



# Angus Advisor

▶ SEPTEMBER 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

## 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

September typically marks the beginning of the busiest calf-marketing time of the year. This year excitement is at an all-time high as a result of summer calf prices and the fall price forecast. Cow-calf producers are likely to enjoy substantial profits this fall, with the most important consideration being how to best utilize these returns from your cattle enterprise.

First, make record of this moment for your personal time capsule. Secondly, assess your debt along with critical areas on the farm that require capital to improve. Fences, facilities and other equipment frequently make the list. As you weigh reinvestment options in your operation, consider those that will most affect your herd's productivity. Correcting soil fertility and pH, weed control and overseeding legumes are all options that provide returns on your investment.

Upgrading facilities provides opportunities for enhanced management strategies that provide return on investment. Examples include appropriate facilities to wean, feed and precondition calves postweaning. Additionally, working facilities that can accommodate an AI program can provide a significant upgrade to herd genetics. These are rare times in the cattle business; be sure that you prepare yourself for whenever the leaner times return.

## Spring-calving herds (January-March)

### General

- ▶ Finalize plans for marketing the 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 diagnosis with veterinarian 45-60 days following breeding season. Plan a marketing strategy for open cows.
- ▶ Plan for winter by evaluating feed and forage supplies and options, including conducting 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.
- ▶ 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.
- ▶ Continue to manage growth of warm-season grass pastures by rotational grazing. As warm-season pastures approach dormancy, continue to use rotational grazing to manage residue.
- ▶ Store your high-quality hay in the dry.
- ▶ Collect and submit forage samples for nutrient analysis.

## Herd health

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

## Reproduction

- ▶ Make plans to preg-check heifers as soon as possible after bull removal. This will allow options in marketing open heifers.
- ▶ Remove bulls after 60 days for controlled calving season.
- ▶ Schedule preg-check of cow herd with veterinarian.

## Genetics

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

- ▶ Secure necessary supplies for calving season (obstetrics equipment, tube feeder, colostrum supplement, ear tags, animal health products, calving book, etc.).
- ▶ Move pregnant heifers and early-calving cows to calving area about two weeks before due date.
- ▶ Check cows frequently during calving

season. The optimal interval to check calving females is every four hours.

Address calving problems early.

- ▶ Utilize calving area that is clean and well-drained. Reduce exposure to scours by moving 2- and 3-day-old pairs out of calving area to separate pasture (reduce commingling of newborn calves with older calves).
- ▶ Identify calves promptly at birth. Record birth weight, calving-ease score, teat/udder score, and mothering ability of cow.
- ▶ Plan for winter by evaluating feed and forage supplies and options, including conducting forage tests to determine nutritional content of hay on hand.

### **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.
- ▶ Continue to feed high-selenium trace-mineral salt.
- ▶ Reserve high-quality hay and pasture area for cows postcalving.
- ▶ Use grazing management to control the residue of warm-season pastures as they approach dormancy. Use strip-grazing as a tool to increase the efficiency of utilization of cool-season pastures by cows postcalving.
- ▶ Store your high-quality hay in the dry.
- ▶ Collect and submit forage samples for nutrient analysis.

### **Herd health**

- ▶ Ensure colostrum intake in the first few hours of life in newborn calves. Supplement if necessary. Newborn calves need 10% of body weight in colostrum within 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.

### **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 goals and objectives.

## **Midwest Region**

by **Justin Sexten**, *University of Missouri*,  
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### **Feeding, backgrounding calves**

Moderate temperatures, regular rainfall

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and high cattle prices provide the opportunity for many producers to retain ownership postweaning. This summer has provided abundant forage and the prospect of record feedstuff production, so whether you are considering a backgrounding, stocker or feedlot retained-ownership system is not important. What is important is matching the desired performance level to the available nutrition of the growing calf.

Starting calves in a postweaning nutrition program is the most challenging aspect of cattle feeding. In order to capitalize on calves' genetic potential to grow, health challenges at receiving must be minimized. Providing adequate nutrition to support immune function is key to getting calves started. Weaned calves have low dry-matter intake, so nutrient-dense weaning rations ensure adequate energy and protein consumption. Adequate energy is achieved by eliminating low-energy ingredients. Examples would include cottonseed hulls and rice hulls. Bulky, low-energy ingredients increase cost of gain by promoting little gain despite their inexpensive cost.

In the weaning supplement, maintain 14%-16% crude protein levels. Numerous

feeds can be used; however, plan to incorporate some bypass protein sources. Nursing calves consume bypass protein in milk, but, once weaned, these young calves require bypass protein from feed to gain in excess of 2.5 lb. per day. Select multiple ingredients from corn, soybean, cotton and animal proteins to provide adequate and balanced amino acids to calves.

The greater the calves' performance target, the more important providing a balanced protein source becomes. Calves turned out on pasture may not gain beyond 2 lb. per day due to forage quality, so single ingredient supplements will suffice, while backgrounding and feedlot cattle with high grain diets can increase performance with balanced protein supplies.

When considering feed additives, include a coccidiostat or ionophore and provide balanced vitamin and mineral supplements. Using a straight commodity supplement can provide adequate protein and energy to weaned calves; however, they may lack adequate mineral and vitamin premixes in addition to the feed additives shown to improve weaning health.

A good weaning management program

begins with quality forage. In many operations producers rely on forages to provide the bulk of the nutrients to weaned calves. Quality pasture such as fall regrowth or hay fields added to summer rotation offer quality forage options; alternatively, provide calves with the best grass hay available to ensure intake is not limited by fiber and fill.

One benefit to late-season supplementation is pasture conservation. As calves consume supplement, pasture consumption declines. As a rule of thumb, each pound of supplement consumed reduces pasture dry-matter consumption by half a pound. When heat stress slows pasture and animal growth, supplementation offers the opportunity to maintain animal performance and reduce heat produced while digesting forages. When supplementing calves during summer heat, consider feeding late in the afternoon to prevent heat from building during the day.

When pasture rental opportunities are limited or expensive, adding weight using grass looks increasingly less profitable; however, declining feed prices and rising calf prices can make adding weight to calves using supplements cost-effective. Continue to price supplements with cost of gain in mind, as inexpensive supplements resulting in subpar gains increase marketing risk due to failure to make contract specifications. Matching production goals, feeding level and supplement ingredients to optimize gain offer the greatest return on investment in retained ownership opportunities.

## **Southern Great Plains**

by *David Lalman, Oklahoma State University,*  
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### **Spring-calving herds**

- 1.** Purchase supplies needed to complete the herd health program and prepare for processing calves at weaning in September or October.
- 2.** As the weaning date approaches, be sure to have facilities and equipment checked, repaired or updated as needed. This is a great time to have your scale certified or calibrated. Spend some time with the torch and welder to make those little improvements to your working facility that you have been thinking about doing for years. The cattle will appreciate your efforts as will your help, and you will be asking yourself, "Why didn't I do that years ago?"
- 3.** A well-planned and -executed weaning management and nutrition program are major components in a successful weaning period. Fenceline weaning in a pasture is preferable to sudden, complete removal

and pen confinement. If pasture weaning is not an option, consider keeping the calves in the pen next to the cows in the pasture. Once calves have stopped bawling, immediately move them out to a pasture where they cannot access the cows through a fence.

4. Weaned calves can gain 1.5 lb.-2 lb. per day

grazing good-quality pasture during late summer and early fall if a complementary supplement package is provided. In situations where good-quality pasture is not available, calves can be fed a growing ration in a drylot, generally resulting in very efficient feed conversion. Consult a nutrition expert for assistance with ration

balancing and supplement packages.

5. Weaning is also an important time in the herd health program as it relates to the mature cows and replacement heifers. Potential management steps to be considered at this time include annual vaccinations, brucellosis vaccinations for

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## Western Region

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### Fall-calving herds

The main focus is the calving season.

### Genetic management

**Sire selection.** Although the breeding season is still months away, now is the time to start developing a list of potential AI sires.

### Reproductive management

**Calving management.** Supplies should be on hand and proper equipment should be available to assist females with problems at calving. Be sure that personnel are properly trained in the most current procedures recommended for assisting females that are experiencing calving difficulties. As calves are tagged and weighed at birth, their navel stumps should be dipped or sprayed with a mild iodine or betadine product. In addition, if you are in a selenium-deficient area, they should receive a selenium injection at birth.

In order for maximal absorption of maternal antibodies, calves should nurse within the first six hours after birth. A supply of frozen colostrum should be on hand and should be replaced at the start of each calving season. The best source is a mature, heavy-milking cow that calves early in the calving season. She should be milked out shortly after her own calf nurses. Do not freeze all of the product in one bag; rather, divide it into the proper amount that would be fed to a newborn calf (about one-half of a calf bottle) prior to freezing.

In addition, be certain that females are being monitored for the incidence of retained placenta. If problems arise, treat them promptly.

### Nutritional management

**Mineral supplementation.** Be sure that cows are receiving adequate levels of calcium, phosphorus and trace minerals that are deficient in your area. Minerals should be supplemented on a year-round basis and can be varied depending on the time of the year and available forage resources. The mineral products that include chelated minerals are more expensive but offer much better rates of absorption. Mineral boluses or injectable products can be used in addition to loose or block mineral products.

**Body condition.** The target level of body condition at calving is a BCS of 5 (scale = 1 to 9) for mature cows and BCS 6 for 2-year-old heifers. Ideally, this level of body condition should be maintained during the breeding season. However, this is sometimes difficult to achieve, especially with cows that have extremely high levels of milk production. Avoid getting cows overconditioned during the breeding season as reproductive performance starts to decline if cows are above a BCS of 6.5 to 7.0.

**Protein and energy supplementation.** Both protein and energy requirements need to be met in order to achieve the desired level of body condition. Supplements should be compared on a price per unit of either protein or energy, depending on which nutrient is the most limiting in your situation. In general, if forage is available and is poor in terms of quality, then protein will be the most limiting nutrient. If the availability of forage is the problem, then energy will be the most limiting nutrient.

### Health management

**Treatment protocol.** Have treatment protocols and products on hand for both scours and pneumonia in suckling calves. If cows are calving on irrigated pastures, be prepared to have a higher incidence of scours in young calves. It is well-advised to have first- and second-treatment options for both conditions, and be sure the protocols have been communicated to the appropriate personnel.

### Spring-calving herds

The main focus is to prepare for weaning.

### Reproductive management

**Pregnancy-check.** Cows should be preg-checked at weaning time. Avoid holding over open cows, even if they have been excellent producers, as typically the problem will recur.

### Nutritional management

**Supplementation.** In terms of protein and energy supplementation, usually spring-calving cows can perform adequately without supplementation at this time of year as long as forage is available.

**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. Both sexes need to be developed at adequate rates of gain so that differences in terms of genetic potential for growth can be exhibited. However, neither sex should be developed at extremely high rates as excessive fat deposition can hinder future reproductive performance and detrimentally affect foot and leg soundness.

### Health management

**Weaned calves.** Calves should be administered preweaning vaccinations for the respiratory disease complex at least two to three weeks prior to weaning. After weaning, they should be treated to control internal and external parasites, and heifer calves should be Bang's-vaccinated. Both bulls and heifers should be PI-BVD tested if that is part of your animal health management program.

The first 30 days after weaning is the most critical period concerning problems with BRD in cattle. Consider pasture weaning if you have the facilities to accommodate this management technique. Minimal electric fencing can be used quite successfully, and pasture weaning usually results in significant reductions in the incidence and severity of respiratory disease associated with weaning.

### General management

**Marketing program.** Marketing ability is one of the key factors that determine economic performance in a purebred cattle operation. As times become more challenging, a sound and creative marketing program becomes even more important. Many people simply reduce the amount of advertising as times become more challenging. However, creative and well-placed advertising is now more important than ever.

replacements, pregnancy diagnosis, deworming and treatment for other parasites, retagging, culling decisions, and possibly freeze-branding replacements.

### Fall-calving herds

1. Calves should be individually identified and weighed within 24 hours of birth.
2. Identify herd sires to be used in the AI program and purchase semen.
3. Plan the herd health program to be administered at “branding” time. Recent research published by Oklahoma State University (OSU) veterinary scientists indicates that, in properly immunized cow herds, an MLV combination vaccine given at branding, followed by revaccination at weaning is as effective a vaccination strategy as vaccine given preweaning (21 to 30 days), followed by revaccination at weaning.
4. Lactating fall-calving cows will likely lose some body condition during the calving and early lactation period. Ideally, your cattle genetics, forage management and

supplementation program would result in limited weight and body condition loss during this critical period. In other words, when these components of your program are not “in sync,” the cows will lose weight too rapidly, resulting in few cows cycling at the beginning of the breeding season and low conception rates. Either that or you will have to spend a lot of money to keep this from happening.

### General recommendations

1. While the Southern Great Plains region basically lost April and May from a forage production standpoint, most of the region has been blessed with excellent summer precipitation. In fact, summer rains have delayed much of the hay harvest throughout the region. We will be fortunate to have abundant standing forage and harvested hay available this coming winter. As always, some of it will be low-quality due to late harvest or rain damage. Also as always, if you will be in the market to purchase hay, be sure to take the time to either request or require a forage test. Forage testing and monitoring cow condition are the best tools to use in

determining an appropriate nutrition program for fall and winter. A list of certified commercial laboratories is available at [www.foragetesting.org](http://www.foragetesting.org).

2. Concentration of critical minerals in forage declines as forage matures and as leaf-to-stem ratio declines from grazing pressure. Minerals that are of particular concern in the predominant forage species found in the Southern Great Plains include phosphorus, copper, zinc and selenium. Vitamin A is also critical when animals consume drought-stressed forage over a long period of time. A balanced supply of vitamins, macrominerals and microminerals is an important component of the overall herd health program, which influences health of weaned calves, as well as reproductive success.
3. Late-summer applications of about 50 lb. per acre of nitrogen can produce high-quality Bermuda grass or fescue pasture from October through December. Pastures should be grazed, hayed or otherwise mowed before the fertilizer application is made. Forage production will be highly dependent on late-summer precipitation.

**AJ**

## How to Lose the Argument on Animal Welfare

by **Troy Smith**, field editor

Sometimes all that is required for disagreement, regardless of the issue, is two people with different points of view. According to Dave Daley, fifth-generation California rancher and interim dean of agriculture at Chico State University, the “window” through which a person looks at the issue of animal welfare influences how they see the problem. In fact, whether a person thinks animal welfare actually is a problem depends on his or her window.

Daley spoke to an audience gathered for the 4th International Symposium on Beef Cattle Welfare July 16-18 in Ames, Iowa. In his leadoff presentation, Daley urged attendees to remember that members of the general public look through windows very different from those of people who are involved in animal agriculture. Even among the general public, perspectives regarding animal welfare vary greatly.

However, Daley fears livestock industries are in danger of losing the public's trust. To an extent, it is already happening. Daley said industry members should consider whether they are at least partly to blame. Have their conversations about animal welfare with people having different perspectives ever become heated? Daley listed several ways

producers and others associated with livestock production can lose such arguments.

“Don’t assume science will provide a solution,” warned Daley. “There is a growing public perception that scientific results can be bought. Many people think if the livestock industry sponsors a study, its results are suspect.”

Neither should a contentious animal management practice be defended because it is most economical. Justification on the basis of economics, said Daley, is a poor argument. It is best to take it out of the discussion.

Dailey said blindly defending all agricultural practices is a huge mistake. He warned that industry advocates lose credibility by trying to defend all of agriculture. Not everything can be defended and there is always room for improvement.

According to Daley, people can’t effectively advocate on behalf of animal agriculture by attacking people who disagree with them. Rather, they should be willing to discuss the issue. That means being willing to listen as well as talk. Remember that disagreeing with you does not mean other people are stupid.

“You can be too defensive,” cautioned

Daley. “Don’t assume that the lunatic fringe represents the general public. Many people are not worried about animal welfare.”

Too often, said Daley, people within the industry are reactive instead of proactive. He urged more effort to build coalitions. Daley also warned against industry in-fighting, including criticizing or mocking nonconventional production systems. He sees room for different methods and believes the market will sort success from failure.

Daley believes there are welfare issues with which livestock industries must deal due to growing concern among the general public. Leading his short list is extreme animal confinement. Stress associated with transportation is another, along with procedures that cause short-term pain, such as castration, dehorning and branding. To some well-meaning people, development and implementation of production “standards” seems the logical solution. Without consideration of differences among production systems, due to geography, environment and scale, Daley fears the solution could become the problem.

**AJ**

**Editor’s Note:** Troy Smith is a cattleman and freelancer from Sargent, Neb.