



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 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

Mid-South Atlantic Region

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

September marks the change from summer to fall. September also marks the beginning of the busiest calf-marketing time of the year, regardless of marketing channel. Pre- and postweaning management decisions can add value to your calf crop. Preweaning respiratory vaccinations prepare calves for the stress of weaning, which should translate into reduced sickness whether the calves are sold or kept at home. Another postweaning management option is to keep the calves at home and precondition them. Preconditioning is usually a 45-day period immediately following weaning. It ensures that calves are broke to consume feed from a bunk, water from a trough and that vaccinations are now providing active immunity. Though it requires more facilities, labor and feed, preconditioned calves are in high demand. Numerous research and extension trials have demonstrated that calf growth is very efficient during this 45-day period and returns are far above costs.

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 & D injections to newborn calves.

CONTINUED ON PAGE 226

Western Region

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

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. 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.

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.

- ▶ 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, sextenj@missouri.edu

The National Animal Health Monitoring System (NAHMS) reports 81.2% of surveyed feedlot operators believe bunk-breaking calves is extremely or very effective in reducing sickness or death loss. Bunk-breaking was ranked similar to respiratory vaccinations and weaning four weeks prior to shipping with castration and dehorning four weeks prior to shipping at 91.6% effective. Bunk-breaking was considered important without any consideration of what feed is used to wean calves.

Nutrition during the first month after weaning is key to minimizing sickness and death loss in backgrounding and feedlot programs. Providing adequate nutrition following weaning improves immune response and allows vaccines to adequately

protect calves from infection while improving postweaning gain regardless of market endpoint. Preconditioning programs provide a comprehensive approach to value-added marketing by addressing health, nutrition and management.

When selecting weaning feedstuffs, avoid the temptation to cheapen diets using low-nutrient feeds. Weaned calves have low DM intake, so nutrient-dense weaning rations ensure adequate protein and energy consumption. A weaning-management program begins with quality forage. In many operations producers rely on forage to provide the bulk of the nutrients to weaned calves; in these cases, provide calves with the best grass hay available to ensure intake is not limited by fiber and fill.

In the weaning supplement, maintain 14%-16% CP, 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, it may lack adequate mineral and vitamin premixes in addition to the feed additives shown to improve weaning health.

The first month following weaning is when most management uncertainty occurs. During this time calves are stressed, and as a result, sickness and death losses will be the greatest. Nutritional investments during this time period to maintain or enhance performance offer some of the greatest marketing returns.

Providing yearling cattle or developing replacements supplemental nutrition as the grazing season progresses offers the

opportunity to increase weight while extending pastures. As a rule of thumb, for each pound of supplement a calf consumes, a half a pound of pasture is conserved. This late-season supplementation increases cattle "handling" and can improve the producers' ability to lead cattle to corrals. Improved and increased cattle handling will reduce preshipping shrink, increase market weight or, in the case of replacement heifers, allow earlier selection for disposition.

Not all supplementation is good, as excessive feeding increases fleshiness. The discount for fleshy calves is linked to reduced feed efficiency and compensatory gain for the calves' next owner. Market report summaries indicate fleshy calves are discounted \$1 to \$6 per hundredweight (cwt.) compared to average-fleshed calves. As feed costs continue to increase, the reduced feed efficiency associated with feeder calves carrying excess condition will likely increase the discount for fleshiness.

Rapidly developed replacement heifers produce less milk; heifers gaining greater than 2.5 lb. per day and carrying excessive condition during development tend to wean lighter calves throughout their productive life. Therefore, develop late-season replacement supplementation programs with a prebreeding target weight of 60% of mature cow size. This assures adequate prebreeding development while minimizing milk suppression and excessive feed costs.

Conversely, fleshy cull cows exhibit increased dressing percent and higher market cow grades compared to thinner cows. Market cows carrying additional flesh are less likely to bruise during transportation, resulting in reduced trim loss at processing. Cows failing to wean a calf or those who milk poorly will tend to be fatter at weaning. Open cows carrying excessive flesh should be the first on the cull cow list.

For fall-calving herds, 45 to 60 days precalving is the other period when nutritional investments pay marketing dividends by improving calf vigor and colostrum quality. Having more calves survive from birth to weaning will increase market revenue. Additionally, improving cow condition precalving shortens the postpartum interval and improves reproductive efficiency during the following breeding season.

Market revenue to the beef operation is a function of pounds sold times price. Pounds marketed are a function of number of head and body weight. Attention to nutrition allows calves to express their genetic potential for growth and offers the opportunity to increase the number of head sold each year due to improvements in health and reproduction.

Southern Great Plains

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

Spring-calving herds

1. Consider weaning calves earlier than normal if cows are thin (BCS 4 or less) or if drought persists in your area. This strategy is particularly beneficial for 2- and 3-year-old cows and cows that are 10 years or older. 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.

- 2.** Make plans to complete the vaccination program that you and your veterinarian outlined for spring-born calves earlier in the year.
- 3.** 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 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.

General recommendations

- 1.** While the eastern two-thirds of the Southern Great Plains have received some relief from long-term drought, the western part of the region continued to deal with historically dry conditions at the time of this writing. With essentially no hay carryover in the entire region, average

production in the eastern two-thirds of the region and essentially no production in the western one-third of the region, hay will continue to be very expensive throughout the fall- and winter-feeding months.

Limited-intake concentrate feeding programs are not inexpensive alternatives this year, but they can be used to replace hay feeding when hay is extremely expensive or unavailable. A limit-fed concentrate program requires more facilities, labor and good management. While not an inexpensive or simple answer, these programs require very little hay. See your nutritional advisor or extension educator to learn more about this nutritional management practice.

2. Drought desperation and resulting high hay prices generally encourages folks to

bale almost anything they can wrap twine around. If you are looking to buy hay in this seller's market, be sure to take the time to either request or require a forage test so that you can determine the hay's true value relative to alternatives. 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.

3. 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.

4. 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.

