

COWPOKE NEWS

Department of Animal Science, Oklahoma State University
Fall 2016



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Safety First: Dr. Jadeja Makes Strides in Food Safety
Larry Ferguson & Randy Byford
Holiday Food Facts & Tips

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Cowpoke News is published by the Department of Animal Science within the Division of Agricultural Sciences and Natural Resources (DASNR) at Oklahoma State University. We strive to keep students, alumni, and friends of the department informed about our activities and successes. The Department of Animal Science offers two majors to students; animal science and food science. It is one of the largest departments on campus with over 1,000 undergraduate students, but with a small town feel, a caring attitude and a commitment to every student.

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On the Cover

9 Ali Duval is on the cover of this edition! Ali is a food science major with an industry option in the OSU Department of Animal Science. She has been very involved in student activities while at OSU.

She served as head of recruitment for her sorority and was an executive team member for the 2016 Homecoming, coordinating house decoration and the "Walkaround." She was also an ambassador and student academic mentor (SAM) in CASNR. Read more about Ali on page 9!



From the Department Head

Dear Alumni and Friends:

I hope you enjoyed reading the recent issues of the "Cowpoke News." We are committed to keeping you informed about the OSU Department of Animal Science. Our goal is to stay in touch with you on a year-round basis.

In this issue of the Cowpoke News, you will read about Mr. Larry Ferguson who was recognized this fall by the Division of Agricultural Sciences and Natural Resources (DASNR) as a Distinguished Alumni. Mr. Ferguson and his family have provided funds to build a new free-stall barn at the OSU Dairy Center, now known as the "Ferguson Family Dairy Center." Construction began on this facility around the first of October. You will also read about Mr. Randy Byford, who was recognized as a DASNR Champion for his generous gift of two 15-passenger vans to support the OSU judging teams in the Department of Animal Science. You will also learn about some of the accomplishments of our students, such as Top Twenty Freshmen.



This issue of the Cowpoke News also contains stories about our student judging teams who have represented the Department of Animal Science well this past fall in various events and competitions. During the week of November 13th, our Horse, Livestock and Meat judging teams each competed in their world, national or international contests. We are anxiously awaiting those results.

This issue of the Cowpoke News features stories about our talented faculty and some of their recent accomplishments. You will also gain insight into our latest hires, read about food science facts and discover food safety tips for the holidays. We have included a page full of announcements, as well as a list of our generous major sponsors and those who have donated animal genetics to our department.

If you or someone you know would like to receive a hard copy of the Cowpoke News or would like to be added to our e-mail list, please contact Rebekah Alford at cowpokenews@okstate.edu.

Sincerely,
Clint Rusk, Head

A handwritten signature in black ink that reads "Clint Rusk".

OSU Department of Animal Science



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OSU Purebred Beef Center Supporters Honored

Written by Donald Stotts, DASNR News and Media Relations

Mother Nature has proven to be no match for the generosity of Oklahoma State University Purebred Beef Center supporters, who were honored during a come-and-go reception at the center on Sept. 17, 2016.

Intense tornado-level straight-line winds and earthquakes reaped devastating effects on the center's headquarters and sale arena in recent years, ripping off large sections of the roof and splitting the south wall so severely that a person standing inside could watch cars traveling along Highway 51 outside, without the aid of a window.

"It had reached the point where we were actually contemplating if it might not be best to raze the building," said Mark Johnson, facility supervisor for OSU's Purebred Beef Center.

Instead, the decision was made to not only fix but modernize the structure following discussions with center supporters CoBank and the Farm Credit Associations of Oklahoma. The two groups came together and provided \$77,856 of the \$150,000 needed to complete remodeling and repair efforts.

"The results of their generosity are immediately noticeable to long-time visitors, especially in terms of the makeover of our sale arena," Johnson said. "In the arena and out, the improvements they helped fund are

already enhancing our teaching and Extension programming efforts, as well as sales and industry events taking place at the center."

The headquarters for the OSU Purebred Beef Cattle Center is located three miles west of Stillwater, and includes bull testing facilities, a show barn, an office, a dormitory for student workers and the sale pavilion.

OSU's nationally renowned purebred beef herd consists of more than 300 brood cows representing five breeds: Angus, Hereford, Brangus, Limousin and Simmental. Mature cows are maintained at the purebred range facilities – consisting of approximately 2,000 acres of native and improved grasses – located northwest of Stillwater near Lake Carl Blackwell.

DASNR Vice President Tom Coon said the educational aspect of producing, promoting and merchandising genetically superior, high-quality seedstock is a vital part of the division's animal science program that continues to enjoy a national reputation for excellence.

"Our purebred beef cattle herd provides a firsthand experience in working with high-performing, modern-type cattle, thereby helping OSU animal science and veterinary medicine students better prepare for eventual professional careers in the beef industry," he said. "The center also

hosts approximately 2,500 4-H and FFA youth annually. Their exposure to recommended programs for registered herds helps them to explore possible cattle-related career options."

Kyle Hohman, president and CEO of Farm Credit of Enid, said coming together with CoBank to provide financial support was "something of a no-brainer."

"OSU teaching, research and Extension programs support Oklahoma's agricultural industries in so many ways, and have had a demonstrated and significant effect on helping us and our clients diversify loan portfolios and strengthen agribusiness operations," he said. "OSU has been a great cooperating partner for rural Oklahoma for more than 100 years."

In addition to the division's Animal Science Career Development Program, which permits 10 to 15 OSU students a year the opportunity to work part-time at the center, the purebred cattle herd also serves the beef industry as the basis for continuing education through producer conferences, workshops and field days.

Oklahoma ranks fourth nationally in the number of cows produced and fifth nationally in the number of total cattle and calves, according to USDA National Agricultural Statistics Service data.

Ferguson Creates a Legacy in OSU Dairy

Written by Sean Hubbard, OSU Communications Specialist

Larry and Kayleen Ferguson have a deep passion for making a difference in the world and they stay connected to their alma mater, Oklahoma State University.

In his youth, during his education and throughout his successful career in animal science, Larry has made a tremendous impact on the agricultural industry.

“The key to world peace, in their view, is to have people well-nourished so they can make decisions, work, support themselves, innovate and be successful in their lives,” said Tom Coon, Division of Agricultural Sciences and Natural Resources vice president. “But if they don’t have the food they need, then you sow the seeds of strife that lead to war.”

Coon said that message was beautifully articulated by Ferguson during the ceremony marking the renovation of the OSU Dairy Cattle Center and renaming the facility the Ferguson Family Dairy Center. In 2014, on behalf of the Ferguson Family Foundation, he gave \$2 million

and committed up to \$4 million in matching support to build a state-of-the-art barn and renovate the center.

Ferguson was recently recognized at DASNR Honors night as a 2016 Distinguished Alumni of the College of Agricultural Sciences and Natural Resources.

He grew up on a farm in Grady County, Oklahoma, where he was active in both 4-H and FFA. To expand his knowledge and experience, Ferguson attended OSU, earning his bachelor’s degree in animal science in 1975.

Upon graduation, Ferguson began his career as a production supervisor with Schreiber Foods, the world’s largest employee-owned dairy company. In 1999, he became president and CEO of the company. Under Ferguson’s leadership, Schreiber grew from a U.S.-based cheese manufacturer to an international dairy company that is the third-largest yogurt manufacturer and second-largest cream cheese producer in the world.



Ferguson officially retired in 2007, but he continues to serve as chairman of the company’s board. In retirement, he operates and manages Marantha Agriculture, LLC in Arkadelphia, Arkansas, which consists of a pecan grove and a rice and soybean operation. Ferguson is active on the farm in addition to his philanthropic efforts at OSU and around the world.

An ardent supporter of OSU, Ferguson established the Larry and Kay Ferguson Dairy Foods Scholarship in 2000 to provide an annual scholarship in the OSU Department of Animal Science. In 2002, the department recognized Ferguson with the Graduate of Distinction Award.

“There are not many alumni at OSU who have left their mark on an industry as much as Larry Ferguson has on the dairy industry. His legacy at OSU and in DASNR will be long-lived with the investment he has made in the dairy program,” said Clint Rusk, animal science department head. “He is deserving of this recognition and much more.”



Larry and Kay Ferguson at a reception held in their honor at the Department of Animal Science

Byford Helps OSU Animal Science Down Highway of Success

Written by Sean Hubbard, OSU Communications Specialist

Growing up on a purebred swine operation near Duncan, Oklahoma, Randy Byford was passionate about agriculture and seemed destined to serve in the industry.

In fact, in seventh grade, he declared to the executive secretary of the Chester White Swine Record Association that he would some day become their fieldman. He fulfilled that dream when he was a sophomore in Oklahoma State University's Department of Animal Science.

While his career path has taken him down a different road, Byford has remained committed to agriculture. So much so that he was recently recognized as a 2016 DASNR Champion by OSU's Division of Agricultural Sciences and Natural Resources at the recent DASNR Honors night.

In 1983, Byford became a car salesman at Bob Moore Cadillac in Oklahoma City. The next year, he was the company's top salesperson, quickly moved into a manager position and eventually became a partner. In 2005, Byford purchased his first auto dealership in Lawton and has since expanded his enterprise to become the owner of Byford Auto Group in Oklahoma City, Chickasha and Duncan.

Through multiple endeavors, he has supported DASNR, OSU, the Spears School of Business, the College of Arts and Sciences and the Athletics Department, including gifting two 15-passenger vans to the animal science department for use by judging teams.

"I think when our students show up at a judging event there's no question where they're from, who they represent or whether they're proud about it," said Tom Coon, DASNR vice president. "It really does stand out and we're very grateful to have safe vehicles for our students to travel in, as well."

The vans allow judging teams to travel to competitions around the country and have been on road trips to several national championships. Byford has provided cars for OSU Athletics through the Wagon Wheel Program and is a strong supporter of Oklahoma 4-H and FFA youth.

"What I appreciate most about Randy is his passion for OSU," said Blake Bloomberg, OSU Livestock Judging team coach. "It's not just the livestock judging, it's not just animal science, it's not just the other judging teams that benefit from this vans use."

He really has a genuine passion for this university, far reaching past his donation of the judging vans."

Byford received the okPORK Ambassador Award from the Oklahoma Pork Council in 2015. He was presented with the prestigious Distinguished Service Award by the OSU Department of Animal Science in 2014, is a lifetime member of the OSU Alumni Association and is a member of the OSU Foundation Board of Governors, where he has served since July 2014.

"He's been very generous at the Oklahoma Youth Expo and to our Alumni Association. This past year he provided the meat for the meal at our Alumni Gala," said Clint Rusk, animal science department head. "We really appreciate his support. He and Robin have been fantastic donors and supporters of our department."



Robin and Randy Byford at a reception held in their honor at the Department of Animal Science

Food Supplementation for Companion Animals

Written by Shelby Spring (Graduate Student) & Dr. Adel Pezeshki (Assistant Professor)



Cooper, Shelby Spring's beloved canine, is pictured above

Today's companion animals are more than just pets; they are seen as part of the family. Pet owners want to make sure they are providing healthy and high-quality food to meet all the nutritional requirements of their animals. Therefore, there has been an increasing interest in supplementation of pet's food. Although food supplements such as protein, fats, vitamins and minerals, in general, are beneficial for companion animals, they can be expensive and have negative effects on animal health when fed in excess. For example, when supplementing protein, one of the biggest factors to consider is the total cost of the diet. Protein is an expensive ingredient, so when fed in excess, its economic value should be considered. The overfeeding of protein can also lead to increased fat deposition in the body and decreased intake of vitamins and minerals needed for normal body function.

Protein Supplements:

Proteins provide amino acids required for normal function of the body. Amino acids have many important functions in the animal's body including their role in structural

components, transportation of nutrients, enzymatic reactions and energy production.

Meat supplements are good sources of protein in pet food. Meat supplements in the animal's diet is an excellent source of the essential amino acids. Essential amino acids cannot be synthesized by the body in adequate amounts, thus they need to be provided in the diet.

Fish and eggs are other examples of protein supplements in an animal's diet. Fish is a good source of protein, but raw fish can be contaminated with different bacteria that cause health problems in companion animals. Cooked eggs are also excellent sources of protein as long as the extra fat from the yolk is considered in the formulation of the diet.

Oil and Fat Supplements:

Oils and fats are added to pet diets to improve several health aspects, including the animal's coat and skin health. Oils that contain essential fatty acids, such as omega-3 fatty acids, are supplemented in the diet mainly because of their beneficial effects on coat and skin health.

In commercial foods, fat is added to the diet as a source of energy and for improving palatability. Fat contains 2.25 times as much energy as carbohydrates and proteins. Fat in the diet also facilitates the pelleting process of the feed. Most commercial balanced diets contain enough fatty acids to meet the requirements of the animals, so there is no need to supplement fats and oils separately. Adding extra fat and oil to the diet will increase the energy of the food, but may be stored as fat depots when not utilized and can lead to problems such as obesity.

Vitamin and Mineral Supplements:

Many animal food companies produce vitamins that can be used as

supplements in pet food. This includes vitamins A, C and D, which support a healthy immune system and longevity. Over-supplementing these vitamins can lead to vitamin toxicity and cause diarrhea, weight loss, lameness and vomiting. When supplementing vitamins, owners need to make sure they are using recommended levels.

Minerals can also be supplemented in the diet. Cow's milk is a great source of calcium, phosphorus and vitamins. Owners need to be mindful when supplementing pet food with cow's milk as it contains a high amount of lactose that can cause digestive upset.

Human Food:

Table scraps can be occasionally provided to pets, but their level should never exceed 10% of pet's total ration. Feeding pets higher amounts of human food, which is rich in fat, can cause digestive upset, diarrhea and discomfort. Foods like chocolate, candy and onions should never be fed to animals. Chocolate contains theobromine that is toxic to dogs at 240-500 mg/kg of body weight. Onions in pet diets can lead to Heinz bodies in red blood cells; hemolytic anemia, fever and death.

Summary:

Supplementation of pet food with different nutrients is necessary to meet their nutritional requirements at different stages of life. Supplements may have beneficial effects on health and appearance of animals. However, over-supplementation may lead to toxicity and also produce negative effects on health of animals, such as extreme weight gain or weight loss. Most commercial pet food products on the market contain balanced amounts of nutrients and meet all requirements for companion animals. Thus, prior to adding supplements to a pet's diet, the best practice is to consult with a nutritionist or veterinarian to avoid any negative outcomes.

Student Spotlight: Ali Duval

Written by Laura Winfield, ANSI Communications Intern

Ali Duval is a senior in the Department of Animal Science majoring in food science with an option in industry and minoring in agribusiness. Duval grew up in San Luis Obispo, California, where she was involved in FFA and 4-H. Her family doesn't have ties to agriculture, but thanks to her involvement in those organizations she knew she wanted to go to college in an agricultural field.

Duval's father is an alumni of OSU and played on the OSU baseball team in the 80's. He suggested Duval check out Stillwater and the University. She thought her dad was crazy when he told her to leave the coast of California for Oklahoma. As soon as she stepped onto the OSU campus, she fell in love.

"The people were genuine and so friendly," Duval said. She was impressed by the programs the College of Agricultural Sciences and Natural Resources had to offer.

"It was clear to me that the CASNR family was real, and I knew from that moment on I wanted to be a student at OSU," Duval said.

She started her freshman year as a double major in animal science and agricultural communications. During her second semester, she took Intro to Food Science as an elective and attended the Agriculture Future of America Food Institute, which was a three-day leadership and industry networking program. Immediately, Duval became interested in the food industry and all of the job opportunities it had to offer. She decided to change her major at the end of her freshman year to food science.

"Food is a daily necessity" Duval said. "The job market in the food industry will never die, and I love the impact that agriculturists are making to feed the growing population, especially those with an insufficient food supply."

While at OSU, Duval has been active in the CASNR family and in student groups around campus. Duval has been a CASNR Ambassador for 3 years, she has served as a Student Academic Mentor (SAM) for 2 years and is on the Animal Science Leadership Alliance team. For the past year, she has served as vice president of membership in her sorority. She was head of recruitment and ensured membership retention and satisfaction for over 200 chapter members. Duval also had the honor of being on the 2016 Homecoming Executive Team. As the Walkaround executive, she worked directly with

all the Greek chapters in designing and building their House Decorations and worked with the city and campus to execute the Walkaround event for Homecoming 2016.

Duval plans to graduate in May of 2017 and attend graduate school next fall. She wants to find a program that combines food science and agricultural economics. Afterwards, her goal is to work in the food industry doing consumer research and sensory analysis. She hopes to eventually get involved in the policy side of the industry.



Ali Duval is pictured above
(Photo provided by the OSU
Alumni Association)

Milestones in Food Safety Regulation

One only needs to look at the history of food safety to realize its vast importance. Take a look at some of the instrumental moments that shaped food safety in the United States as we know it today.

1202 - First Law

First English food law prohibited adulteration of bread with ground peas or corn.



1836 - Patent Office

Patent office is created by Congress.

1723 - Lead Prohibited

Lead pipes are prohibited in distillation of liquor.



1842- AG Division

Agricultural division of patent office established.



1862- USDA Begins

The Department of Agriculture is created. A Bureau of Chemistry is established in the USDA and Peter Collier, chief chemist, begins investigating adulteration of food.

1880 - Food & Drug Law

Peter Collier proposes a national food and drug law.



1883 - Dr. Harvey Wiley

Dr. Harvey W. Wiley becomes chief chemist at the USDA Bureau of Chemistry.

1897- Tea Time

Tea Importation Act passed, forbidding the import of tea into the U.S.



1906- Historic Year

Upton Sinclair's "The Jungle" is published, exposing adulteration of meat in the Chicago meat packing industry.

The Pure Food and Drugs Act passed, which prohibited interstate commerce in misbranded and adulterated food and led to the formation of the U.S. Food & Drug Administration (FDA). The Meat Inspection Act passed the same day.

1912 - Sherley Ammendment

Congress enacted the Sherley Amendment, which prohibits labeling medicines with false therapeutic claims in an attempt to fraud consumers.

1902 - Poison Squad

Dr. Harvey Wiley establishes the "Poison Squad," a volunteer group of healthy young men who tested the effects of chemicals and adulterated foods on themselves.



1898 - Congress Held

National Pure Food and Drug Congress is held in Washington D.C., which resolved to promote a national pure food law and established basic definitions of "adulteration" and "misbranding."

Same year, Virginia law prohibited adulteration of candy by mineral substances and poisonous colors and flavors.





1930 - Jamaica Ginger

Jamaican ginger additive was used as a drug to treat indigestion and stomach aches. It resulted in two deaths and several thousand illnesses. The penalty was \$1,000 fine and two years in prison.

1938 - Food, Drug & Cosmetic Act Passes

Incidences of death and crippling caused by untested substances bring to light issues with the 1906 Pure Food and Drugs Act. The Food, Drug and Cosmetic Act is created with key food provisions.

1939 - Standards

First food standards are issued.

1958 - Food Additives

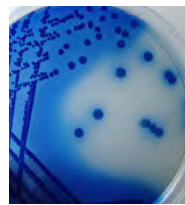
The Food Additives Amendment requires manufacturers to establish safety of new food additives. The Delaney proviso enforces that any food additive proven to give cancer in humans or animals be rejected.

1973 - Low-acid Food Processing

After botulism outbreaks occur from canned foods, low-acid food processing regulations are issued.

1993 - E. coli Outbreak

An E. coli O157:H7 outbreak in the Pacific Northwest causes 400 illnesses and four deaths. Public demands safer ground beef products.



2011- FSMA

The Food Safety Modernization Act is created. It is the biggest reform to occur in last 70 years.



2004 - Food Allergies

The Food Allergy Labeling and Consumer Protection Act requires that any food containing a protein derived from certain foods be properly labeled.

1954 - Radioactive Tuna

After receiving reports that potentially radioactive tuna was being imported from Japan following atomic blasts in the Pacific, the FDA conducts the first large-scale radiological examination of food.



1996 - Pathogen Reduction

FSIS issues Pathogen Reduction/HACCP Systems with the intent of preventing and reducing microbial pathogens in raw products that can cause illness.

1983 - Food Tampering

The Federal Anti-Tampering Act makes tampering with packaged consumer products a crime.

2015- OSU Program

Oklahoma State University creates a food safety program, which provides training to the food industry and food safety courses for students.



1943 - U.S. v. Dotterweich

In U.S. vs. Dotterweich, the Supreme Court ruled that corporations and responsible officials within the corporation itself can be prosecuted for violations, even if they didn't know about or intend for the violations to occur.

1937- Elixir of Sulfanilamide

Elixir Sulfanilamide claimed to treat a variety of ailments. It killed 107 people, many of which are children.



1969 - Sanitation Programs

The FDA begins sanitation programs for milk, shellfish, food service and interstate travel facilities.

Safety First

Dr. Ravi Jadeja makes strides in food safety

Written by Laura Winfield (ANSI Communications Intern) & Rebekah Alford (ANSI Communications Staff)

Food science isn't a term many people hear about; yet, so much of our everyday lives are affected by it. It involves everything from the time food is produced to the time it ends up on a consumers' plate. Each year in the United States (U.S.), 48 million people get sick, 128,000 are hospitalized and 3,000 die from the food they eat according to the CDC. Food safety issues can affect ingredients, packaging and equipment suppliers. The demand for food safety has grown exponentially in recent years, which has increased the need for food industry professionals who are knowledgeable about food safety.

A few years ago, Oklahoma food industry leaders identified a large shortage of qualified food safety professionals in both the state and the U.S. food industry. This shortage meant employers were having to provide additional training and certifications to new hires, which can get costly. According to Mr. John Patrick Lopez, chief operating officer of Lopez Foods, Inc., the U.S. food industry can spend between \$15,000 and \$20,000 on necessary food safety training and certification per new employee (quality assurance supervisor position) with a B.S. degree over the course of their career. This clear void in food safety training caused food industry leaders to approach Oklahoma State University (OSU) and request a program in this area to be offered.

"The FAPC Industry Advisory group has been talking for a few years about the need for graduates in food science who have a strong background in food safety, because of the regulations

that have been coming through and how companies needed to handle those regulations," said Dr. Cynda Clary, CASNR associate dean. "They needed to have people on staff who could interpret food safety regulations and help their companies be compliant with those regulations."

Starting in 2007, a food science major has been offered within the Department of Animal Science. The food science program gives students the tools they need to combat issues facing the food industry by providing hands-on, real world experience in applied science and technology. Food science encompasses all of the factors going into producing food for consumers, including chemistry, engineering, microbiology and food product development. After consideration and collaboration between FAPC, the Department of Animal Science, CASNR and industry leaders; OSU decided that a food safety option needed to be added to the current food science degree.

The proposed food safety option would provide students with necessary food safety training and certificates as part of their undergraduate curriculum, making OSU one of the few food land-grant institutions to offer

an undergraduate program with an emphasis on food safety. OSU needed to hire a faculty member who, in addition to teaching food safety related courses and promoting the food safety option, could provide outreach and technical support to the Oklahoma food industry. This is where Dr. Ravi Jadeja enters in.

In 2014, Dr. Ravi Jadeja was living in Griffin, Ga., with his wife, Nilam, and newborn daughter, Aanya, while working as a postdoctoral researcher at the University of Georgia. His mentor, Dr. Yen-Con Hung, approached him about a new and exciting position at OSU.

"When I was a postdoctoral student, I worked on beef and produce safety projects and I liked the aspect of the training, education and especially working with the food industry," Jadeja said. "When the position opened, my mentor mentioned it was a good fit for my career."

In January of 2015, Jadeja joined OSU as the FAPC food safety specialist and the Department of Animal Science assistant professor. Jadeja teaches various food science related classes to undergraduate and graduate students, along with providing food safety and regulatory training for the Oklahoma food industry and produce growers. His responsibilities include teaching and outreach programs in Hazard Analysis and Critical Control Points (HACCP), sanitation, food safety regulations and Global Food Safety Initiative (GFSI) platforms.

"Students appreciate Dr. Jadeja's vast knowledge of the food industry

"I liked the aspect of the training, education and especially working with the food industry."

Dr. Ravi Jadeja
FAPC Food Safety Specialist
Animal Science Assistant Professor



Dr. Jadeja looks at bacterial colonies under a colony counter in the lab in FAPC (Photo by Rebekah Alford)

and his strong background in food safety,” said Dr. Clint Rusk, head of the OSU Department of Animal Science. “Dr. Jadeja not only provides classroom training, but he also takes his students on field trips to Oklahoma food producers where they meet owners and company executives. They also have an opportunity to learn firsthand about modern food safety procedures being utilized by local food producers. The one-on-one experience with food industry leaders has resulted in many of Dr. Jadeja’s students receiving internship opportunities this past summer.”

The food industry has to keep up with consumer demands and new regulations; therefore, new courses and training opportunities are added constantly to ensure students are

ready to enter the industry upon graduation. Since last year, OSU has added seven new food safety related courses to their curriculum.

“This fall, Dr. Jadeja is teaching three new courses he developed at OSU: HACCP in the Food Industry, Oklahoma Food Industry Experiences and Food Safety Modernization Act,” said Rusk. “With excellent classroom teaching and outstanding on-the-job-training, Dr. Jadeja’s students are likely to receive multiple job offers upon graduation.”

The OSU food safety program focuses on production agriculture to whole sale and retail distribution channels, and goes beyond domestic and global food manufacturing in all sectors of the food industry. Students

receive hands-on training; FDA and USDA recognized food safety certifications; GFSI audit schemes; ample opportunities to network with industry professionals and regulators; and an understanding of food manufacturing and food safety challenges through industry visits. Since there is such a high demand for food safety professionals, it is routinely observed that each OSU food science undergraduate student receives multiple paid internship and job offers after graduation with average annual compensation of approximately \$45,000 starting out (with an undergraduate degree).

“Talking to students who’ve had Dr. Jadeja in class and have had the opportunity to meet him; he has such a true passion and energy for his field

and a real commitment to students and the industry,” said Dr. Clary.

Jadeja has been working on several projects related to food science. In just the past year, he has developed an antimicrobial ice based novel clean-in-type process for meat grinders, which greatly reduces contamination and chance of recall. The method is easily applied and does not require disassembly of the meat grinder. The entire process takes only a few minutes and has the potential to significantly increase productivity and reduce operational costs without compromising health and safety standards. This process will help companies save money and increase production time. The patent application for the sanitation process has been published (US-2016-0286817-A1)

and is being looked at by several companies.

Another priority for Jadeja is providing Food Safety Modernization Act training and technical support for Oklahoma agricultural producers. With the finalization of the Produce Safety Rule (Food Safety Modernization Act-FSMA), Oklahoma produce growers are required to follow new stringent standards for the growing, harvesting, packing and holding of produce for human consumption. The produce growers must be trained on the new practices as well as understand the new regulatory paradigm in order to remain operationally viable. The overall goal of this proposal is to build an infrastructure in Oklahoma to support FSMA-compliant food safety

training and technical assistance as it relates to the produce industry. This step is critical in order to advance awareness, understanding and implementation of FSMA-derived regulations among produce growers.

Food safety is a critical component of the food industry. By adding a food safety program, OSU food science students are better equipped to handle food safety related careers after graduation and the food industry is provided with research and training opportunities. As the food interest changes, FAPC and the Department of Animal Science will continue to find new ways to improve production, safety and the quality of food produced worldwide.



(Left) Meat grinder used for Dr. Jadeja’s sanitation experiment (Photo by Mandy Gross)



(Right) Dr. Jadeja during Food Safety Modernization Act workshop (Photo by Mandy Gross)

Food Safety Facts & Tips

Separate raw meat, poultry and seafood from other foods in your grocery shopping cart and in your refrigerator.

Never defrost food at room temperature. Thaw food in the refrigerator, under cold running water or in the microwave.

Try to avoid cross-contamination by wrapping food well and storing foods that require cooking separately from ready-to-eat foods.

Staphylococcus aureus is a common inhabitant of the warm nasal passages of humans. It can easily cause human-contact contamination at meals.

Use two cutting boards: one for preparing raw meat, poultry and fish, and the other for cutting cooked food or preparing salads.

Remember the two-hour rule for leaving foods at room temperature also applies to leftovers and “doggie bags.”

FOOD FACTS

Holiday Facts

About 30% of the turkeys produced in the U.S. are eaten on Thanksgiving and Christmas alone.

Americans consume an average of 18 pounds of turkey meat per capita each year. Each Thanksgiving, about 675 million pounds of turkey is consumed in the U.S.

Over 7 billion shrimp are eaten at Christmas parties in the U.S. each year.

Turkey meat is abundant in amino acid tryptophan. Tryptophan is converted to serotonin in the body, which can make you sleepy.

Did You Know?

Did you know a large percentage of food poisoning cases could be eliminated if people washed their hands more often when preparing and handling food?

Did you know the official drink of Oklahoma is milk?

Did you know the discovery of aspartame (artificial sweetener present in diet soda) was an accidental discovery? A scientist was working on an anti-ulcer drug in a lab when he accidentally licked his fingers, discovering that the compound is very sweet.

Did you know the pink color of salmon is due to a pigment called astaxanthin?

Did you know the origin of the name ale and lager beer? Ale and lager correspond to type of yeast used for making beer.

Did you know fresh beef color is a function of exposure, or lack of exposure, to oxygen? If the color is red then it has been exposed to oxygen, and if it is purple/brown then the beef has not been exposed to oxygen.

Random Facts

One acre of potatoes will produce 52,000 servings of French Fries.

On average, 24 cents of every dollar you spend at the grocery store goes to the farmer who produced it. The other 76 cents covers marketing, processing, wholesaling, distributing and retailing expenses.

Bacon is one of the oldest processed meats in history. The Chinese began salting pork bellies as early as 1500 B.C.

It takes about 12 pounds of milk to make one gallon of ice cream, and 23 pounds of milk to make one pound of butter.

It takes the average American 40 days out of the year to pay for all the food he or she eats in a year.

The dye used to stamp the grade on meat is edible; it is made from grape skins.

Americans consume over 60 chickens per person each year.

The food we buy in the grocery store travels an average of 13,000 miles from the farm to our tables.

The word biscuit is from the Latin phrase biscuctus, which means baked (bis) twice (cuctus).

Pumpkins are 90 percent water.

You can tell whether an egg is fresh or stale by dropping it in water. A fresh egg will sink, but a stale one will float.

Holiday Food Safety Tips

Professor and Food Microbiologist Peter Muriana shares some tips on how to practice food safety during your holiday gatherings.

1 Plan for Shopping & Food Storage
Know what food/ingredients you are buying and what you will store them in.

2 Store Food Properly
Put raw meats on lower shelves of refrigerator, and fruits and vegetables on higher shelves.

3 Wash Your Hands
Wash your hands for at least 20 seconds with a liberal amount of soap before, during and after preparing food.

4 Avoid Cross Contamination
Do not mix raw meat products and fruits/vegetables. Use different utensils for different foods. Wash fresh produce with a sanitizing rinse.

5 Thaw Frozen Meat Safely
Properly thaw out poultry products by completely submerging them in a pan of water so it thaws evenly.

6 Cook to Proper Temperature
Meats and poultry need to be 165°F or higher.

7 Keep Guests Out of the Kitchen
Guests can distract you from cooking food safely. If guests have a colds/flu, they might transfer it to the food.

8 Refrigerate Leftovers
Put leftovers in several smaller, shallow containers because they will refrigerate and chill quickly.

9 Eating Leftovers
Reheat leftovers to 165°F degrees or higher. Bring sauces and gravies to a rolling boil for at least a minute.



Holiday Meat Roasting Chart

MEAT, TYPE	OVEN TEMP (°F)	TIMING	MINIMUM INTERNAL TEMPERATURE & REST TIME
BEEF, FRESH			
Beef, rib roast, bone-in; 4 to 8 lbs	325	23 to 30 min/lb	145°F and allow to rest for at least 3 minutes
Beef, rib roast, boneless; 4 lbs	325	39 to 43 min/lb	
Beef, eye round roast; 2 to 3 lbs	325	20 to 22 min/lb	
Beef, tenderloin roast, whole; 4 to 6 lbs	425	45 to 60 minutes total	
Beef, tenderloin roast, half, 2 to 3 lbs	425	35 to 45 minutes total	
LAMB			
Lamb, leg, bone-in; 5 to 9 lbs	325	20 to 26 min/lb	145°F and allow to rest for at least 3 minutes
Lamb, leg, boneless; 4 to 7 lbs	325	20 to 26 min/lb	
Lamb, crown roast; 3 to 4 lbs	375	20-30 min/lb	
PORK, FRESH			
Pork, loin roast, bone-in; 3 to 5 lbs	325	20 to 25 min/lb	145°F and allow to rest for at least 3 minutes
Pork, loin roast boneless; 2 to 4 lbs	325	23 to 33 min/lb	
Pork, crown roast; 6 to 10 lbs	325	20 to 25 min/lb	
Pork, tenderloin; 1/2 to 1 1/2 lbs	425	20 to 30 minutes total	
PORK, CURED			
Ham, cook-before-eating bone-in; Whole, 14 to 16 lbs	325	18 to 20 min/lb	145°F and allow to rest for at least 3 minutes
Ham, cooked-before-eating, Half, 7 to 8 lbs	325	22 to 25 min/lb	
Ham, fully cooked, bone-in; Whole, 14 to 16 lbs	325	15 to 18 min/lb	140°F
Ham, fully cooked, bone-in; Half, 7 to 8 lbs	325	18 to 25 min/lb	140°F
Ham, fully cooked, boneless; 3 to 4 lbs	325	27 to 33 min/lb	140°F
VENISON			
Venison, round, rump, loin, or rib roast; 3 to 4 lbs	325	20- 25 min/lb	160°F and allow to rest for at least 3 minutes

According to the USDA-FSIS

ANSI Internships

Interning with a company or organization gives a student the opportunity to get hands-on experience in their desired field before starting their careers. They can explore career options related to their interests, gain professional skills, gather insight into an industry and establish a network of contacts.

Not only does interning help a student narrow down the career path they want to take, but it also makes students more desirable to companies because of the experience and knowledge they gain. The Department of Animal Science encourages students to consider internships so they can make informed decisions about their career paths and to create a professional network in their field of interest.

For the last few fall editions of Cowpoke News, we have provided stories and photos of our students' internships. This year, these stories will be showcased in a brand new internship publication instead. By doing this, our department will be able to share more stories and details about our student internships. The publication will be available at the end of the fall semester.

What are the Benefits of Hiring an ANSI or FDSC Intern?

By hiring an intern, you have the opportunity to meet and train talented students who could one day become your employees. Interns are highly motivated, short-term employees when a business is in need of extra assistance. It is a cost-effective way to recruit for your business while giving you the chance to evaluate potential long-term employees. Interns can also offer a fresh perspective on issues and can help with projects that you're struggling to complete.

Should I Hire an Intern?

Businesses should be willing to provide mentorship and training opportunities for their interns. They should create goals and have a clear idea of what they want the interns to

learn. Students should leave with new skills and knowledge at the end of the internship program. Still unsure if you should hire an intern? Speak with the Department of Animal Science about your potential internship opportunity.

How can I learn more?

Our department is happy to coordinate internships opportunities for students and potential employers!

If you would like to learn more about internship opportunities or the new internship publication, please contact Carrie Jansen, student success coordinator, by e-mailing her at carrie.jansen@okstate.edu. You can also read our departmental internship blogs to learn about the experiences of our students at <https://okstateanimalscienceinterns.wordpress.com/>.

ANSI Internship Sneak Peek

Spotlight in the first ever internship magazine, what an amazing opportunity! Let me start by introducing myself. My name is Coby Wilson. I'm a senior at Oklahoma State University pursuing an animal science degree and minoring in agribusiness and agriculture economics. With a strong passion instilled from a traditional cow/calf operation combined with connections and networking opportunities from the renowned Oklahoma State University, a career in the agriculture industry was inevitable.

When I heard about JBS Five Rivers Cattle Feeding, LLC., I was excited to learn more about the company and accepted an internship in early March. A 10 week commitment was required, which gave insight to the departments, structure of the feedyard and how this company manages and cares for 110,000 head at full capacity. The structure of their internship program places interns in each department for approximately three weeks.

Starting with strategic safety training, interns then moved into their respective departments. My rotation began in the feed department and from there I rotated through the mill, yard and finished in cattle. When an opportunity presents itself to be involved in large scale production agriculture, the first thing that goes through your mind is the unfathomable size of the operation. The next thing you start to think about is how a company that size is managed. How does each department contribute to the overall health of the company?

You spend your time learning the value each area plays and the fact that all the departments are vital for the company's survival. No mill means no feed. No feed crew means hungry cattle. No pen riders or doctoring crew means sick cattle... losses. Every young cattlemen grows up wanting to live out west and take care of cattle, which made this a dream come true.



Awards & Recognition

ANSI Students Honored as 2016 Top Twenty Freshmen

Each year, Oklahoma State University's Mortar Board chooses students to be Top Twenty Freshmen (twenty men and twenty women). Students who receive this award are selected based on campus involvement, scholarship, community service and leadership during their freshman year at Oklahoma State University.

Our department is proud to have six students selected in 2016 for this honor; Hallie Barnes, Taylor Copeland, Amanda Upton, Wyatt Catron, Haden Comstock and Clay Daily.

"I felt mainly just very humbled by the whole experience," said Haden Comstock. "The fact that I was placed among my best friends, who I didn't even think I was compared to, was a pretty awesome experience for me. And as for my experience at OSU, I've absolutely loved it. Being able to

surround yourself with peers who have such a passion to change the world sparks a drive in me that I never had before.

"I've definitely found my home in the Department of Animal Science. Not only are the faculty more than willing to work with any and all students with just about anything, but the students in this department are some of the best and brightest that OSU has to offer."

After additional interviews, Taylor Copeland, Haen Comstock and Clay Daily were also honored with the title of Top Ten Freshmen.

"I have respect for this award and what its recipients had to achieve to receive it," said Clay Daily, "but the appreciation and memories I've gained from those that allowed me to get to this point will forever outweigh any title that can be received."

These students were honored at a reception held by CASNR. Dean Tom Coon, Associate Dean Cynda Clary, Animal Science Department Head Clint Rusk and Assistant Professors Dan Stein, Blake Bloomberg, Ryan Reuter and Jerry Fitch were in attendance at the Top Twenty Freshmen reception.

"Being selected as a Top 20 Freshmen was a unique experience," said Wyatt Catron. "It was also very exciting to be recognized by our college and departmental faculty and staff. I would like to thank everyone who has been a part in my journey here at OSU, from my advisor, friends and the faculty members I have developed close relationships with. I look forward to continuing my success, developing my leadership and serving others throughout these next few years here at Oklahoma State."



Back Row (L to R): Ryan Reuter, Jerry Fitch, Amanda Upton, Clay Daily, Haden Comstock, Wyatt Catron, and Dan Stein
Front Row (L to R): Blake Bloomberg, Tom Coon, Cynda Clary, Hallie Barnes, Taylor Copeland, and Clint Rusk

Students Visit Ireland With Dr. Spicer

Department of Animal Science Professor Dr. Leon Spicer teamed up with Dr. Adele Tongco, interim director of DASNR International Agricultural Programs, in June of 2016 to lead a group of OSU students on a study abroad trip to the Republic of Ireland. The two-week trip was filled with educational visits to farms, thoroughbred training facilities, agricultural research facilities and historic tourist attractions across one of the most 'green' countries in the world.

Students were able to visit Irish sheep, beef and dairy farms, thoroughbred stud farms and distilleries during their trip while earning three credits. The students also enjoyed a day at the horse races, attending the Dubai Free Irish Derby. Students learned about Irish

agricultural research and veterinary medicine during their visits to two Irish research centers and universities.

Dr. Spicer is an expert in Irish animal agriculture, taking 11 trips to Ireland and publishing 11 peer-reviewed scientific articles with his Irish collaborators during the past 27 years. This was the fourth group of

students that Dr. Spicer has taken on his Ireland study abroad class. He has also taken 12 groups of students to Italy on study abroad trips over the years at OSU. Dr. Spicer has provided unique international experiences and a chance at learning a new culture to over 200 students on his study abroad trips.



Department of Animal Science students on a study abroad trip in Ireland

2016 - 2017 OSU Seniors of Significance



Chandler Steele

Each year, the Oklahoma State University Alumni Association recognizes students who have excelled in scholarship, leadership and services to campus and OSU by naming them OSU Seniors of Significance. These students bring distinction to OSU and represent the top one percent of the Class of 2017 throughout all six OSU undergraduate colleges. For 2016 - 2017, two student from our department were selected for this honor; Allison Christian and Chandler Steele.

Chandler Steele is from Midland, Michigan, where she grew up raising Hereford cattle, Hampshire sheep and baling hay. She is pursuing a degree in animal science with an option in livestock merchandising and minoring in food science. Steele is currently serving as the president of the Meat Science Association, vice-president of Block and Bridle Club, the communications chairman of the Animal Science Leadership Alliance and a membership committee co-executive of Mortar Board Honor Society. She had the honor of being on the 2015 Meat Judging team; which was named the 2015 Australian Intercollegiate Judging Contest Champions and where she also earned the Founder's Buckle for high individual. Steele also was a member of the 2016 Reserve National Meat Animal Evaluation Team.



Allison Christian

Allison Christian is an animal science major with an option in business and is in the Honors College. She is the daughter of Jon Christian, Tina and Mack Huffman and is originally from Duncan, Oklahoma. Allison is a student in the Honors College. Allison received the 2015 CASNR Outstanding Freshman Award and 2015 Top Freshmen Women. Allison has been active in Block and Bridle, Oklahoma Collegiate Cattlewomen, Oklahoma Collegiate Farm Bureau, Student Alumni Association, Chi Omega National Women's Fraternity, CASNR Student Council Public Relations Committee, and the OSU Student Foundation. She also interned with the Department of Animal Science as a Youth Livestock Extension Intern, assisting with facilitating all major 4-H and FFA livestock judging contests throughout Oklahoma.



Homecoming Awards

Each year, student organizations across campus compete during Homecoming week in a series of contests. Below are student organizations within the OSU Department of Animal Science who received awards during the 2016 Homecoming Week competitions.

Swine Club

Sign Competition - 1st Place

Horseman's Association

Harvest Carnival - 3rd Place

Block & Bridle

Chili Cook-Off - 3rd Place

Dairy Science Club

Harvest Carnival - 2nd Place

Sea of Orange Parade - 3rd Place

Sweepstakes - 1st Place

OSU Dairy Science Club Wins Sweepstakes

The winner of the 2016 OSU Homecoming Sweepstakes award in the student organization division was the Dairy Science Club. The competition is comprised of several different events where students show their homecoming spirit.

The Dairy Science Club competed in the Library Lawn Sign competition, Harvest Carnival, Chili Cook-off and the Sea of Orange homecoming parade.

The theme for this year's homecoming celebration was "A Cowboy Dream." The Dairy Science Club put their own spin on things making their theme "A Cowboy Dream is a Dairy Queen" and then incorporated this into all of the competitions. They placed 2nd at the Harvest Carnival and 3rd in the parade, racking up enough points to earn the Sweepstakes victory.

For more information about Dairy Science Club, please contact Jenica Reagan at jenicar@okstate.edu. The club is advised by Leon Spicer, Sara Place and David Jones.



Dairy Science Club



Horse Judging Team Named Champions at AQHA Congress

OSU Wins All-American Quarter Horse Congress for the first time in 24 years!

Congratulations to Oklahoma State University Horse Judging team for winning the 50th annual AQHA Quarter Horse Congress in Columbus, OH. Several team members also captured Top-10 honors overall.

For the first time in 24 years, the 2016 OSU Horse Judging team brought home a win from the American Quarter Horse Congress. Team members include Taylor Gilbert, Rebecca Janes, Jenna Kool, Samantha McCullough, Hana Murphy, Macy Perry, Dylan Price, Garrett Reed, Franchesca Rollerson, Michal Robertson, and Harlie Sasser. OSU ran two teams at the Congress. Team one won 1st in halter, 3rd in performance, 1st in reasons, and was 1st overall. Team two was 3rd in halter, and was 4th overall.

OSU had several in the top-10 overall, Dylan Price was Reserve High Individual and Jenna Kool was 8th overall. In halter, Garrett Reed was 1st, Jenna Kool was 2nd, Becca Janes was 4th, Harlie Sasser was 8th, and Samantha McCullough was 10th. In performance, Dylan Price was 3rd. In reasons, Dylan Price was 1st, Hana Murphy was 4th, Garrett Reed was 5th, and Jenna Kool was 9th.

The team is coached by Steven Cooper, Sarah Schobert and Marissa Chapa.

Tulsa State Fair Champions

The OSU Horse Judging team brought home top honors from the 2016 Tulsa State Fair Contest. Six team members also captured Top-10 honors overall. OSU received 1st and 2nd overall wins with both competitive teams. The Oklahoma State Pokes Team won 1st in every division which includes halter, performance, reasons and overall. The Oklahoma State Pete Team was 5th in halter, 2nd in performance, 4th in reasons and 2nd overall.

OSU had six in the top-10. Dylan Price was 1st overall, Jenna Kool was 2nd overall, Hana Murphy was 3rd overall, Macy Perry was 5th overall, Taylor Gilbert was 6th overall and Rebecca Janes was 8th overall. In halter, Jenna Kool was 1st, Rebecca Janes was 4th, Garrett Reed was 5th, Franchesca Rollerson was 6th and Dylan Price was 9th. In performance, Dylan Price was 1st, Hana Murphy was 2nd, Macy Perry was 3rd, Jenna Kool was 4th, Taylor Gilbert was 7th and Rebecca Janes was 10th. In reasons, Garrett Reed was 1st, Dylan Price was 2nd, Jenna Kool was 3rd, Hana Murphy 4th and Rebecca Janes was 6th.



(L to R): Coach Steven Cooper, Coach Sarah Schobert, Dylan Price, Harlie Sasser, Hana Murphy, Samantha McCullough, Michal Roberson, Franchesca Rollerson, Taylor Gilbert, Macy Perry, Jenna Kool, Rebecca Janes and Garrett Reed

2016 OSU Meat Judging Team Named National Champions

OSU Named 2016 National Meat Judging Champions, and 2016 International Meat Judging Champions for 2nd time in 3 years!

Congratulations to the Oklahoma State University Meat Judging team for winning the International Meat Judging Contest and being named 2016 National Champions. Several team members captured top-10 honors overall. The team is coached by Dr. Gretchen Mafi, Wes Griffen and Morgan Pfeiffer.

The 2016 meat judging team has won the International Meat Contest for the second time in three years. The team members include Julianna Albrecht, Katie Friederichs, Michelle Helm, Taylor Husz, Colton Kersey, Thomas Neal, Emily Rice, and Chase Steele. The team received Champion Team Overall. They won 1st in Beef Grading, 1st in Overall Beef, 2nd in Reasons, 2nd in Lamb judging, and 4th in Beef Judging.

OSU had several in the top-10, Julianna Albrecht was Reserve High Individual, Abby Bechtold was 4th overall, and Emily Rice was 5th overall. In Beef Grading, Julianna Albrecht was 1st, Abby Bechtold was 3rd and Thomas Neal was 4th. In Beef Judging, Abby Bechtold was 2nd and Emily Rice was 6th. In Lamb Judging, Julianna Albrecht was 3rd. In Overall Beef, Abby Bechtold was 1st, Julianna Albrecht was 3rd, and Emily Rice was 5th. In Pork Judging, Julianna Albrecht was 6th and Emily Rice was 9th. In Total Placings, Emily Rice was 4th. In Reasons/Questions, Julianna Albrecht was 1st.



Front Row (L to R): Thomas Neal, Julianna Albrecht, Taylor Husz and Colton Kersey
Back Row (L to R): Katie Friederichs, Coach Gretchen Mafi, Coach Wesley Griffin, Coach Morgan Pfeiffer, Michelle Helm and Emily Rice

Elanco American Royal Reserve Champions

Congratulations to the Oklahoma State University Meat Judging team for bringing home reserve champion team honors from the 2016 Elanco American Royal Contest. Three team members captured Top-10 honors overall.

The 2016 Meat Judging Team return home with the reserve championship from the American Royal. Team members include Julianna Albrecht, Katie Friederichs, Michelle Helm, Taylor Husz, Colton Kersey, Thomas Neal, Emily Rice, and Chase Steele. The team received Reserve Champion Team Overall. They won 1st in specifications and pork division, and 2nd in beef grading.

OSU had three in the top-10, Emily Rice was 4th overall, 2nd in placings and 3rd in lamb judging. Thomas Neal was 5th overall, 1st in specifications, 1st in beef grading, and 5th in pork judging. Colton Kersey was 7th overall in the alternate division. Katie Friederichs tied for 1st in specifications and pork judging.



Front Row (L to R): Julianna Albrecht, Michelle Helm, Katie Friederichs, Taylor Husz, and Emily Rice
Back Row (L to R): Coach Wesley Griffin, Thomas Neal, Colton Kersey and Coach Morgan Pfeiffer

Livestock Judging Team Wins Big During Fall Contests

The 2016 OSU Livestock Judging Team name Champion Team Overall at National Barrow Show, 1st and 3rd at Tulsa State Fair, and 2nd at Flint Hill!

Barrow Show

The OSU Livestock Judging team kicked off the fall season with a big win at the National Barrow Show in Ausin, Minnesota of September 12th, 2016. Oklahoma State was the Champion Team Overall and the High Team in Oral Reasons.

Individual Results:

Bodee Schlipf – El Paso, IL - 2nd High Individual Overall and 2nd in Oral Reasons
Cooper Bounds - Taneytown, MD – 6th High Individual Overall and 3rd in Oral Reasons
Maggie Neer – Urbana, OH – 8th High Individual Overall and 9th in Oral Reasons

Tulsa State Fair

The OSU Livestock Judging team capped off a very challenging contest at the Tulsa State Fair in Oklahoma with the 1st and 3rd High Teams Overall!

OSU Orange Team:

1st Overall, 1st Hogs, 3rd Cattle, 1st Reasons

OSU Black Team:

3rd Overall, 1st Cattle, 2nd Reasons

Individual Results:

Maggie Neer- 2nd High Individual, 4th Sheep, 3rd Swine, 1st Reasons
Tim Hubbard- 5th High Individual
Bryce Haunstein- 7th High Individual
John Reasor- 2nd Reasons
Logan Van Allen- 3rd Cattle, 3rd Reasons

Flint Hills Classic

The OSU Livestock Judging team started the weekend off at the Flint Hills Classic in El Dorado, Kansas on September 24th, fielding the Reserve Champion and Third overall teams.

OSU Orange Team:

2nd High Team, 2nd Swine, 5th Sheep/Goats, 1st Beef and 2nd Reasons.

OSU Black Team:

3rd High Team, 3rd Swine, 2nd Sheep/Goats, 3rd Beef and 3rd Reasons.

Individuals Results:

Tim Hubbard- 3rd High Individual
Cooper Bounds- 6th High Individual
Maggie Neer- 7th High Individual
Britton Francis- 8th High Individual



Front Row (L to R): Bryce Hauenstein, Dylan Murray, Callie Akins, Cooper Bounds, Logan Van Allen, Maggie Neer, Tim Hubbard, Kayla Hildebrand, Allison Tarvin and Cassi Allread
Back Row (L to R): Bodee Schlipf, John Reasor, Britton Francis, Eli Peterson, Amy Wolff, Hunter Royal and Kate Shaffer

Dairy Judging Places 9th at World Dairy Expo



2016 Dairy Judging Team at World Dairy Expo (L to R): Gerret Boer, Taylor Leach, Connie Jones, Leanne Van der Laan, and Coach David Jones

The Oklahoma State Dairy Judging team placed 9th out of 19 teams at the World Dairy Expo in Madison, WI. The OSU team placed 2nd in Brown Swiss and 5th in Ayrshires.

Leanne Van der Laan placed 1st in the Guernsey division. Taylor Leach was named an "All American." She averaged 47.5 on 12 placing classes and 45.4 on six sets of oral reasons.

Other team members include Gerret Boer and Connie Jones.

The team is coached by David Jones.

Hires & Departures



Justin Crosswhite - *Advisor/Lecturer*

Justin Crosswhite has joined our team as advisor and lecturer. After graduating from high school, Justin obtained an associates degree from Connors State College where he was a member of the livestock judging team. Justin then attended Oklahoma State University where he earned a Bachelor of Science in Animal Science. After two years in Stillwater, Justin moved across the country to pursue a M.S. in meat science from University of Florida. After obtaining his M.S. degree, Justin and his wife, Mellissa, moved to Fargo, North Dakota, where Justin had a teaching and youth extension appointment at North Dakota State University, in addition to coaching the livestock judging team.

Melissa Crosswhite- *Advisor/Lecturer*

Melissa Crosswhite will join our team in December as an advisor and lecturer. Mellissa will be advising freshmen and sophomore students within the Department of Animal Science at OSU, as well as teaching courses in anatomy, physiology, and growth and development. Mellissa Crosswhite is originally from Sarasota, Florida. Mellissa graduated from the University of Florida with an animal science degree emphasizing in beef production in 2012. In 2014 Mellissa received a M.S. degree in animal science from North Dakota State University, and will graduate with a Ph.D. in animal science from NDSU this December. Mellissa's main research focus during her graduate career was on farm management techniques influencing beef cattle reproduction.



Matthew Crosthwait - *Dairy Assistant Manager*

We would like to introduce the new OSU Dairy Assistant Manager, Matt Crosthwait. He graduated high school from Lone Grove, Okla., and came to OSU to pursue a degree in animal science. Matt graduated in 1999, and then managed retail at Stillwater Mill and Atwoods. His wife and four kids live here in Stillwater. After college he received his Artificial Insemination Certification at REI here in Stillwater. Although he had little dairy background, he breeds the majority of the cattle at the dairy, works on several other projects, and learns more about the dairy side of the industry each day.



Lesleigh Dexter - *Senior Office Assistant*

Lesleigh Dexter is the new Administrative Support Specialist in ANSI 101. Lesleigh grew up in Mannford, Okla., where she still lives with her husband and two kids. She comes from a long line of OSU graduates, and she is one herself. In 2007, Lesleigh graduated with her B.A. in agribusiness with a finance option. Besides loving anything orange and black, she is an avid wild game hunter and loves any outdoor adventure. If her family has the time to go on vacation, their favorite place to go is the Rocky Mountains in Colorado.



Jake Walters - *Accountant II*

Jake Walters is a new accountant in the Department of Animal Science. Jake grew up in New England, Ohio, where he was involved with 4-H and FFA. After high school, he attended Ohio University and got a degree in accounting and finance. Jake has worked for PricewaterhouseCoopers in Columbus and Charles Schwab Corporate Services in Cleveland, Ohio. He moved to Stillwater to be with his fiancé, who is getting her Ph.D. at Oklahoma State. Jake enjoys doing personal finance and weight lifting when he's not at work. He looks forward to helping the department save money and allocate their assets.



Xiaoping Guo - *Senior Research Specialist*

Xiaoping Guo retired on October 31, 2016, after serving OSU for 24 years. She was born in China and obtained her B.S. degree in chemistry from Huazhong Normal University in 1978. After working as a lecturer and researcher at Huazhong University for six years, Xiaoping and her husband, Yinghua, moved to Houghton, Michigan, for graduate studies at Michigan Technological University. Xiaoping earned a M.S. degree and was a Ph.D. candidate at Michigan Technological University when Yinghua was offered a position at Oklahoma State University.

She started working in the Department of Entomology and Plant Pathology in 1992. After spending several years in entomology and biochemistry departments, Xiaoping joined Dr. Udaya DeSilva's lab in 2002 as a senior research specialist. She was an integral part of DeSilva's lab until her retirement in August and was a friend and mentor to many graduate students and visiting scholars in the Department of Animal Science.



Gerald Horn - Professor

Dr. Gerald Horn is retiring in the spring from his professor position. Dr. Horn has served the OSU Department of Animal Science as a faculty member for 41 years, and has devoted much of his career towards increasing the biological efficiency of production of beef cattle by seeking to decrease production risk and increase the logistical stability and profitability of the beef cattle industry. Dr. Horn is widely respected by students, colleagues and clientele. Dr. Horn served as the coordinator of the Animal Science Graduate Program for 15 + years (April 2000 to September 2015) and as the interim department head from December 2011 to August 2012. He has taught nine different courses to veterinary, graduate or undergraduate students, and has authored/co-authored 113 peer-reviewed journal articles and over 500 other scientific reports. He has served as major advisor and/or graduate committee member to 100 + graduate students.

Randy Jones - Assistant Herd Manager

Randy Jones retired from his assistant herd manager position at the South Lake Carl Blackwell Range after 36 years of service. Randy did the day to day work of a typical cow/calf operation as well as extensive research projects on the South Range. He was a phenomenal reproduction man, and was sought after for his skills in artificial insemination and cattle sinking. His record keeping and neonatal care during calving season was always top notch. A retirement party was held on October 31st, 2016 at the Farm Shop.



Clint Krehbiel - Assistant Department Head

Dr. Clint Krehbiel has accepted a department head position at the University of Nebraska. His research interests include understanding relationships involving ruminal fermentation, gastrointestinal tract metabolism, and net nutrient flux to improve animal health, growth, feed efficiency, and end-product quality of beef cattle. He also has interest in determining the impacts of growth technologies used in beef cattle production on sustainability. Dr. Krehbiel has authored or co-authored more than 450 refereed journal articles, book chapters, abstracts of papers presented at scientific meetings, research reports of the Agricultural Experiment Stations, and papers published in conference proceedings. He has also served as PI or co-PI on more than \$3,500,000 in grant funding to support collaborative research.



Josh Payne - State Poultry Specialist

Dr. Josh Payne has accepted an animal industry job opportunity at Jones-Hamilton. He joined the Animal Science Department in 2015 as the State Poultry Specialist. Dr. Payne developed educational outreach programs for commercial and small flock poultry production, while also providing training and support for County Educators. Additionally, he designed, coordinated and delivered quality educational programs to improve poultry manure management while serving as coordinator for the state's Poultry Waste Management Education Program and the Oklahoma Litter Market. His research and extension activities focused on animal mortality management, pathogen control, soil fertility, nutrient management and water quality as they relate to agricultural productivity and environmental quality.



Donna Perry - Lab Technologist

Donna Perry is retiring from her lab technologist position. Donna has worked for the Department of Animal Science for 36 years. She worked on research projects in Dr. Gerald Horn's research lab, and worked closely with graduate students. Donna always has a smile on her face and brings joy to everyone's day. She will be missed by the department. Donna is looking forward to spending more time with her family.



Sara Place- Assistant Professor

Dr. Sara Place has accepted job position at NCBA in Denver, Colorado, where she will be the senior director of sustainable beef production research. Before coming to Oklahoma State University, she worked for Dairy Management Inc. and Winrock International. Dr. Place research interests are in sustainability [environmental, economic, and social] of cattle systems, and also measurement and mitigation of enteric methane emissions. She teaches principles of animal nutrition, ethics and professionalism of animal science and dairy cattle science. Dr. Place is a prolific writer and researcher; she has published 26 articles in the past six years. She is also very active in associations such as the American Society of Animal Science, the American Dairy Science Association, The Oklahoma Cattlemen's Association and Oklahoma Water Resources Center.

Events & Activities

Annual Totusek Lectureship

The Totusek Lectureship was established 23 years ago to honor Dr. Robert Totusek for his many contributions to animal science, the livestock industry in Oklahoma and the world. He was a faculty member of the OSU Department of Animal Science for over 38 years, including 14 years as department head. Dr. Totusek was an outstanding teacher and researcher whose interests spanned a wide range of topics related to nutrition and management of beef cattle. He was a friend and advisor to all and was known for his contributions in animal evaluation, beef cattle, nutrition and livestock production.

The 23rd Annual Totusek Lectureship was held November 10th, 2016. The event was organized by the Animal Science Graduate Student Association (ASGSA). The dinner was held at the Food and Agricultural

Products Center (FAPC) before the lecture. The keynote speaker, Dr. Jeff Carroll, presented a lecture titled, "Beef Cattle Health: It's Complicated."

"The lectureship is important to the department because it remembers and celebrates the late Dr. Totusek and his values," said Kelsey Bruno, ASGSA president. "The ASGSA hosts the event as our way of honoring Dr. Totusek because he valued students and our participation in research and learning. This is our way of giving back to him and remembering his tradition."

The people who attended had an opportunity to remember Dr. Totusek and to see the graduate students actively involved in something important for the Animal Science department. The event brought together industry leaders, faculty, staff, and students.



New Online Registration!

MARCH 31, 2017

ANIMAL SCIENCE GALA REUNION
HONORING ALL NATIONAL CHAMPION MEAT JUDGING TEAMS
&
ALL WORLD CHAMPION HORSE JUDGING TEAMS



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For ASAA news and events, visit us at
osuansialumni.com

OSU Swine Club **JACKPOT** SHOW

January 7, 2017 at 9 a.m.

Payne County Expo Center

Barn opens January 6 at 6 p.m.

\$20 per head & \$5 for showmanship

Entry Cards due 8 a.m.

Judge: Curt Hannon - Rensselaer, IN

Health Papers REQUIRED

Bedding Not Provided

Cale Merritt - (214) 215-3074 | Amanda Higgins - (580) 799-2767

Block Hotel: Hampton Inn and Suites West
(405) 332-5575 | 2017 OSU Swine Jackpot



@okstateswine



Horses, Heifers And Hounds

January 21, 2017

Equine • Companion Animals • Livestock Projects

OSU Cline Equine Center & Totusek Arena
Stillwater, OK

This workshop will cover community service activities, ethical issues related to animal projects and youth, handling interpersonal conflicts and more. Interactive sessions with individual species will be available, including topics involving behavior, care and management, training and more.

Register Online at:
<http://bit.ly/2fSrIwH>

Lunch will be provided

Registration fee: \$25

2017 FEEDLOT RECEIVING CALF HEALTH & WELL-BEING CONFERENCE



JANUARY 9-11, 2017

CONOCO-PHILLIPS OSU ALUMNI CENTER
STILLWATER, OKLAHOMA

This program brings together industry experts from animal well-being, nutrition, and health communities to address factors influencing receiving calf health, disseminate recent advancements in calf health, and discuss areas of need to be addressed by research and education communities.

FOR MORE INFORMATION: BEEFEXTENSION.COM

Thank you!

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Department of Animal Science Name Change Proposal

For the first 16 years following the founding of Oklahoma A&M College, the College of Agriculture consisted of two departments, Agriculture and Horticulture. In 1906, the Department of Agriculture was divided into the Department of Agronomy and the Department of Animal Husbandry and Dairying, with Animal Husbandry and Dairying being further split into separate departments in 1908. Courses dealing with poultry were not offered until 1911 and were then taught in the Animal Husbandry Department until 1915 when the Poultry Husbandry Department was formed. In 1967, the Animal, Dairy and Poultry Science Departments were merged into the Institute of Animal Sciences and Industry, with the name changed in a few years to the Department of Animal Sciences and Industry. In 1977, the name of the department was shortened to the Department of Animal Science. As you can see, a precedence for name changes has been set from the beginning of the university.

As the department continued to grow and evolve, the Food Science major was added in 2007. The food science major continues to develop with four options currently available: science, industry, meats and safety. For success of the major and attraction of students, the Department of Animal Science could greatly benefit from another name change. As you are probably aware, tremendous career opportunities exist in the food industry. Thus, a name change could attract students who are currently unaware of the food science major. Hopefully, these students would then transform into outstanding alumni of the department. Many positives could result from a name change – in the areas of Teaching, Research and Extension.

It has been suggested to change the name of the department to the **Department of Animal and Food Sciences**. We are seeking your input and opinion. Please complete the brief survey at: <https://PollEv.com/surveys/b767iGbgP/web>.



Department of
Animal Science



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