



Angus Advisor

► AUGUST 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 **Patrick Gunn**, Iowa State University, pgunn@iastate.edu

Water

For producers in the Midwest, August can be one of the most stressful months on the cow herd. Extreme heat has already been experienced by most of the United States this summer. More heat on the way reinforces the need to constantly monitor water sources to make sure they are both clean and cool.

In the summer months, cattle will consume approximately 2 gallons (gal.) of water per 100 lb. of body weight. Heat waves may increase this intake by 50% or more. If water has to be delivered, be cognizant of this increased intake. If using a pond as a water source, be careful of blue-green algae blooms to avoid cyanobacteria poisoning. These blooms are most prevalent in late summer and early fall when water becomes hot and stagnant.

In addition to having a clean and cool source of water, the location of that water is extremely important. Research from the universities of Missouri and Wyoming has shown that grazing uniformity and grazing efficiency exponentially decrease as distance from a water source increases. Research would suggest the most efficient grazing is conducted within 800 feet (ft.) of a water source, and utilization of forage more than 1,200 ft. from the water source is poor. It may be necessary to relocate water sources or consider redesigning pasture “cell/paddock” layouts to improve efficiency based on water location.

Weaning

For spring-calving herds, weaning is right around the corner. Minimizing this stress is key to enhancing productivity, welfare and profitability. While the weaning process may seem like a one-time event that is short in duration, it is composed of multiple components, all with their own potential stressors. How a calf responds to the weaning process may well dictate the long-term productivity of that animal.

A successful weaning program that minimizes calf setbacks begins well in advance of the physical separation between the dam and the offspring. As immunity is impaired at times of stress, administration of

vaccines should be conducted three to four weeks in advance of weaning, if possible.

Regardless of whether producers adopt an early weaning or traditional weaning program on any given year, one aspect that is often overlooked is the surrounding environment. The ability to keep calves in a familiar paddock or pasture where they are acquainted with water and feedbunk location can mitigate stress significantly. Thus, removing the cows from the calves is often less stressful than removing the calves from the cows.

One particular weaning strategy that has gained traction over the last handful of years for being lower stress is fenceline weaning. In this system, cows are placed on the opposite side of the fence from the weaned calves so that visual, and even some physical, contact is possible. Over a period of time ranging from a few days to a week, the number of fenceline visits between cow and calf gradually declines. Researchers have reported increased weight gains and reduced vocalization during the weaning period in calves weaned in the fenceline system when compared with traditional separation methods.

Calving

Many fall-calving herds may have a few calves on the ground already. Increased heat stress coupled with shortened gestation lengths associated with calving-ease genetics often equate to calves hitting the ground as early as two or three weeks ahead of their scheduled due date. Be prepared!

Excessive heat can lead to lethargic calves at birth. Be sure to have colostrum replacers, supplements and electrolytes on hand and ready to use. Provide shade if possible to give calves and dams a chance to recover from the birthing process.

As always, consult with the team of experts you have assembled, including your beef extension specialist, nutritionist and herd health veterinarian.

Southern Great Plains

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

Spring-calving herds

1. Prepare for weaning by purchasing health program supplies, ensuring that working and weaning facilities are in good

condition, and planning a nutrition program for weaned calves. This should include planning and managing for availability of high-quality pasture for the freshly weaned calves, assuming adequate precipitation.

2. If the cow herd can be gathered once before weaning, an effective strategy is to vaccinate calves two to six weeks prior to weaning and again at weaning. In fact, many value-added health programs recommend this protocol to maximize immune response in weaned calves.
3. Remove insecticide ear tags as soon as possible or practical once they begin to lose their effectiveness. This helps to minimize resistance buildup over time.

Fall-calving herds

1. Yearling replacement heifers grazing native pastures may benefit from a small package (around 1 lb. per day) of high-protein supplement in order to ensure adequate growth and development prior to breeding in November.
2. Calves that were first vaccinated at weaning require booster vaccinations within two to four weeks.
3. Calving season begins in mid- to late August for most fall-calving herds. Purchase calving supplies and prepare ID tags. The incidence of dystocia due to heavy birth weight is lower in fall-calving systems. However, producers should still be prepared to deal with occasional dystocia cases associated with abnormal presentations.

General recommendations

1. Monitor herd health for the possibility of a pinkeye (infectious bovine keratoconjunctivitis) outbreak. Once started, the spread of this disease can be very difficult to control, so it is better to treat animals early and address preventive management steps. One of the primary culprits in spreading the disease is thought to be horn flies and face flies. Another agitant thought to facilitate this disease is intense ultraviolet radiation. Therefore, shade is important for all animals, and eye patches can be used on infected animals to minimize both sunlight and exposure to flies. When treating cattle for pinkeye, wear gloves and protective clothing and discard or disinfect clothing and equipment used before moving on to treat or handle another animal.
2. At the time of this writing, pasture conditions are improved across much of the Southern Great Plains due to early summer rainfall. With abundant moisture, invasive plant species are thriving. While

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many woody plant (brush) species should ideally be sprayed earlier in the summer, some aggressive invasive species can be controlled with herbicide through the month of August. Sericea lespedeza is a good example, as it begins to flower and produce seed in late August and September.

3. Hay supplies this coming winter will be abundant, although likely low in quality due to delayed harvest and rain damage. Much of the cool-season annual (wheat) hay crop was not harvested at all due to rain delays or harvested after substantial rain damage. Be sure to have warm-season annual forage tested for the potential of high nitrate content. Of course, this risk is much greater if drier conditions return. If you will need to purchase hay to winter your cattle this year, now is the time to begin identifying a source.
4. Consider managing a portion of Bermuda grass and fescue pasture for late-summer fertilization and fall grazing. More information is available at www.beefextension.com.
5. Early to mid-August is about the latest a person can spray sericea lespedeza and expect to achieve reasonable reductions in the plant population the following year.

Western Region

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

Fall-calving herds

The main focus is to prepare for the calving season.

Genetic management

Sire selection. The start of the breeding period is several months away; however, now is the time to start developing a list of potential AI sires. For most successful purebred producers, sire evaluation is a continual process that never ends. In my opinion, it is the most important management decision that is made each year in a purebred or seedstock operation of any species.

Reproductive management

Vaccinations. If any precalving vaccinations, such as a scour vaccine, are going to be administered, they should be given far enough in advance of the calving season to avoid handling cows that are extremely close to parturition.

Calving supplies and equipment. Be sure that equipment is in working order and supplies are on hand to assist females once calving starts. In addition, if injections such

as selenium are going to be administered at birth, be sure that an adequate supply of those products is on hand.

Nutritional management

Mineral supplementation. Be sure 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 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 minimum BCS of 5.0 for mature cows and 6.0 for 2-year-old heifers on a scale of 1 to 9 (see www.cowbcs.info).

Protein and energy supplementation.

Both protein and energy requirements need to be met to achieve the desired level of body condition as described previously. If cows are grazing dry native forage, typically protein is more limiting as compared to energy.

Be sure supplements are priced on a cost per unit of protein or energy, depending on which nutrient is most limiting in your situation. In situations where forage quality is limited but there is plenty of forage or pasture available, protein will be the more limiting nutrient. In situations where forage quantity is lacking, such as drought or short feed conditions, then energy typically will be the more limiting nutrient.

Heifer development. The developmental period from weaning until breeding time is critical in terms of influencing the future productivity of females. Females should be developed to reach approximately 65% of their projected mature weight at the start of the breeding period and 85% of their projected mature weight at calving.

Health management

Treatment protocol. Have treatment protocols and products on hand for both scours and pneumonia in suckling calves. It is well-advised to have first- and second-treatment options for both conditions.

Spring-calving herds

The main focus is that cows and calves are on cruise control.

Reproductive management

Natural-service bulls. Bulls should be turned out and hopefully are doing their job. Watch for return heats from natural-service dates, and if a high percentage of females are coming back into heat, replace sires if that is an option.

Nutritional management

Mineral supplementation. It is important that minerals are supplemented on a year-round basis. Supplements should be formulated to meet deficiencies specific to your region or area.

Protein and energy supplementation.

Most spring-calving cows in the West graze irrigated pastures. Typically, cows grazing irrigated pastures are receiving adequate levels of both protein and energy. Therefore, supplementation is not needed.

Health management

Pinkeye prevention. Midsummer is the time of year when problems with pinkeye can become quite prevalent and, thus, treatments can become time-consuming. The incidence of pinkeye can be reduced by clipping tall, mature grasses; controlling flies with dust bags, pour-ons and/or fly tags; and treating problems quickly and aggressively. Recommendations for treatment were included in last month's column.

Mid-South Atlantic Region

by **Kevin Shaffer**, West Virginia University, Kevin.Shaffer@mail.wvu.edu

The Mid-South Atlantic region is characterized by small (<100 cows) to mid-sized (100-250 cows) cow-calf operations that, like all areas of cow-calf production, become more geographically dispersed as they increase in size; however, given the nature of our region's topography, it can often be difficult to manage cows in groups of sufficient size to effect meaningful within-herd comparisons of animal performance.

From the perspective of the seedstock producer, this creates a challenging management environment in which to develop an effective genetic evaluation and selection program. As such, it is imperative that small- to mid-sized seedstock producers develop management systems that generate the most accurate and meaningful within-herd comparisons of genetic merit available within their environment.

When compared to large-scale seedstock producers, small- to mid-sized seedstock producers are at a numerical disadvantage, having fewer cows, more contemporary groups and fewer calves per contemporary group than their larger counterparts. However, from an animal breeding perspective, we know there is strength in numbers.

First, larger numbers allow for greater selection intensity, which impacts genetic change per year. Second, larger numbers

allow for mistakes. Larger breeders can make riskier (low-accuracy) matings because they can more easily absorb the mistake. Smaller breeders don't have that luxury because they simply don't have that many animals from which to select. If they make a mistake, they often end up dealing with it for several years or even several generations, so how does a small-scale seedstock producer make the most of the numbers they have?

First, breeders must understand that the contemporary group is the foundation of within- and among-herd genetic evaluation programs and that contemporary group data must be reported accurately to generate meaningful results. (The Association's Angus Education Center provides an excellent resource on contemporary-group management.)

When do you begin to define or designate contemporary groups? I believe most would say at birth. In my opinion it starts even earlier. I believe true contemporary group management begins at breeding, and specifically how and why you mate cows and to what bull you mate them.

Certainly, the primary goal of every mating is to create the best possible combination of genes to be the next generation of parents; however, we should also have the secondary goal of accurately

and effectively evaluating the sires we have chosen to use both artificially and naturally. A breeder cannot accurately evaluate the usefulness of a sire in their breeding program by only generating a handful of calves in one year that will be split among sexes and contemporary groups.

Sire groups are like sub-contemporary groups, and like true contemporary groups, they need to be as large as possible to be most useful. Although it may seem risky to put all your eggs in just a couple of baskets, attempting to minimize the number of sires utilized will help you understand more quickly if a certain sire will work for you or not and also force you to do more homework prior to utilizing a bull.

Additionally, breeders should carefully consider age and sire of dam in addition to performance and phenotype when mating cows and be sure to distribute sires across these groups. Within-herd evaluation of a sire is much less meaningful if progeny are only represented in a certain age class or sire group of females.

In herds of 100 females or fewer, I recommend using no more than three AI sires and at least two of them must be proven, high-accuracy bulls. I try to mate the majority (approximately 80%-85%) of females to the high-accuracy sires and split

the remaining females among a promising lower-accuracy AI sire and/or my natural-service bull(s). By doing so, I hope to generate an approximately equal number of progeny by each of the high-accuracy (reference) and natural-service sires. This maximizes the number of direct progeny comparisons between my natural-service bulls and reference sires, as well as creates ample-sized sire groups from which to select. Even with this method, it is easy to have five to seven sires represented across 100 progeny.

In effect, what I am trying to say is that even though you may have fewer cows, you need to think big. Think in terms of the population (your herd) and not in terms of the individual cow. They're not all donor cows, and we shouldn't try to make a rock-star mating with every cow. Rather, we should try to steadily move the population average toward our goal while simultaneously generating consistency and repeatability.

Consider the impressive consistency of cattle represented in many large breeders' sales. I don't want to take anything away from large breeders, but by the time we see them, they have already put a large sort on those cattle. As smaller breeders, we have to give ourselves the ability to sort, but we can't afford a deep sort.

