



# Angus Advisor

► DECEMBER 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 <sub>3</sub>	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 now is the breeding season.

### Reproductive management

- A synchronization protocol should have been selected and products should be on hand. Implement the protocol and take extra time in administering synchronization products, being sure to prevent injection-site leakage. Try to avoid programs that require females to be handled more than twice prior to breeding.
- Heat detection is critically important and the most important factor influencing the success of an AI program.
- Take the time and be precise with all of the details concerning semen handling and placement. If you are breeding AI for more than one cycle, inject GnRH at the time of repeat inseminations.
- Bulls should have been semen-checked and trich-tested and should be ready for use from a physical standpoint. In addition, they should be in the proper degree of body condition and should have been vaccinated at least one month prior to turnout date.

### Nutritional management

- Minerals should be supplemented on a year-round basis. The breeding season is the most critical time in terms of meeting mineral requirements.
- It is critical that both protein and energy requirements of cows are being met during the breeding season. Cows should be in a state of positive energy balance, or gaining weight, during the entire length of the breeding season, as energy balance has a significant influence on fertility.

### Health management

- Cows should have been vaccinated at least 30 days prior to the start of the breeding period.
- Treatment protocols should be on hand for both scours and pneumonia in suckling calves, and both should include options for first and second treatments.

### Spring-calving herds

The main focus is to prepare for the calving season.

Although the start of the breeding period is still months away, a list of potential AI sires should be developed.

### Reproductive management

- If any precalving vaccinations are going to be administered, such as a scour vaccine, they should be given far enough in advance of the calving season to avoid handling cows that are close to parturition.
- Be sure that equipment is in working order and supplies are on hand to assist females once calving starts.

### Nutritional management

- Be sure that cows are receiving adequate levels of calcium, phosphorus and trace minerals that are deficient in your area.
- On a scale of 1 to 9, the target level of body condition at calving is a minimum BCS of 5 for mature cows and 6 for 2-year-old heifers.
- Both protein and energy requirements need to be met in order to achieve the desired level of body condition as described in the previous paragraph.
- The developmental period from weaning until yearling time is critical in terms of influencing the future productivity of both bulls and heifers. Avoid overfeeding either bulls or heifers as excessive fat deposition can hinder structural soundness and reproductive performance in both sexes.

### Health management

- Normally, the first month following weaning is the most challenging in terms of respiratory disease in calves. That point should have passed by now. If calves are going to be PI-BVD-tested or vaccinated for anaplasmosis using the one-shot live vaccine, this is a good time to get those samples collected and vaccinations administered.

## Midwest Region

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

### Plans for winter feeding

As temperatures drop and days get shorter, thoughts turn toward plans for winter feed. For those who fertilized late-

summer pastures and received timely rains, early winter-feeding plans are relatively simple — utilize stockpiled tall fescue.

When selecting stockpiled pastures to graze first, select pastures with less-than-pure fescue stands or those with high clover composition. Tall fescue will endure freezing and thawing better than other grass or legume species, so defer pure stands until later in winter. Alternatively, consider using stockpiled pastures based on winter water suitability.

For spring-calving cow herds, stockpiled tall fescue quality can exceed nutrient demand. One strategy to utilize stockpiled fescue and lower-quality stored forages in combination is stockpile strip-grazing. Using stockpiled tall fescue as a grazed supplement extends the stockpile supply and offers a forage-based supplemental feeding system.

Similar to interval feeding concentrates,

cows grazing stockpile need not be given new grazing allocations each day. After turning cows onto a supplemental forage strip, they will graze stockpile before consuming hay. The excess nitrogen from stockpile consumption can be recycled by rumen microbes for three to five days, allowing cows to utilize low-quality hay they consume after the stockpile strip is grazed out. One day consuming stockpile for every two days of hay consumption should provide adequate supplemental protein to gestating cows.

Fall-calving cow herds are starting the breeding season and peak milk production. Consider sorting young and thin cows into different nutritional management groups when possible. Ideally “nutritional sorting” occurs prior to calving, because once cows begin lactating, improving body condition is challenged by increasing nutrient demand for milk production.

Different nutrition for high-demand groups after calving are challenging due to different sire pairings at breeding. Young cows with high milk-production capability and thin body condition are at the greatest risk of failing to rebreed due to the high nutrient requirements associated with reproduction, lactation and growth.

To prevent cows from calving in thin body condition, continue to monitor spring-calving cow condition scores. Cows failing to accumulate condition after weaning are candidates for sorting prior to calving. Sorting into management groups allows for improved feed and forage resource use. Thin cows can receive extra resources or higher-quality forages, while conditioned cows can utilize lower-quality forages. Cows that are consistently in the thin management group each year are either inefficient or have milk-

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production potential in excess of the production environment.

Plan to maintain or increase the nutritional plane of replacement heifers through the breeding season. Heifer development systems begin at weaning; target heifer development systems to achieve 60%-65% of mature weight by breeding. Winter feeding systems for replacements can utilize high-quality forages, low-quality forages or crop residues with supplemental feed as replacement-heifer development systems are flexible so long as puberty is achieved prior to the breeding season. Avoid making sudden nutritional changes to heifers during the breeding season, as reproductive losses can occur when heifer nutritional profiles decline. Around breeding and 45 days prior to calving are critical heifer-development periods, so strategic winter feeding programs are important for fall- and spring-calving herds.

One additional preparation for winter feeding is forage-testing hay supplies to assess nutrient needs prior to feeding. Testing forages just prior to feeding allows for supplement planning while accounting for storage quality losses. Hay-storage losses will vary with location. Producers receiving abundant rain on outside-stored hay are more likely to incur dry-matter and forage-quality losses. Several late-cut summer hay samples indicate hay is below 7% crude protein and will require supplementation.

Use forage tests to plan winter hay-feeding programs by matching the best forages to late gestation followed by early lactation.

Systematic use of existing forage resources will minimize the need for additional supplemental feeds. With reduced feed costs in the near term, opportunities to retain additional heifers or background steers beyond weaning may be available to those with excess winter feed supplies.

## Mid-South Atlantic Region

by **Scott Greiner**, [sgreiner@vt.edu](mailto:sgreiner@vt.edu); and **Mark McCann**, [mark.mccann@vt.edu](mailto:mark.mccann@vt.edu), both of *Virginia Tech*

The rapidly shortening days mean that December is here. The shortest day, or winter solstice, will occur Dec. 21. Beyond the challenge of accomplishing cattle chores, short days bring an opportunity. As the year comes to a close, it is an excellent time to reflect on the year with your cattle enterprise.

As you review receipts and bills, keep the big picture in focus as you assess the details. The key to making significant changes is identifying weaknesses in important areas that have a major impact on your bottom line and addressing the ones that will have the largest impact. Production and economic records are necessary tools to begin identification of the variables where the smallest change will have the greatest impact on your profitability.

As you take advantage of the short days and work on your enterprise records, what pieces are you missing? The 2014 record year starts in less than a month.

### Spring-calving herds (January-March) General

- ▶ Begin preparation for calving season by checking inventory and securing necessary

supplies (OB equipment, tube feeder, colostrum supplement, ear tags, animal health products, calving book, etc.)

- ▶ Evaluate marketing options for calves not yet sold.
- ▶ Evaluate cull-cow marketing strategy; take advantage of seasonality in cull-cow price.
- ▶ Conduct forage tests to determine nutritional content of hays.

### Nutrition and forages

- ▶ Evaluate BCS of cows you identified as thin and gauge whether your management is making adequate progress.
- ▶ Continue strip-grazing accumulated fescue growth as needed.
- ▶ Continue to manage first-calf heifers separately; give them the best forage. Thin, mature cows could be added to this group.
- ▶ Feed lower-quality hay to dry cows, saving the best hay for calving season.
- ▶ Continue to feed high-selenium trace-mineral salt. A forage/hay analysis can reveal what other minerals should be supplemented.
- ▶ Harvest impacts on feed costs have taken effect. Work to contract or lock in winter feed needs at the most economical price.

### Herd health

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

### Reproduction

- ▶ Cull open, old and thin cows and cows with problem udder, eye and soundness issues.

### Genetics

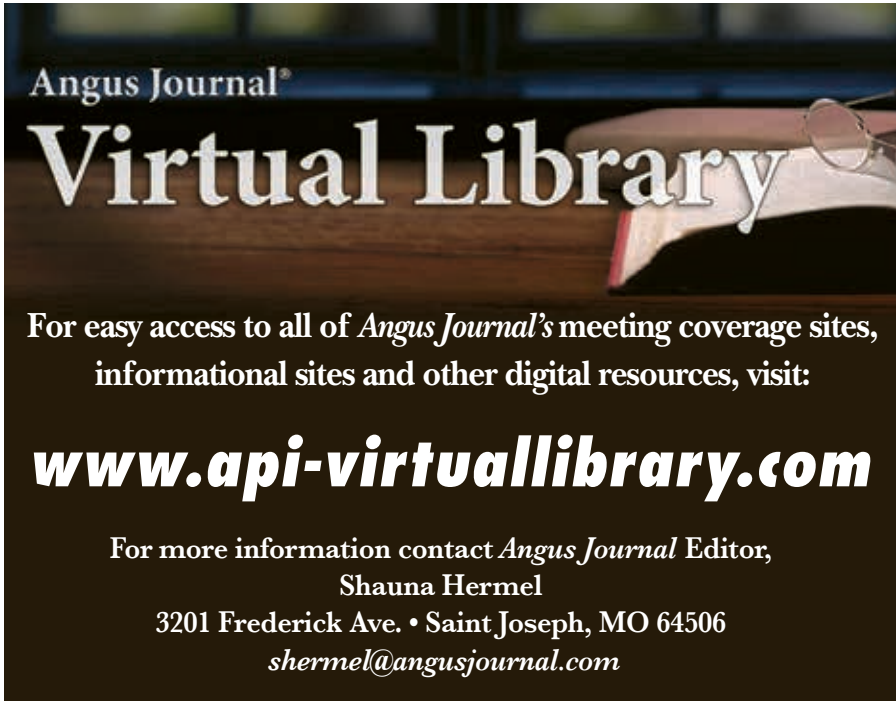
- ▶ Make plans for winter and spring bull-buying season. Evaluate potential sources for bull purchase. Using herd genetic goals, establish benchmarks and selection criteria for bulls to be purchased. Secure new natural-service sires in ample time to acclimate to your management and environment prior to breeding season.
- ▶ Identify replacement heifers using objective measures including genetic background, dam performance and individual performance, along with phenotype. Keep only heifers born in defined calving season.

### Fall-calving herds (September-November)

#### General

- ▶ Calving season is completed for most. Continue to observe late-calving cows frequently.
- ▶ Calving records should be complete and up to date.
- ▶ Monitor calves for scours.
- ▶ Conduct forage tests to determine nutritional content of hays.

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- ▶ Initiate breeding season.

**Nutrition and forages**

- ▶ As the breeding season begins, remember that maintaining or gaining weight have a major impact on pregnancy rate. As available forage becomes scarcer and of lower quality, be prepared to supplement as needed.
- ▶ Offer high-magnesium mineral. Generally, fall-calving cows are not as predisposed to grass tetany. As cows transition from grazing to hay or silage, high-magnesium minerals can be discontinued.
- ▶ Use strip-grazing as a tool to increase the efficiency of utilization of cool-season pastures by cows postcalving.

**Herd health**

- ▶ Consult with your veterinarian concerning a prebreeding vaccination schedule for cow herd, yearling heifers and bulls. Plan early to allow a 30-day vaccination window prior to breeding season.
- ▶ Begin planning vaccination and preconditioning protocol to be used for calf crop at weaning.
- ▶ Castrate commercial calves if not done at birth; consider castrating bottom end of

male calves in seedstock herds.

- ▶ Monitor calf crop for health, have treatment options on hand.

**Reproduction**

- ▶ Reproductive tract score and measure pelvic area on yearling replacement heifers.
- ▶ Implement plans and protocols for breeding season following preplanned calendar and synchronization program. Confirm schedule with AI technician, have supplies and semen on hand. Take time to be precise with protocols for synchronization, detection of estrus and semen handling.
- ▶ Breed heifers two to four weeks ahead of mature cows to allow longer postpartum interval prior to second breeding season.
- ▶ Use 48-hour calf removal for thin cows and first-calf heifers at beginning of breeding season.
- ▶ Schedule and conduct breeding soundness exams (sometimes referred to as a BSE) on herd sires, including annual vaccinations prior to turnout.
- ▶ Manage bulls properly during the breeding season. Observe frequently to confirm breeding activity and soundness, and monitor cows for repeat estrus. Avoid commingling mature and young bulls, as older bulls will be dominant. As a rule of thumb, yearling bulls should be exposed to

number of cows equal to their age in months (i.e., 18-month-old bull with ~18 cows).

**Genetics**

- ▶ Finish collecting yearling performance data (weight, height, scrotal, ultrasound) in seedstock herds.

**Southern Great Plains**

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

**Spring-calving herds**

- ▶ Unfortunately, we feed far too much hay in the beef cattle industry in the United States. Nevertheless, when hay is fed as a standard management practice, simple and relatively inexpensive steps can drastically reduce waste. In some of our recent research, we discovered that hay feeders without a solid sheet around the bottom 18 in. or so can result in about 21% of the original bale weight being wasted by the cows. By simply putting some type of skirt or sheet around the bottom, the waste can be reduced to around 13%. Furthermore, if you use a feeder with a skirt and some type of a cone mechanism to keep the hay in the middle of the feeder longer, waste can be reduced to about 5%.

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- ▶ Another simple strategy to cut down on hay use and waste is to limit cows' access to it. Many roll round bales out for their cows, while others flake off a specific amount using large square bales. Using this method, the amount of hay consumed and wasted can be controlled by the manager. This requires more frequent feeding, but if the cows are only fed as much hay as they will clean up each day (or even a bit less), there will be very little waste. For those that must use hay feeders, hay can be placed in a drylot or sacrifice area and cows given access to it for around 6 to 8 hours per day. This practice has been shown to dramatically reduce hay waste and hay use (slight reduction in daily hay intake).
- ▶ December and early January are good times to check weights by weighing a portion, if not all, of the virgin replacement heifers. Using this information and the targeted breeding weight and rate of weight gain established at weaning, producers can evaluate the nutritional strategy and make necessary adjustments.

**Fall-calving herds**

- ▶ December is the heart of the breeding

season for many fall-calving herds in the Southern Great Plains. Consequently, the goal of the nutritional program is to minimize weight and condition loss of cows that are nursing 30- to 100-day-old calves. To achieve this, 3-6 lb. of a concentrate supplement, along with 5-10 lb. of high-quality legume hay or silage may be necessary.

- ▶ In this region, limited access to small-grains pasture is an excellent and cost-effective supplementation program for fall-calving cows. Access to small-grains pasture should be limited to about 25%-33% of daylight hours.
- ▶ A high-calcium, high-magnesium mineral supplement should be provided to lactating cows grazing small-grains forage.
- ▶ December is a good time to implement a creep-feeding or creep-grazing program. Many producers seem to have the impression that creep-feeding somehow reduces nutritional stress on lactating cows. It does not. Study after study demonstrates that cows produce and calves consume the same amount of milk when calves are being creep-fed, compared to calves receiving no supplemental feed.
- ▶ Creep feed does, however, replace (or reduce) forage intake when more than about 3 lb. of creep feed is consumed.

Creep-feeding programs are more efficient when forage is short and/or forage is low in nutritional value compared to times when forage is abundant and has high nutritional value. Remember to report creep-fed calves as a separate contemporary group.

**General recommendations**

- ▶ Begin grazing dormant weeping lovegrass pastures. Be aware that this cured forage resource is notoriously low in protein and digestibility, ranking somewhere between low-quality prairie hay and wheat straw.
- ▶ This fall, native hay meadows have as much forage or even more than when it was baled in June or July. These meadows should be grazed after a hard frost. Leave a minimum of about 6 in. of standing forage and remove the cattle from the meadow if wet conditions develop. Plan to burn the remaining dead material in the spring. This will greatly improve next year's hay quality and allow you to benefit some from the late-summer and fall regrowth.
- ▶ Before the end of the year, check your financial management plan and projected tax situation in case income or expense adjustments are necessary to minimize your tax burden. Numerous financial tools are available at [www.beefextension.com](http://www.beefextension.com).

