



Angus Advisor

► NOVEMBER herd management tips

Guide to abbreviations and acronyms

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

\$Values	dollar value indexes
ADG	average daily gain
AI	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 syncytial virus
brucellosis	Bang's disease
BSE	bovine spongiform encephalopathy
BVD	bovine viral diarrhea
Ca	calcium
CHAPS	Cow Herd Analysis and Performance System
CP	crude protein
cwt.	hundredweight
DM	dry matter
EPD	expected progeny difference
ET	embryo transfer
FMD	foot-and-mouth disease
GnRH	gonadotropin-releasing hormone
IBR	infectious bovine rhinotracheitis
ID	identification
IM	intramuscular
in.	inch
lb.	pound
LCT	lower critical temperature
lepto	leptospirosis
Mg	magnesium
MiG	management-intensive grazing
MLV	modified-live virus
N	nitrogen
P	phosphorus
PI	persistent infection
PI ₃	parainfluenza-3 virus
preg-check	pregnancy-check
Se	selenium
sq. ft.	square feet
SPA	Standardized Performance Analysis
TB	bovine tuberculosis
TDN	total digestible nutrients
THI	temperature-humidity index
trich	trichomoniasis
Zn	zinc

Western Region

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

Fall-calving herds

The main focus is to prepare for the breeding season.

Genetic management

Sire selection. Devote adequate time to sire selection because, from a long-term standpoint, it is the most important management decision that is made each year in a purebred cattle operation.

Reproductive management

Semen. Order semen early to avoid any last-minute problems.

Synchronization protocol. Evaluate available synchronization protocols and determine the best choice in your production situation.

Heat detection. Heat detection is often the most overlooked factor influencing the success of AI or ET programs.

AI equipment. Have extra AI supplies on hand, and thoroughly clean and disinfect all breeding equipment (including the thaw thermos) prior to the start of the breeding period.

Semen and trichomoniasis tests. Semen- and trich-test bulls far enough in advance of the breeding season that if problems arise, replacement bulls can be located prior to the time they are needed for natural service.

Nutritional management

Mineral supplementation. Be sure cattle are receiving adequate levels of calcium, phosphorus and trace minerals deficient in your area.

Protein supplementation. If cows are grazing dry native forage, fall is the time of year when protein supplementation is most important. Price supplements on a cost per unit of protein.

Energy balance. Energy balance is the relationship between the amount of energy that is consumed vs. the amount that is used for various physiological functions such as maintenance, lactation and reproduction. It has a major effect on fertility. It is critical that cows be in a state of positive energy balance, or gaining weight, during the breeding season.

Health management

Vaccinations. Make certain females are vaccinated at least 30 days prior to the start of the breeding period.

Treatment protocol. Have treatment protocols on hand for scours and pneumonia in suckling calves. Have first and second treatment options for both conditions.

Spring-calving herds

The main focus is to keep weaned calves healthy. Cows are on cruise control.

Reproductive management

Pregnancy check. Preg-check cows if not already done. Avoid holding over open cows even if they have been excellent producers, as typically the problem will recur.

Nutritional management

Mineral and protein supplementation. The comments concerning mineral and protein supplementation for fall-calving cows also apply to spring-calving cows at this time of the year.

Body condition. Monitor body condition of cows; however, the period from weaning until 50 days prior to the next calving is the least important from a nutritional standpoint. It is fine for cows to slip in body condition provided condition is redeposited before the start of the next calving period.

Heifer and bull development. The developmental period from weaning until yearling time and beyond to the start of the breeding period is critical in terms of influencing the future productivity of both bulls and heifers.

Health management

Weaned calves. Weaned calves should be treated to control any internal or external parasites. Heifer calves should be Bang's-vaccinated if you have not already done so, and both bulls and heifers should be PI-BVD-tested if that is part of your animal health management program.

Pregnant cows. If late-term abortions have been a problem in the past, consider booster vaccinations for the respiratory diseases and lepto at preg-check.

Midwest Region

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

Prebreeding fall cow management

As the fall calving season comes to a close, producers should prepare for the start of fall breeding season around Thanksgiving and early December.

Given the relatively cool summer and adequate rainfall, fall-calving cows should have been in good condition prior to calving. Cows with uniform condition down their top and fat-covered ribs should have no problem rebreeding in a restricted breeding season. However, cows with body condition scores below a 5 at calving should be managed separately from the main cow herd.

Taking steps to identify marginally conditioned cows and to sort them off early after calving gives you time to make changes prior to the start of the breeding season. With relatively low supplement cost and high cattle value, taking steps to improve conception rates should pay dividends.

What should we look for to identify marginally conditioned cows? These cows will have greater than the last rib showing, may have a prominent hip and spine, and lack condition in the brisket. When evaluating cows, consider looking at them during the early to mid-afternoon hours. At this time they are no longer full from their early-morning grazing and an accurate assessment of condition can be determined without fill.

Regardless of body condition, consider sorting off first- and second-calf cows that calved late in the calving season. These young cows are at greater risk of failing to conceive during a controlled breeding season. Young cows may be carrying more condition than older cows, but will require greater nutrients during lactation due to continued growth to mature size.

Additional supplements provided to these marginally conditioned and high-risk groups will reduce nutrient demands on body condition. Just because supplement costs have declined does not suggest forage testing is no longer needed to evaluate forage quality and the appropriate supplementation level.

Creep-feeding is most advantageous when feed is inexpensive, value of gain is high and milk production is low. As harvest progresses,

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feed prices are projected to decline, suggesting cost of gain should be lower. A conservative rule-of-thumb is creep-feeding takes 10 lb. of feed to support 1 lb. of gain. As milk production and forage availability decline, supplemental feed conversion will improve.

In fall-calving cows, forage quality typically declines after the first of the year as producers finish grazing fall pasture growth and transition to lower-quality hay. Lower-quality forage reduces the cow's ability to produce milk while nutrient demand by the calf for growth increases. Creep-feeding provides supplemental nutrients to the growing calf, allowing for increased preweaning gain. Creep-feeding will mask cows' milk production, so culling cows on performance becomes more challenging.

Some suggest creep-feeding reduces the cow's nutrient needs by reducing calf milk consumption. However the data show calves continue to nurse the cows, but consume less forage, sparing nutrients for the cow herd. In spring-calving herds, this nutrient sparing increases pasture available to cows; whereas, in fall-calving herds hay is conserved. In both cases we are saving forage; yet, in fall-calving herds the nutrient content of creep feed is likely superior to hay quality, while in spring-calving herds creep feed and spring pasture may not differ in nutrient content.

One drawback to creep-feeding is replacement-heifer prospects consuming creep feed that become fleshy tend to produce less milk as a cow. Milk production in creep-fed replacement heifers has been

reduced by as much as 25%, and milk suppression has been demonstrated to last the productive life of the cow.

Calves need approximately two months of creep feeding to demonstrate increased performance compared to non-fed calves, so one management option may be to shorten the creep-feeding period to the end of lactation (January to March) when milk production is lowest and environmental conditions are most challenging to calf growth. This system adapts calves to supplemental feed producers may use when weaning.

Mid-South Atlantic Region

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

Moisture in our region through early fall has been ahead of normal, resulting in improved fall pasture growth and quality. With some additional management and effort, this extra pasture growth can be translated into extra grazing days and reduced hay feeding. Research and Extension demonstrations have consistently shown that strip/limit-grazing of this accumulated fall growth is a far more efficient means of utilization as compared to continuous grazing. Producers who have utilized strip-grazing do not have to be convinced to implement it again, as they have witnessed the efficiency of utilization along with positive changes in cattle behavior.

In fact, many add more frequent moves of temporary fencing to improve harvest efficiency in succeeding years. Be aware that fall-calving cows have higher nutritional requirements, and thus are better candidates for stockpiled fescue grazing, compared to spring-calving cows, which are in mid-gestation.

If you worry that you are pushing the cows too hard to clean up stockpiled forage, put out a bale of average- to below-average-quality hay in the grazed area. If cows consume the hay too quickly, then move the fence and provide access to more forage on more frequent basis. One last item to recall about limit-grazing tall fescue is that once it is consumed, the pasture area is prepared for frost-seeding clover.

Spring-calving herds (January-March) General

- ▶ Implement marketing plan for calf crop, synchronize postweaning grazing and feeding program, as well as vaccination program with marketing plan. Calculate breakevens on various winter and spring marketing options and consider risk-management strategies.
- ▶ Schedule and conduct pregnancy diagnosis with veterinarian. Plan a marketing strategy for open cows that takes advantage of seasonality in cull-cow prices.
- ▶ Finalize winter feed and forage supplies and options. Conduct forage tests to determine nutritional content of hays.

Nutrition and forages

- ▶ Condition score cows at weaning and separate thin cows.
- ▶ Use palatable feeds and high-quality hay to background calves.
- ▶ Continue stockpiling tall fescue and begin strip-grazing accumulated growth if needed.
- ▶ Continue to manage first-calf heifers separately; give them the best forage. Thin, mature cows could be added to this group.
- ▶ Continue to feed high-selenium trace mineral salt. A forage analysis can reveal what other minerals should be supplemented.
- ▶ As warm-season grasses go dormant, manage grazing to utilize dormant residue before too much weathering occurs.
- ▶ Begin to shop and compare winter supplement options.

Herd health

- ▶ In consultation with your veterinarian, finalize vaccination and preconditioning protocol for the calf crop.

Reproduction

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

Genetics

- ▶ Collect weaning weights on calf crop at appropriate time (AHIR® age range specifies 120-280 days of age), along with cow weights, hip heights and BCS (cow mature size data taken within 45 days of calf weaning measure).
- ▶ Identify replacement heifers using objective measures, including genetic background, dam performance, individual performance, along with phenotype. Keep only heifers born in defined calving season.

Fall-calving herds (September-November)**General**

- ▶ Calving season is winding down for most. Continue to observe cows frequently. Address calving difficulties early.
- ▶ Tag, tattoo, 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) will help reduce exposure to scours.
- ▶ Finalize winter feed and forage supplies and options. Conduct forage tests to determine nutritional content of hays.
- ▶ Finalize plans and schedule for breeding season.

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.
- ▶ 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.
- ▶ If available, utilize crop aftermath.
- ▶ Use grazing management to utilize the residue of dormant warm-season pastures.

Herd health

- ▶ Ensure colostrum intake in 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 & D injections to newborn calves.
- ▶ Castrate commercial calves at birth.
- ▶ Monitor calves closely for scours and pneumonia, have treatment supplies on hand.
- ▶ Finalize and conduct 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.
- ▶ Finalize plans and protocols for breeding season. Establish calendar to map timing of synchronization program to be used during breeding season. Confirm schedule with AI technician, have supplies and semen on hand.
- ▶ Breed heifers two to four weeks ahead of mature cows to allow longer postpartum interval prior to second breeding season.
- ▶ 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.
- ▶ Manage newly acquired herd sires properly to prepare them for the breeding season. Yearling bulls often lose 100+ lb. during their first breeding season. Adjust them to the feed and environment of their new home, and commingle bulls of same age/weight for a period of time prior to turnout. Ample exercise, in combination with a proper nutritional program, is essential to make them physically fit for the breeding season.

Genetics

Collect yearling performance data (weight, height, scrotal, ultrasound) in seedstock herds.

Make plans for spring bull-buying season. Evaluate potential sources for bull purchase. Using herd genetic goals, establish benchmarks and selection criteria for bulls to be purchased. Secure new natural-service sires in ample time to acclimate to your management and environment prior to breeding season.

Southern Great Plains

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

Spring-calving herds

1. Wean calves as soon as possible. Cow milk production is at its lowest point in the lactation curve, and forage quality rapidly declines through the fall months. As a result, adjusted weaning weights generally decline for calves that are weaned late in

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the season. Furthermore, under most circumstances, cows will continue to lose condition until the energy demand for milk production is removed.

2. For cows grazing forage that contains less than 7% protein, begin supplementing the equivalent of about 0.4 lb. of protein per day. This is approximately equivalent to feeding 1 lb. of a 38% protein product or 2 lb. of a 20% protein product. This strategy will increase forage intake and digestibility, allowing the cattle to harvest 25%-50% more energy from the forage resource. Cows should gain one-half to one full BCS before the end of the year, assuming they have access to abundant forage.
3. Depending on forage quality, retained heifer calves will likely require supplementation in order to achieve gains of 1-1.5 lb. per day. The most appropriate and efficient supplementation program can only be designed with the nutritional characteristics of the forage resource in mind. For example, high-quality forage, such as wheat pasture, will not require protein or energy supplementation. In contrast, high-quality prairie hay will

require protein and energy supplementation to achieve weight gain beyond 0.75 lb. per day.

Fall-calving herds

1. Prepare for the breeding season by purchasing semen, checking, repairing and cleaning breeding equipment and facilities. An excellent resource for up-to-date information on various heat-synchronization schemes is available in the following fact sheet: ANSI-3166 "Synchronizing Heats in Beef Cows and Heifers." It can be accessed at <http://pods.dasn.okstate.edu/docushare/dsweb/HomePage>.
2. If not done in October, brand calves and vaccinate for clostridial diseases. Vaccinate cows for reproductive diseases according to your herd health plan.
3. Lactating, fall-calving cows should receive approximately twice the amount of supplemental protein as the spring-calving cow herd. On native, warm-season pasture, use an escalating supplementation program, beginning with 1 lb. of 37%-40% CP supplement in October and increasing to 3-4 lb. by Jan. 1.

General recommendations

1. Producers evaluating winter feeding and supplementation programs should spend some time with a simple ration-evaluation program. These decision tools can help you make informed decisions, cut out waste, and ensure optimal animal performance. Most extension service groups offer some sort of ration evaluation program. The Oklahoma State University (OSU) Cowculator is one such tool that is made available for free at www.beefextension.com.
2. Discontinue feeding tetracycline for anaplasmosis control after the end of the vector season (after a hard freeze).
3. Check with your Extension office for information on educational meetings about livestock and forage production practices.
4. Lightly graze native hay meadows after frost. Remove cattle from meadows in wet conditions. Only about 25%-40% of the existing regrowth should be grazed.

