



K News from KSU Animal Sciences

- ↪ The **KSU Youth Horse Judging Camp – Beginning Section** will be hosted on Tuesday, June 1. This camp is designed for youth with little to no experience judging horses. Emphasis will be focused on the placings of classes commonly seen at horse judging contests and the basics of oral reasons. Classes covered include stock type halter, ranch riding, western horsemanship, and English equitation. The camp will be hosted in Weber Arena on the KSU Campus. Registration fee is \$45 per student and due by May 17, 2021. For a complete schedule, visit www.asi.k-state.edu/research-and-extension/youth-programs/judging-camps.html. For more information, contact James Lattimer (785-532-2840; jlattimer@ksu.edu).
- ↪ The **KSU Youth Horse Judging Camp – Advanced Section** will be held on Wednesday and Thursday, June 2-3, 2021. This camp is designed for youth with some experience judging horses and who would like to enhance their evaluation and oral reasons skills. Individual coaching and mentorship will be used to challenge the student to continually improve throughout camp. Classes covered include stock type halter, western pleasure, hunter under saddle, reining, horsemanship/equitation, trail, and ranch riding. Housing will be in the KSU Dorms. The camp will be hosted in Weber Arena on the KSU Campus. Registration fee is \$150 per student and must be paid by May 17. For a complete schedule, visit www.asi.k-state.edu/research-and-extension/youth-programs/judging-camps.html. For more information, contact James Lattimer (785-532-2840; jlattimer@ksu.edu).
- ↪ The **2021 KSU Dairy Days** will be hosted on Wednesday, June 2, in Seneca, KS, and Thursday, June 3, in Whiteside, KS. Dairy Days are hosted annually to update and inform dairy producers and allied industry on hot topics and findings from research projects relevant to the Kansas dairy industry. The Kansas Dairy Commission is the lunch sponsor for both meetings. The Reno County meeting will be held in conjunction with the Reno County DHIA Annual Meeting. Both days will begin at 9:45 a.m. and adjourn at 3 p.m.
 People interested in attending are encouraged to pre-register. For the Seneca location call 785-336-2184 or e-mail jholthau@ksu.edu; Whiteside location call 620-662-2371 or e-mail marcus46@ksu.edu. More information can be found at <https://www.asi.k-state.edu/research-and-extension/dairy/dairy-days.html>, or contact Kevin Snell at kpsnell@ksu.edu or 785-532-1281.
- ↪ **K-State Livestock Judging Camps** scheduled – The camp is a three-day, intense judging camp designed for 4-H and FFA members (ages 14-18) who are seriously interested in enhancing their livestock judging and oral communication skills. Prior livestock judging experience is necessary for this camp. Workouts will be conducted similar to those at a collegiate level. Chris Mullinix, KSU Livestock Judging Team Coach, will conduct the training for each camp. The camp will focus primarily on the proper format, terminology, and presentation of oral reasons. Camp participants will also be exposed to livestock evaluation skills and incorporating performance records in the decision making process. The 2021 camps will be: June 4-6 (Friday-Sunday); June 7-9 (Monday-Wednesday); or June 14-16 (Monday-Wednesday). For a complete schedule and registration information, visit www.asi.k-state.edu/research-and-extension/youth-programs/judging-camps.html. The registration deadline is May 15. For more information, contact Chris Mullinix (785-532-1917; cmullinix@k-state.edu).
- ↪ **Implementing Your Company’s HACCP Plan** will be hosted June 9-11, 2021, in Manhattan, KS. This workshop uses curriculum recognized by the International HACCP Alliance for meat and poultry processors. The registration fee is \$450 per person and is available online at <http://bit.ly/HACCPCourse>. For more information, contact Dr. Liz Boyle (lboyle@ksu.edu; 785-532-1247).

Department of Animal Sciences and Industry

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May 2021 issue



UPCOMING EVENTS...

- ☞ **K-State Animal Science Leadership Academy (KASLA) 2021 Hybrid Program** - The 2021 K-State Animal Science Leadership Academy, to be held June 15-18, will offer a hybrid format of virtual instruction, followed by a closing, one-day, in-person experience on the KSU campus. The goal of this academy will be to further develop young leaders within the livestock industry and prepare them for a successful future in this field. Participant safety is of the utmost importance. Local and university safety protocol will guide our interaction. For questions about the academy, visit www.asi.ksu.edu/KASLA or contact Sharon Breiner, Director, at sbreiner@ksu.edu or 785-532-1267.
- ☞ **State Livestock Nominations due June 15** – 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. Both state shows now have 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 2021 nomination information has been distributed to county offices and may be found on the KSU Youth Livestock Program website (www.asi.k-state.edu/research-and-extension/youth-programs). The 2021 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 as the second page of each specie nomination form, on the KSU Youth Livestock Program website or through the local county office. 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 (4-H exhibitors) or FFA advisor (FFA exhibitors). There should not be a single signature on forms or DNA, unless there is only one child eligible to exhibit within the family. Please double check that there are not any blank fields or questions on the Declaration and Nomination Forms before placing them in the mail. Continuing in 2021, 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. Certification needs to be completed at the time of nomination. Youth who only have registered breeding females will submit this information at the time of entry. Ear notches are also 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 needs 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 KSU 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 available on the Grand Drive website (<https://www.kansasstatefair.com/p/competitions/2020-special-edition-4-h-ffa-grand-drive>) and KJLS (<https://kjls.org/>) 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 that 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 specific show (KSF Grand Drive 620-669-3623; KJLS 316-706-9750).
- ☞ **YQCA Requirement for 2021 State Shows** – Youth for the Quality Care of Animals (YQCA) is a national, multi-species youth livestock quality assurance program that focuses on food safety, animal well-being, and life skill development, through age-appropriate educational curriculum for youth 7-21 years of age. This program is an annual certification that grows with a young person, so the learning modules are different every year. ALL exhibitors are required to be YQCA certified in order to participate in the 2021 Kansas State Fair Grand Drive and/or Kansas Junior Livestock Show (KJLS). This includes youth who will be showing market animals, commercial breeding females, and/or registered purebred breeding females. Given the COVID-19 situation, families should contact their local extension office to see what options are available in their local area. There is also a new option for 7-year-old members to obtain certification. They must participate in an instructor-led class with a parent or guardian. Those who need a web-based option for a 7-year-old exhibitor should contact their local extension office. The YQCA requirement for 7-year-old KJLS exhibitors will go into effect for this year's show (2021). Families need to attach copies of each child's YQCA certificate to their Declaration Form at the time of nomination. Certification needs to be completed at the time of nomination or the materials will be considered incomplete. More information may be found on the K-State Youth Livestock website, under Youth Livestock Quality Assurance, by contacting the local extension office or via Lexie Hayes at adhayes@ksu.edu or 785-532-1264.

UPCOMING EVENTS...

☞ The **2021 KSU Pullet Sale** will be held on June 26th in Manhattan. Orders are currently being accepted online at <https://www.asi.k-state.edu/research-and-extension/poultry/pullettsale.html>. The pullets will be fully vaccinated and ready to lay in a few days after placement. Look for more information on the website, or call the Poultry and Gamebird Research Center at (785) 539-5041. Due to Covid-19, the students planned a smaller event and thus will have a limited number of birds available on a first come, first served basis. For more information, contact Scott Beyer at sbeyer@k-state.edu or 785-532-1201.

☞ The **2021 Dr. Bob Hines Kansas Swine Classic** is scheduled for July 9-10, at the Riley County Fairgrounds in CiCo Park in Manhattan. This two-day event includes an educational swine skillathon, photography contest, showmanship, and a prospect and market hog show. It is open to all Kansas youth ages 7-18 as of January 1, 2021. Online entries are required at <http://bit.ly/21SwineClassicEntry>. Checks to accompany entry receipt must be postmarked by June 15, 2021. Outlined below is a schedule of this year's program.

Friday, July 9

8:30 a.m. Barn open for arrival
 Noon All pigs 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. Ice cream party by the show ring
 5:30 p.m. Showmanship contests

Saturday, July 10

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

Watch the youth livestock program website, as well as the KSU Swine website and Facebook, for the latest details! For more information, contact Joel DeRouchey (785-532-2280; jderouch@ksu.edu) or Lexie Hayes (785-532-1264; adhayes@ksu.edu).

☞ Mark Thursday, September 30, 2021, on your calendar for the **KSU Beef Stocker Field Day** held at the KSU Beef Stocker Unit. For more information, contact Dale Blasi (dblasi@ksu.edu; 785-532-5427).

☞ Congratulations to Katie Lybarger who was named the **Don and Jane Good Outstanding Senior**. While an undergraduate student in Animal Sciences and Industry (ASI) at Kansas State University, Katie was a member of the 2020 Champion ASI Academic Quadrathlon Team, 2019 Reserve National Champion Meat Judging Team, 2020 Meat Evaluation Team and 2019 Meat Science Quiz Bowl Team. Lybarger plans to obtain her master's degree in meat science from K-State.

☞ Watch the **KSU ASI Headlines** for April 2021 and find out the latest happenings in the department. Follow the link at https://youtu.be/Hl6DX_KUv8Y. For questions about the department, contact Dr. Mike Day, ASI Department Head, at 785-532-1259; mlday@k-state.edu.

CALENDAR OF UPCOMING EVENTS

Date	Event	Location
June 1, 2021	KSU Youth Horse Judging Camp – Beginning Section	Manhattan
June 2-3, 2021	KSU Youth Horse Judging Camp – Advanced Section	Manhattan
June 2, 2021	KSU Dairy Days	Seneca, KS
June 3, 2021	KSU Dairy Days	Whiteside, KS
June 4-6, 2021	K-State Livestock Judging Camp	Manhattan
June 7-9, 2021	K-State Livestock Judging Camp	Manhattan
June 9-11, 2021	Implementing Your Company's HACCP Plan	Manhattan
June 14-16, 2021	K-State Livestock Judging Camp	Manhattan
June 15-18, 2021	K-State Animal Science Leadership Academy-Hybrid	
June 15, 2021	Small Livestock & Commercial Heifer Nominations Due	
June 26, 2021	KSU Pullet Sale	Manhattan
July 9-10, 2021	Dr. Bob Hines Kansas Swine Classic	Manhattan
September 30, 2021	KSU Beef Stocker Field Day	Manhattan

WHAT'S NEW...

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

“Just the Good Stuff”

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

“Focus on Feedlots: Steer Performance in 2020”

The *K-State Focus on Feedlots* is a monthly publication that summarizes feedlot performance and closeout data from cooperating commercial cattle feeding operations in Kansas. Each year I summarize the data from the monthly reports, in an effort to document annual trends in fed cattle performance and cost of gain. The table below summarizes the annual performance of steers in 2018, 2019, and 2020. In 2020, participating feedlots marketed 278,743 steers, 12,384 fewer steers than were marketed previously in 2019. In weights remained steady averaging 774 lbs in 2020, 771 lbs in 2019, and 779 lbs in 2018. However, final weight was approximately 50 lbs greater in 2020 averaging 1446 lbs in 2020, compared to 1397 lbs and 1398 lbs in 2019 and 2018, respectively. Steers were on feed an average of 180 days in 2020, which is similar to the 178 days reported in 2019. However, the upper range in days on feed reported exceeded 200 days which is greater than the upper range observed in 2019 and 2018 by 12 and 21 days, respectively. Average daily gain was similar among years, but feed conversion was slightly lower in 2020 relative to 2019, despite the observed increase in exit weights. Death loss was also reportedly lower in 2020 (1.57%) than 2019 (1.72%). Reported total cost of gain averaged \$80.51/cwt. in 2020.

Annual Closeout Summary: Steers

Year	Total Head	In Weight	Final Weight	Days on Feed	Avg. Daily Gain	Feed/Gain (Dry Basis)	% Death Loss	Cost of Gain/Cwt
2020	278,743	774 (690-833)	1446 (1402-1478)	180 (160-203)	3.65 (3.38-3.88)	6.13 (6.00-6.37)	1.57 (1.20-2.15)	\$80.51 (75.79-87.24)
2019	291,127	771 (731-821)	1397 (1344-1464)	178 (161-191)	3.50 (3.13-3.85)	6.37 (6.03-7.08)	1.72 (1.40-2.34)	\$84.37 (81.61-91.67)
2018	349,595	779 (738-821)	1398 (1356-1444)	173 (163-182)	3.54 (3.34-3.66)	6.12 (5.96-6.34)	1.58 (1.27-2.12)	\$78.10 (74.87-80.31)

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

WHAT'S NEW...

- ☞ **Research Assistant (Cow-Calf Unit) position** - This position will support operations of the KSU Commercial Cow-Calf Unit under the direct supervision of the Farm Manager. The incumbent must be willing to be called to work to collect animals who have escaped in the evenings, weekends, and/or on Holidays, and be willing to work outdoors in extreme heat or cold temperatures. The incumbent will be deemed "Essential" during periods of Inclement Weather as directed by University Administration and will be expected to report to work as usual. This is a full-time, Unclassified Professional Staff position (Job #510546). To apply, go to <https://careers.pageuppeople.com/742/cw/en-us/job/510546/research-assistant>. For more information, contact Jack Lemmon, Search Committee Chair, at lemmon08@k-state.edu.
- ☞ **Managing the Intake of Mineral Supplements that Contain Feed Additives for Beef Calves Grazing Flint Hills Nature Grass Pasture is Important** - The objective of this study was to determine the efficacy of mineral supplementation programs that provide a performance-enhancing antibiotic for improving growth of stocker calves grazing native grass pastures in the Flint Hills region of Kansas.
- A 91-day grazing study was conducted at the KSU Beef Stocker Unit starting in May 2020 utilizing 314 Brahman-influenced crossbred steers from Gorman, TX. Steers were randomized and allocated across 18 pastures and randomly assigned to three treatment groups with six replications (paddocks) per group. The treatments assessed consisted of standard free-choice mineral: 1) control, 2) Bambermycin, and 3) Monensin. Cattle were weighed individually on day 0 and day 90. Group pasture pen scale weights were taken and recorded on day 0, 45, and 90. During the initial stages of the trial, the consumption of the Monensin treatment was significantly lower than the other two treatments. However, by week seven the Monensin consumption was improved yet still lower than the other two treatments. There were no significant differences in average daily gain from the mineral supplement over the 91-day trial.
- The Bottom Line...** Over the 91-day trial, there were no significant differences in average daily gain between the mineral treatments. More information is available on this experiment and others in the KSU Cattlemen's Day report at www.KSUBeef.org. (This study conducted by R.L. Allison, Z.M. Duncan, C.E. Schneider, W.R. Hollenbeck, K.J. Suhr, B.J. Dedrickson, and D.A. Blasi.)
- ☞ **Trends in the Percentage of Doses of Modified Live, Killed, and Combination Respiratory Viral Vaccines Administered to Beef Calves Offered for Sale in Summer Video Auctions from 2000 Through 2018** - The objective of the study was to identify trends in the percentage of doses of modified live, killed, and combination respiratory viral vaccines administered to lots of beef calves.
- Nineteen years of data (2000–2018) from a livestock video auction service were analyzed to quantify trends in percentage of doses of respiratory viral vaccine administered to beef calves. Named respiratory viral vaccines were classified into three groups based on the antigens they contained: all modified live antigens, all killed antigens, and combination of modified live and killed antigens. The Cochran-Armitage Trend Test determined presence of a trend in usage of each type. There was an increase in the number of modified live viral vaccine doses given to beef calf lots from 2000 (41.7%, 121,976 doses) through 2018 (90.3%, 673,862 doses). The trend in the number of doses of both killed and combination viral vaccines administered to beef calves declined from 2000 through 2018. In 2000, 31.2% (91,176 doses) and 27.1% (79,225 doses) of the total respiratory viral vaccines given to beef calf lots were killed or combination vaccines, respectively. By 2018, only 4.2% (31,325 doses) of respiratory viral vaccines were killed and only 5.5% (41,136 doses) were combination.
- The Bottom Line...** This dramatic shift indicates an industry trend towards increasing modified live viral vaccine utilization compared with declining usage of killed and combination respiratory viral vaccines. This trend may be a result of modified live viral vaccine approval for use in suckling calves nursing pregnant cows. More information is available on this experiment and others in the KSU Cattlemen's Day report at www.KSUBeef.org. (This study conducted by M.J. Smith, K.E. Fike, M.E. King, E.D. McCabe, G.M. Rogers, and K.G. Odde.)
- ☞ **Influence of Particle Size of Enogen® Feed High Amylase and Conventional Yellow Dent Corn on Finishing Pig Performance, Carcass Characteristics, and Stomach Ulceration** - A total of 323 pigs were used in an 83-d growth trial to evaluate the influence of particle size of Enogen Feed corn and conventional yellow dent corn on finishing pig performance. Pigs were randomly assigned to pens (9 pigs per pen) and pens were allotted by weight to 1 of 6 dietary treatments in a randomized complete block design with 6 pens per treatment. Treatments were arranged in a 2 × 3 factorial with main effects of corn source (Enogen Feed corn or conventional yellow dent) and 3 ground corn particle sizes (300, 600, or 900 microns). Overall, from d 0 to 83, there were no differences among corn sources observed for average daily gain (ADG), average daily feed intake (ADFI) and feed efficiency (F/G). As particle size of the diet decreased from 900 to 300 microns, ADG increased. Overall F/G improved as corn particle size was decreased.
- In conclusion...** Reducing the particle size of the diet improves feed efficiency with no major differences between corn sources for overall 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 H.R. Williams, M.D. Tokach, J.C. Woodworth, R.D. Goodband, J.M. DeRouchey, S.S. Dritz, V. Shivanna, C.B. Paulk and H.I. Calderón.)

WHAT'S NEW...

↵ **Impact of Storage Conditions and Premix Type on Fat-Soluble Vitamin Stability** - The objective was to determine the impact of 0, 30, 60, or 90 d storage time on fat-soluble vitamin stability when vitamin premix (VP) and vitamin trace mineral premix (VTM) are blended with 1% inclusion of medium chain fatty acids (MCFA; 1:1:1 blend of C6:C8:C10) or mineral oil (MO) with different environmental conditions. Treatments were arranged as a $2 \times 2 \times 2 \times 4$ factorial, with 2 premix type (VP or VTM), 2 oil type (MO or MCFA), 2 storage conditions [room temperature (RT) or high-heat, high-humidity (HTHH)] and 3 storage times (30, 60, or 90 d). Samples were stored at room temperature in a temperature-controlled laboratory (approximately 72°F) for RT or in an environmentally-controlled chamber set at 104°F and 75% humidity for HTHH. For Exp. 1, there was a premix type \times oil type \times storage time interaction of vitamin A. Vitamin A was stable in VP mixed with MCFA and VTM mixed with MO when stored from 0 to 90 d. While increasing storage time continued to degrade vitamin A in VP mixed with MO and VTM mixed with MCFA. There was a premix type \times storage condition interaction. When premixes were stored under HTHH, the VTM had greater vitamin A stability as compared to VP. However, there was no difference for vitamin A stability between VP and VTM when stored under RT. There was an oil type \times storage condition interaction. The premixes with MO had a higher vitamin A stability compared to the premixes with MCFA when stored at RT. However, there was no difference for vitamin A stability between premix with MO and MCFA when stored at HTHH. There was a storage condition \times time interaction. When premixes were stored at HTHH, the vitamin A stability decreased as storage time increased to d 90. However, there was no difference in vitamin A stability as storage time increased to d 90 when stored at RT. Vitamin D3 stability was increased when stored at RT compared to premixes stored at HTHH. There was a decrease in vitamin D3 stability as storage time increased from d 30 to 60; however, there was no further decrease from d 60 to 90. There was a storage condition \times time interaction for Vitamin E stability. Vitamin E was stable at both RT and HTHH up to 30 d. However, the degradation rate of vitamin E was faster when premixes were stored under HTHH versus RT after 30 d of storage. The objective of Exp. 2 was to determine the effect of MCFA addition and premix type on fat-soluble vitamin stability after exposure to a heat pulse process. Treatments consisted of a 2×2 factorial, with 2 premix types (VP or VTM) and 2 oil types (MO or MCFA). All treatments were heated in an environmentally-control chamber at 140°F and 20% humidity. Vitamin A stability was reduced in premixes containing MCFA after premixes were heated at 140°F.

In conclusion...The premix type did not affect the stability of vitamins A and D3. However, after the heat pulse treatment, vitamin E stability was reduced in VP compared to VTM. More information is available on this experiment and others in the KSU Swine Day report at www.KSUswine.org. (This study conducted by M. Saensukjaroenphon, C.E. Evans, C.K. Jones, J.T. Gebhardt, J.C. Woodworth, C.R Stark, J.R. Bergstrom, and C.B. Paulk.)

↵ **The Impact of Attenuated Porcine Reproductive and Respiratory Syndrome (PRRS) Vaccine on the Efficacy of Subunit Classical Swine Fever Vaccine** - Commercial pigs have been routinely injected with multiple vaccines that are either administered separately or co-administered at the same time for convenience, and to minimize pig stress. However, viruses, including attenuated and modified live virus (MLV) vaccines, can modulate host immune responses that could potentially impact the efficacy of co-administered vaccines. Here we report the effects of pre- and co-administered Chinese highly pathogenic porcine reproductive and respiratory syndrome (PRRS) virus MLV, JXA1-R, on the efficacy of an emulsion-based classical swine fever virus (CSFV) subunit vaccine, KNB-E2. Immune responses to the CSFV and JXA-1R vaccines were evaluated by testing CSFV-specific and PRRSV-specific sera antibodies and then challenged with CSFV at 4 weeks post KNB-E2 vaccination. Pigs co-administered with JXA1-R vaccine and pigs vaccinated with JXA1-R two weeks before KNB-E2 vaccination had slightly lower CSFV-specific antibodies than pigs vaccinated with KNB-E2 alone at 3 weeks post KNB-E2 vaccination. However, both groups of JXA-1R/KNB-E2 vaccinated pigs were amply protected from CSF clinical symptoms upon challenge.

In conclusion...The immunological responses affected by various multiple vaccination combinations in swine would be an interesting aspect for future investigations. More information is available on this experiment and others in the KSU Swine Day report at www.KSUswine.org. (This study conducted by R. Madera, L. Wang, A.G. Cino-Ozuna, and J. Shi.)

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 their 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 their 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 three 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.



Jennifer Bormann (jbormann@k-state.edu; 785-532-1222)

Professor/Graduate Program Director

Originally from Muscatine, Iowa, Dr. Jennifer Minick Bormann grew up with Shorthorn cattle and horses. She earned a B.S. in Animal Science from Iowa State University in 1997, an M.S. in Animal Science from Oklahoma State University in 1999, and a Ph.D. in Animal Breeding and Genetics from Iowa State University in 2004. She joined the faculty at Kansas State University in 2004 with a 75% teaching and 25% research appointment. Dr. Bormann specializes in beef breeding and genetics and has worked on a number of projects, including collaborations with NCBA and the American Angus Association. Currently, she teaches Genetics, Animal Breeding Principles, Advanced Animal Breeding, Equine Genetics, and Introductory Horse Lab, and advises

undergraduate students.

Dr. Bormann, her husband, Dale, daughter, Kate, and son, Luke reside south of Manhattan with their horses and dogs.

WHAT PRODUCERS SHOULD BE THINKING ABOUT

WHAT PRODUCERS SHOULD BE THINKING ABOUT IN JULY...

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

Cow Herd Nutrition

- Provide plenty of clean, fresh water.
- Provide free-choice mineral to correct any mineral deficiencies or imbalances.
 - ✓ Monitor intake to insure levels are consistent with label specifications.
- Monitor grazing conditions and rotate pastures if possible and/or practical.
- If ammoniated wheat straw is planned for winter needs, follow these rules:
 - ✓ Best time is immediately after harvest, prior to weather deterioration.
 - ✓ Ammoniation process is temperature sensitive, fastest during hot days.
 - ✓ Apply 3% Anhydrous Ammonia (60 pounds/ton of straw).
 - ✓ Do **not** ammoniate wheat hay or any other intermediate or high-quality forage; production of imidazole can cause cattle hyperactivity and death.
 - ✓ Will double crude protein content, enhances intake, and be cost effective.
- Consider early weaning if drought conditions develop and persist.
- Consider creep feeding only if cost effective.

Herd Health

- Monitor and treat pink eye cases.
- Provide fly control. Consider all options, as price and efficiency will dictate the best option(s) to use.
- Monitor and treat foot rot cases.
- Avoid handling and transporting cattle during the hottest part of the day-reduce heat stress.
- Vaccinate replacement heifers for Brucellosis if within proper age range (4 - 10 months).
- Continue anaplasmosis control program (consult local veterinarian).

Forage/Pasture Management

- Check and maintain summer water supplies.
- Place mineral feeders strategically to enhance grazing distribution.
- Check water gaps after possible washouts.
- Harvest hay in a timely manner, think quality and quantity.
- Harvest sudan and sudan hybrids for hay in the boot stage (normally three to four feet in height). It is a good idea to run a routine nitrate test on a field before harvesting hay.
- Plan hay storage placement wisely. Putting hay conveniently near feeding sites reduces labor, time demands, and equipment repair cost.

General Management

- Good fences and good brands make good neighbors.
- Check equipment (sprayers, dust bags, oilers, haying equipment) and repair or replace as needed. Have spare parts on hand, down time can make a big difference in hay quality.

*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.*