguished professor of agronomy, as president of the SSSA. Rice has been selected to join other leading international scientists as part of the United Nations' Intergovernmental Panel on Climate Change. He is one of two U.S. lead authors for the chapter on agriculture in the panel's upcoming Fifth Assessment Report on Climate Change, which will be released in 2014.

Animal Sciences and Industry

Barry Bradford, assistant professor of dairy nutrition, received the Cargill Animal Nutrition Young Scientist Award from the American Dairy Science Association.

Brian Faris, sheep and meat goat specialist, was recently elected president of the American Boer Goat Association.

John Smith, professor and specialist in dairy cattle reproduction and management, was chosen as the 2010 Bell Tower of Fame Award recipient. The award is given to former or current residents of Greene County, Iowa, for their personal and/or professional accomplishments that have state, national or international significance.

John Unruh (PhD '84 animal science), meat scientist and chair of the undergraduate food science program, was recognized for his commitment to excellence in teaching by being selected as a 2010 Wakonse Fellow at the 21st annual Wakonse Conference for College Teachers. The goal of the conference is to provide inspiration and support for college teaching. He also was elected to a three-year term on the board of the American Meat Science Association and will chair the 2012 Reciprocal Meat Conference. He received the Intercollegiate Meat Coaches Association Achievement Award at this year's RMC.

Biological and Agricultural Engineering

Joe Harner was named head of the department. He came to K-State in 1983 with a 100 percent extension appointment in biological and agricultural engineering and responsibilities in programming related to grain and livestock systems. He has been serving as the interim department head since February 2009.

Entomology

John Reese, professor, was recognized at the International Plant Resistance to Insects 19th biennial workshop in Charleston, S.C., for his career contributions in making crops and other plants resistant to insects.

Grain Science and Industry

Sajid Alavi, associate professor, received the AACC International Young Scientist Research Award for outstanding contributions in basic and applied research to cereal science with the expectation that contributions will continue. He heads K-State's Extrusion Lab in the Bioprocessing and Industrial Value-Added Program facility.

Subramanyam "Subi" Bhadriraju, professor, received the 2010 Hodson Me-

Each semester student organizations nominate outstanding faculty members. Faculty of the Semester for Fall 2009 (front row from left): David Grieger, associate professor of beef cattle reproduction, nominated by the Pre-Vet Club and Dan Moser, associate professor of beef cattle genetics, nominated by Alpha Zeta.
Faculty of the semester for Spring 2010 (back row from left): Randall Phebus, professor of food science, nominated by Alpha Zeta and Larry Hollis, extension beef veterinarian, nominated by Collegiate Cattlewomen.

morial Outstanding Alumnus Award from the Department of Entomology, University of Minnesota, St. Paul.
Jeff Gwirtz (BS '79 milling science and management, MS '92, PhD '98 grain science), associate professor of milling science and management, earned the 2010 Thaddeus B Bownik Outstanding Service Award from the International Association of Operative Millers.
David Wetzel, professor, has been selected by the AACC International (formerly the American Association of Cereal Chemists) Board of Directors as a 2010 Fellow, the highest honor bestowed on a member. The honor recognizes his lifetime contributions to cereal science and technology.

Horticulture, Forestry and Recreation Resources

Greg Davis (BS '79, PhD '93 horticulture, MS '88 journalism and mass communications) associate professor of landscape design, was named Outstanding Adviser of the Year. In addition to teaching duties, he advises 50 students and is the coach of the PLANET Landscape Contracting Team and the co-adviser of the Horticulture Club.
Wayne Geyer, professor of forestry science, was recognized by the Kansas Natural Resources Conservation Service for his volunteer service to the Earth Team Volunteer Program, which helps landowners and the agency conserve soil, water, and natural resources.
Jason Griffin, associate professor of nursery crops and director of the John C. Pair Horticultural Center near Wichita, earned the 2009 Honorary Membership Award from the midwestern chapter of the International Society of Arboriculture. The award was given in recognition of his outstanding support and promotion of urban forestry and arboriculture.

Plant Pathology

John Leslie, department head and professor, was selected as an honorary member of the Hungarian Academy of Sciences.

Statistics

Dallas Johnson received the W.J. Dixon Award for Excellence in Statistical Consulting at the American Statistical Association. He consulted with Agricultural Experiment Station researchers during most of his 31-year tenure.

In Memorium

John Dunbar, 90, Manhattan, died Aug, 7, 2010. He served as director of extension (1969–1978) and dean of the College of Agriculutre (1979–1984). He also consulted in Kenya, Turkey, Pakistan, Iran, India, and the Philippines. Memorials may be made to the Frances W. Dunbar Scholarship through the Kansas 4-H Foundation.
William Hoover, 82, died July 6, 2010. He was director of the Food and Feed Grain Institute and head of K-State's Department of Grain Science and Industry (1966–1976). He then served as president and CEO of the American Institute of Baking for 18 years. He received numerous honors, including Kansas Scientist of the Year, the Baking Hall of Fame, and Manhattan Citizen of the Year.
Berl Koch, 91, Manhattan, died July 31, 2010. Following military service, he earned degrees from Iowa State University, Cornell University, and the University of California. He was a faculty member in the K-State Department of Animal Sciences from 1956 to 1987. He was a longtime volunteer for the Flinthills Breadbasket and recently received the Good Samaritan Award.

Twenty-four College of Agriculture and K-State Research and Extension faculty and unclassified professionals were recognized at the Annual Retiree Ceremony and Reception on April 20, 2010, at the Kansas State University Alumni Center. They had a combined total of 345 years of service, an average of nearly 30 years.
Their names, titles, and years of service are listed below: (back row) **Donna Martinson**, Dickinson County 4-H Youth Development agent, 38 years; **James Koelliker**, biological and agricultural engineering professor, 37; **Eric Otte**, Sedgwick County horticulture agent, 27; **Kenneth Kelley**, Southeast Agricultural Research Center (SEARC) agronomist, 35; (front row) **Janet Stephens**, Southeast Area family and consumer sciences (FSC) specialist, 39; **Kathleen Struve**, grain science business office manager, 20; **Robert Bennett**, grain science senior scientist, 33; **Melvin Hunt**, meat science professor, 35; **Michael Christian**, Lower Blue River watershed specialist, 33.
Not pictured: **Keith Behnke**, professor of feed science, 33; **Warren Bell,** Lower Neosho River watershed specialist, 35; **James Cochrane**, assistant scientist, agronomy, 24; **Barney Gordon**, Irrigation and North Central Experiment Fields agronomist, 18; **Ekramul Haque**, grain science professor, 34; **William Hargrove**, Kansas Center for Agricultural Resources and the Environment, 11; **Paul Hartman**, southwest area director, 32; **Glenda Keller**, River Valley District FCS agent, 44; **Kenneth Kofoid**, Agricultural Research Center-Hays sorghum breeder, 23; **Barbara Lilyhorn**, Reno County FCS agent, 27; **James Long**, SEARC agronomist, 26; **Sherrie Mahoney**, Central Kansas District food, nutrition, health, and safety specialist, 29; **Emily Nolting**, northeast area horticulture specialist, 11; **Jack Riley**, animal sciences and industry professor, 38; **Rebecca Wallace**, Hamilton County FCS agent, 30.

Alumni Initiate VTPRK

The Veterinary Training Program for Rural Kansas helps new graduates of K-State's School of Veterinary Medicine pay off student loans by working full time at a practice in one of the 91 Kansas counties with fewer than 35,000 residents. The state will forgive $20,000 worth of student loans for each year of service, with a maximum of four years. The first five veterinarians to complete the program are College of Ag alumni. **Trent Glick**, who will work in Oberlin; **Brock Hanel**, who will practice in Courtland; and **Nick Luke**, who plans to work in his hometown of Beloit, received bachelor's degrees in veterinary medicine from the College of Agriculture in 2008. **Kyle Berning**, who accepted a position in Scott City, and **Jessica Whitehill-Winter**, who is interviewing, earned degrees in animal sciences and industry in 2006.

Superintendents Excel at Trivia

Four golf course superintendents with K-State degrees in golf course management won a trivia challenge at the Golf Industry Show in San Diego, Calif. By answering multiple-choice questions in an interactive trivia game at the Syngenta trade show booth, **Willie Wallace** (BS '93), Bridlewood Golf Course, Flower Mound, Texas; **Joe McCleary** (BS '87), Saddle Rock Golf Course, Aurora, Colo.; **Paul Jonas**, (BS '85) Flint Hills National Golf Club, Andover, Kan.; and **Bill Hirchert** (BS '94), Colleton River Plantation Club, Bluffton, S.C., won the top prize of $2,000, which was presented to K-State's turfgrass program.

1953

The Nancy and **Richard Spiegel** (BS '53 agronomy) family of Jewell County, their children Vicki, Judy, and **Steven** (BS '88 agronomy/agricultural economics), and five grandchildren were honored as the 2010 4-H Family of the Year. Richard died in 2007.

1969

Warren Weibert (BS animal science), owner and general manager of Decatur County Feed Yard near Oberlin, was featured in the *Now That's Rural* newspaper column on July 28, 2010, for the innovative computer techology used in his operation.

1978

Jim Oltjen (MS animal science) served as president of the American Society of Animal Science for 2009-2010. He is the beef extension specialist at the University of California, Davis.

Ron Wilson (BS agricultural education, MS '99 journalism and mass communication) has been named the first outreach ambassador of the National Multicultural Western Heritage Museum in Fort Worth, Texas. He is director of K-State's Huck Boyd National Institute for Rural Development.

1980

Clint Rusk (BS animal science) is the new head of the Department of Animal and Range Sciences at South Dakota State University. His wife, **Madeleine (Miller) Rusk** (BS animal science) is the new "first lady" of the department. She also works as a website designer for the SDSU Department of Veterinary Science.

1986

At the 2010 Beef Improvement Federation Annual Research Symposium and Annual Meeting: Sandhill Farms near Haviland, owned by **Kevin** (BS animal science) and **Vera Schultz** (BS elementary education), was named seedstock producer of the year. Downey Farms, owned by the Joseph L. Downey family and managed by **Barb Downey** (BS animal science) and **Joe Carpenter** (BS '87 animal science), was named commercial producer of the year. The ranch is southeast of Manhattan.

Chris Williams (BS, MS '93 agricultural economics) was promoted to financial services officer for Frontier Farm Credit in Manhattan. He joined the company in 2004 as a financial analyst and had served as a business services specialist.

1988

Mike Tokach (MS '88 animal science), professor and extension state leader, earned the Animal Management Award from the American Society of Animal Science. He also was featured in the June issue of *National Hog Farmer* magazine, in which he was identified as one of the 2010 Masters of the Pork Industry.

1990

Mike Christian (MS plant pathology) has been inducted into the Hall of Fame for the National Association of County Agricultural Agents. His 33-year career includes three years as Dickinson County 4-H agent, 21 years as Riley County agricultural agent, and nine years as a watershed specialist. Since 2006, he has helped develop management plans for 155 animal feeding operations in Kansas.

1992

Rolan Leniton (BS agribusiness) is a financial services officer for Frontier Farm Credit. His duties include marketing and servicing commercial and mortgage loans, primarily for Elk and Chautauqua counties. He had been a vice president of agricultural lending in a community bank. He also owns and manages Leniton Ranch.

1994

Aaron Higbie (BS animal science), owner of Santa Fe Trail Meats, was featured in the *Now That's Rural* newspaper column on June 21, 2010, for his personal and professional contributions to the Overbrook community.

1999

Russell Pope (BS animal science) and his wife, Misty (BS elementary education), El Dorado, announced the birth of their son, Rhett Vance Pope, May 26, 2010.

2000

Andy Grollmes (BS '00 biological and agricultural engineering), Minden, Neb., is an owner and CEO of LandMark Implement Inc., a six-store John Deere dealership in south central Nebraska and north central Kansas. In 2008 and 2009, LandMark Implement earned John Deere's Manager's Club Award, which recognized it as one of the top 50 dealer organizations in North America.

2002

Ty Lawrence (PhD animal science), Canyon, Texas, received the Distinguished award at the American Meat Science Association Reciprocal Meat Conference.

DeAnn Presley (MS '02, PhD '07 agronomy) and her husband, Wess, announced the birth of twin boys—Forrest and Grant—on April 7, 2010. DeAnn is an assistant professor and extension specialist in the Department of Agronomy.

2005

Adam Fahrenholz (BS feed science, MS '08 grain science) married **Renee Wullschleger** (BS '07 feed science) on July 18, 2010.

Aaron McKee (BS agricultural technology management), Manhattan, and his wife **Suzanne (Feurborn) McKee** (BS '97 animal science, '01 DVM) own and operate Purple Wave Auction, which was featured in *Now That's Rural* newspaper column on May 5, 2010.

2007

Matt Clark (BS '07, MS '09 agricultural economics) is the K-State Research and Extension agriculture and natural resources agent in Kingman County. He previously was an adjunct professor of economics at ITT Technical Institute, Columbia, S.C. As a K-State student, he worked as a graduate research and teaching assistant in agricultural economics.

Melinda (Tebow) Young (BS animal science/agricultural journalism and communications) is the new K-State Research and Extension agriculture and natural resources agent for Doniphan County.

Cole Miller (BS agribusiness, MS '08 agricultural economics) is the new Kansas Farm Management Association agricultural economist in Hutchinson.

2010

James Hartshorn (BS agribusiness) is the K-State Research and Extension agriculture and natural resources agent for Leavenworth County. He has been the co-owner of J&L Farms in Tonganoxie and has worked in the horticulture industry in Lawrence and Manhattan.

Jason Lewis (PhD horticulture) accepted a teaching position in the Horticulture and Crop Science Department at Cal Poly-San Luis Obispo.

Julie Niehage (BS agricultural education) joined the K-State Research and Extension Logan County office as director. She previously worked at Hutchinson Community College and as an intern in the K-State Research and Extension Scott County office.

Robin Slattery (MS agricultural economics) joined the River Valley District as an agriculture and natural resources agent with a specialty in livestock production. The River Valley District includes Clay, Cloud, Republic, and Washington counties. She is based in the Clay Center office. She worked previously as a graduate research assistant at K-State, Wisconsin, and Wyoming.

In Memorium

Arnold "Ted" Anderson, 88, died April 10, 2010. He earned an agricultural certificate from K-State in 1949. He farmed near Manhattan and served as secretary for the Farmers Union Coop board for 35 years and the FarMarCo/Farmland board for many years.

James Cavanaugh (BS '42 dairy production), 92, died April 6, 2010. He served as executive secretary of the American Jersey Cattle Club (1956–1985) and was the founding executive secretary of National All-Jersey Inc. (1957–1985), where he expanded and improved markets for Jersey milk. As a K-State student working at the 1939 World's Fair, he chose the first Elsie for Borden's.

Eugene Francis (BS '49 animal science), 90, Topeka, died July 2, 2010. He completed a master's degree at Iowa State in 1953 then worked 12 years for the St. Joseph Livestock Market and 18 years for K-State Research and Extension as an animal sciences area extension specialist. He retired in 1985.

Michael Alan "Ne-se-ka" Jensen (BS '81, MS '86 animal science), 51, Mayetta, died June 15, 2010. He had been a farm manager at K-State, served as CEO of the Kansas Pork Producers' Association and a member of the K-State Alumni Association board of directors. He was project administrator for the Potawatomi Health Clinic and was vice-chairman of the Prairie Band Entertainment Corporation.

Luke Nihart (BS '00 park resources management) 32, St. George, died June 26, 2010. He worked for the Kansas Department of Wildlife and Parks as a park ranger at El Dorado and Tuttle Creek State Park. He started the annual Youth and Disabled Spring Turkey hunts and won several service awards. He also was the state archery champion several times.

Arthur James "Jim" Thomas (BS '76 horticulture), 87, Manhattan, died April 25, 2010. He retired from the U.S. Air Force in 1971 as a Lt. Col. after 29 years and 15,000 flight hours. He owned two planes and provided aerial photography for the State Agricultural Stabilization and Conservation Service for six years then managed the Manhattan Regional Airport for three years.

Ag Alumni Class Notes

Fill out this form and return it to:
Gloria Holcombe
Department of Communications
315 Umberger Hall
Manhattan, KS 66506–3402

or e-mail to: gloria@ksu.edu

You can now submit your class notes and address changes online at *www.ksre.ksu.edu/agreport*

Name_____

Spouse's Name_____

City_____ State_____ ZIP_____

Home Phone_____ E-mail_____

Graduation Date(s)_____ Degree(s)_____

Employer_____ Title_____

Feel free to attach more information.

Honoring Our Own

The College of Agriculture honored three outstanding individuals during the Wild4Ag Weekend, May 7-8, 2010. Max Deets (BS '51 agricultural education), John Stika (BS '93, MS '98 animal science), and Keith Lynch, professor of forestry.

Max Deets, who was named the Distinguished Alumnus, has a long and distinguished career of leadership in the beef industry. In 1955, he managed a 450-head, cow-calf operation on the Ecco Ranch near Buffalo, Kan. He opened a small feedyard in Fredonia in 1961 and then moved the operation to the Solomon Valley Feedlot at Beloit in 1971, where he was part owner and manager until his retirement in 1996.

Throughout his career, Deets held various leadership roles in the Kansas Livestock Association, the Kansas Beef Council Executive Committee, the U.S. Meat Export Federation, and the National Live Stock and Meat Board. He also was instrumental in establishing the National Cattlemen's Beef Association, and he led the efforts to change the USDA Quality Grading Standards.

"Max has the respect of his fellow cattlemen, regardless of the generation or industry involvement," stated Twig Marston (BS '77, MS '91 animal science) in his nomination letter for Deets. "He has many friends that admire and respect his accomplishments."

Miles McKee (BS '51, MS '53, animal science), professor emeritus of animal science, is a longtime friend of Deets.

"Max and I were in school at K-State at the same time and were good friends," said McKee. "He has always been one of the most honest, dedicated, sincere, concerned persons I have known. He was a pioneer in the commercial feeding of bulls for gain test. This was a big assist to the purebred bull producers of Kansas. Above all, Max has always been a true gentleman at all times to all people."

The Outstanding Young Alumnus Award went to John Stika, president of Certified Angus Beef LLC, the world's largest branded-

The Ag Alumni Association honored (from left) Keith Lynch, John Stika, and Max Deets for their service to the college and agricuture.

beef program. Before joining CAB, Stika completed a doctorate at the University of Kentucky, where he taught and coached the livestock judging team.

While in Manhattan to receive the award, Stika spoke to two classes, met with faculty and graduate students, and presented a seminar on "Building and Managing a Brand in the U.S. Beef Industry."

John Unruh (PhD '84 animal science), K-State professor of meat science, has known Stika as an undergraduate, judging team member, graduate student, and as a professional.

"John displayed natural leadership abilities early in his career," commented Unruh. "Now, he is a valued K-State alumnus, who is a nationally recognized leader in the beef industry."

Steve Suther, director of industry information for Certified Angus Beef (CAB), also recommended Stika for the award.

"As a K-State Wildcat (BS '76 agricultural journalism, MS '84 journalism and mass communication) and a member of the director team at CAB, I am doubly honored and pleased to nominate John Stika," Suther said. "His ability to relate to many different audiences, motivate others, and take decisive action made him a natural choice for president.

"I first got to know John when he came to CAB in 1999. He has the vision to see the larger challenges but the practicality to take steps one at a time. I believe that he learned the foundation for that approach at K-State."

For the past 30 years, Keith Lynch has been teaching and advising students and mentoring faculty. He was honored with the David J. Mugler Outstanding Teaching Award.

Ag Alumni Association Board Members met during Wild4Ag weekend.
Back row from left: **Stephen Bigge** (BS '06 agribusiness), Stockton; **Kevin Suderman** (BS '96 animal science), Hillsboro; **Bill Spiegel** (BS '93 agricultural journalism), Manhattan
Middle row: **Sarah (Geiger) Goss** (BS '02 agricultural economics), Ellsworth; **Rick Perkins** (BS '88 agricultural education), Wichita; **Jim Morgan** (BS '82 , MS '87 agricultural education), Louisburg, president; **Janna Dunbar** (BS '00 animal science), Lawrence, secretary; **Eric Guenther** (BS '80 animal science), Ottawa
Front row: **Kelli Ludlum** (BS '99 animal science), Arlington, Va., vice president; **Lindsey (George) Huseman** (BS '06 agricultural education, MS '10 secondary education), Ellsworth; **Shannon Washburn** (BS '95 agricultural education, MS '99 secondary education), Manhattan; **Delta George** (BS '02 animal science), Uniontown; **Jim Dooley** (BS '72 agronomy), Jewell
Not pictured: **Christina Frick** (BS '98 veterinary medicine, DVM '00), Larned; **Denise George** (BS '04 agricultural education), Arkansas City; **William Kirk** (BS '86 agricultural economics), Vero Beach, Fla.; **David Oliphan**t (BS '86 animal science), Offerle

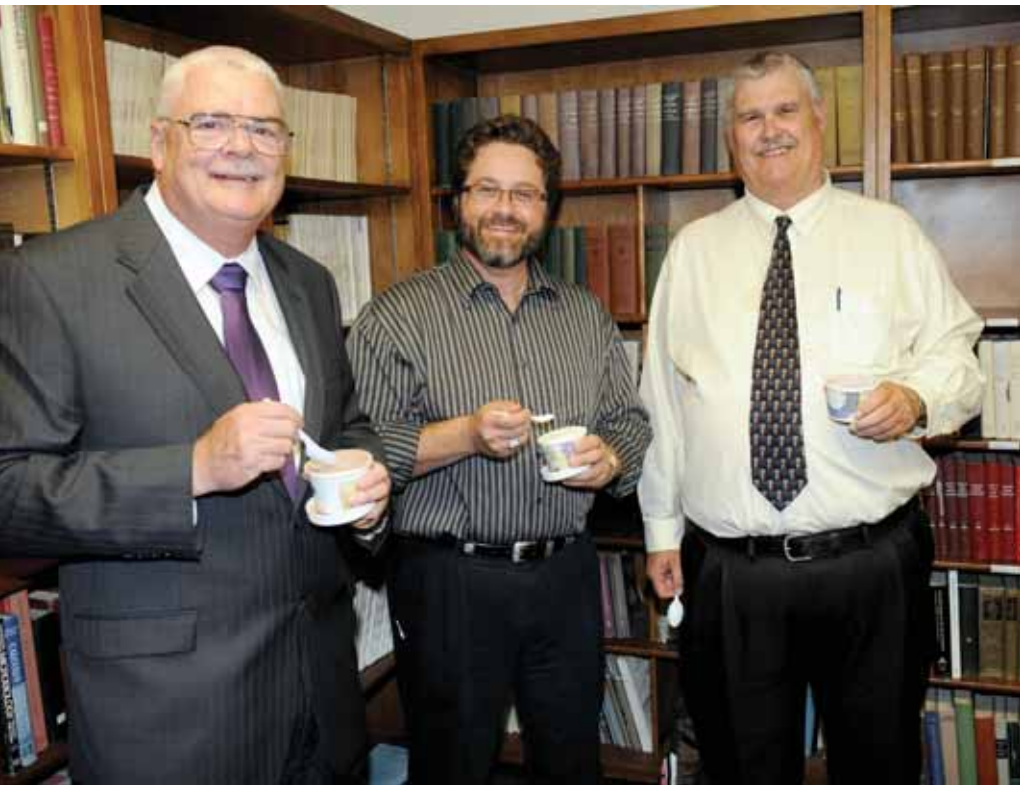
"Keith Lynch is a premier teacher," said Stuart Warren, head of the Department of Horticulture, Forestry and Recreation Resources. "He approaches teaching with tremendous care and organization, spending countless hours preparing for lectures and lab classes. Keith routinely asks colleagues to review his exams and course manuals in an effort to create the best possible learning experience for his students."

Cathie Lavis, one of Lynch's colleagues, specifically asks the students she advises about their classes and instructors.

"When I ask about Dendrology, (Lynch's tree identification class) students eagerly share how much they like Dr. Lynch," Lavis said. "He is a wealth of information, and the students respect him. He is a no-fooling type professor who seems to know how to bring out the best in our students. Dr. Lynch is passionate about teaching and it shows.

"On a more personal note, I have been privileged to have Keith as a true mentor, guiding my professional development with one motive in mind—to help me become the best I can be," added Lavis.

Lending Library Reduces Student Expenses



Tom Fountaine (far left), Randy Phebus, and Bill Fountaine enjoy Call Hall ice cream in the Fountaine Library after the rededication.

Food science students can now check out textbooks and study in a newly remodeled space thanks to Danisco USA and the Fountaine family.

Randy Phebus, K-State professor of food science, heard his students' complaints about the rising costs of textbooks, so he approached executives at Danisco about sponsoring a textbook-lending library. Danisco USA—a world leader in ingredients, enzymes, and biobased solutions—responded with a $25,000 donation for the Food Science Institute Academic Resource Center.

"K-State is recognized as a key contributor to the advancement of food science and technology," said John Breeden (BS '84 food science and industry), vice president of industry and management for Danisco. "As a leading innovator in the food industry, Danisco understands the importance of nurturing the growth of new ideas. Adequate resources are essential to that growth."

Phebus explained how the gift could benefit many students. "If we have 20 students who save $500 a year in reduced book costs, that equates to $10,000 per year in student savings (or $50,000 over five years). We just doubled the value of Danisco's original donation! In reality, we have approximately 75 undergraduate food science students, so the return on Danisco's investment could be much greater if we have good student participation."

In addition to purchasing textbooks for non-core curriculum classes like chemistry and biology, the Danisco donation helped refurbish the Department of Animal Sciences and Industry Fountaine Library in Call Hall. The library was established in 1963 to honor F.C. "Charlie" Fountaine, who taught dairy husbandry at K-State from 1947 until his death in 1962.

Students in the Food Science Club led the effort to renovate the library.

"The space is really nice now with fresh paint, new carpet and furniture, and wireless Internet," said Bryan Severns, Food Science Club president (2009–2010). "More students are using it now."

The library was rededicated on April 29, 2010, and several Fountaine family members attended the event, including Bill (BS '77 animal science), Arkansas City; Tom (who completed pre-pharmacy requirements at K-State), Olathe; and Rachel, a junior in social work. Charlie Fountaine's third son, Jim (BS '69 veterinary medicine, DVM '71), Kenyon, Minn., was unable to attend.

Family members and former students Dick Dunham, Ed Call, and Chet Peterson Jr. shared memories of Charlie Fountaine and how K-State's dairy science faculty and students were part of the Fountaine family. The elder Fountaine also passed on his love of K-State athletics to his sons, who continue to tailgate with K-State faculty members.

During the rededication event, recipients of the F.C. and Pauline Fountaine Scholarship—Tyler Zimmerman (2009), Cassandra Dutcher (2008), Billy Brown (2007), and Ryan Bodenhausen (2006)—also were recognized.

DANISCO

Hope you enjoyed this issue of the *AgReport*

You can read archived issues of AgReport, find links to the latest news, share your comments, and update your ag alumni information at

www.ksre.ksu.edu/agreport

We want to hear from you!

Alumni Awards Nomination. Nominate someone or several for:

• Distinguished Alumnus Award • Outstanding Young Alumnus Award • David J. Mugler Teaching Award

Criteria

To nominate someone for the Distinguished Alumnus Award or the Outstanding Young Alumnus Award:

- submit a one-page nomination letter (preferably typewritten, using 12-point type) that describes how the nominee meets the award criteria.
- include a resume, vita, or short biography.

To nominate someone for the David J. Mugler Teaching Award:

- submit a one-page nomination letter (preferably typewritten, using 12-point type) describing how the nominee demonstrates Mugler's philosophy of dedication and caring for students in his or her teaching and advising roles.
- two additional one-page letters of support also may be submitted.

Please include your contact information, in case we need additional information.

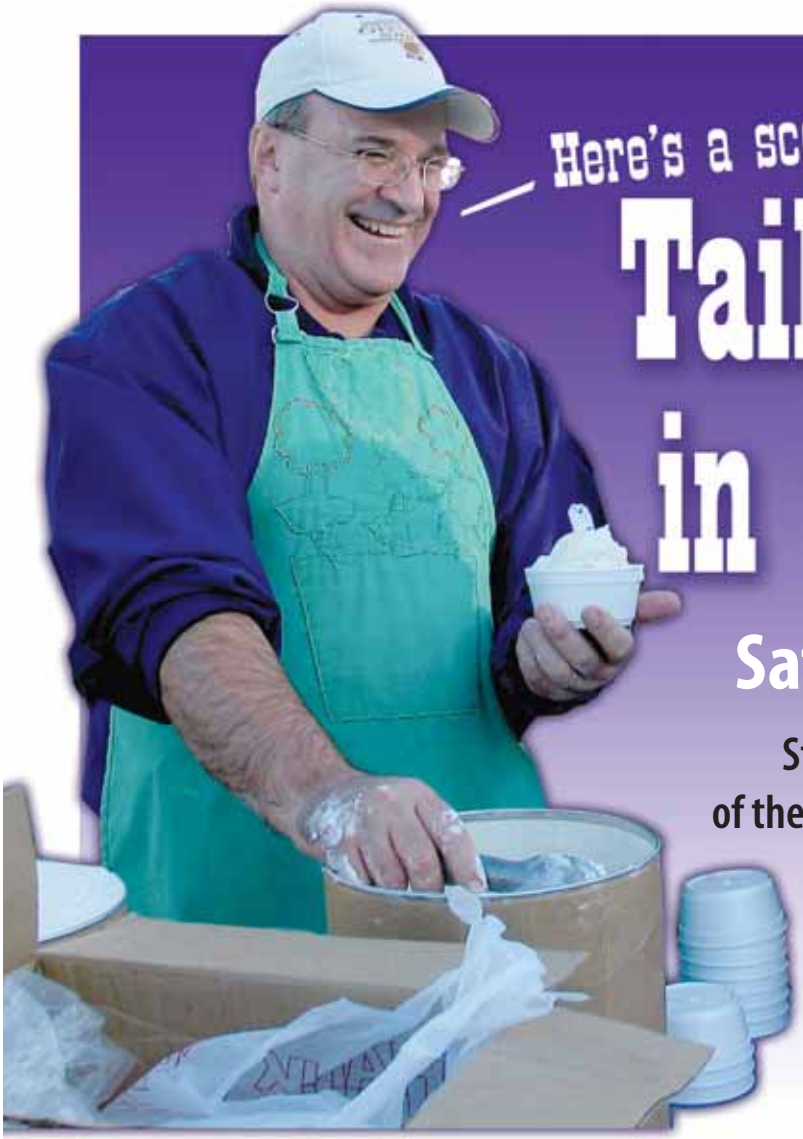
Submit all nominations by November 16, 2010, to:

Don Boggs, Agriculture Academic Programs, 117 Waters Hall, Manhattan, KS 66506-4015 or dboggs@ksu.edu

Previous winners are listed on the College of Ag website.

Go to *www.ag.k-state.edu*, click on Alumni & Friends, then Ag Alumni Awards.

Kansas State University
College of Agriculture
Waters Hall
Manhattan, Kansas 66506–4015



Here's a scoop for you...

Tailgate Party in Cat Town

Saturday, October 30

Starts two hours before kickoff of the K-State vs Oklahoma State game.

Football with free food, fun, and fellowship.