



Angus Advisor

► MARCH 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

Midwest Region

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

Nutrition for the spring-calving herd

A successful 2013 breeding season requires attention to precalving cow nutrition. Once a cow calves, energy is preferentially used for milk production rather than accumulating additional body condition or providing energy for reproduction. As a result, increasing the nutrient supply after calving will do little to improve reproductive success unless energy in excess of milk production is supplied.

Additionally, as gestation progresses, cow dry-matter intake declines due to increasing fetus and placenta growth. Intake will also decline when producers wait until cows calve to feed “good hay” during lactation. When cows are full due to pregnancy, this is no time to feed “better than snowball”-quality hay.

Reduced intake combined with cold and wet temperatures results in condition “melting” off cows prior to calving. Producers should provide supplemental nutrients prior to calving to prevent cows from losing condition while allowing for normal calf development. Poor nutrition during mid- and late gestation can influence the calf by reducing calf vigor, decreasing quality grade and delaying puberty, while the dam’s postpartum interval is lengthened and colostrum quality declines.

The first step to addressing this challenge is forage testing and development of a supplement plan. As an example, assume hay meets the cow’s maintenance needs; approximately 4 lb. of corn-gluten feed a day will be required to increase condition in a 90-day period.

One method to improve supplement efficiency is to include 200 mg per head per day of monensin to reduce the cow’s maintenance requirements while improving hay energy value. Monensin must be delivered daily in a minimum of 1 lb. of feed, so alternate-day monensin-feeding programs will not work, but for those feeding daily, the cost:benefit ratio is favorable when forage quality is low. Monesin also reduces cow postpartum interval and age at puberty in heifers.

Evaluate replacements. Replacement-heifer candidates should be evaluated

prebreeding to take advantage of marketing opportunities prior to the breeding season. Cull-heifer sales free up feed and forage resources for cows or replacement heifers while providing cash flow during the winter feeding period.

By the time heifers are a year old, they should be at or near puberty. Ideally, heifers cycle two to three times prior to the breeding season for improved reproductive rates. Adjustments in replacement-heifer management may be required depending on how many heifers are cycling prior to the breeding season. Beyond observing heifers for estrous activity, producers can have heifers’ reproductive tracts scored and pelvic measurements taken. These two measurements can provide producers with a heifer “development gauge.”

Heifers slow to achieve puberty due to age or later maturation should be fed a concentrate diet or a diet with monensin to hasten puberty onset. Alternatively, estrous synchronization protocols using a synthetic progestin, such as melangesterol acetate (MGA) or a CIDR® around breeding can hasten puberty onset.

Heifers unable to achieve puberty prior to breeding season should be considered for culling due to potentially short postpartum recovery times after their first calf. Any heifer suited for early culling improves retained replacements due to the narrower, more uniform management window from breeding to weaning the first calf.

Aggressive replacement-heifer culling criteria gives producers opportunity to place increased selection pressure on convenience traits in addition to system adaptation. Heifers selected with the management system in mind combined with data-based decisions result in a cow herd with genetic potential adapted to the environment.

Don’t forget bulls. While bulls spend most of their days at maintenance, bull nutrition should not be ignored. Bulls should be turned out at a BCS of 6. Bulls will lose 100 lb. during the breeding season, so provide adequate forage and supplement to ensure bulls can accumulate prebreeding condition. For yearling bulls, use high-quality forages to ensure bulls are not excessively fat at turnout and are adapted to native pasture and hay species.

Prebreeding nutrition programs begin

120 days prior to breeding for cows, bulls and replacement heifers alike.

Sixty to 90 days prior to calving gives producers an opportunity to implement a supplementation program prior to calving.

Replacement heifers should be managed to achieve puberty at a year of age to ensure regular estrous cycles prior to the start of the breeding season.

Western Region

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

This month, instead of focusing on the details concerning herd management in the different areas such as nutrition, reproduction and health, I am going to cover an individual topic in more detail.

The topic for this month is the development and marketing of bulls. In most purebred cattle operations, income from the sale of bulls represents the largest percentage of annual income. Therefore, determining how to maximize net profit from this group of animals is extremely important in terms of influencing the financial success of the operation.

I am not highly qualified to address marketing; however, marketing ability is extremely important and is one area that most purebred producers struggle with for many years as they get started in the business. Most bulls are marketed to commercial cow-calf producers. It takes an extended period of time to establish the relationships and customer base to become a successful marketer of commercial bulls.

In my opinion, the keys to developing a strong customer base for commercial bulls include

- ▶ having a good product;
- ▶ representing the bulls honestly; and
- ▶ standing behind them fully.

The old advice of not selling something that you would not want to buy is still as true as it has always been.

Higher feed costs have had a dramatic influence on the cost of developing both bulls and heifers. Some producers can develop their calves out on pasture by providing supplemental nutrition to achieve the desired level of performance. This is a tremendous advantage, especially in periods of high feed prices like what we have

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experienced during the last few years. This practice is more commonly used for heifers as compared to bulls, but can be used for both sexes. However, most purebred beef producers must confine their calves to a drylot for developmental purposes.

For many years, the costs of developing bulls ranged from \$2 to \$2.50 per head per day, depending on the location and type of feeding operation. However, since the ethanol fiasco drove corn prices through the roof, many producers have faced developmental costs of \$3-\$4 per head per day or higher.

It is going to be extremely important that producers avoid two things when developing bulls. First, we have to avoid feeding below-average bulls. These bulls are difficult to market and, thus, it is difficult to recoup our investment in them. However, the demand for Angus bulls has been so strong over the last 10 years that many Angus producers in our state have never castrated a bull calf. I think it is extremely important that purebred producers look at their bull calves with a critical eye and a sharp knife.

The second point is that we have to minimize the length of the developmental period. If we could convince commercial cow-calf producers to buy bull calves at weaning, I believe it would be a win-win situation for both purebred and commercial producers. Purebred producers would sacrifice yearling measurements. However, a \$1,200 weaned bull calf will probably net more dollars than a \$3,000 long yearling bull. In addition, bulls would be gone long before they could cause many of the problems for which they are known. In addition, commercial producers would be able to acclimate the bulls to their own

country and conditions and develop them to fit their own needs.

I would strongly encourage



producers to get a handle on all costs that are going into the development and marketing of their bulls. Then, with those costs in front of them, sit down and develop a strategy to maximize net profit from this group of animals that represent a major source of income in many operations.

Mid-South Atlantic Region

by **Scott Greiner**, sgreiner@vt.edu; and **Mark McCann**, mark.mccann@vt.edu; *extension beef specialists, Virginia Tech*

March is typically an unpredictable month in the region. It frequently feels much like winter, along with periods of pending spring. It is also tax season. The annual exercise of gathering records and receipts at tax time also provides an opportunity to more closely examine the performance and profitability of cattle operations.

As a fundamental step, critique your recordkeeping system (both production and financial records) to identify areas that could be improved to provide more information for decision-making. Review your state extension enterprise budget to highlight the financial information needed to make strategic economic decisions.

Completing an enterprise budget will allow use of financial decision tools such as breakeven analysis, sensitivity analysis and partial budgets to more closely examine key aspects of the operation that impact profitability. The VTBeef website (www.apsc.vt.edu/extension/beef/index.htm) has recordings of webinars that cover financial records, transitioning from Schedule F records to an enterprise budget and financial decision-making tools.

Spring-calving herds (January-March) General

- ▶ Calving season is in full swing. Check cows frequently during calving season. An optimal interval is to observe calving females every 4 hours (heifers more frequently if possible).
- ▶ Tag, tattoo, record birth weight, calving ease score, teat/udder score and mothering ability of dam. Keep accurate records at birth to comply with age- and source-verification requirements.
- ▶ Monitor young calves for scours. Prevent scours by keeping calving area clean and well-drained. Moving 2- and 3-day-old pairs out of the calving area to separate pasture (reduce commingling of newborn calves with older calves) helps reduce exposure to scours.

Nutrition and forages

- ▶ Replace free-choice minerals with a high-magnesium mineral to prevent grass tetany. Monitor intake to ensure cows are consuming the recommended amount. No other source of salt or minerals should be available.
- ▶ 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.
- ▶ Feed high-quality hay to minimize supplementation and cow weight loss.
- ▶ Although pasture green-up is beginning and nutrient content of new growth is high, cows cannot consume enough to meet their nutritional needs. Restricting cows to smaller hay feeding areas will allow new pasture growth to get a faster start.
- ▶ Fertilize hay areas with potassium and phosphorus according to soil test recommendations. Add nitrogen at the rate of 40-70 lb. per acre.

Herd health

- ▶ Observe newborn calves to ensure colostrum intake in the first few hours of life. Supplement if necessary. Newborn calves need 10% of body weight in colostrum during the first 24 hours of life.
- ▶ Provide selenium and vitamin A and D injections to newborn calves.
- ▶ Castrate commercial calves at birth.
- ▶ Monitor calf health closely, particularly for signs of scours and pneumonia; have treatment supplies on hand.
- ▶ Consult with your veterinarian concerning prebreeding vaccination schedule for cow herd and yearling heifers. Plan early to allow a 30-day vaccination window prior to breeding season.

Reproduction

- ▶ Plan AI and synchronization program to be used during breeding season. Order supplies and semen.
- ▶ Schedule and conduct breeding soundness exams on herd sires, including annual vaccinations. Do so prior to spring bull sales to allow time to secure replacements as necessary.

Genetics

- ▶ Closely examine herd genetic goals and selection criteria for both AI and natural-service sires. Establish herd strengths and weaknesses from genetic standpoint, and benchmark EPD criteria accordingly. Make plans for spring bull-buying season.
- ▶ Collect remaining yearling performance data (weight, height, scrotal, ultrasound) in seedstock herds.

Fall-calving herds (September-November)

General

- ▶ Pull bulls to maintain a 60- to 90-day calving season. Monitor body condition and soundness of bulls.
- ▶ Schedule and conduct pregnancy diagnosis with veterinarian 45-60 days following breeding season.
- ▶ Evaluate potential options for marketing of calf crop, including time of weaning and backgrounding strategy.

Nutrition and forages

- ▶ Begin creep-feeding or creep-grazing calves, if desired.
- ▶ Cows are entering latter portion of lactation. Above-average to good-quality hay should meet nutritional requirements.
- ▶ Although pasture green-up is beginning, hay should be continued to be offered until consumption declines significantly.
- ▶ Reserve high-quality hay and a pasture area for calves postweaning.
- ▶ Fertilize hay areas with potassium and phosphorus according to soil test recommendations. Add nitrogen at the rate of 40-70 lb. per acre.

Herd health

- ▶ Consult with veterinarian on preweaning vaccination protocol for calf crop. Monitor calves closely for health issues, particularly respiratory disease.

Genetics

- ▶ Make plans for remaining spring bull sales. Closely examine herd genetic goals and selection criteria for both AI and natural-service sires. Establish herd strengths and weaknesses from a genetic standpoint, and benchmark EPD criteria accordingly.
- ▶ Collect 205-day weights on calf crop at the appropriate time (AHIR® age range 120-280 days), along with cow weights, hip heights and body condition scores (cow mature size data taken within 45 days of calf weaning measure).

Southern Great Plains

by **David Lalman**, Oklahoma State University,
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Fall-calving herds

Hopefully, you have received ample precipitation in recent months and weeks to assuage the effects of the historic drought in our region. Assuming you are in an area where soil moisture and water tanks have been replenished, cool-season annual and perennial forages should be growing rapidly. These high-quality forage resources can be used as a supplement to low-quality standing forage or hay. One very effective

limit-grazing strategy is to use four-hour grazing bouts at two- to four-day intervals, depending on stage of production, condition and age of the cows, and quality of the dry forage base. Another common method is to graze cows on the cool-season pasture for two days, followed by three to five days of grazing low-quality forage or hay.

If drought conditions persist in your region, you may want to consider early-weaning fall-born calves. If you have to feed both the cow and the calf, it is more efficient to go ahead and wean the calf and feed them separately until they reach an acceptable weaning weight for your marketing goals.

Vaccinate heifer calves between 4 and 10 months of age for brucellosis.

Spring-calving herds

Limit-grazing cool-season pasture is equally as effective for spring-calving cows, although more difficult to manage with baby calves.

March and early April are frequently the times of year when spring-calving cows lose the most weight. Some producers avoid rapid weight loss by feeding high-quality hay during this short period, while others reduce the protein concentration in the supplement and increase the feeding rate.

With the continuing drought conditions in some regions, little spring forage growth is a stark possibility. In these cases, resist the temptation to turn cattle out early on native rangeland and warm-season grasses. It is imperative to allow these pastures additional time to reestablish their root systems after severe drought stress.

If AI is to be used, plan the synchronization system and purchase the necessary supplies and products. Some systems require implementation of the synchronization plan as early as 35 days prior to the initial breeding date. Many universities publish fact sheets that describe various synchronization systems.

Breeding soundness exams should be performed on herd bulls, preferably before spring bull sales. Since bulls will be restrained during this procedure, this is an opportune time to perform other maintenance steps, such as vaccinating, trimming feet, tagging or retagging, cutting hair away from ear tags, etc.

After calving and before breeding (30 days before, preferably), vaccinate cows according to your local veterinarian's recommendations.

Early March is a good time to check weights on replacement heifers to determine

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if an adjustment in their nutritional program is necessary. The traditional recommendation is to target 65% of expected mature body weight by the beginning of the breeding season (812 lb. if mature weight is 1,250 lb.).

General recommendations

Sample soil from established Bermuda grass, Old World bluestem and love grass pastures to determine fertilizer needs. Cool-season perennial forages can still be fertilized in early March, if not already done.

Agronomists are recommending nitrogen fertilizer applications be applied incrementally according to moisture conditions.

Hay feeding areas in improved pastures should be burned, raked, lightly tilled if necessary, and reseeded with grasses and legumes. With a little early spring maintenance, these damaged areas can recover rapidly.

If moisture conditions improve, plant or broadcast spring-seeded legumes, such as lespedeza, sweet clover, red clover and white clover. Remember to inoculate legume seeds before planting. Inoculation is an

inconvenient and often-overlooked step that pays huge dividends.

Prescribed fire may not be an alternative for brush control this year due to lack of fuel. Therefore, consider stocking rates to allow adequate fuel for next year and perhaps consider more extensive use of herbicide in critical areas.

Magnesium-fortified mineral supplements should be supplied to cows grazing cool-season annual or cool-season perennial forages.

