



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 15. 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 this year should have their KSU Nomination # ready when they begin the entry process. All exhibitors will also need to be prepared to submit their YQCA number. Late entry forms 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 create a new account 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. Families will need their KSU Nomination # and YQCA certificate numbers to enter KJLS as well. Late entries will be accepted until August 25 but will cost double the listed original entry fee amount.
- ☞ **Livestock Nomination Corrections** - All state livestock nominations received have been opened and processed. Reports are listed under the Nominated Livestock link on the KSU Youth Livestock Program website: www.asi.k-state.edu/research-and-extension/youth-programs/nominated-livestock/check-nominated-livestock.html. Confirmation letters have also been mailed to families. Those who have a red "No" in the complete nomination column (last column) were missing a component of their nomination or submitted incorrect information. Therefore, the nomination is incomplete. The deadline to correct state livestock nominations is July 15. Animals that remain incomplete after this date will be ineligible for both state shows. For questions, contact Lexie Hayes at adhayes@ksu.edu or 785-532-1264.
- ☞ **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, please send a list of the STATE NOMINATED animals that participated in the premium auction. 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.

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July 2021 issue



UPCOMING EVENTS...

- ☞ Dates have been set for the **2021 KLA/Kansas State University Ranch Management Field Days**. Deseret Ranches will host the first event August 17 in Southwest Kansas near Satanta. The August 19 field day will be held on Roth Farm and Ranch located near Sterling. Gun Barrel Ranch near Eskridge will be the site of the August 24 event. Each field day will begin at 3:00 p.m. and will 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 21-22 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 Cvent. 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 www.asi.k-state.edu/research-and-extension/youth-programs/nominated-livestock/check-nominated-livestock.html. For more information, contact Lexie Hayes at adhayes@ksu.edu or 785-532-1264.
- ☞ **Developing and Implementing Your Company's HACCP Plan** for meat, poultry, and juice processors will be September 29-October 1, 2021, 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 30, 2021** – Come and help us celebrate the 22nd KSU Beef Stocker Field Day which will be hosted Thursday, September 30, at the KSU Beef Stocker Unit in Manhattan. The day will start at 9:30 a.m. with registration/coffee and conclude with a good old-fashioned Prairie Oyster Fry and Call Hall ice cream at 5:30 p.m. Watch for more details coming to www.KSUbeef.org. For more information, contact Dale Blasi (dblasi@ksu.edu; 785-532-5427).
- ☞ Friday, October 15, 2021, is the date set for the **ASI Family & Friends Reunion**. This year we will be honoring US Premium Beef with the Don L. Good Impact Award. Make plans now to attend. Watch for more details coming soon.
- ☞ **Have you joined the KSU LMIC FAMILY NETWORK?** - The goal of the KSU LMIC Family Network is to cultivate relationships with individuals involved or interested in the livestock and meat industry and with a passion for the K-State Animal Sciences and Industry department. **Membership is free and open to anyone. Members will receive three email newsletters a year.** The e-newsletters will include department highlights, LMIC projects and other industry news. Visit <https://ksulmic.org/ksu-lmic-family-network/> to sign up.

CALENDAR OF UPCOMING EVENTS		
Date	Event	Location
July 15, 2021	Kansas State Fair Grand Drive entries due	
July 15, 2021	Livestock Nomination Corrections due	
August 15, 2021	Kansas Junior Livestock Show entries due	
August 17, 2021	KLA/KSU Ranch Management Field Day	Satanta, KS
August 19, 2021	KLA/KSU Ranch Management Field Day	Sterling, KS
August 21-22, 2021	Kansas 4-H Livestock Sweepstakes	Manhattan
August 24, 2021	KLA/KSU Ranch Management Field Day	Eskridge, KS
September 29-October 1, 2021	HACCP Workshop	Olathe, KS
September 30, 2021	KSU Beef Stocker Field Day	Manhattan
October 15, 2021	K-State ASI Family & Friends Reunion	Manhattan

WHAT'S NEW...

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

“Customer Service...More Important than Ever”

Good customer service is essential to any business or organization. It does not matter if it is a restaurant or a tow truck service, having staff members that leave customers or anyone that encounters your business with that “wow that was great” feeling directly influences the bottom line. Customer service has become more important than ever as more consumers are purchasing goods and services without ever crossing the threshold of a traditional storefront. So how do we generate those feelings with someone on the phone or in a chat box. Let us start with the basics. What is customer service? Customer service is simply defined as the assistance provided by a company to those that purchase the goods or services it provides. Now on to the tough part, how do we as a business or an organization provide that assistance?

Susan Ward (www.thebalancesmb.com) offers a few simple things that business can do to improve its customer service experiences. First, answer the phone. Potential customers want to talk to a person and don't want to leave a message. Second, don't make promises you can't keep. As the old saying goes “say what you are going to do and do what you said you were going to”. Third, listen. Simply listening to what a potential customer needs is important, there is nothing worse than listening to a sales pitch for something you don't want. Fourth, be helpful even if you don't make the sale, today. The service provided today has the potential to turn into something much larger in the future. Fifth, train your staff to go the extra mile by providing additional information about the product or other items commonly purchased with said goods. Lastly, empower your staff to offer something extra without asking permission, especially in those circumstances where the “customer is always right.”

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

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

“Let's Talk About Water”

Most cattle producers fully understand the importance of water. After all, providing an adequate supply of clean, fresh water is the cornerstone of animal husbandry and there are very few things that compare to the feeling of finding thirsty cows grouped around a dry tank on a hot day. Water is important, and in situations where the water supply is limited, or we are forced to haul water, one of the first questions we find ourselves asking is “how much water do those cows need?” The old rule of thumb is that cattle should consume 1-2 gallons of water per 100 lbs of bodyweight. Accurately determining the amount of water cows will voluntarily consume is difficult and is influenced by several factors (ambient temperature, moisture and salt content of the diet, body weight, lactation, etc.) Water consumption increases linearly as ambient temperature increases above 40° Fahrenheit such that cows require an additional gallon of water for every 10 degree increase in temperature. Additionally, lactation also directly increases the amount of water required by beef cows. The table below summarizes the daily water requirements of beef cows of several different body weights, milk production levels, and ambient temperatures (Adapted from Spencer, 2016).

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

Water is important. The daily water requirements of beef cows in this article are estimates and water consumption varies greatly during the summer months when the temperatures exceed 90° Fahrenheit. Therefore, these recommendations are minimum guidelines. There are a number of excellent resources available on the web regarding livestock water requirements and water site development.

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

WHAT'S NEW...

↪ **Effect of Trucking Distance on Sale Price of Beef Calf and Feeder Cattle Lots Sold Through Video Auctions from 2010 Through 2018** - The objective of this study was to determine the effect of trucking distance on sale price of beef calf and feeder cattle lots sold through Superior Livestock Video Auctions from 2010 through 2018.

Data analyzed were collected from 211 livestock video auctions that included 42,043 beef calf and 19,680 feeder cattle lots delivered to 6 states (Colorado, Iowa, Kansas, Nebraska, Oklahoma, and Texas). Multiple regression models were used to evaluate the effect of factors, with trucking distance of main interest, on sale price of lots. Based on reported states of origin and delivery, lots were categorized into one of the following trucking distance categories: 1) within-state, 2) short-haul, 3) medium-haul, and 4) long-haul. Beef calf lots hauled within-state sold for more (\$169.24/cwt; $P < 0.0001$) than other trucking distance categories. Long-haul calf lots sold for the lowest price (\$166.70/cwt). Within-state and short-haul feeder cattle lots sold for the greatest price (\$149.96 and \$149.81/cwt, respectively). Long-haul feeder cattle lots sold for the lowest price (\$148.43/cwt).

The Bottom Line... These results indicate there is a price advantage for lots expected to be hauled shorter distances, likely because of cost and risk associated with transportation. More information is available on this experiment and others in the KSU Cattlemen's Day report at www.KSUBeef.org. (This study conducted by *E.D. McCabe, M.E. King, K.E. Fike, M.J. Smith, G.M. Rogers, and K.G. Odde.*)

↪ **Differences in Rumination and Animal Activity Can Be Quantified by Utilizing New Technologies** - The objective of this study was to utilize new technologies such as Allflex eSense Ear Tags to evaluate the impacts of limit feeding a high-energy diet in the backgrounding phase on daily rumination and activity in growing cattle. This project was conducted in conjunction with the performance backgrounding study at the Kansas State University Beef Stocker Unit in 2019. Crossbred heifers were outfitted with an ear tag that measured rumination and activity throughout the day and the 84-day backgrounding study. This data was continuously collected via an onsite antenna, downloaded to a computer, and analyzed in a software program.

The Bottom Line... High-energy, limit-fed cattle ruminate less than high roughage, ad libitum cattle by 45 minutes in this study. There were no detected differences in animal activity. More information is available on this experiment in the KSU Cattlemen's Day report at www.KSUBeef.org. (This study conducted by *M.A. Scilacci, A.J. Tarpoff, E.C. Titgemeyer, T.G. O'Quinn, T. Jennings, C.I. Vahl, D.U. Thomson, W.R. Hollenbeck, and D.A. Blasi.*)

↪ **Influence of Particle Size of Enogen® Feed High Amylase and Conventional Yellow Dent Corn on Lactating Sow Performance** - A total of 107 sows were used in a study to evaluate the effect of Enogen Feed corn and conventional yellow dent corn ground to different particle sizes in lactation diets on sow and litter performance. On d 107 of gestation, sows were blocked by body weight and parity and allotted to 1 of 4 dietary treatments. Dietary treatments consisted of 2 corn sources (Enogen Feed corn and conventional yellow dent) and 2 ground corn particle sizes (600 and 900 microns). A common diet was fed to sows from time of arrival into the farrowing house until they farrowed. Once the sows farrowed, they were fed treatment diets until weaning. Litters were cross fostered across treatments until 48 h post farrowing to equalize litter size. Litters were weighed at birth, d 2, 7, 14, and at weaning (d 21). Sow average daily feed intake was measured each time the litters were weighed. There was a tendency for a source × particle size interaction for weight change from farrow to wean with the sows fed the 900-micron high amylase corn diets losing less weight compared to sows fed the other diets. From farrow to weaning, there was a corn source × particle size interaction for ADFI with sows fed the conventional corn ground to 900 microns having the lowest ADFI and sows fed the conventional corn ground to 600 microns having the greatest intake. Litter average daily gain and total litter gain tended to be greater for sows fed diets with 600-micron ground corn compared to the 900-micron ground corn. This is the first study to our knowledge that demonstrates the impact of Enogen Feed corn on sow and litter performance. Additional research conducted in a larger scale, commercial facility with more sows is warranted.

In conclusion... There were few differences in sow or litter characteristics among those fed high amylase or conventional yellow dent corn. Sows fed 600-micron ground corn tended to have greater litter ADG and weaning weights, but individual pig weights were not different among treatments. 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, C.B. Paulk, and H.I. Calderón.*)

WHAT'S NEW...

☞ **Effect of Pellet Cooling Method, Sample Preparation, Storage Condition, and Storage Time on Phytase Activity of a Swine Diet** - Temperature and moisture content have been identified as two factors that influence enzyme inactivation. Phytase may be further degraded in feed samples if there is moisture left in the sample and it is not properly stored prior to analysis. Therefore, the objective of this experiment was to determine the effect of cooling method, sample preparation, storage condition, and storage time on phytase stability. In Exp. 1, treatments were arranged in 2×2 factorial with main effects of sample preparation (none or freeze-dried) and storage condition (ambient storage or freezer storage). Diets were mixed 3 separate times to provide 3 replicates per treatment. The result of Exp. 1 demonstrated that there was no interaction between drying process and storage condition for mash samples collected from the mixer. The sample drying process and storage condition did not impact the phytase stability. In Exp. 2, treatments were arranged in a 2×3 factorial with main effects of cooling method (counterflow cooler or freezer) and sample preparation (non-dried then freezer storage, freeze-dried then freezer storage, freeze-dried then ambient storage). The diet was steam conditioned for approximately 45 sec at 185°F using a 5.1 × 35.8 in single shaft conditioner of a pellet mill (California Pellet Mill model CI-5, Crawfordsville, IN) at a production rate of 2.2 lb/min by holding the feeder at a constant speed setting. The sample was collected at the end of the conditioner and did not pass the pellet die. The conditioner was run 3 separate times to provide 3 replicates for each treatment. The result of Exp. 2 demonstrated that there was no interaction between the cooling method and sample preparation for phytase stability of conditioned mash samples. The cooling method and sample preparation did not affect the phytase stability. In Exp. 3, treatments were arranged in a $5 \times 3 \times 2$ factorial with main effects of cooling method (none, heat diffusion, experimental fan cooler, experimental counterflow cooler or freezer), storage condition (ziploc/ambient, ziploc/frozen, and vacuum/frozen) and storage time (1 or 3 wk.). The diet was steam conditioned for approximately 45 sec at 185°F and pelleted using a pellet mill equipped with 0.16 in × 0.50 in die. The diet was pelleted at a production rate of 2.2 lb/min by holding the feeder at a constant speed setting. The pellet mill was run 3 separate times to provide 3 replicates for each treatment. The result of Exp. 3 demonstrated that there were no three-way and two-way interactions among cooling method, storage condition, and storage time.

In conclusion... The cooling method, storage condition, and storage time did not impact phytase stability. Therefore, freeze-drying, vacuum sealing, and freezing were not required when the feed samples were analyzed within 3 weeks of production. However, conditioned mash and hot pellet samples should be dried prior to sending the samples to the lab to prevent mold growth. 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.R Stark, and C.B. Paulk.*)

☞ **Evaluation of High-Protein Distillers Dried Grains on Growth Performance and Carcass Characteristics of Growing-Finishing Pigs** - A total of 1,890 growing-finishing pigs were used in a 124-d growth trial to compare the effects of high-protein distillers dried grains (HPDDG) or conventional distillers dried grains with solubles (DDGS) on growth performance and carcass characteristics. Conventional DDGS contained 29.0% CP, 0.48% standardized ileal digestible (SID) Lys and 9.2% oil, whereas HPDDG contained 39.3% CP, 0.68% SID Lys and 11.1% oil. All diets were formulated on an equal SID Lys-basis with diets containing HPDDG having less soybean meal than diets with conventional DDGS. There were 27 pigs per pen and 14 pens per treatment. Treatment diets were corn-soybean meal-based and arranged in a $2 \times 2 + 1$ factorial with main effects of DDG source (conventional DDGS or HPDDG) and level (15 or 30%). A corn-soybean meal-based diet served as the control and allowed linear and quadratic level effects to be determined within each DDG source. Pens of pigs were assigned to 1 of the 5 treatments in a randomized complete block design with initial weight as a blocking factor. Data were analyzed using lme4 package in R (version 3.5.2) with pen as experimental unit. Overall, there were no differences observed in ADG between pigs fed either DDG source or level. Pigs fed HPDDG had decreased ADFI and improved F/G compared with those fed conventional DDGS. Increasing either conventional DDGS or HPDDG decreased carcass yield and HCW; however, there were no differences between pigs fed HPDDG or conventional DDGS. Iodine value (IV) was greater in pigs fed HPDDG than conventional DDGS, and IV increased with increasing DDG source.

In conclusion... These data suggest that pigs fed HPDDG had better F/G, but greater IV compared with pigs fed conventional DDGS, probably due to the difference in oil content. More information is available on this experiment and others in the KSU Swine Day report at www.KSUswine.org. (This study conducted by *Z.X. Rao, R.D. Goodband, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, H.I. Calderón, and M. Wilken.*)

☞ **Animal Technician II (Dairy Unit - 2 positions)** - This position exists to milk, feed, and provide care of Dairy Teaching and Research Center dairy herd, which is used for teaching and research purposes. This is a full-time, University Support Staff position (Job #510744). Screening of applicants will begin immediately and will continue until a suitable candidate is identified. To apply, go to <https://careers.pageuppeople.com/742/cw/en-us/job/510744/animal-technician-ii>. For more information, contact Mike Scheffel, Search Committee Chair, at 785-537-0941 or scheffel@k-state.edu.

ASI FACULTY SPOTLIGHT...



Dale Blasi (dblasi@k-state.edu; 785-532-5427)

Professor/Extension Beef Specialist

Dale A. Blasi was born and reared on his family's farm and ranch in southeast Colorado, near Trinidad. He received his B.S. in Animal Sciences at Colorado State University in 1984. In 1986, he received his M.S. in Beef Systems Management at Colorado State University. He continued his education at the University of Nebraska where his dissertation addressed protein supplementation strategies for beef cows and growing cattle.

After earning his Ph.D. degree in 1989, he accepted an appointment as a Livestock Specialist in South Central Kansas at Hutchinson for Kansas State University. While there, he focused on cow/calf and stocker nutrition and management strategies, forage quality and harvest efficiency, forage utilization systems and utilization of food industry byproducts. In 1997, he transitioned to the Department of Animal Sciences and Industry at Kansas State University as a State Beef Specialist where he currently has a 10% teaching, 20% research and 70% extension appointment. His responsibilities include providing statewide Extension educational leadership in stocker cattle nutrition and management and utilization of grazed

and harvested forages by beef cattle and other livestock, conducting research and interpreting results and serving as a resource person for other state and area specialists, county Extension agents, producers and allied industry personnel. In recent years Dr. Blasi has developed and teaches the class, *ASI 650, Identification and Data Management of Food Animals*, to both undergraduate and graduate students.

Since 1998, he has developed and evaluated information and management applications using handheld computers and individual animal electronic identification technologies for the beef industry. He is manager and director of the KSU Beef Stocker Unit and Animal Identification Knowledge Laboratory, a unique facility designed to evaluate the performance of existing and emerging animal identification technologies in a laboratory and animal management setting.



Scott Beyer (sbeyer@k-state.edu; 785-532-1201)

Associate Professor/Extension Specialist, Poultry Management

Originally from Galveston, Texas, Dr. Scott Beyer attended Texas A&M University and received an undergraduate degree in Biochemistry in 1983. He obtained his Masters and Ph.D. degrees in the Animal Nutrition Program from the University of Georgia. He then worked as a Post-Doctoral Research Associate for Harvard University in the Department of Nutrition. In 1993, he accepted an Assistant Professor position at Kansas State University where he currently has a 60% teaching, 25% research and 15% extension appointment.

Dr. Scott Beyer has about 50 advisee undergraduate students and 2 graduate students. He teaches 9 different courses in the Department, which includes ASI 106, Dairy/Poultry Science Lab; ASI 107, Companion Animal and Equine Lab; ASI 310, Poultry/Production Evaluation; ASI 520, Companion Animal Management; ASI 635, Gamebird Management; ASI 640, Poultry Product Technology; ASI 645, Poultry Management; ASI 676, Avian Nutrition; and ASI 677, Companion Animal Nutrition.

Dr. Beyer is coach of the KSU Collegiate Poultry Judging team, which won the national championship in 2002 and 2003, and has finished well in every contest since then.

He also works with numerous 4-H volunteers and FFA instructors and teams. He is involved with poultry judging at county fairs and supervisor of the poultry division at the Kansas State Fair.

Dr. Beyer is also the Poultry Extension Agent for the state of Kansas and maintains extramural funding for his research program related to poultry and companion animals. He helps with home flock poultry production problems. Dr. Beyer also works with undergraduate students to hold the annual pullet sale each spring. His research focuses on feed manufacturing and poultry nutrition. He has been an invited speaker at almost every nutrition conference in the US. He has been an invited speaker at international conferences in Mexico, Tunisia, Egypt, China, Malaysia, South Korea, Indonesia, Australia, Switzerland, Vietnam, Morocco, and the Philippines.

Dr. Scott Beyer resides in Manhattan with his wife, Amy. They have 3 sons, one who is a K-State graduate, another currently at KSU and another hoping to get there soon. When he has some spare time and isn't doing something poultry, he enjoys woodworking, fishing, and gardening.

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 pasteurella 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 or phone 785-532-1267.*