



K News from KSU Animal Sciences

- ↪ **State Show Entry Deadlines** - Entries for the Kansas State Fair Grand Drive (4-H/FFA youth livestock show) are due July 17. A complete nomination does not constitute entry; it only makes animals eligible. All exhibitors and animals must be entered directly through the state fair using the online system, which is ShoWorks. Only online entries will be accepted. Families who state nominated livestock will use the credentials created for each exhibitor during nominations to login and submit each child's entries. Late entries will be accepted until July 25, with a late fee. No entries will be accepted after July 25. For more information, visit www.kansasstatefair.com/p/competitions/2020-special-edition-4-h--ffa-grand-drive. Continuing this year, county agents and ag teachers will receive instructions from the state fair regarding how to login to the ShoWorks system and approve the entries for exhibitors from their county/school. Entries for KJLS will be due by August 15, also using ShoWorks. However, they are separate shows, so families will need to login to each show independently when entering KJLS, or use the new ShoWorks Passport App. All exhibitors must register online, using the link found on the KJLS website: www.kjls.net. Late entries will be accepted until August 25, but will cost double the listed original entry fee amount. Youth who are only showing registered breeding females will submit their YQCA verification at the time of entry.
- ↪ **Livestock Projects Sold through County Fair Premium Auctions** - As we enter county fair season this is a reminder that livestock animals sold through a county fair premium sale OR ribbon auction are not eligible to be shown at the Kansas State Fair or the Kansas Junior Livestock Show. This is per the Kansas 4-H Policy, section 10.6. So, please refer to the policy guide on the state 4-H website for further details about the policy. As counties wrap up their county fairs, a list of the STATE NOMINATED animals that participated in the premium auction needs to be submitted. We only need the state nominated animals, not the entire sale bill/ribbon auction list. Please just email the official KSU nomination family name, specie, and tag #s. A list of animals state nominated from each county may be found on the state livestock nomination reports posted on the KSU Youth Livestock Program website: www.asi.k-state.edu/research-and-extension/youth-programs/nominated-livestock/check-nominated-livestock.html. This list includes official KSU nomination family names and tag numbers. For more information, contact Lexie Hayes at adhayes@ksu.edu or 785-532-1264.
- ↪ Dates have been set for all of the **KLA/Kansas State University Ranch Management Field Days** in the 2022 series. Newland Farms will host the first event August 16 in southeast Kansas near Thayer. Ebert Ranch near Tescott will host the second event on August 23rd. The final field day will be held August 25 at Burgess Land & Cattle of Westmoreland. Each event will begin at 3:00 p.m. and include presentations on the history of the host operation and management practices used today, as well as educational sessions and a complimentary beef dinner.
- ↪ **Livestock Sweepstakes** - Kansas 4-H Livestock Sweepstakes is scheduled for August 20-21 in Manhattan. 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 contests for each of these events will be selected during the livestock sweepstakes weekend. Registration information is available through local extension units. All entries must be made by the local county extension offices or extension districts using the qualtrics registration link. The entry deadline is August 1. Registration information and contest details, including the rules, are available on the KSU Youth Livestock website, under 4-H Livestock Sweepstakes at <https://www.asi.k-state.edu/research-and-extension/youth-programs/4-h-livestock-sweepstakes.html>. For more information, contact Lexie Hayes at adhayes@ksu.edu or 785-532-1264.

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 - [Facebook.com/KSUASI](https://www.facebook.com/KSUASI)

July 2022 issue



UPCOMING EVENTS...

↪ **Developing and Implementing Your Company's HACCP Plan** for meat, poultry, and juice processors will be September 28-30, 2022, in Olathe, KS. Information and registration for the 2.5-day International HACCP Alliance accredited workshop is online at <http://bit.ly/HACCPCourse>. For more information, contact Dr. Liz Boyle at lboyle@ksu.edu or 785-532-1247.

↪ **KSU Beef Stocker Field Day to be hosted September 29, 2022** – Come and help us celebrate the 23rd KSU Beef Stocker Field Day which will be hosted Thursday, September 29, 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. The schedule is as follows:

- 9:30 am Registration/Coffee
- 10:15 am Introductions
- 10:30 am **Beef Cattle Economic Outlook**
Glynn Tonsor, K-State
- 11:15 am **Ongoing Issues Surrounding the Transportation and Cattle Industry**
 - *Jeff George, Finney County Feedyard Inc., manager*
 - *Alleah Hilker Heise, Hilker Trucking, president*
 - *Jara Settles, Livestock Marketing Association general manager & VP of risk mitigation*
 - *Margaret Ann Smith, Southflex Cattle Company, owner*

Moderated by Wes Ishmael, Hereford World, executive editor
- 12:30 pm Barbecue Brisket Lunch – View posters
- 1:15 pm **Evidence-Based Approach to Improving Stocker Health and Performance**
John Davidson, Boehringer Ingelheim Inc., cattle professional services senior associate director
- 2:15 pm **Triumphs and Tribulations of Respiratory Disease in Stocker Calves**
Robert Smith, Stillwater, OK
- 3:00 pm Break
- 3:30 pm **Harnessing Nature: How to Use Dung Beetles to Improve Herd and Pasture Health**
Cassandra Olds, K-State
- 4:00 pm **Improving Efficiency Through Feeding Strategies and Cattle Comfort**
AJ Tarpoff, K-State
- 4:30 pm **Native Pasture Burning Strategies: Impacts on Cattle Performance and Pasture Vigor**
KC Olson, K-State
- 5:00 pm Cutting Bull's Lament 2022

The day will conclude with a good old-fashioned Prairie Oyster Fry and Call Hall ice cream. Pre-registration is \$25 and due by September 15. For complete details and registration, visit www.KSUbeef.org. For more information, contact Dale Blasi (dblasi@ksu.edu; 785-532-5427) or Lois Schreiner (lschrein@ksu.edu; 785-532-1267).

↪ Watch for more details coming soon on the 2022 **ASI Family and Friends Reunion**. New for this year, the event will change from a Friday event to Saturday, October 8. This year we will be honoring Dr. Dave Nichols with the Don L. Good Impact Award. Make plans now to attend.

CALENDAR OF UPCOMING EVENTS

Date	Event	Location
August 16, 2022	KLA/KSU Ranch Management Field Day	Thayer, KS
August 20-21, 2022	Kansas 4-H Livestock Sweepstakes	Manhattan
August 23, 2022	KLA/KSU Ranch Management Field Day	Tescott, KS
August 25, 2022	KLA/KSU Ranch Management Field Day	Westmoreland, KS
September 28-30, 2022	Developing and Implementing Your Company's HACCP Plan	Olathe, KS
September 29, 2022	KSU Beef Stocker Field Day	Manhattan
October 8, 2022	ASI Family and Friends Reunion	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 each 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

“Early Weaning...It’s About the Cow”

Many cattle producers are weathering an exceptionally dry grazing season and may be considering early weaning calves. Many discussions about early weaning focus on managing lightweight calves and the benefits to the cow and the ranch become lost in the discussion. Weaning calves 30-60 days earlier than normal (approximately 120-150 days of age) is an excellent management tool that reduces the nutrient requirements of the cow and reduces daily demand for forage resources. A 450 lb spring-born calf is capable of consuming approximately 7 lbs of forage per day. A dry 1400 lb cow can easily consume 28 lbs of dry forage per day (2% bodyweight). If we divide the 28 lbs of forage needed to maintain the cow by the 7 lbs spared in a pasture by removing the calf, we learn that for every 4 days that a calf is not grazing with the cow we get one grazing day for the cow. If we wean calves approximately 30-60 days early, we gain an additional 1-2 weeks of forage to support the cow. Additionally, research at Kansas State University (Bolte et al, 2007) documented that weaning calves at 100 to 145 days of age increased body condition scores of cows grazing native pastures from an average of 5.46 to 5.85 in 120 days. The change in cow body condition score ranged from 0.25 to 0.50 of a condition score on this study. These results are more impressive if we also consider that forage quality was likely declining and yet these cows were still able to increase body condition. The results of this study demonstrate that the optimum time to improve body condition on cows is immediately following weaning as the nutrient requirements of pregnant cows are lowest during this time. Furthermore, what is the value of improving cow condition in the fall to the ranch in a tough year? A lot, especially when the benefits may include less feed/supplement during the winter and improved breed up in the subsequent production year.

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

WHAT'S NEW...

- ☞ **Research Assistant - Swine Unit (Job #513291)** – This is a full-time, Unclassified Professional Staff, term contract position. This position is designed to support the KSU Swine Teaching and Research Center day-to-day operations that are conducted in the farrowing house and nursery building. Oversight of farrowing and lactating sows and nursery pigs is the primary objective to ensure optimum animal health and well-being. Additionally, supporting other swine farm work and activities is required when needed and when the primary responsibilities are satisfied. Review of applications begins: Immediately and continues until position is filled. For more information, contact Dr. Jason Woodworth, Search Committee Chair, at 785-532-1157 or jwoodworth@ksu.edu. To apply, go to <https://careers.pageuppeople.com/742/cw/en-us/job/513291/research-assistant>.
- ☞ **Farm Manager - Dairy Unit (Job #512167)** – This is a full-time, Unclassified Professional Staff, term contract position. The KSU Dairy Teaching and Research Center (DTRC) exists to support the dairy teaching, research, and extension missions of the Department of Animal Sciences and Industry. The Farm Manager is responsible for the day-to-day management of the personnel, animals, and unit facilities and equipment in a manner that properly supports the teaching, research, and extension missions. Review of applications begins: Immediately and continues until a suitable candidate is identified. For more information, contact Dr. Mike Brouk, Search Committee Chair, at 785-532-1207 or mbrouk@ksu.edu. To apply, go to <https://careers.pageuppeople.com/742/cw/en-us/job/512167/farm-manager>.
- ☞ **Field Trial Assessing the Use of Sex-Sorted Semen in Beef Cattle** - The objective was to evaluate the reproductive performance of sex-sorted semen on beef cows and heifers. For this trial, 320 Angus and SimAngus cows and heifers from four groups were used. Group 1 yearling heifers were synchronized using the melengestrol acetate plus prostaglandin F2 α (MGA-PGF2 α) protocol and Groups 2, 3, and 4 cows were synchronized using the 7-Day CO-Synch + CIDR protocol. Insemination was done with semen from an Angus sire (Group 1 yearling heifers and Group 2 young cows) sorted to contain >90% X-bearing sperm or a Charolais sire (Groups 3 and 4 mature cows) sorted to contain >90% Y-bearing sperm. Females were bred after visual estrus detection (Group 1 yearling heifers), fixed time artificial insemination (AI; Group 4 mature cows), or split time AI (Group 2 young cows and Group 3 mature cows).
- The Bottom Line:** These results indicate that sex-sorted semen has potential in commercial beef cows and heifers. Increasing carcass weights in the beef industry has caused a greater price spread between steers and heifers. With increasing spread in value between heifer calves and steer calves, opportunity exists for economic gain with “bull” sexed semen, especially in terminal sire programs. More information is available on this experiment and others in the KSU Cattlemen’s Day report at www.KSUbeef.org. For more information, contact Karol Fike (785-532-1104; karol@ksu.edu) or Dale Blasi (785-532-5427; dblasi@ksu.edu).
- ☞ **Impact of Disclosing Fat Content on Consumer Sensory Evaluation of Ground Beef From a Similar Source** - The objective of this study was to determine the impact of providing consumers with information regarding the fat content of ground beef on the consumer’s eating experience. Ground beef chubs that were 80% lean/20% fat were obtained, and 0.25-lb patties were fabricated from the chubs. Chubs were assigned randomly to panels. Panelists received samples labeled as the following: 90% lean/10% fat (90/10), 80% lean/20% fat (80/20), 73% lean/27% fat (73/27), lean, extra lean, and one sample with no information given (NONE). Samples were evaluated by consumers, who were provided information regarding treatment labels prior to evaluation, on 0- to 100-point line scales for tenderness, juiciness, flavor, texture overall liking, and purchasing intent. Consumers also rated each trait as acceptable or unacceptable. Ground beef with 90/10, 80/20, and 73/27 labels resulted in a large increase in consumer ratings for tenderness, flavor, and overall liking.
- The Bottom Line:** Presenting information regarding fat content to consumers influenced perceived palatability of ground beef. Today’s consumers are paying closer attention to labeling statements than in the past. Results from this study support this trend, indicating consumers’ eating experiences are affected by the fat content labeling found on ground beef packages. Ground beef marketing decisions should consider the information incorporated on packaging, including fat content, as there is an impact on consumers’ palatability experience. More information is available on this experiment and others in the KSU Cattlemen’s Day report at www.KSUbeef.org. For more information, contact Travis O’Quinn (785-532-3469; travisquinn@ksu.edu) or Liz Boyle (785-532-1247; lboyle@ksu.edu).

WHAT'S NEW...

- ↪ **Effects of Standardized Ileal Digestible Lysine on Growth Performance and Economic Return of 108 to 178 lb Grow-Finish Pigs** - A total of 2,124 barrows and gilts were used in a 32-d study to determine the optimal level of dietary standardized ileal digestibility (SID) Lys for 108 to 178 lb pigs in a commercial setting. Pigs were randomly allotted to one of five dietary treatments with 24 to 27 pigs per pen and sixteen replications per treatment. A similar number of barrows and gilts were placed in each pen. Diets were fed over three phases (108 to 129, 129 to 156, and 156 to 178 lb, respectively). Dietary treatments were corn-soybean meal-based and contained 10% (phase 1 and 2) or 5% (phase 3) DDGS. Diets were formulated to 85, 95, 103, 110, or 120% of the 2016 PIC4 SID Lys gilt recommendations as follows: phase 1 SID Lys levels of 0.90, 1.01, 1.09, 1.17 and 1.27%; phase 2 levels of 0.79, 0.87, 0.94, 1.03, and 1.10%; and phase 3 levels of 0.71, 0.78, 0.85, 0.92, and 0.99%, respectively. Overall, increasing SID Lys increased ADG, final body weight, Lys intake/d, and Lys intake/kg of gain with an improvement in F/G. Additionally, feed cost per pig, feed cost per lb of gain, total revenue per pig, and income over feed cost (IOFC) increased as SID Lys increased. Projecting IOFC, broken line linear and quadratic polynomial models estimated the maximum IOFC at 105.8% and 113.7% SID Lys, respectively. In summary, while growth performance increased linearly up to 120% of the 2016 PIC recommended Lys requirement, the optimal IOFC was 106% to 114%. More information is available on this experiment in the KSU Swine Day report at www.KSUSwine.org. (This study conducted by Larissa Becker, Emily Scholtz, Joel DeRouchey, Mike Tokach, Jason Woodworth, Robert Goodband, Jordan Gebhardt, Jon DeJong, Fangzhou Wu, Kiah Gourley, Joe Ward, and Casey Neill.)
- ↪ **Effects of Standardized Ileal Digestible Lysine Level on Growth Performance in 120 to 170 lb DNA Finishing Pigs** - The objective of this study was to estimate the SID Lys requirement for growth and feed efficiency of 120- to 170-lb finishing pigs. A total of 700 barrows and gilts were used in two separate studies, each lasting 21-d. Pens of pigs were blocked by BW and randomly allotted to 1 of 6 dietary treatments with 8 to 10 pigs per pen in a randomized complete block design. A similar number of barrows and gilts were placed in each pen. Dietary treatments were corn-soybean meal-based and formulated to 0.65, 0.72, 0.79, 0.86, 0.93, and 1.00% SID Lys, with twelve replications per treatment. Increasing SID Lys increased ADG, with pigs fed 1.00% SID Lys having the greatest final BW. In addition, increasing SID Lys decreased ADFI. Feed efficiency improved, while Lys intake/d, and Lys intake/kg of gain increased, with increasing SID Lys. At both high and low ingredient and pig prices, feed cost/pig increased the lowest feed cost/lb of gain. At high and low feed prices, increasing SID Lys increased IOFC. A linear model resulted in the best fit for ADG and predicted that the maximum ADG response was beyond 1.00% SID Lys. For F/G, the quadratic polynomial model predicted a requirement of 0.97% SID Lys. At high ingredient and pig prices, the broken-line linear model to maximize IOFC predicted that there was no further significant improvement to IOFC past 0.76% SID Lys. Meanwhile, at low ingredient and pig prices the quadratic polynomial model predicted a requirement of 0.91% SID Lys to maximize IOFC, however, a similar fitting linear model predicted maximum IOFC response at greater than 1.00% SID Lys. In summary, the optimal SID Lys level for 120- to 170-lb finishing pigs depends upon the response criteria, with growth performance optimized at or greater than 0.97% SID Lys and IOFC maximized between 0.76 to 0.91% SID Lys. More information is available on this experiment and others in the KSU Swine Day report at www.KSUSwine.org. (This study conducted by Rafe Royall, Robert Goodband, Mike Tokach, Joel DeRouchey, Jordan Gebhardt, and Jason Woodworth.)
- ↪ **Effects of Increasing Soybean Meal in Corn-Based Diets on Growth Performance of Late Finishing Pigs** - A total of 1,793 pigs were used to evaluate the effects of increasing soybean meal in corn-based diets on growth performance of late finishing pigs. Pens of pigs were blocked by initial weight and randomly assigned to 1 of 5 dietary treatments with 22 to 27 pigs per pen and 12 to 14 pens per treatment. Experimental diets were corn-based, formulated to 0.70% SID Lys, and contained varying amounts of feed grade AA to meet or exceed requirement estimates. Soybean meal gradually increased from 5 to 20% of the diet and replaced feed grade AA. Thus, experimental diets contained 9.6, 10.8, 12.0, 13.4, or 14.7% CP. Pigs were weighed to evaluate ADG, ADFI, and F/G. Data were analyzed with the GLIMMIX procedure of SAS using pen as the experimental unit. The statistical model considered fixed effects of treatment, linear, quadratic, and cubic contrasts, and random effects of group and block. Overall, pigs fed increasing soybean concentrations in the late finishing period exhibited increased ADG, and improved F/G. The greatest improvements were observed as dietary soybean meal increased from 5 to 8.75% and from 16.25 to 20%. Additionally, final BW of pigs increased as SBM increased from 5 to 8.75% and from 16.25 to 20%. Although diets were formulated to exceed the minimum NRC (2012) nutrient requirement estimates, we suspect the observed response may be due to the increased Trp:Lys ratio of 21.6 in the 20% SBM diet compared to 20% in all other diets. These results suggest that at least 8.75% soybean meal should be utilized to increase dietary CP content beyond 11% to improve growth performance of late finishing pigs in corn-based diets. More information is available on this experiment in the KSU Swine Day report at www.KSUSwine.org. (This study conducted by Julia P. Holen, Robert D. Goodband, Mike D. Tokach, Jason C. Woodworth, and Joel M. DeRouchey.)

ASI FACULTY SPOTLIGHT...



Umut Yucel (yucel@k-state.edu; 785-532-1208)
Associate Professor, Food Chemistry

Dr. Umut Yucel earned B.S. (2004) and M.S. (2006) degrees in Food Engineering from Middle East Technical University (METU), Turkey, and M.S. (2010) and Ph.D. (2011) degrees in Food Science from the Pennsylvania State University. He continued his academic training as a Post-Doctoral researcher at the Flavor Research and Education Center, University of Minnesota. In April 2014, he was appointed as an Assistant Professor at the Food Engineering Department, METU of his hometown. He has joined the Department of Animal Sciences and Industry and the Food Science Institute at Kansas State University in March 2016 as an Assistant Professor with teaching and research responsibilities.

Dr. Yucel is a food chemist and physical chemist with an emphasis on food emulsions, colloids, and nanoparticles. More specifically, his research area focuses on design and development of emulsion-based colloidal systems, which can serve as delivery systems for bioactive foods components, such as flavors, essential oils, and other phytochemicals, to improve their effectiveness (high bioavailability and controlled release profiles) and efficiency (enhanced stability during processing and storage) in foods. In parallel, his research interests involve understanding the nature of micro-scale interactions and dynamics of small molecules in a complex food environment that define food structure and biochemical functionality. In order to study systems, he is applying novel and non-invasive food materials characterization techniques, such as low-intensity ultrasound, electron paramagnetic resonance spectroscopy, in addition to more conventional spectroscopic and analytical methods. His teaching responsibilities include food processing unit operations, functionality of foods, and physical chemistry of foods.



Victor Gomez Leon (vgomezleon@k-state.edu; 785-532-2652)
Assistant Professor/Dairy Extension Specialist

After growing up helping in his family's agricultural enterprises in Colombia, Victor earned his bachelor's degree in Veterinary Medicine and Animal Science (2011) and moved to Brazil (2012) to pursue a master's and Ph.D. in Veterinary Medicine. This experience provided him with hands-on skills in reproductive techniques and the opportunity to apply them in large commercial livestock operations. In 2017, Victor had the unique opportunity to perform his Ph.D. research projects in collaboration with Dr. Milo Wiltbank and Dr. Oliver Ginther at University of Wisconsin – Madison (UW), where he continued to work as a post-doctorate researcher until January of 2021.

Victor's position at K-State as Assistant Professor/Extension Specialist-Dairy matches his main career goal of integrating research into a collaborative extension program that meets the dairy producers' needs. With his expertise and passion for animal reproduction, he aims to develop a program informed and driven by data obtained from studies with animal models. During his first year, Victor's program has gathered funding to continue research on mechanisms controlling follicle selection that can lead to decreasing double ovulation and twin pregnancies; strategies to enhance embryo and fetus development and decrease pregnancy losses; and test new technologies that facilitate managing dairy cattle reproduction. His program is getting ready to start research to test the use of new phenotypic traits to select animals with greater fertility. Victor's enthusiasm for teaching and his multilingual skills have helped him to start developing training for dairy technicians within herds and technicians working with dairy cattle reproduction in Kansas. His program is currently conducting a dairy producer's need survey to identify strengths and opportunities in Kansas herds. Victor is excited for the years to come in the Kansas dairy industry and to continue working to develop a high-quality and innovative research/extension program at Kansas State University.

WHAT PRODUCERS SHOULD BE THINKING ABOUT

WHAT PRODUCERS SHOULD BE THINKING ABOUT IN SEPTEMBER...

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

September is when forages are maturing rapidly, weaning time can be appropriate, and weather dictates several key management decisions.

Breeding Season

Out of concern for trichomoniasis, an economically devastating reproductive disease, do not introduce untested bulls to your herd. Remove bulls after 60 days with cows, 45 days with heifers. (Never run bulls for more than a 90-day breeding season.)

Cowherd Nutrition

- Provide ample amounts of clean, fresh drinking water.
- Consider limited-intake creep feeding if:
 - ◆ Drought conditions develop and persist.
 - ◆ Range conditions limit milk production.
 - ◆ Creep feed/grain prices are relatively low.
 - ◆ Value of gain allows for economic benefits.
- Tips for successful limited-intake creep feeding:
 - ◆ Limit duration to last 30 to 75 days before weaning.
 - ◆ Limit intake to less than 2 pounds/head/day.
 - ◆ Use an ionophore or other feed additive to maximize efficiency.
 - ◆ Protein level should be equal to or greater than 16%.
 - ◆ High salt levels may help limit intake but can be tough on feeders.
- Pre-purchase bulk rate winter supplementation needs prior to 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 using a medicated trace mineral package.
- ◆ Consider vaccination for pinkeye and IBR.
- ◆ Control face flies.
- ◆ Clip pastures with tall, coarse grasses that may irritate eyes.
- ◆ Provide ample shade.

Therapy:

- ◆ Administer a long-acting antibiotic subcutaneously when symptoms are first noticed.
- ◆ Shut out irritating sunlight by patching eyes, shade, etc.
- ◆ Control flies.
- ◆ Consult your veterinarian.

- Consider re-vaccinating for the respiratory diseases for any animals that will be taken to livestock shows.
- Vaccinate suckling calves for IBR, BVD, PI3, BRSV, and possibly pasteurilla at least three weeks prior to weaning.
- Re-vaccinate all calves for blackleg.
- Vaccinate replacement heifers for brucellosis (4 to 10 months of age).
- Monitor and treat footrot.

WHAT PRODUCERS SHOULD BE THINKING ABOUT

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 winter nutritional program through pasture and forage management.
- For stocker cattle and replacement heifers, supplement maturing grasses with an acceptable degradable intake protein/ionophore (feed additive) type supplement.

Reproductive Management

- Remove bulls to consolidate calving season.
- Pregnancy check and age pregnancies 60 days after the end of the breeding season. Consider culling cows that are short bred.

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

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 early weaning if:
 - ◆ Drought conditions develop and persist.
 - ◆ Range conditions limit milk production.
 - ◆ Cows are losing body condition.
 - ◆ Calf and cull cow prices indicate maximum profit.
 - ◆ Facilities and management are available to handle lightweight calves.
 - ✓ *First-calf heifers have the most to gain.*
 - ✓ *Resist the temptation to feed the cows without weaning; feeding early-weaned calves is more efficient.*
- Look for unsound cows that need to be culled from the herd.
- Prepare to have your calf crop weighed and analyzed through your state, regional, or breed performance-testing program.
- Plan your marketing program, including private treaty, consignment sales, test stations, production sales, etc.

*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*