Guide to abbreviations and acronyms

To make the "Angus Advisor" more concise and consistent, we have used the following abbreviations or expressions:

followi	ng abbreviations or expressions:
\$Value	s dollar value indexes
ADG	average daily gain
Al	artificial insemination
AIMS	Angus Information
	Management Software
BCS	body condition score
BLV	bovine leukemia virus
BMP	best management practices
BQA	beef quality assurance
BRD	bovine respiratory disease
BRSV	bovine respiratory synctial virus
brucell	
	ovine spongiform encephalopathy
BVD	bovine viral diarrhea
Ca	calcium
CHAPS	Cow Herd Analysis and
CD	Performance System
CP	crude protein
cwt.	hundredweight
DM	dry matter
EPD ET	expected progeny difference
	embryo transfer
FMD	foot-and-mouth disease
C. DII	
GnRH	gonadotropin-releasing hormone
IBR	infectious bovine rhinotracheitis
IBR ID	infectious bovine rhinotracheitis identification
IBR ID IM	infectious bovine rhinotracheitis identification intramuscular
IBR ID IM in.	infectious bovine rhinotracheitis identification intramuscular inch
IBR ID IM in. Ib.	infectious bovine rhinotracheitis identification intramuscular inch pound
IBR ID IM in. lb. LCT	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature
IBR ID IM in. lb. LCT lepto	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis
IBR ID IM in. lb. LCT lepto Mg	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium
IBR ID IM in. lb. LCT lepto Mg MiG	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing
IBR ID IM in. lb. LCT lepto Mg MiG MLV	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus
IBR ID IM in. lb. LCT lepto Mg MiG MLV N	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch Se	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch Se sq. ft.	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch Se sq. ft. SPA S	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet tandardized Performance Analysis
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch Se sq. ft. SPA S TB	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet tandardized Performance Analysis bovine tuberculosis
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl ₃ preg-ch Se sq. ft. SPA S TB TDN	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet tandardized Performance Analysis bovine tuberculosis total digestible nutrients
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P Pl Pl3 preg-ch Se sq. ft. SPA S TB TDN THI	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet tandardized Performance Analysis bovine tuberculosis total digestible nutrients temperature-humidity index
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl ₃ preg-ch Se sq. ft. SPA S TB TDN	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet tandardized Performance Analysis bovine tuberculosis total digestible nutrients

Western Region

by **Randy Perry,** California State University, Fresno, randyp@csufresno.edu

This month I am going to change the format of my column. Rather than focusing on the details concerning herd management in different areas, I am going to cover a couple topics that are extremely important for any purebred herd.

Business plan. The first topic is the importance of developing a business plan. One of the problems with the cattle industry today, in my opinion, is that many producers depend on off-farm income to afford to manage the cows. The historically high cattle prices of today have improved the economic performance of many operations, especially commercial operations. My question is, "How long will these prices last?" If they do last long term, then the pertinent question becomes, "Who is going to be able to afford to buy the product in the grocery store?"

Most of the purebred breeders in our part of the country have historically generated most of their income through the sale of bulls to commercial customers and a limited number of purebred females. The drought has forced major liquidation of commercial cows in the southern part of our state, and thus has reduced the demand for range bulls significantly. However, in the northern part of our state and other states in the West, the demand for range bulls has been good and the prices have been outstanding. With the increased feed costs and developmental costs of bulls that we have experienced during the last five years, bull prices have to stay at these levels if they are going to continue to be the major profit generator in most purebred operations.

The marketing of purebred females has been more challenging during the last five to 10 years. However, with the current demand for and prices that commercial females are bringing, I think we are in a period of time where selling females at profitable levels is going to become a lot easier than it has been historically.

I think it is extremely important that breeders sit down and really put some time and effort into developing a business plan for their operations that addresses how their operation can be most efficient. It is paramount that breeders really understand where expenses are generated and how income can be maximized.

Marketing plan. The second topic — and one that is critically important in determining the level of success with any species of purebred livestock — is marketing ability. Many areas of management such as reproduction, health or nutrition are equally important, regardless if a person is managing purebred or commercial livestock. However, that is not the case in the area of marketing. In my opinion, often it is the factor that differentiates the really successful vs. average purebred operations. Many times, average producers will have cattle that are just as good from a genetic and phenotypic standpoint; however, they never get to that elite level because they simply don't have the marketing ability to get there.

I am of no help in this area because my marketing skills are average at best. However, many outstanding firms are available to assist breeders with the development of advertising programs and websites. In addition, I would encourage purebred breeders to develop a marketing plan that ensures their advertising dollars are being placed in media that are tailored most closely to their potential clientele, and the timing of those advertisements will reach potential customers at the most opportune time to achieve marketing success.

In addition, and probably most important, study and learn from the purebred operations that do a tremendous job with marketing because we have many such operations involved with this breed of cattle.

Midwest Region

by **Justin Sexten,** University of Missouri, sextenj@missouri.edu

Weaning management

Autumn signals weaning time and the best opportunity to begin a cow nutrition program to improve next spring's colostrum quality, summer's rebreeding rate and autumn's weaning weights. Before we discuss improving next years' calf performance,



consider management options for the recently weaned.

Consider fenceline weaning to assist with bunk-training weaned calves. Move the cows in a pasture directly opposite the calves' feedbunks and water source. The calf's natural desire to return to its dam will bunktrain the calf and minimize fenceline walking. Reduced walking combined with increased time spent eating and lying down will minimize shrink and conserve energy for growth.

When developing weaned-calf diets, remember feed intake is lower so nutrient concentration should be increased. Weaning transition supplements should contain 15% crude protein with half the protein bypassing the rumen. Use feedstuffs with different amino-acid profiles to ensure the calf's amino-acid requirement is met. For example, use soybean meal and distillers' grains as protein supplements.

Prior to weaning, a balanced amino-acid supply was provided by milk bypassing the rumen. Including an ionophore in the weaning diet can increase bypass protein in addition to controlling coccidiosis. If calves are not fed and managed to gain more than 2.5 lb. per day, then microbial protein should provide adequate amino acids, regardless of the feed source.

Current corn prices make corn a cost-effective energy source for both weaned calves and cows. When feeding corn to cattle on a forage-based diet, restrict inclusion rates to 0.5% of body weight or less to ensure forage digestion is not negatively affected by starch. Corn can be fed whole to cows and calves to reduce processing cost while slowing the rate of rumen fermentation.

The goal of a successful weaning program is to get calves eating 2% of body weight; at this point calves begin gaining weight. Ideally, calves are given the first round of vaccines while nursing the cow at 2 months of age or three weeks prior to weaning. Early vaccination minimizes stress around weaning while allowing a booster vaccination near the time of weaning stress.

Castration is a management practice producers should perform as early in the calf's life as feasible. Many seedstock and purebred producers prefer to wait until weaning to castrate bulls in order to better

► ANGUS ADVISOR

CONTINUED FROM PAGE 205

evaluate potential herd sires. Consult with your veterinarian as to the best method for castration of older calves to minimize recovery time, lost performance and death loss.

After weaning, cows are ready to recover body condition in preparation for the next calf. The first 60 days after weaning is when cows are most efficient at converting forage into condition due to compensatory gain. At weaning, sort cows into management groups to allow younger and thin cows the best

forage, while cows with adequate condition can graze cornstalks or other lower-quality forages. If alternative forages are not available, then supplement the thin cows with concentrates to increase energy intake.

Supplementation and/or foragemanagement programs should result in young cows at a BCS 6 and mature cows at a BCS 5. Cows calving with adequate condition will produce better-quality colostrum and are more likely to rebreed during a controlled breeding season.

Fetal programming research suggests cows with adequate nutrition during gestation will raise heavier, healthier calves at weaning. In addition, cows with adequate nutrition produce heifer calves that are younger at puberty and steer calves that achieve greater quality grade at the end of the finishing period.

With record-high cattle prices, abundant forage supplies and declining feed prices, producers should continually evaluate opportunities to improve cow nutrition. A herd nutrition program begins with an objective forage-quality evaluation, so before beginning a supplementation program, test stored forages to determine correct supplement needs.

Excessive supplementation wastes feed resources, while failing to meet cow requirements increases production risk due to open cows and lighter weaning weights. The high cost of retaining and developing replacement heifers further emphasizes the need to focus forage and feed resources toward ensuring cows have the best opportunity to rebreed.

Waiting until after calving to increase the nutritional plane results in greater milk production and minimal reproductive rate improvement, whereas providing adequate nutrition during the last trimester is the best return on feed and forage investment.

In order to evaluate the "returns" to a supplement program, condition-score cows at weaning and again at calving. These condition scores will indicate if cows gained adequate condition during the last trimester to meet desired condition targets. A calving condition score is the best indicator of future reproductive success. Cows calving at an ideal condition score are more likely to rebreed than those calving at lower condition scores and gaining condition during lactation.

Nutrition after weaning influences the weaned calf and the gestating cow. Weaned calf supplementation programs provide an immediate return to management and, as a result, receive considerable attention.

Producers must realize gestating cow nutrition deserves equal focus as management impacts the calf she is currently carrying in addition to her ability to carry future calves.

Mid-South Atlantic Region

by **Scott Greiner,** sgreiner@vt.edu; and **Mark McCann,** mark.mccann@vt.edu, both of
Virginia Tech

October usually marks the mid-point of our fall season and is dominated by calf-crop marketing, late forage harvests and managing stockpiled forage reserves. The region has experienced some localized drought and there are some areas that will be going into winter with lower-than-normal hay supplies.

Late-season rains have spurred early fall forage growth, and it appears to be a better-than-average year for accumulating forage. Diligent grazing management using stripgrazing is a good way to stretch this precious commodity. Moving the fence as frequently as possible will allow more efficient utilization. Be careful not to allow access to too much area at one time.

If you are unsure if your forage allowance is adequate, you can place an average- or poorer-quality bale of hay out for the cattle to access. If the cattle are eating a great deal of hay, then you probably need to expand your forage allowance. Stockpiled forages are an important ingredient in minimizing hay needs. Managing them carefully will allow for maximum grazing while minimizing dependence on stored feeds.

Spring-calving herds (January-March) General

- ▶ Finalize plans for marketing of calf crop. Coordinate and time weaning, vaccination program, and weaning-time management in concert with marketing plans. Calculate breakevens on various marketing options and consider risk-management strategies.
- Schedule and conduct pregnancy diagnoses with your veterinarian. Plan a marketing strategy for open cows.
- ► Evaluate winter feed and forage supplies and options, including forage tests to determine nutritional content of hay on hand.

Nutrition and forages

- Score cows for body condition at weaning and separate thin cows.
- ► Use palatable feeds and high-quality hay to background calves.
- ► Continue stockpiling tall fescue.
- ► Continue to manage first-calf heifers separately; give them the best forage. Thin,

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- mature cows could be added to this group.
- ► Continue to feed high-selenium tracemineral salt. A forage analysis can reveal what other minerals should be supplemented.
- ► As warm-season pastures approach dormancy, continue to use grazing management to manage residue.
- Store your high-quality hay in the dry.

Herd health

► In consultation with your veterinarian, finalize vaccination and preconditioning protocol for calf crop.

Reproduction

- Schedule pregnancy-check of cow herd with veterinarian.
- ► Cull open, old and thin cows and cows with problem udders, eyes and soundness issues.

Genetics

Collect 205-day weights on calf crop at appropriate time (AHIR® age range: 120-280 days), along with cow weights, hip heights and body condition scores (cow mature size data taken within 45 days of calf weaning measure).

Identify replacement heifers. Utilize available tools, including genetics, dam performance, individual performance and phenotype. Restrict replacement heifer pool to those born in defined calving season.

Fall-calving herds (September-November)

General

- ► Calving season is in full swing. Check cows frequently during calving season optimal interval is to observe calving females every four hours (heifers more frequently, if possible). Address calving difficulties early.
- ▶Tag; tattoo; and record birth weight,

- calving ease score, teat/udder score and mothering ability of dam. Keep accurate records at birth.
- ► Monitor young calves for scours. Prevent scours by keeping calving area clean and well-drained. Moving 2- to 3-day-old pairs out of calving area to separate pasture (reduce commingling of newborn calves with older calves) helps reduce exposure to scours.
- ► Evaluate winter feed and forage supplies and options, including forage tests to determine nutritional content of hay on hand.
- ► Initiate plans and schedule for breeding

Nutrition and forages

- ► Evaluate growth of yearling heifers with goal of reaching 60%-65% of mature weight by breeding. Depending on forage quality, supplementation may be needed to meet weight gain target.
- ▶Offer high-magnesium mineral. Generally, fall-calving cows are not as predisposed to grass tetany, but this year's cool, wet conditions increase the risk.
- ▶ Reserve high-quality hay and stockpiled pasture areas for cows postcalving. Use strip-grazing as a tool to increase the efficiency of utilization of cool-season pastures by cows postcalving.
- ► Use grazing management to control the residue of warm-season pastures as they approach dormancy.
- ► Store your high-quality hay in the dry.

Herd health

- Ensure colostrum intake within the first few hours of life in newborn calves. Supplement if necessary. Newborn calves need 10% of body weight in colostrum in the first 24 hours of life.
- ▶ Provide selenium and vitamin A and D

- injections to newborn calves.
- ▶ Castrate commercial calves at birth.
- ► Monitor calves closely for scours and pneumonia; have treatment supplies on hand.
- ► Consult with your veterinarian concerning prebreeding vaccination schedule for cow herd and yearling heifers. Plan early to allow 30-day vaccination window prior to breeding season.

Reproduction

- ➤ Reproductive tract score and measure pelvic area on yearling replacement heifers.
- ▶ Plan AI and synchronization program to be used during breeding season. Schedule AI technician, order supplies and semen.
- ► Schedule and conduct breeding soundness exams on herd sires, including annual vaccinations. Do so prior to fall/early winter bull sales to allow time to secure replacements as necessary.

Genetics

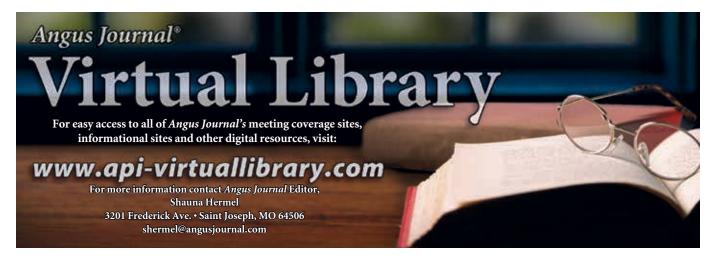
- ► Collect yearling performance data (weight, height, scrotal, ultrasound) in seedstock herds.
- ► Evaluate bull battery and begin planning for the breeding season by evaluating herd genetic goals and selection criteria for both AI and natural-service sires. Establish herd strengths and weaknesses from genetic standpoint, and benchmark EPD criteria accordingly. Make plans for bull-buying season.

Southern Great Plains

by **David Lalman**, Oklahoma State University, david.lalman@okstate.edu

General

The Southern Great Plains region has enjoyed a tremendous summer. Lower cow CONTINUED ON PAGE 208



► ANGUS ADVISOR

CONTINUED FROM PAGE 207

inventory combined with excellent summer conditions have resulted in significant pasture recovery. Harvested forage inventory could also be considered abundant while quality is all over the board. Many hay meadows were harvested late due to a late start in the spring and rain delays.

Perhaps the most notable situation this year is the largest spread in energy vs. protein feed sources in recent history. The feed energy market is driven by corn prices and, of course, corn prices have continued to decline throughout the year with the expectation of a record crop. On the other hand, protein prices in the Southern Great Plains are driven by the availability of cottonseed meal ... and the supply remains scarce.

This spread should moderate in our region as a good cotton crop is harvested and more cottonseed is crushed this fall. The cost per pound of protein is almost always considerably less expensive in a high-protein feed product, such as a 38% protein range cube compared to a 20% protein range cube, for example. At the time of this writing, the cost per pound of protein is nearly equal.

This obviously applies to feed products manufactured with cottonseed meal as a

primary ingredient. If your forage base requires the supplemental protein (and most in our region do), then one way to view this situation is that the additional energy provided by the moderate protein product is nearly free. On the other hand, another potential take-home message here is that less-convenient byproduct protein sources imported from a different region of the country could be a more economical option this year.

Spring-calving herds

- **1.** Wean and individually weigh calves and administer booster vaccinations according to the herd health plan.
- **2.** Individually weigh, condition score and preg-check cows and bred heifers. Some herd health programs call for vaccinations at weaning.
- **3.** Cull females that are open this fall. Our experience in the OSU research herd and other data shows that rolling open cows into the fall-calving herd or keeping them for an entire year results in a very poor success rate: around 50%-60% pregnancy rate in subsequent breeding seasons.
- **4.** Report whole-herd records to your breed association. Few producers report whole-herd individual cow weights and BCS. This information is critically needed as we go

35 Keys to Success Winter Feed Management

forward into a time of extremely high input costs, and the need to improve overall efficiency of beef production.

5. Treat cows and calves for internal and external parasites as recommended by your veterinarian. This is best timed after the first killing frost, although many understandably do this at weaning to save time and labor.

Fall-calving herds

- 1. Evaluate herd bulls for semen quality and purchase new herd bulls using a balanced, multiple-trait selection approach. If possible, ask to see the dams of bulls you are interested in purchasing. Selection for good udder quality and other desirable female characteristics (like moderate mature size and fleshing ability) begins with bull and semen purchases.
- **2.** Closely monitor late-calving heifers for possible calving problems.
- **3.** Purchase herd health products that will be needed for the fall "branding" time herd health program.