



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 leptospirosis.

Midwest Region

by **Patrick Gunn**, Iowa State University,
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Nutritionally preparing for spring calving

For many producers in the Midwest, spring calving may be only a month or two away. As the weather starts to turn, grazed cornstalk quality begins to diminish, and perhaps both energy and protein supplementation becomes more of a necessity, it is imperative to keep in mind the importance of proper gestational nutrition to improve the events surrounding the calving season.

The first and most important thing when it comes to winter nutrition is knowing not only what you are feeding, but what you are feeding it to. I often contend that the best dollar-for-dollar return on investment for the cow herd is a forage analysis. Without that, the supplementation strategy becomes guess-and-check. If you are overfeeding, you are wasting money; if you are underfeeding, you are wasting potential production.

Along those same lines, knowing what your cows really weigh is just as important. Balancing a ration for a 1,200-lb. cow that in reality weighs 1,350 lb. likely will result in significant losses in body condition leading into the calving season. Furthermore, many producers I field calls from still believe they have the prototypical 1,200-lb. cow.

However, according to the U.S. Meat Animal Research Center (USMARC), the average mature Angus cow likely weighs in excess of 1,400 lb. Data suggest that weights of commercial cows have increased by 200 lb.-300 lb. since the mid-1990s. If scales are not easily accessible, using your cull cow weights from the sale barn will get you closer than guessing.

We often discuss body condition and energy balance, particularly when we approach the breeding season; however, body condition and energy balance are also imperative at calving season. I am frequently told by producers that they do not want to supplement cows during the third trimester because it will make birth weights increase. While there is some data that would support this, there are also many studies that have shown no differences in birth weight resulting from plane of nutrition.

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At the end of the day, what is the real concern, birth weight or dystocia? I argue it is the latter. Particularly as many breeds are starting to shy away from the BW EPD and focus more on CED and CEM, we should be managing cattle so that they have less dystocia, right?

One way to minimize dystocia is to have cows in a moderate body condition at calving. Obviously, overconditioned cows are prone to dystocia due to excess fat along the birth canal. However, underconditioned cows are just as prone, if not more so, to dystocia. It takes energy to make energy, and one of the most energetic things a cow has to do all year is calve. If she doesn't have the proper muscle tone and energy reserves, she will wear out sooner and increase the need for assistance. Multiple studies have reported an increase in the rate of dystocia for cows that were underfed during the third trimester when compared to cows on an adequate plane of nutrition.

Perhaps just as importantly, the extended benefits of moderate body condition at calving are improved calf vigor, colostrum quality and calf health during the preweaning period. Studies have shown that calves born to a cow with a BCS of 5 take a third less time to stand when compared to a cow with a BCS of 4. Furthermore, cows with a BCS of 5 or 6 have significantly more colostrum production and increased immunoglobulin concentrations when compared to thinner cows.

Even before fetal programming was

known as such, Larry Corah did some seminal research in the 1970s that showed the importance of gestational nutrition on neonatal health. Corah compared cows on a continuously low plane of energy during the last trimester of gestation to cows fed a low plane of energy for 70 days, followed by a high plane of energy the last 30 days before calving. Even though birth weight was increased in the group fed a high plane of energy for the last 30 days, the cows lost less weight, had 30% less neonatal death loss, 37% less neonatal scours, and calf weaning weights were 9% heavier, highlighting the monetary returns of a proper gestational nutrition program.

So, as we approach late gestation of many herds in the Midwest, I encourage you to critically assess your winter-nutrition program. As always, for more information on winter nutrition, consult with the team of experts you have assembled, including your nutritionist, beef extension specialist and herd health veterinarian.

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

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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 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 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.dasnr.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

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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 and insect growth regulator (IGR) for fly control after the end of the vector season (after a hard freeze). Remember that the use of antimicrobial products such as tetracycline will no longer be available over the counter (OTC) as of December 2016. From that time forward, these products will be regulated through veterinary feed directives (VFD). An

excellent resource to learn about the responsibilities of producers, feed manufacturers, distributors and veterinarians can be found at VFD Central (<http://feedstuffs.com/vfd.aspx>).

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.

