



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

New columnist

Lawton Stewart, a Georgia native who is an extension beef cattle specialist at the University of Georgia (UG) joins our panel of “Angus Advisor” columnists this month. Stewart received his bachelor’s degree in animal science at UG before earning a master’s degree in agronomy, with emphasis in forage management, from the University of Florida.

Subsequently, he continued his graduate studies, earning a doctorate at Virginia Tech in animal science, with an emphasis in ruminant nutrition and forage utilization. After completing his doctorate, Lawton spent a year in Kentucky as a post-doctoral research fellow with Alltech Inc. and the University of Kentucky investigating nitrogen metabolism in ruminants.

Stewart joined the Animal and Dairy Sciences Department at UG in June of 2008 as an extension livestock specialist. There, his program focuses on beef cattle nutrition and management. His effort is to help producers improve production and efficiency in their herd, but also to explore other opportunities in the beef cattle industry, such as preconditioning/backgrounding, stockering and retained ownership.



Lawton Stewart

Southeastern Region

by **Lawton Stewart**, University of Georgia, lawtons@uga.edu

With cattle prices high, creep-feeding is a no brainer, right?

As we’re moving into the warmer months, most producers have their calf crop on the ground and are making decisions on what to do with their calves this year. Many have a pretty big grin on their face since cattle prices are at historic highs and are considering ways to increase calf weights. Whether to creep-feed is an age-old debate that can be generalized into two topics:

- 1) adding value to the calf crop through increased weight; and
- 2) effect on the management of the entire herd.

With input costs (i.e., feed costs) rising significantly in recent years, this practice may

need to be reevaluated to determine if it is a moneymaker. Ultimately, the practice of creep-feeding should be treated as a management decision and not an annual management practice.

This month, the discussion will focus on understanding the cost of gain. From a nutrition and cost standpoint, there are several factors to consider:

Feed efficiency. The cost of added gain is the largest consideration in creep-feeding. The conversion of feed to pounds of calf can vary from 3 lb. to 12 lb. of feed for each 1 lb. of gain above calves that are not creep-fed. If the cost of gain is higher than the market value (\$ per cwt.), creep-feeding is ineffective. The cost of gain is determined by the relationship of feed conversion and feed cost (see Table 1). As you can see, cost of gain varies greatly depending on feed conversion.

Table 1: Determining the cost of creep-feeding

Feed conversion, (lb. feed/lb. of gain)	Cost of feed, \$ per ton				
	140	160	180	200	220
	Cost of gain, -----¢ per lb. -----				
3	21	24	27	30	33
4	28	32	36	40	44
6	42	48	54	60	66
8	56	64	72	80	88
10	70	80	90	100	110
12	84	96	108	120	132

Selling price. In addition to cost of gain, another major consideration is the potential for difference in selling price. When feed is cheap and calves are expensive, it is easy for creep-feeding to be profitable; but we haven't seen that for a few years. Two factors can negatively affect the selling price of creep vs. non-creep calves. First, heavier cattle generally bring less per pound. The second factor is the degree of fatness of the creep-fed calves. If the anticipated market will discount fleshy calves, any creep-feeding program that produces heavily fleshed cattle can greatly reduce the price received per pound.

High-energy/free-choice feeds. Besides determining the actual ration, the delivery method of feeding is likely the most critical decision. From a convenience standpoint, a free-choice high-energy feed is the most popular. However, if you evaluate the efficiency of some of these systems, cost of gain can increase tremendously, sometimes to more than 15 lb. of feed per pound of gain. As the amount of feed offered and the age of the calf increases, the intake of supplement increases. Conversely, the calf's intake of milk and forages decreases. This can be beneficial when forage availability and/or quality are limiting (e.g., drought and low-quality forage), but can be costly when adequate forage is available. Remember, forages are our cheapest source of nutrients, so it is imperative to utilize them to their fullest potential.

Limit-fed high protein. Supplying the missing piece of the puzzle often will yield the largest return on investment, especially when it comes to nutrition. Protein is generally limited on warm-season grasses such as Bahia grass and common Bermuda grass. Therefore, one strategy is a limit-fed, high-protein feed such as cottonseed meal, soybean meal or distillers' grains. Hand-feeding can be quite laborious, but effective limiting can be achieved through the addition of salt to the ration. To be effective, three steps should be followed to use this method:

- 1) Feed the supplement free-choice for 2 to 3 weeks. It generally takes calves this long to get started.
- 2) Start with 0%-3% salt in the feed.
- 3) Increase salt to meet the targeted level of intake of the supplement.

Creep-grazing. All creep feed does not have to come from a bag, and grazing is often overlooked. Creep-grazing programs can produce additional calf gains using forage rather than traditional diets. The calf's response to creep-grazing depends on the quality of grazing it currently has access to, and the improvement in quality of the creep forage. Creep-grazing can be performed in

two general methods. The first involves planting a small plot of high-quality forage such as legumes and/or winter annuals. A traditional creep gate is placed between the main pasture and creep pasture to only allow calves access to the grazing. The other involves forward-grazing. This is a component of a rotational grazing system where calves are allowed access to the new paddock ahead of the cows. This allows the calves to select for higher-quality forage before the cows have access.

As with any management practice, creep-feeding has the potential to add value or drain the bank. This year, before you set up

the creep feeder and buy feed, do a little math to make sure it's going to put money back in your pocket.

Next month, we'll discuss the effect creep-feeding has on the other aspects of herd management.

Southern Great Plains

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

Fall-calving herds

Cool-season annual and perennial forages should be growing rapidly. These high-quality forage resources can be used as a

CONTINUED ON PAGE 194

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.

In many native range situations, warmer temperatures encourage the emergence of cool-season annual grasses. Although these grasses typically do not make up a high percentage of the available forage, the grazed forage protein content should be higher compared to January and February. To take advantage of this situation, producers may choose to switch from a high-protein supplement (30%-40% protein) to a moderate-protein supplement (20%-25% protein). Hay feeding may be advised if standing forage is becoming limiting. Since the breeding season has ended, a modest loss of weight and condition is acceptable for 4- to 8-year-old cows.

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 last summer's drought, and the possibility of extended dry conditions (resulting in late or little spring forage growth) it is imperative that harvested forage and feed supply matches the cattle inventory so that rapid weight loss does not occur during this critical period.

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.

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.

Western Region

by **Randy Perry**, University of California, 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 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 \$2,500 long yearling bull. In addition, bulls would be gone long before they could cause many of the problems that they are known for. Commercial producers would also be able to acclimate the bulls to their own country 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. And 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.

Midwest Region

by **Twig Marston**, University of Nebraska, tmarston2@unl.edu

Manage calving pens and pastures to minimize human, cow and calf stress. Stay organized.

- ▶ An observation schedule should be implemented for calving first-calf heifers and cows. First-calf heifers should be checked every two to three hours.
- ▶ Sanitation is key to reduce and/or eliminate calf scours. An excellent calving pasture management plan by David Smith from the University of Nebraska-Lincoln can be found at <http://beef.unl.edu/beefreports/symp-2003-19-XVIII.pdf>.
- ▶ Make sure every calf consumes adequate colostrum during the first 8 hours after birth.
- ▶ Keep accurate calving records, including cow ID, calf ID, birth date, calving difficulty score and birth weight. Other traits to consider recording are teat and udder scores, calf vigor score and other pertinent information. This information, along with Angus sire information, is vital for enrolling cattle in the AngusSource® program. (See your regional manager for details.)
- ▶ Calving books are essential sources of information; make sure you have a backup copy.
- ▶ Condition score cows. Thin and young cows will need extra energy to maintain yearly calving intervals.
- ▶ If cow diets are going to be shifted from low-quality forage (poor-quality forage or dormant grass) to high-quality forage (lush green grass), begin a grass tetany prevention program at least three weeks prior to the forage switch.
- ▶ When making genetic selections, use the most recent National Cattle Evaluation (NCE) and herd records judiciously.
- ▶ If new bulls are purchased, now is the time to start preparing them for their first breeding season. Bulls need to be properly vaccinated, semen-tested and conditioned to be athletic. A bull having moderate body condition with abundant exercise is ideal.
- ▶ After calving and before breeding, vaccinate cows as recommended by your veterinarian.
- ▶ Plan to attend beef production meetings.

