



News from KSU Animal Sciences

UPCOMING EVENTS...

↪ **Livestock Nominations** - All small livestock and commercial heifer state nominations (non-market beef) are due June 15. This includes commercial heifers, market swine, commercial gilts, market lambs, commercial ewes, and ALL meat goats. The Kansas State Fair Grand Drive has added a breeding doe show. However, there is not a separate division for registered breeding does at either state show, so all meat goats must be nominated in order to be eligible to show.

The 2019 nomination information may be found on the KSU Youth Livestock Program website (www.asi.k-state.edu/research-and-extension/youth-programs). The 2019 Declaration and Specie Nomination Forms MUST be used for nominations to be accepted. All families are encouraged to use the specie checklist as a guide to ensure their nominations are complete upon submission. This resource may be found on the Youth Livestock Program website as well. As part of the family nomination process, all eligible exhibitors within a family should submit one set of paperwork and DNA envelopes, with the signatures of ALL children within the family, in addition to the parent/legal guardian and county agent or FFA advisor. Please double check that there are not any blank fields or questions on the Declaration and Nomination Forms before placing them in the mail. This year all exhibitors are required to be YQCA certified to participate in either state show. Each child's YQCA certificate needs to be attached to the Declaration Form. Youth who only have registered breeding females will submit this information at the time of entry.

Continuing this year, ear notches are required for swine nominations and full scrapie tag numbers are required for sheep and goats. Ear notches must be written and drawn, and both the Flock/Premise ID and individual animal number need to be submitted on scrapie tags (example: KSS0035 16121). Nominations received without this information will be considered incomplete and returned to the family for completion. Confirmation letters will be sent to families once their nominations have been processed, and reports will be updated on the Youth Livestock Program website on Tuesdays and Fridays until we reach the deadline, then more frequently after that. Families are encouraged to use one of these options to verify their nominations.

REMINDER - A complete nomination does NOT constitute show entry. The Kansas State Fair entries are already available on their Grand Drive website, and KJLS will release entry information to agents and through its website soon. State Fair Grand Drive entries will be due July 15, and KJLS entries will be due August 15. Animals who are nominated, but do not follow the appropriate entry processes set forth by each show, will not be permitted to show. For nomination questions, please contact Lexie Hayes at adhayes@ksu.edu. Questions regarding show rules or entries should be directed to each show - KSF Grand Drive (620-669-3623); KJLS (316-706-9750).

Department of Animal Sciences and Industry

Kansas State University
218 Weber Hall, 1424 Claflin Road
Manhattan, KS 66506
785-532-6533
www.asi.ksu.edu

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↪ **Quality Assurance Requirement** - All exhibitors are required to have quality assurance certification for the 2019 state shows. Youth who state nominate livestock projects MUST have a current and valid Youth PQA+ certification number or Youth for the Quality Care of Animals (YQCA) number at the time of nomination. A copy of each child's YQCA certificate or Youth PQA+ card must be attached to the Declaration Form. Certification(s) must be valid through October 1, 2019, to be accepted. Any nominations received without the appropriate YQCA or Youth PQA+ number will be considered incomplete. The Youth PQA Plus program was discontinued on May 31, 2018. So, youth who need quality assurance certification will need to complete YQCA training. The National Pork Board and the two state shows in Kansas will honor Youth PQA Plus numbers until they expire. Youth only exhibiting purebred, registered females will submit their certification information at the time of entry.

There are several methods through which youth may obtain their certification. They may take a \$3.00 instructor-led class, complete the \$12.00 online course, take advantage of the test out option if they were 12 or 15 years old by 1/1/2019 (\$36 or \$48), or use their valid Youth PQA+ number. This program is only for youth 8 and older, so 7 year olds participating in KJLS will be exempt for this year. All participants must sign up through the YQCA website prior to training in order to receive their certificate and official number. Visit www.yqca.org to sign up, or contact the local extension office for information on local opportunities available. After completing the training, families will need to sign in to their YQCA user account, using the same method they did to register for a class, in order to view and print their YQCA certificate. While families will use their 4HOnline credentials to sign in and create an account, they must go through the YQCA website in order to successfully complete the certification process. There are resources on the program, signing up, and printing certificates on the Quality Assurance tab of the KSU Youth Livestock Program website (<https://www.asi.k-state.edu/research-and-extension/youth-programs/YQCA.html>). For more information, please contact the local extension office or Lexie Hayes at adhayes@ksu.edu or 785-532-1264.

↪ The **2019 Dr. Bob Hines Kansas Swine Classic** is scheduled for June 28-29, 2019, at CiCo Park in Manhattan. This two-day event includes educational workshops, showmanship contest, and a prospect and market pig show. It is open to all Kansas youth ages 7 through 18 as of January 1, 2019. Again this year, all market pigs will be shown together and divided into classes based on weight. This year's Classic will feature a swine photography contest, along with a swine skillathon. A new event has also been added - a family pork cook-off! For the Swine Photography Contest, youth may submit up to two swine photos. Photos should be 8x10" size and should not be framed or matted. Photos will be placed in plastic sleeves and displayed throughout the weekend. The skillathon will include several topics related to the swine industry and will be come-and-go during the allotted time. It will take youth approximately 30 minutes to complete the stations. In the Pork Cook-off, families may enter one item in each of the three categories: appetizer, main dish, and novelty. Pork must be the primary ingredient. Entries will be judged on presentation, taste, and creativity. Outlined below is a schedule of this year's program.

Friday, June 28

8:30 a.m.	Barn open for arrival
Noon	All hogs in place
1 p.m.	Swine photo check-in by the show ring
1 – 3 p.m.	Swine Skillathon in the show ring
4 p.m.	Check-in Pork Cook-off entries Ice cream party by the show ring
5:30 p.m.	Showmanship contests

Saturday, June 29

8 a.m. Prospect Pig Show followed by Barrow and Gilt Market Pig Show

Entries must be postmarked by June 15, 2019. More information and registration is available at www.KSUswine.org. For more information, contact Joel DeRouchey (785-532-2280; jderouch@ksu.edu) or Lexie Hayes (785-532-1264; adhayes@ksu.edu).

↳ Make plans to attend the **first Poultry Day and Pullet Sale** which will be June 29, 2019, at the Stanley Stout Center, 2200 Denison Avenue, Manhattan, KS. The Poultry Day events will include presentations on “How to Manage Your New Pullets” and “Health Care for Small Flocks.” An omelet lunch will be served at noon. There are no charges for the Poultry Days presentations or lunch; however, reservations are required by using the online form at: <https://www.asi.ksu.edu/pulletsale>. Forms may be emailed to poultry@ksu.edu. Reservations may also be made by contacting Kevin Snell at 785-532-1281.

During Poultry Day, KSU students will also be holding their **Annual Pullet Sale**. Egg-type pullets raised by the students may be picked up from 9 a.m. to 3 p.m. on June 29 at the Stanley Stout Center. A description of the bird types and prices can be found at <https://www.asi.ksu.edu/pulletsale>. All pullets must be pre-ordered. For questions about the pullet sale, email poultry@ksu.edu or call the farm at 785-539-5041.

↳ **Livestock Sweepstakes** - The 2019 Kansas 4-H Livestock Sweepstakes will be held August 24-25 on the K-State campus in Manhattan, KS. The 4-H Livestock Sweepstakes event includes the state 4-H livestock judging contest, meat judging contest, livestock skillathon, and livestock quiz bowl. The members who will represent Kansas at the national 4-H contest for each of these events will be selected during the livestock sweepstakes weekend. The deadline to enter will be August 1. All entries must be made by the local Extension Unit using Cvent. Rules and the Coach's Guide are posted on the KSU Youth Livestock Program website under "4-H Livestock Sweepstakes" (<https://www.asi.k-state.edu/research-and-extension/youth-programs/4-h-livestock-sweepstakes.html>). Entry information will be released by July 1. For more information, contact Lexie Hayes at adhayes@ksu.edu.

↳ **KSU Beef Stocker Field Day to be hosted September 19** – Come and help us celebrate the 20th anniversary of the KSU Beef Stocker Field Day which will be held on Thursday, September 19, at the KSU Beef Stocker Unit in Manhattan. The day will start at 9:30 a.m. with registration/coffee and conclude with a good old-fashioned Prairie Oyster Fry and Call Hall ice cream at 5:30 p.m. Watch for more details coming to www.KSUbeef.org. For more information, contact Dale Blasi (dblasi@ksu.edu; 785-532-5427).

↳ Join us for the **5th annual ASI Family and Friends Reunion** on Friday, October 4, 2019, from 5:30 – 9:30 p.m. at the Stanley Stout Center, 2200 Denison Avenue, Manhattan, Kansas. Last year’s event was truly amazing with more than 1,000 family and friends reuniting at the event. This year the Don L. Good Impact Award will be presented to the Kansas Livestock Association. Other activities will include great food, live music, Junior Wildcat Barnyard and more surprises. Registration information is available at www.asi.ksu.edu/familyandfriends.

CALENDAR OF UPCOMING EVENTS		
Date	Event	Location
June 15, 2019	Small livestock nominations due (includes commercial heifers, market swine, commercial gilts, market lambs, commercial ewes, and meat goats)	
June 28-29, 2019	Dr. Bob Hines Kansas Swine Classic	Manhattan
June 29, 2019	KSU Poultry Day and Pullet Sale	Manhattan
August 24-25, 2019	Kansas 4-H Livestock Sweepstakes	Manhattan
September 19, 2019	KSU Beef Stocker Field Day	Manhattan
October 4, 2019	ASI Family and Friends Reunion	Manhattan

WHAT'S NEW.....

Management Minute – Justin Waggoner, Ph.D., Beef Systems Specialist

“Tell Me Something Good”

I recently came across an interesting statistic attributed to the Gallup organization that suggests that 75% of us are at some level of disengagement with life. That essentially means that 25% of those surveyed were satisfied (happy) with where they were at in life. Does this carry over into the workplace? Absolutely.

Clint Swindall of Verbalocity Inc., a personal development company, breaks it down a bit further. “There are three types of people in an organization: 32 percent who are engaged, 50 percent who are disengaged and 18 percent who are actively disengaged. The actively disengaged people are called the “Oh No’s” because they dread being asked to work. The engaged people are called the “Oh Yes’s” because they will do whatever is asked of them with enthusiasm no matter what the task is.”

As humans it is really easy for us to get caught up in the negativity around us. Let’s face it...it is really difficult for most of us (75%) to see the opportunity in a given situation whether it is in our professional or personal life. What do you discuss at work or at home at the dinner table? The good stuff that happens during your day or the things that could have been better?

So the bigger question is what do we do about it? Clint Swindall suggests that we replace the traditional greeting of “How are you?” with “Tell me something good.” I can assure you that you will receive some really odd looks the first time you try it. However, some people will be more than willing to share something good about what is going on at work or at home. It will take some time, but maybe some of those “Oh No’s” will become “Oh Yes’s” in the workplace.

For more information, contact Justin Waggoner at jwaggon@ksu.edu.

Feedlot Facts – Justin Waggoner, Ph.D., Beef Systems Specialist

“Got Water...But How Much Do Those Cows Need?”

Most cattle producers fully understand the importance of water. After all, providing an adequate supply of clean, fresh, water is the cornerstone of animal husbandry and there are very few things that compare to the feeling of finding thirsty cows grouped around a dry tank on a hot day. Water is important, and in situations where the water supply is limited or we are forced to haul water one of the first questions we find ourselves asking is “how much water do those cows need?” The old rule of thumb is that cattle should consume 1-2 gallons of water per 100 lbs of bodyweight. Accurately determining the amount of water cows will voluntarily consume is difficult and is influenced by several factors (ambient temperature, moisture and salt content of the diet, body weight, lactation, etc.). Water consumption increases linearly as ambient temperature increases above 40° Fahrenheit such that cows require an additional gallon of water for every 10 degree increase in temperature. Additionally, lactation also directly increases the amount of water required by beef cows. The table below summarizes the daily water requirements of beef cows of several different body weights, milk production levels, and ambient temperatures.

Cow weight, lb	Milk Production, lb/d	Average Daily Temperature, °F		
		40	65	90
1100	0	8.2	10.8	13.4
	10	10.5	13.1	15.7
	25	12.8	15.4	17.9
1300	0	9.2	11.8	14.3
	10	12.2	14.8	17.4
	25	14.5	17.1	19.7
1500	0	10.2	12.7	15.3
	10	14.0	16.5	19.1
	25	16.3	18.8	21.4

The daily water requirements of beef cows represented are estimates and water consumption varies greatly during the summer months when temperatures exceed 90° Fahrenheit. Therefore, these recommendations should be regarded as minimum guidelines.

For more information contact Justin Waggoner at jwaggon@ksu.edu.

↪ **Office Specialist II (Kansas Artificial Breeding Service Unit-KABSU) position open** – Kansas State University is looking for an Office Specialist for the KABSU. This is a full-time, University Support Staff (USS) position (job no 507490). This position exists to manage all business and financial transactions including secretarial, clerical, inventory, and accounting required for the operation of the Kansas Artificial Breeding Service Unit (KABSU). The incumbent should be able to communicate well and project a positive image with clients and worker peers. Incumbent should be professional and courteous in answering the phone and dealing with clients. Skilled use of personal computers and printers. Experience with word processing, good office practices, knowledge and ability to apply correct bookkeeping practices (fluent in Quick Books), and accuracy using a calculator. Be a self-motivated employee and team player. Screening of applications will begin immediately and continue until filled. To apply, go to <http://careers.k-state.edu/cw/en-us/job/507490/office-specialist-ii>. For more information, contact Dr. Tom Taul, Search Committee Chair, at 785-539-3554 or ttaul@k-state.edu.

↪ **Evaluation of Two Implants for Steers on Early- Intensively Grazed Tallgrass Native Range** – The objective of this trial was to evaluate the effect of two implants that have different lengths of effective use on stocker cattle gains within an intensive early double-stocked native tall-grass prairie grazing system. Stocker steers were implanted with Revalor-G or Synovex One Grass and grazed on tallgrass native range for 90 days during the summer. The steers were individually weighed, after an overnight shrink, on the day of implanting, at midpoint of grazing, and at the end of the grazing period. Total gains and average daily gain were evaluated.
Bottom Line... Cattle performance was similar regardless of hormone amount and coating technology for these implants when used during a short duration grazing period with stocker steers. View the complete research report at www.asi.ksu.edu/cattlemensday. For more information, contact Jaymelynn Farney (jkj@ksu.edu; 620-820-6125).

↪ **Effects of Dietary Total Calcium to Total Phosphorus Ratio on Growth Performance, Carcass Characteristics, Bone Mineralization, and Economics in 58- to 281-lb Pigs** - A total of 1,134 barrows and gilts with an initial pen average body weight (BW) of 58.0 ± 1.57 lb were used in a 110-d growth trial to determine the effects of feeding different analyzed total calcium to phosphorus (Ca:P) ratios on performance of growing-finishing pigs from 58 to 281 lb. Pens of pigs were randomly assigned to 1 of 6 dietary treatments in a randomized complete block design with BW as a blocking factor. There were 7 replicate pens per treatment and 27 pigs per pen. The experimental diets were corn-soybean meal-based, and were fed in 4 phases. The 6 dietary treatments were formulated to contain 0.75:1, 1.00:1, 1.25:1, 1.50:1, 1.75:1, and 2.00:1 analyzed total Ca:P ratio. All diets were formulated to contain adequate standardized total tract digestible P across the dietary treatments in all phases. The treatments were achieved by increasing the amount of calcium carbonate at the expense of corn while maintaining monocalcium phosphate constant. Overall, increasing analyzed total Ca:P ratio increased average daily gain (ADG), average daily feed intake (ADFI), and final BW. The greatest increase was observed as the ratio increased from 0.75:1 to 1.25:1, and decreased with higher ratios. Feed efficiency was relatively similar across analyzed total Ca:P ratios of 0.75:1 to 1.75:1, and worsened at the highest ratio of 2.00:1. For carcass characteristics, hot carcass weight (HCW) and carcass ADG increased as the analyzed total Ca:P ratio increased up to 1.25:1 and started to decrease thereafter. Carcass yield decreased with increasing analyzed total Ca:P ratio. Bone mineralization increased quadratically with increasing analyzed total Ca:P ratio. The greatest improvement in bone ash was observed as the ratio increased from 0.75:1 to 1.25:1, with little increase thereafter. Feed cost per pig increased quadratically and feed cost per pound of gain increased linearly with increasing analyzed total Ca:P ratio, with the highest feed cost and cost per pound of gain observed at 2.00:1. Gain value and income over feed cost (IOFC) increased quadratically, with the greatest revenue observed for pigs fed diets with 1.25:1 analyzed total Ca:P ratio, and IOFC for pigs fed 1.00:1 analyzed total Ca:P ratio. For ADG, ADFI, feed efficiency and bone ash, the quadratic polynomial model demonstrated the best fit. The maximum responses in ADG, ADFI, G:F, HCW, IOFC, and bone ash were estimated at 1.38:1, 1.49:1, 1.29:1, 1.25:1, 1.10:1, and 1.93:1 analyzed total Ca:P ratio, respectively.

Bottom Line... In conclusion, for growing-finishing pigs from 53 to 287 lb, the total analyzed Ca:P ratio ranged from 1.10:1 to 1.49:1 to maximize growth performance, HCW, and IOFC criteria. A higher analyzed total Ca:P ratio, estimated at 1.93:1, was required to maximize bone mineralization. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by C.M. Vier, S.S. Dritz, M.D. Tokach, M.A.D Gonçalves, U.A.D. Orlando, J.R. Bergstrom, J.C. Woodworth, R.D. Goodband, and J.M. DeRouchey)

↪ **Effects of Sodium and Chloride Source and Concentration on 15- to 25-lb Nursery Pig Growth Performance** - A total of 360 barrows were used in a 21-day trial to determine effects of source and concentration of dietary Na and Cl on nursery pig growth performance. Upon entry to the nursery, pigs were randomly allotted by body weight and fed a common starter diet (0.33% Na and 0.76% Cl) for 8 days. On day 8 after weaning, considered day 0 in the trial, pens were blocked by body weight and randomly assigned to 1 of 6 dietary treatments that were fed from day 0 to 14. Experimental treatments included two added salt diets (providing 0.13% Na and 0.35% Cl or 0.35% Na and 0.68% Cl), three diets with Na and Cl provided by

NaHCO₃ and KCl (0.13, 0.35, or 0.57% Na and 0.50% Cl), or a diet with NaHCO₃ and CaCl₂ (0.35% Na and 0.50% Cl). From day 0 to 14, average daily gain (ADG) and average daily feed intake (ADFI) improved as dietary Na concentration increased from 0.13 to 0.35%, with no further benefits observed thereafter. Day 14 body weight tended to increase as dietary Na concentration increased from 0.13 to 0.35%, with no further benefits observed thereafter. Feed efficiency (F/G) was not influenced by the dietary Na concentration. There was no evidence to indicate differences in growth performance due to Na or Cl source. From day 14 to 21 when pigs were fed a common diet, compensatory gain was observed with pigs previously fed low Na diets having increased ADG and improved F/G compared with pigs previously fed higher Na diets regardless of Na source. Previous source and concentration of Cl did not affect subsequent ADG.

Bottom Line... In conclusion, growth performance improved up to the Na concentration of 0.35% regardless of the dietary source of the Na and Cl ions. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by D.J. Shawk, M.D. Tokach, J.C. Woodworth, R.D. Goodband, S.S. Dritz, and J.M. DeRouchey)



Effects of Insoluble Fiber Source (Cellulose or Distillers Dried Grains with Solubles) on Growth

Performance of Nursery Pigs - A total of 3,171 weanling pigs with an initial body weight (BW) of 12.7 lb were used in a 39-d study with 66 or 67 pigs per fence-line feeder (experimental unit) and 12 replicates per treatment. Pens were blocked by BW and allotted to 1 of 4 dietary treatments in a randomized complete block design. The treatment structure was a 2 × 2 factorial with 0 or 1% cellulose (Arbocel, J. Rettenmaier USA, Schoolcraft, MI) and distillers dried grains with solubles (DDGS; 0 or 5% in Phase 1 and 0 or 15% in Phase 2). Dietary phases 1 and 2 were offered from d 0 to 10 and 10 to 25, respectively. From d 25 to 39, pigs received a common diet with 25% DDGS. Growth performance, pig removals, and economic variables were evaluated. From d 0 to 25, there was an interaction between cellulose and DDGS for average daily gain (ADG). Pigs fed diets with DDGS and cellulose had lower ADG than those fed diets without DDGS, with pigs fed diets with DDGS without the addition of cellulose having intermediate ADG. From d 25 to 39, there was a marginally significant interaction for average daily feed intake (ADFI). Pigs previously fed diets without DDGS and with cellulose had higher ADFI than those fed diets with DDGS and cellulose, and pigs previously fed diets without cellulose had similar ADFI regardless of DDGS inclusion. In the overall period (d 0 to 39), there was an interaction between cellulose and DDGS for ADG, similar to d 0 to 25. There was a marginally significant interaction for pig removals. Adding cellulose to diets without DDGS resulted in numerical decrease in pig removals, but the inclusion of cellulose to diets with DDGS resulted in increased pig removals. For economics, an interaction was observed between cellulose and DDGS for income over feed cost. Pigs fed diets without DDGS and with the addition of cellulose had higher IOFC compared to pigs fed diets with DDGS and cellulose, with other treatments being intermediate.

Bottom Line... In summary, the addition of cellulose to diets without DDGS resulted in slight improvements in pig removals and economic variables, with no evidence of impact on growth performance. The reduction in performance observed when cellulose was added to diets that contained DDGS may be due to a negative effect of the high fiber level. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by H.S. Cemin, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, and R.D. Goodband)



Effects of BOWISH MultiBio 3P on Growth Performance and Carcass Characteristics of Grow-Finish

Pigs - This study was conducted to determine the effects of a multi-species direct-fed microbial product based on lactic acid bacteria and *Bacillus subtilis* on growth performance and carcass characteristics of grow-finish pigs. A total of 1,188 pigs were used in a 121-d growth trial with 27 pigs per pen and 22 pens per treatment. Pigs were allotted to treatments based on initial body weight (BW) in a randomized complete block design. The two experimental diets were Control and Biowish. The diets were based on corn, distillers dried grains with solubles, and soybean meal, and fed in four dietary phases. The probiotic BOWISH MultiBio 3P was included in the diet at 1.1 lb/ton at the expense of corn. Overall, from d 0 to 121, pigs fed the control diet had greater average daily gain (ADG) and final BW to pigs fed the Biowish diet. There was no evidence for differences in average daily feed intake (ADFI) and feed efficiency (F/G) between dietary treatments. The difference in final BW resulted in heavier hot carcass weight (HCW) in control pigs compared to Biowish pigs, but no evidence for differences was observed in carcass yield, backfat, loin depth, and lean percentage between dietary treatments.

Bottom Line... In conclusion, the inclusion of BOWISH MultiBio 3P in growing-finishing diets reduced ADG in this commercial study. This response was not expected, but could be related to inclusion rate or other factors not identified in this study. This warrants further research to better characterize the effects of this probiotic on pig performance. More information is available on this experiment and others in the KSU Swine Day Report at www.KSUswine.org. (This study conducted by M.B. Menegat, J.M. DeRouchey, S.S. Dritz, M.D. Tokach, J.C. Woodworth, and R.D. Goodband)

ASI Faculty Spotlight



Joann Kouba (jkouba@k-state.edu; 785-532-1240)

Associate Professor, Equine Physiology

Dr. Kouba was born and raised in Bellevue, Nebraska. She entered Northeast Missouri State University in 1989, majoring in Animal Science with an Equine emphasis. Following graduation, she began her graduate career in Animal Physiology at Clemson University in Clemson, South Carolina. While at Clemson, she was actively involved in its undergraduate teaching program and her thesis focused on the use of Domperidone to treat pregnant mares grazing endophyte-infected tall fescue. She then moved to Texas and started on her Ph.D. in Equine Reproductive Physiology at Texas A&M University. While at A&M, Dr. Kouba was also heavily involved in its undergraduate program, teaching courses in horse training, horsemanship, reproduction and management, as well as the introductory animal science labs. Her dissertation dealt with the control of prolactin secretion in the pregnant mare, and the interaction between

various reproductive hormones and endogenous opioids.

In the fall of 2001, Dr. Kouba joined the KSU faculty as the horse teaching and research specialist with an 80% teaching and 20% research appointment. Since 2001, she has taught 10 on-campus equine courses as well as 2 distance courses, advises ~60 students annually, and mentors a number of graduate students pursuing advanced degrees with an equine emphasis. Beyond her on-campus classes, Dr. Kouba also believes in enhancing educational opportunities for students through international experiences. She has led 3 equine study tours, visiting England, Scotland, Ireland, Spain, Portugal and Morocco. Her research program focuses on understanding how reproduction is controlled in the mare, and the interaction between nutrition and reproductive function.

In addition to her equine interests, Dr. Kouba and her family also enjoy showing and breeding German Shepherds.



Teresa Douthit (douthit@k-state.edu; 785-532-1268)

Professor, Equine Nutrition

A native of St. Francis, KS, Teresa Douthit was raised on a farm that produced a variety of crops and registered horned Hereford cattle. While in St. Francis, Dr. Douthit showed horses, was active in 4-H and FFA, and was a member of several state champion judging teams.

Dr. Douthit then judged livestock at Butler County Community College and later at KSU. She was also on the K-State Horse Judging Team that won the Congress in 1998. She graduated *summa cum laude* from KSU with a degree in animal science in 1999. She then completed an MS under Dr. Randel Raub in equine nutrition. While working on her MS, Teresa was an assistant coach for the KSU horse judging team and helped form the very first KSU equestrian team.

Teresa went to Colorado State in 2001 for a PhD in reproductive physiology. There she coached the horse judging team to two national championships at Arabian Nationals. She worked under Drs. Gordon Niswender and Jason Bruemmer in studying luteal function in mares and ewes.

In 2004, Dr. Douthit returned to K-State to accept a joint appointment with animal science (40%) and the equestrian team (60%). After serving as head coach to the KSU varsity equestrian team and coaching the team to a Reserve National Championship (along with producing several national champion riders), Dr. Douthit changed gears and became a full-time faculty member in the ASI department. In November 2006, she became an Assistant Professor in Equine Nutrition here at K-State. She now teaches Horse Science, Equine Nutrition, Equine Exercise Physiology and Monogastric Nutrition. Her current appointment is 70% teaching and 30% research.

Dr. Douthit's research program has focused on hindgut function in the horse.

What Producers Should Be Thinking About.....

WHAT PRODUCERS SHOULD BE THINKING ABOUT IN AUGUST.....



BEEF -- *Tips by Dale Blasi, Extension Beef Specialist*

August is when forages are maturing, weaning time is approaching, and weather dictates several key management decisions.

Breeding Season

- Given high feed price inputs, ruthlessly cull all unsound cows from the herd. Cull cows that do not conceive after three services by a fertile bull.
- Limit the breeding season. Remove bulls after 60 days with cows, 45 days with heifers.

These methods contribute to a more uniform calf crop, makes winter feed management easier and increases the success rate of next year's breeding season.

Cow Herd Nutrition

- Provide ample amounts of clean, fresh drinking water.
- Conduct an inventory of forage needs for the winter feeding period.
- Plan ahead and price availability of byproducts, such as wheat-middlings, dried distillers grains, etc. prior to typical seasonal price increases.

Herd Health

- If pinkeye is likely to be a problem, consider the following preventive and therapeutic measures.

Preventive:

- ◆ Make sure the herd is receiving adequate vitamins and trace minerals in their diet.
- ◆ Consider vaccination for pinkeye and IBR (consult your local veterinarian).
- ◆ Control face flies.
- ◆ Clip pastures with tall, coarse grasses that may irritate eyes.

Therapy:

- ◆ Administer an intramuscular injection of long-acting oxytetracycline when symptoms are first noticed.
 - ◆ Shut out irritating sunlight by patching eyes, shade, etc.
 - ◆ Control flies.
 - ◆ Consult your veterinarian.
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- Consider revaccinating for the respiratory diseases in any animals that will be taken to livestock shows.
 - Vaccinate suckling calves for IBR, BVD, PI3, BRSV, and possibly pasteurella at least three weeks prior to weaning.
 - Revaccinate all calves for blackleg.
 - Vaccinate replacement heifers for brucellosis (4 to 10 months of age).
 - Monitor and treat footrot.

Forage/Pasture Management

- Enhance grazing distribution with mineral mixture placement away from water sources.
- Observe pasture weed problems to aid in planning control methods needed next spring.
- Monitor grazing conditions and rotate pastures if possible and(or) practical.
- If pastures will run out in late summer, get ready to provide emergency feeds. Start supplemental feeding before pastures are gone to extend grazing.
- Harvest and store forages properly. Minimize waste by reducing spoilage.
- Sample harvested forages and have them analyzed for nitrate and nutrient composition.
- Plan for sufficient standing pasture for winter grazing needs.
- For stocker cattle and replacement heifers, supplement maturing grasses with an acceptable degradable intake protein/ionophore (feed additive) type supplement.

General Management

- Avoid unnecessary heat stress - Don't handle and/or truck cattle during the heat of the day.
- Repair, replace and improve facilities needed for fall processing.
- Order supplies, vaccines, tags and other products needed at weaning time.
- Consider earlier than normal weaning, but have a marketing plan in place.

*We need your input! If you have any suggestions or comments on **News from KSU Animal Sciences**, please let us know by e-mail to lschrein@ksu.edu or phone 785-532-1267.*