



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*

As the cold, winter weather gives way to warm temperatures and green grass, the breeding season begins for spring-calving herds. March is a good time to visit the replacement-heifer pens to evaluate heifer growth and development and begin planning for the breeding season.

There are two nutritional goals in replacement-heifer development programs. Allow adequate nutrition so heifers are cycling prior to the breeding season and remain in the herd after calving.

Start replacement-heifer selection by keeping heifers born early in the calving season. Cows calving early in the calving season are more productive throughout life. Selecting heifers from early-calving cows indirectly selects cows adapted to your operation. These cows are generally in good condition and rebreed in a timely manner. Focus selection on heifers born in the first half of the calving season.

After considering birth date, evaluate heifers for disposition, health and postweaning growth. Cull aggressive, flighty and unhealthy heifers prior to breeding to focus feed and management inputs on cattle more likely to remain in the herd.

Acceptable postweaning growth is operation- and management-dependent. Some producers want heifers weighing 900 lb. at breeding, while others are content to breed heifers at 750 lb. Historically, replacement-heifer development focused on getting heifers to 60%-65% of mature weight prior to breeding.

Nebraska research has explored heifer-development systems where cattle are managed to weigh 55%-58% of mature weight prior to breeding. These management programs allow heifers to gain a greater percentage of weight grazing spring and summer pastures. In these systems, fewer lightweight heifers were cycling at the beginning of the breeding season; however, pregnancy rates were comparable following breeding with lower development costs.

How should heifers be managed during this period? Should gain be focused in the first half to ensure heifers are heavy enough for breeding? Or should heifers gain a constant 2 lb. per day from weaning to

breeding? Alternatively, should replacements gain more during the second half of the development period?

The answer to those questions is yes. Depending on the operation's goals, arguments can be made for each system. Research has shown that once heifers reach adequate body weight to trigger puberty, how and when they gain this weight is flexible.

Purebred operations may prefer to push heifers early during development to test postweaning growth potential. Commercial operations may prefer to restrict early development growth to minimize heifer weight until 60 days prior to breeding to minimize feed costs. Many producers prefer to have heifers gain at a constant rate from weaning to breeding.

Many management systems have proven effective as long as heifers reach puberty prior to or during the breeding season. Observe heifers for heat during development to determine at what age and weight heifers in your operation begin cycling. Consider yearling pelvic measurements and reproductive tract scoring to evaluate development progress.

Recommendations have encouraged breeding heifers prior to the cow herd. Early heifer breeding allows replacements a longer period following calving to prepare for rebreeding and focuses labor needs during calving. Additionally, calves from heifers will have two weeks of growth on those from cows making for a more uniform calf crop.

An alternative to breeding heifers before the cows is a shorter heifer breeding season. Restricting heifers to a 45-day breeding season reduces late-calving heifers and results in a 14-day longer recovery period prior to breeding.

The second replacement-heifer development goal is the more important management target. Getting heifers to calve at 85% of mature weight with a BCS of 6 is key to getting cattle you have spent two years developing to remain in the herd after the first calf.

Producers with first-calf heifers approaching calving need to make sure nutritional management will support adequate condition prior to calving. Once heifers calve, little opportunity exists to add additional condition to heifers prior to rebreeding.

Considerable flexibility exists in replacement-heifer development programs. Use this flexibility to minimize development costs during noncritical periods and focus management during the key development periods, two months prior to breeding and calving.

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, and 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 experienced during the last few years. This practice is more commonly used for heifers

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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 development 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, especially this year with the drought that we are experiencing in the West. The demand for any bulls, let alone the below-average ones, could be very limited next fall. 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; both of Virginia Tech

Cattle prices have reached new heights and the market outlooks are projecting continued good times for the foreseeable future. Given the high value of each individual calf when marketed, it is a worthwhile exercise to review factors that impact the number of calves weaned and identify your operation's management schemes, which may need improvement to enhance percentage of calves born, weaned and marketed.

Conception rate is the largest influencer of calves born and is usually affected by nutrition. Oftentimes cow herd feeding decisions are based on convenience and affordability, rather than focusing on nutrient needs. If conception rate is below

90%, then nutritional factors could be such that a less-than-optimal reproductive rate is being obtained. Given the value of additional pregnancies, supplemental nutrition could be both warranted and affordable.

Health and bull breeding soundness are additional areas that affect calving rate. Reviewing your calf losses and their potential causes can highlight areas where extra investment can return additional profits in today's economic environment.

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).
- ▶ Identify calves promptly at birth. Record birth weight, calving-ease score, teat/udder score, and mothering ability of the cow.
- ▶ 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 pastures are beginning to green up 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 a genetic standpoint, and benchmark EPD criteria accordingly. Make plans for spring bull-buying season.
- ▶ Schedule and 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 the 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 is 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

Weaning age is an important consideration in fall-calving cow herds because there is more practical flexibility

compared to spring-calving programs. Fall-born calves can be weaned at the traditional 7 months of age or remain on the cows during spring green-up and early summer grazing. Many commercial producers in this region have moved to mid-summer weaning because the cows still gain body condition while nursing high-quality early summer forage and calves wean at 650-700 lb. These decisions will obviously impact adjusted weaning weight calculations and that may be an important consideration for some. Earlier weaning (March or April) will almost certainly result in cows that are in BCS 6 and 7 by calving time in September.

Winter wheat and other cool-season annuals 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 the condition of the cows and the 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.

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

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Spring-calving herds

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

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, resulting in more total energy supplementation.

If the drier conditions persist through March, 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 re-establish 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 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.

If dry conditions persist, agronomists recommend nitrogen fertilizer applications be applied incrementally so that N is not

wasted (volatilized) in the case of little moisture availability for forage growth.

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.

Adequate fuel should be available in most areas for prescribed fire this year. This is still one of the most effective and inexpensive range-management (and brush control, in particular) tools available to many ranching operations. An excellent resource for planning and executing prescribed burns is the *Oklahoma Prescribed Burning Handbook* available at <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-6613/E->. This resource is available free of charge.

