



# News from KSU Animal Sciences

## UPCOMING EVENTS...

- ↗ The 2019 **K-State Swine Profitability Conference** is scheduled for Tuesday, February 5, at the Stanley Stout Center, Manhattan, KS. The program will include:
  - 9:15 a.m. Coffee and Donuts
  - 9:30 a.m. Welcome
  - 9:45 a.m. International Trade and Market Outlook  
*Dr. Lee Schulz, Ag Economist, Iowa State University*
  - 10:30 a.m. Growth of the Carthage System in Kansas  
*Dr. Clayton Johnson, Veterinarian, Carthage Veterinary Service*
  - 11:15 a.m. Raising Pigs and Cattle on the High Plains  
*Grant Morgan, Poky Feeders, Inc.*
  - 12:00 noon Lunch
  - 1:15 p.m. Achieving High Production in Swine Dense Areas  
*Dr. Noel Williams, COO, Iowa Select Farms*
  - 2:00 p.m. Bright Future of the U.S. Swine Industry  
*Bill Even, CEO, National Pork Board*
  - 3:00 p.m. Adjourn

Pre-registration fee is \$25 per participant by January 26; registration at the door is \$50 per participant. The complete schedule and online registration information can be found at [www.KSUswine.org](http://www.KSUswine.org). For more information, contact Lois at [lschrein@ksu.edu](mailto:lschrein@ksu.edu) or 785-532-1267.

- ↗ **Kansas 4-H EID Livestock Tag Orders** are now open and can be submitted to the K-State Youth Livestock Program. This process has been transitioned to campus with the retirement of Dave Kehler. All market animals or commercial females that will be nominated for the 2019 Kansas State Fair Grand Drive and/or Kansas Junior Livestock Show (KJLS) must be tagged with an official Kansas 4-H EID tag. Market beef tag orders are due by December 28, 2018, with small livestock tag orders being due January 25, 2019. The order forms and other tagging resources may be found on the K-State Youth Livestock Program, under Kansas 4-H EID Tags (<https://www.asi.k-state.edu/research-and-extension/youth-programs/>). Payment must accompany the order form. Counties must designate an agent to be responsible for their tags, as well as keep records of the families in which each tag is applied to a project. For more information, contact Lexie Hayes as [adhayes@ksu.edu](mailto:adhayes@ksu.edu) or 785-532-1264.

### Department of Animal Sciences and Industry

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- ↪ **Make plans to attend Cattlemen's Day 2019** –The 106<sup>th</sup> annual Cattlemen's Day will be hosted Friday, March 1, 2019. The trade show and educational exhibits will open at 8 a.m. in Weber Arena.  
Registration for KSU Cattlemen's Day will be \$20 per person in advance or \$30 per person at the door. Morning refreshments and lunch are included with registration. A complete schedule will be coming soon to [www.asi.ksu.edu/cattlemensday](http://www.asi.ksu.edu/cattlemensday) or call 785-532-1267.  
If you are interested in exhibiting at Cattlemen's Day or have any questions, please contact Dale Blasi ([dblasi@ksu.edu](mailto:dblasi@ksu.edu); 785-532-5427) or Jim Drouillard ([jdrouill@ksu.edu](mailto:jdrouill@ksu.edu); 785-532-1204).
- ↪ The **42<sup>nd</sup> Annual Legacy Bull and Heifer Sale** will be March 1, 2019, at 4:00 p.m. at the Stanley Stout Center. Visit [www.asiksu.edu/bullsale](http://www.asiksu.edu/bullsale) for more information, as it becomes available, including the sale catalog.
- ↪ **Junior Swine Producer Day** is scheduled for Saturday, March 9, 2019, in Weber Arena on the K-State campus in Manhattan. This one-day educational event is devoted to the selection and management of youth swine projects. All ages and knowledge levels are invited! K-State faculty members, graduate students and guest speakers will cover topics including selection, meat science, ear notching, breeds, the state nomination process, herd health, nutrition and showmanship. An optional instructor-led YQCA session will also be held at the conclusion of the program. The cost for junior swine producer day is \$15 per person, if registration is submitted by February 15, 2019, or \$20 per person after the early deadline. All attendees, including youth and adults, must register. All participants who sign up by February 15 will also receive a t-shirt. Families may register online at <http://bit.ly/ksuasiregister> or by downloading the flyer (<http://bit.ly/ksujrproducerdays>), completing the bottom portion of the flyer and mailing it, with payment, to the K-State Youth Livestock Program. For more information, contact Lexie Hayes at [adhayes@ksu.edu](mailto:adhayes@ksu.edu) or 785-532-1264, or Joel DeRouchey at [jderouch@ksu.edu](mailto:jderouch@ksu.edu) or 785-532-2280.
- ↪ **Junior Meat Goat Producer Day** will be hosted on Saturday, March 30, 2019, in Weber Arena on the K-State campus in Manhattan. This one-day educational event is devoted to the selection and management of youth meat goat projects. All ages and knowledge levels are invited! K-State faculty members, graduate students, and guest speakers will cover topics including selection, meat science, nutrition, the state nomination process, herd health, reproduction, health and wellness, facilities and equipment, and showmanship. An optional instructor-led YQCA session will also be held at the conclusion of the program. The cost for junior meat goat producer day is \$15 per person, if registration is submitted by March 11, 2019, or \$20 per person after the early deadline. All attendees, including youth and adults, must register. All participants who sign up by March 11 will also receive a t-shirt. Families may register online at <http://bit.ly/ksuasiregister> or by downloading the flyer (<http://bit.ly/ksujrproducerdays>), completing the bottom portion of the flyer and mailing it, with payment, to the K-State Youth Livestock Program. For more information, contact Lexie Hayes at [adhayes@ksu.edu](mailto:adhayes@ksu.edu) or 785-532-1264.
- ↪ A **Sheep Scanning Certification School** will be April 10-12, 2019, at the KSU Sheep and Meat Goat Center. Kansas State University Animal Sciences and Industry and KSU Research and Extension, through sponsorship by the National Sheep Industry Improvement Center, are hosting this sheep scanning educational and certification school to increase the number of trained technicians available to sheep producers. Participants will receive educational material on sheep scanning and be shown methods of collecting loin-eye area and depth, back fat, and body wall thickness. Participants also will have the opportunity to become certified to collect ultrasound data for submission to the National Sheep Improvement Program. The registration fee is \$200 and the school will be limited to 20 students. For more information, contact Alison Crane at 785-532-1672; [arcrane@ksu.edu](mailto:arcrane@ksu.edu).



**YQCA Requirement for 2019 State Shows** – Youth for the Quality Care of Animals (YQCA) is a new, national, multi-species youth livestock quality assurance program that focuses on food safety, animal well-being, and character development, through age-appropriate educational curriculum for youth 8-21 years of age. This program is an annual certification that grows with a young person, so the learning modules are different every year. The second year of curriculum materials were launched in October 2018, and youth are welcome to begin completing the training at any time. ALL exhibitors are required to be YQCA certified in order to participate in the 2019 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. Since the program is designed to be a national standard for youth ages 8 and older, 7-year-olds who will be participating in KJLS are exempt from completing this requirement. However, they are encouraged to attend an instructor-led class for the educational value.

Youth may obtain their YQCA certification using one of the following methods:

- Instructor-led Training - \$3/child
- Online Course - \$12/child
- Test-Out Option – only 12 & 15 year olds eligible; online only; cost varies
- Valid Youth PQA+ Number – in lieu of YQCA certification

Families must create a user account and pre-register all youth through the YQCA website ([www.yqca.org](http://www.yqca.org)) in order for them to participate in the program and receive a certification number. The program is integrated with 4HOnline, so families need to use their 4HOnline credentials to access the site. FFA members and non-4-H'ers need to create an independent account through the YQCA website. Families must also pay for the instructor-led and online class through the site at the time of registration. It will require a credit card number or coupon code.

A child's YQCA certification is valid for one year, from the date they successfully complete the course. Youth will be required to submit a copy of their YQCA or Youth PQA+ (YPQA+) certificate/card as part of the nomination process by attaching it to their Declaration Form. Exhibitors who will only be showing registered purebred breeding females (heifers, gilts, ewes), and therefore do not have to nominate those animals, will be required to submit their number as part of the entry process. Youth need to complete their YQCA certification by June 15, 2019. Certification numbers must be valid through the last day of KJLS (September 29, 2019) to be accepted.

More information may be found on the K-State Youth Livestock Website, under Youth Livestock Quality Assurance (<https://www.asi.k-state.edu/research-and-extension/youth-programs/YQCA.html>), by contacting the local extension office, or via Lexie Hayes at [adhayes@ksu.edu](mailto:adhayes@ksu.edu) or 785-532-1264.

<b>CALENDAR OF UPCOMING EVENTS</b>		
<b>Date</b>	<b>Event</b>	<b>Location</b>
February 5, 2019	KSU Swine Profitability Conference	Manhattan
March 1, 2019	KSU Cattlemen's Day	Manhattan
March 1, 2019	Legacy Bull and Heifer Sale	Manhattan
March 9, 2019	Junior Swine Producer Day	Manhattan
March 30, 2019	Junior Meat Goat Producer Day	Manhattan
April 10-12, 2019	Sheep Scanning Certification School	Manhattan
August 24-25, 2019	Kansas 4-H Livestock Sweepstakes	Manhattan

# WHAT'S NEW.....

Merry Christmas and Happy New Year! I hope that you are able to enjoy the holiday season with family and friends. As we reflect on 2018, our Kansas livestock industry had numerous uncertainties with weather variation, volatile market prices and international trade. At the same time, producers continually portray optimism that makes us at your Land Grant University strive hard to provide the service and value that you require and deserve. As we look to 2019, we encourage all livestock producers to utilize the vast resources available through local, area and state Extension personnel. We are proud to be associated with the excellent team of professionals partnering in our mission to meet the needs of our clientele in the livestock industries.

*Thank you and have a Merry Christmas and Prosperous New Year.  
Joel DeRouchev, Extension State Leader, Animal Sciences and Industry*

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

### ***“Reflection with a Purpose”***

Although it does not seem possible, the New Year will soon be upon us. This is a great time for individuals and organizations to reflect back on the events of the past 12 months. However, the value of reflection dramatically increases if it is used as a tool to evaluate not only where you or the organization has been but also where it is headed in the future. A few basic questions can be used to guide the process of “Reflecting with a Purpose”

*What did you or the business succeed at?*

*What were your failures?*

*What was learned from those successes and failures?*

*What would you like to do more of or what generated positive outcomes for the organization?*

*What should you stop doing?*

For more information, contact Justin Waggoner at [jwaggon@ksu.edu](mailto:jwaggon@ksu.edu).

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

### ***“Mud Season....Again”***

Many locations in Kansas have experienced wet conditions this fall. Thus, I thought this article by Chris Reinhardt, former Extension Feedlot Specialist, was worth sharing.

Consider the humble Box Blade -- As a feedlot nutritionist, you'd think my favorite piece of equipment or technology would be the steam-flaker, the feed mixer, or the small-ingredient inclusion system. No. I love the box blade.

Why? Because the nutritionist owns performance. BRD belongs to someone else, but when closeouts are chronically below expectations, the nutritionist often takes the heat.

As we come into a wet winter, lots can become muddy, and mud has devastating impacts on performance.

Cattle need a (relatively) dry, comfortable place to lie down. If excessive moisture has resulted in destruction of the mound, it's time to run the box blade. Cattle that cannot rest do not perform.

Cattle should have 20-25 square feet of mound area on which to lie down. The top surface (5-10 feet wide) of the mound should be crowned side-to-side, and longitudinally the mound should also have a mild grade similar to the direction of the general slope of the pen, which is normally between 1 and 6%. The sides of the mound should have a slope of 1:5 to enhance drainage yet still allow cattle to lie on the surface.

The end of the mound should connect directly to the concrete bunk pad so that, especially during muddy conditions, cattle can move freely and easily between the mound and the bunk and water areas. This will encourage both feed consumption and resting behavior, both of which will enhance performance during and after inclement weather.

For more information, contact Justin Waggoner at [jwaggon@ksu.edu](mailto:jwaggon@ksu.edu).

↪ The Department of Animal Sciences and Industry at Kansas State University is seeking applicants for the position of **Office Specialist II**. This position is a full-time, University Support Staff (USS) position (job no 505284). This position provides clerical support of teaching, research, and extension faculty in Weber Hall. This position is responsible for daily operation of the Animal Sciences and Industry Testing Center and all mail room responsibilities. For more information, contact Joel DeRouchey, Search Committee Chair, at 532-2280 or [jderouch@k-state.edu](mailto:jderouch@k-state.edu). To apply, go to <http://careers.k-state.edu/cw/en-us/job/505284/office-specialist-ii>.

↪ **Feet and Leg Traits Are Moderately to Lowly Heritable in Red Angus Cattle** - The goals of this study were to identify feet and leg indicator traits to be used in beef breed genetic evaluations and develop a scoring method that can be easily adopted by cattle producers. Data were analyzed on 1,885 Red Angus cattle, and after editing, 1,720 records were used for analysis. Feet and leg phenotypes were obtained from August 2015 through September 2017 for 14 traits. Trained livestock evaluators collected measurements using an electronic tablet with offline data storage capabilities. Heritability estimates for all 14 traits were calculated from two different measurements of scale, the original 1-100 scale (1 and 100 are extreme, 50 is desirable), and scores truncated to a 1-9 scale (one and nine are extreme, five is desirable). Genetic parameters were estimated using maximum log likelihood procedures.

**Bottom Line...** Feet and leg traits are moderately to lowly heritable; however, producers can still select on traits for improved soundness. Scoring on a simpler, less granular measurement of scale (1-9) is appropriate to be used in further research. View the complete research report at [www.asi.ksu.edu/cattlemensday](http://www.asi.ksu.edu/cattlemensday). For more information contact, Bob Weaber (785-532-1460; [bweaber@ksu.edu](mailto:bweaber@ksu.edu)).

↪ **Effect of Lysine-Fermentation By-Product on Urine pH and Total Urine Bacteria Count in Lactating Sows** - A total of 27 mixed parity sows were used in a lactation study to determine the effect of a lysine-fermentation by-product on sow urine pH and total urine bacteria counts. On d 110 of gestation, females were weighed, blocked by BW and parity, and allotted to one of two dietary treatments. Dietary treatments included a control (corn-soybean meal lactation diet) or the control diet that was acidified by the addition of 1.75% (as-fed basis) of a lysine-fermentation by-product. The dietary electrolyte balance (dEB) was calculated using the following equation ( $dEB = \{[(Na/23) + (K/39.1)] - [(Cl/35.5) + (S/16)]\} \times 10,000$ ). The calculated dEB was 95.9 and -23.7 mEq/kg for the control and acidified diets, respectively. Sows were fed the lysine fermentation by-product diet from d 110 of gestation until d 10 of lactation, at which point they were switched to the control diet for the remainder of the lactation period. There was no evidence for difference in urine pH between dietary treatments at d 110 of gestation; however, at farrowing and d 10 of lactation, there was a reduction in urine pH in sows fed the lysine-fermentation by-product compared to sows fed the control diet. By weaning, there was no evidence for differences in urine pH observed among the dietary treatments. There was no evidence for differences in total bacteria count in urine between sows fed either dietary treatment on d 110 of gestation, farrowing, d 10 of lactation, or weaning.

**Bottom Line...** Overall, lowering dEB with the lysine-fermentation by-product resulted in decreased urine pH. Additional research should be conducted with a larger number of sows to determine the impact of lysine fermentation by-product on indicators of sow farm productivity and profitability. More information is available on this experiment and others in the KSU Swine Day Report at [www.KSUswine.org](http://www.KSUswine.org). (This study conducted by K.M. Gourley, J.M. DeRouchey, J.C. Woodworth, M.D. Tokach, S.S. Dritz, R.D. Goodband, and K.J. Touchette)

↪ **Effects of Feeding Increasing Levels of Iron from Iron Sulfate or Iron Carbonate on Nursery Pig Growth Performance and Blood Criteria** - A total of 140 weanling pigs were used in a 32-d study evaluating the effects of increasing dietary iron from either iron sulfate (FeSO<sub>4</sub>) or a micronized, agglomerated ferrous carbonate (FeCO<sub>3</sub>) on nursery pig growth performance and blood criteria. The micronized form of FeCO<sub>3</sub> is designed to improve nursery pig growth performance and blood iron status. Pigs used for this trial did not receive an iron injection after birth in order to increase sensitivity to added dietary iron. Pigs were weaned at approximately 21 d and were allotted to pens based on initial BW in a randomized complete block design with five pigs in each pen and four pens per treatment. Experimental treatments were arranged as a 2 × 3 + 1 factorial with main effects of dietary iron source (FeSO<sub>4</sub> vs. FeCO<sub>3</sub>) and level (10, 30, or 50 ppm) plus a negative control with no additional dietary iron. The basal diet was formulated to contain 40 ppm total dietary iron based on ingredient contributions and was formulated with an iron-free trace mineral premix. Experimental diets were formulated below the pigs' recommended iron requirement based on National Research Council (NRC) estimates. Experimental diets were fed in pellet form for the duration of the trial. From d 0 to 32, there were no iron source × level interactions observed. Increasing iron improved average daily gain (ADG), average daily feed intake (ADFI), feed efficiency (F/G), hemoglobin (Hgb), and hematocrit (Hct). There was no evidence of difference for an iron source effect on growth performance or blood criteria measured.

**Bottom Line...** Therefore, either iron source can be used in diets fed to weanling pigs without affecting performance. More information is available on this experiment and others in the KSU Swine Day Report at [www.KSUswine.org](http://www.KSUswine.org). (This study conducted by H.E. Williams, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz, M.D. Tokach, R.D. Goodband, and J. Usry)



**Evaluating Medium Chain Fatty Acids as an Alternative to Chlortetracycline in Nursery Pig Diets** - An experiment was conducted to evaluate medium chain fatty acids (MCFA) as a potential alternative to chlortetracycline (CTC) in nursery pigs. One hundred entire male pigs were used in a 29-d disease challenge study. Pigs were allowed 5 acclimation days after weaning, followed by 2 d of disease challenge with Enterotoxigenic  $\beta$ -hemolytic Escherichia coli (ETEC), serotype O149:K91: K88. After the challenge, pigs were allotted to a diet with one of five treatments: 1) control with no additives; 2) 400 g/ton CTC (Chlortet 200G, Eco Animal Health, London, United Kingdom); 3) 1.08% of a 1:1:1 blend of C6:0, C8:0, and C10:0 (Nuscience Group, Drongen, Belgium); 4) 3.93% developmental Product A (Nuscience Group, Drongen, Belgium); and 5) 1.04% developmental Product B (Kemin Industries, Des Moines, IA, USA). Treatments 3, 4, and 5 were included at rates to derive a 1% MCFA concentration in finished feed. Pigs were fed treatment diets for 14 days following the disease challenge to mimic a therapeutic dose of CTC and fed a common diet from d 14 to 21. There was no evidence of difference of dietary treatment on growth performance from d 0 to 7 or d 14 to 21. From d 7 to 14, pigs fed diets with added CTC, 1:1:1 blend, or Product B had improved F:G compared to those fed the control diet, with pigs fed diets with Product A intermediate. A treatment  $\times$  day interaction for the ETEC fecal shedding was observed, which was driven by pigs fed diets with CTC having decreased fecal shedding on d 7 than d 14, while those fed diets with Product B having greater fecal ETEC shedding on d 1 than d 14. While other disease markers, such as fecal score, plasma urea nitrogen, and haptoglobin, decreased with time, they were not affected by dietary treatment.

**Bottom Line...** In conclusion, supplementing ETEC-challenged nursery pigs with MCFA-based dietary treatments led to similar growth performance as a therapeutic dose of 400 g/ton of CTC. Further research is needed to confirm the mode of action, most effective MCFA or combination, and effective dose of medium chain fatty acids in ETEC-challenged pigs. More information is available on this experiment and others in the KSU Swine Day Report at [www.KSUswine.org](http://www.KSUswine.org). (This study conducted by R.A. Cochran, J.R. Pluske, J.P. Mansfield, S.S. Dritz, J.C. Woodworth, M.D. Tokach, M.C. Niederwerder, C.B. Paulk, and C.K. Jones)



**Evaluation of Different Combinations of Medium Chain Fatty Acids and Monolaurin as a Dietary Additive for Nursery Pigs** - A total of 360 pigs were used in a 35-d growth trial to evaluate the effects of adding medium chain fatty acids (MCFA) and monolaurin blends to the diet on growth performance of nursery pigs. Monolaurin is a monoglyceride of C12 and is thought to have antibacterial and antiviral properties. Following arrival to the nursery research facility, pigs were randomized to pens (5 pigs per pen) and allowed a 4-d acclimation period. Thereafter, pens of pigs were blocked by BW and randomized to one of six dietary treatments (12 pens per treatment). Treatments consisted of a basal diet containing no MCFA (control), the control diet with 1.0% added MCFA (a blend of C6, C8, and C10, 1:1:1 ratio; Sigma Aldrich, St. Louis, MO), or a 1.0% inclusion of 4 different blends of MCFA, lactic acid, and monolaurin-based additives (Tech Mix, LLC, Stewart, MN). The 4 blends consisted of 50% C6, 20% lactic acid, and increasing amounts of monolaurin (0, 10, 20, and 30%) at the expense of C12 (30, 20, 10, and 0%). Treatment diets were formulated and manufactured in two dietary phases (d 0 to 14 and 14 to 35). During phase 1, pigs fed the 1.0% 1:1:1 MCFA blend had increased average daily gain (ADG) compared to the control group. Pigs fed the 1.0% 1:1:1 MCFA blend and the mean of the four varying blends of MCFA, lactic acid, and monolaurin had improved feed-to-gain ratio (F/G) compared to pigs fed the control diet. During phase 2, average daily feed intake (ADFI) and subsequently ADG increased for pigs fed the 1.0% 1:1:1 MCFA blend compared to the control group. Overall, increased ADFI and ADG resulted in 2.1 lb greater final BW for pigs fed the 1.0% 1:1:1 MCFA blend compared to the control group. There was no evidence for differences between the mean of the different blends of MCFA, lactic acid, and monolaurin and the control group.

**Bottom Line...** In summary, the addition of a 1.0% 1:1:1 MCFA blend resulted in improved ADG, ADFI, and F/G compared with pigs fed a control diet. Based on the results of this study, the MCFA, lactic acid, monolaurin blend product improved F/G during phase 1 with comparable growth performance to those pigs receiving no supplementation thereafter. Additional research is warranted to understand if a blend of MCFA, acidifiers, and monoglycerides can be created to achieve similar benefits in growth performance shown from the 1.0% 1:1:1 MCFA blend and provide a beneficial economic return. More information is available on this experiment and others in the KSU Swine Day Report at [www.KSUswine.org](http://www.KSUswine.org). (This study conducted by L.L. Thomas, A.R. Hartman, J.C. Woodworth, M.D. Tokach, R.D. Goodband, S.S. Dritz, J.M. DeRouchey, D.M. McKilligan, and A.M. Jones)

# ASI Faculty Spotlight



**Ron Pope (rvpope@k-state.edu; 785-532-5404)**

**Instructor**

Ron Pope is from Oklahoma and Texas. He teaches three sections of ASI 105, Animal Sciences & Industry laboratory, during the fall semester and two sections in the spring semester. He advises 45 undergraduate students. He is also responsible for conducting tours of the department for outside visitors. This includes school field trips, prospective students, and interested groups.

Ron and his wife Nita have four children (all K-State alums), five grandsons, Blake, Rhett, Chisum, Bret, and Ryatt and two granddaughters, Vanessa and Kate. Their children are Russell ASI, BS 1999 and his wife Misty EDEL, BS 1999; Marie EDEL, BS 2002 and her husband Jeff Jones ASI, BS 1999; Bill ASI, BS 2005 and his wife Heather AS, BS 2005, DVM 2010 from Colorado State University; and Ronny ASI, BS 2006 and his wife Kelsey AGECE, BS 2008, MS 2009.



**Tim Carson (tcarson@k-state.edu; 785-532-1191)**

**Instructor/Computer/Systems Specialist**

Tim Carson was born in Bartlesville, Oklahoma, in 1976. He grew up in rural Coffeyville on his parent's small farm. He graduated from Caney Valley High School in 1994. He attended Coffeyville Community College on a journalism scholarship and served as the Sports Editor of the CCC Collegian before moving on and earning his B.S. in Agriculture with a major in Animal Sciences and Industry from Kansas State University in 1999.

Tim worked for Sprint in Kansas City after graduation before coming back to Manhattan and joining the ASI department as a Computer Information Specialist in August of 1999. Tim started teaching ASI 290-Microcomputer Application, in August 2002 and is also responsible for maintenance of the computers and wireless system at the farm units north of campus.

Tim and his wife, Melissa, have three children, Brett, Cade, and Callie. Tim enjoys tinkering with satellite equipment, woodworking, playing softball and watching his beloved Kansas City Royals.

# What Producers Should Be Thinking About.....

## WHAT PRODUCERS SHOULD BE THINKING ABOUT IN FEBRUARY.....



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

- Historically, cull cow prices are beginning to rise. Finish culling cows in order of priority:
  1. Those that fall within the "Four-O Rule" (Open, Old, Onry, Oddball).
  2. Those with physical/structure problems (feet and legs, eyes, teeth, etc.).
  3. Poor producers.
- Continue feeding or grazing programs started in early winter. Fully utilize grain sorghum and cornstalk fields. Severe winter weather may begin to limit crop residue utilization, be prepared to move to other grazing and feeding systems.
- Supplement to achieve ideal body condition scores (BCS) at calving.
- Control lice, external parasites will increase feed costs.
- Provide an adequate water supply. Depending on body size and stage of production, cattle need 5-11 gallons of water per head per day, even in the coldest weather.
- Sort cows into management groups. Body condition score and age can be used as sorting criteria. If you must mix age groups, put thin and young cows together, and feed separately from the mature, properly conditioned cows.
- Use information from forage testing to divide forage supplies into quality lots. Higher-quality feedstuffs should be utilized for replacement females, younger cows, and thin cows that may lack condition and that may be more nutritionally stressed.
- Consult your veterinarian regarding pre- and postpartum vaccination schedules.
- Continue mineral supplementation. Vitamin A should be supplemented if cows are not grazing green forage.
- Plan to attend local, state and regional educational and industry meetings.
- Develop replacement heifers properly. Weigh them now to calculate necessary average daily gain (ADG) to achieve target breeding weights. Target the heifers to weigh about 60 to 65% of their mature weight by the start of the breeding season. Thin, light weight heifers may need extra feed for 60 to 80 days to "flush" before breeding.
- Bull calves to be fed out and sold in the spring as yearlings should be well onto feed. Ultrasound measurements should be taken around one year of age and provided to the association.
- Provide some protection, such as a windbreak, during severe winter weather to reduce energy requirements. The lower critical temperature (LCT) is the temperature at which a cow requires additional energy to simply maintain her current body weight and condition. The LCT for cattle varies with hair coat and body condition (Dry, heavy winter coat = 18 degrees, wet coat = 59 degrees). Increase the amount of dietary energy provided 1% for each degree (including wind chill) below the LCT.

*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](mailto:lschrein@ksu.edu), or phone 785-532-1267.*