



Angus Advisor

▶ DECEMBER 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

Western Region

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

Fall-calving herds

The main focus now is the breeding season.

Reproductive management

Synchronization protocol. If estrus synchronization is going to be used, a protocol should have been selected and products should be on hand. Take extra time in administering synchronization products, being sure to prevent injection-site leakage.

A number of synchronization protocols are available that offer the option of timed AI (TAI). Historically, timed AI systems resulted in significantly lower conception and pregnancy rates. However, that is not the case today. Protocols are available that offer satisfactory results with TAI. The biggest advantage of TAI is reduction in the labor requirement and the elimination of a need for heat detection. Protocols recommended by the Beef Reproduction Task Force are printed in almost every major AI beef sire directory (see pages 121-122 in the November 2015 *Angus Journal*).

Heat detection. Heat detection is critically important and many times the most important factor influencing the success of an AI program. This is not the case if a timed-AI protocol is used.

AI breeding. Take the time and be precise with all of the details concerning semen handling and placement. If you are breeding AI for more than one cycle, inject GnRH at the time of repeat inseminations.

Natural-service bulls. Bulls should have been semen-checked and trich-tested and should be ready for use from a physical standpoint. In addition, they should be in the proper degree of body condition and should have been vaccinated at least one month prior to turnout.

Nutritional management

Mineral supplementation. Minerals should be supplemented on a year-round basis. The breeding season is the most critical time in terms of meeting mineral requirements. Although they are more expensive, I personally recommend chelated

mineral products, especially during the breeding season. Injectable mineral products are also a very viable option today.

Protein and energy supplementation. It is critical that both protein and energy requirements of females are being met during the breeding season. Cows should be in a state of positive energy balance, or gaining weight, during the entire length of the breeding season, as energy balance has a significant influence on fertility.

Health management

Vaccinations. Cows should have been vaccinated at least 30 days prior to the start of the breeding period.

Treatment protocol. Treatment protocols should be on hand for both scours and pneumonia in suckling calves, and both should include options for first and second treatments.

Spring-calving herds

The main focus is to prepare for the calving season.

Sire selection. Although the start of the breeding period is still months away, a list of potential AI sires should be developed.

Reproductive management

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

Nutritional management

Mineral supplementation. Be sure that cows are receiving adequate levels of calcium, phosphorus and trace minerals that are deficient in your area.

Body condition. The target level of body condition at calving is a minimum BCS of 5 for mature cows and 6 for 2-year-old heifers on a scale of 1 to 9.

Protein and energy supplementation. Both protein and energy requirements need to be met in order to achieve the desired level of body condition as described in the previous paragraph.

Heifer and bull development. The developmental period from weaning until yearling time is critical in terms of influencing the future productivity of both bulls and heifers. Avoid overfeeding either bulls or heifers as excessive fat deposition can hinder structural soundness and reproductive performance in both sexes.

Health management

Heifers and bulls. Normally, the first month following weaning is the most challenging in terms of respiratory disease in calves. That point should have passed by now. If calves are going to be PI-BVD-tested or vaccinated for anaplasmosis using the one-shot live vaccine, this is a good time to get those samples collected and vaccinations administered.

Midwest Region

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

New Year's Resolutions

As we conclude 2015, many of us will reflect on the last 12 months and think about the good, the bad and the ugly. I am often one who submits to the philosophy that you can't change the past, so don't dwell on it. However, taking a step back to outline a plan for improved herd management and profitability can help get 2016 started off with a bang. Thus, here is a short list of New Year's resolutions that I challenge every producer to consider.

1. Evaluate your marketing plan and implement genetics that optimize it. In my experience, many producers do not always have a clearly defined marketing plan. They often fall into the habit of using genetics that someone thinks they should be using, but may not facilitate their marketing goals. Seedstock, retained ownership, and feeder-cattle marketers will all likely have different emphases for their breeding program. Seek out and optimize the genetics that best fit those needs.

2. Maintain existing and consider adding another value-added practice. At the time of writing this column, the beef markets have taken one of the largest hits ever. Many producers have reinvested the windfall profits over the last two years and expanded the herd with high-priced replacement females. In the current market, these females may not be penciling out.

Among other practices, preconditioning, feeding cull cows and targeting feeder cattle for niche-fed markets can substantially increase gross revenue. Remember that cull cattle represent 15%-20% of sales receipts most years. Consider management and

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marketing alternatives that can increase the value of this population.

3. Critically assess your forage management plan. Harvested feedstuffs represent the largest single cost to most production systems in the Midwest. Developing opportunities to reduce harvested forage use is key to reducing annual cow costs. Consider extending the grazing season through use of stockpiled forages, corn residue and cover crops. Furthermore, improve existing pasture productivity through enhancing rotational-grazing techniques, increasing forage species diversity, and targeting fertilization based on soil tests. Remember that pasture soil tests should be conducted every three years.

4. Challenge your herd health plan. It does not pay to skimp when it comes to a herd health plan. Work closely with your veterinarian to determine the optimum health management plan for your herd, which likely will differ significantly across your state and even within your county.

Read labels, administer product accordingly and utilize products when the benefits can be maximized. For instance, fly season is most prevalent in July and August

for most of the Midwest. Fly tags typically have 60 days or less of effectiveness. Why put in fly tags when cows are turned out to pasture in April or May? Implementing a health plan based on convenience likely will not optimize herd health.

5. Keep better financial records. Revenue is usually the easy piece to measure. However, true input costs are not well-defined in many operations. Cost of land devoted to the cow herd, true cost of harvested feed production, and machinery costs all need to be accounted for. Not tracking total production costs, and in particular fixed costs, may give enterprise operators a false sense of profitability.

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

Southern Great Plains

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Spring-calving herds

► With adequate protein supplementation, spring-calving cows can maintain weight and body condition consuming stockpiled forage or lower-quality hay. A gradual decline in stockpiled forage quality is to be

expected, and that decline is accelerated with continual freezing, thawing, ice, snow and rain. To maintain cows' body condition, monitor the weather with this in mind, as well as the cows' BCS.

Be prepared to adjust the nutritional program as necessary to keep cows from losing weight and body condition ahead of late-winter/spring calving.

Adjustments can include moving cows to ungrazed stockpiled pasture, increasing protein and/or energy supplementation, initiating hay feeding or providing limited access to high-quality forage such as cool-season annual forage (wheat, rye, ryegrass, etc.).

► During December or early January, virgin heifers should be checked for weight gain and compared to your established goal. The rule of thumb for commercial operations is to develop heifers to 55% to 65% of expected mature weight by the beginning of the first breeding season. Most seedstock operations will target around 65% of expected mature weight. A lower target would represent a "nutritional challenge" to aid in identifying heifers that thrive in a lower-input environment.

Fall-calving herds

► Fall-calving cows were in excellent body condition this fall with scores ranging from 6 to 7 in our operation at Oklahoma State. Because December is the heart of the breeding season for most fall-calving herds in the Southern Great Plains, the goal of the nutritional program should be to minimize weight and condition loss of cows that are nursing 30- to 100-day-old calves. However, an “acceptable” rate of weight loss can be tailored to the initial body condition of the cows so that they do not drop below a condition score threshold of around 5 or so by the end of the breeding season.

To achieve this, 3 lb.-6 lb. of a concentrate supplement, along with 5 lb.-10 lb. of high-quality legume hay or silage may be necessary. The higher the initial BCS cows have at the start of the breeding season (BCS 7 or higher), the less supplement or harvested forage should be required. Remember that when cows are in a negative energy balance, the first priority for nutrients is maintenance, followed by milk production, then finally (if there is any left over ... and usually there is not) maternal energy stores.

In other words, when you supplement a lot of protein and energy to fall-calving

cows, most of the nutrients are used to prop up milk production and very little, if any, is left over to boost cow body condition. Again, assuming cows are grazing stockpiled forage or moderate to low-quality hay, about all you can do is hope to slow down the weight loss to some degree.

- In this region, limited access to small-grains pasture is an excellent and cost-effective supplementation program for fall-calving cows. Access to small-grains pasture should be limited to about 20%-30% of actual grazing time. In our limit-grazing work here at OSU, it looks like grazing wheat pasture 12 hours per week (three days, four hours each time) is highly effective. This strategy makes efficient use of the expensive wheat pasture resource.
- A high-calcium, high-magnesium mineral supplement should be provided to lactating cows grazing small-grains forage.
- December is a good time to implement a creep-feeding or creep-grazing program. Many producers seem to have the impression that creep-feeding somehow reduces nutritional stress on lactating cows. It does not. Study after study demonstrates that cows produce and calves consume the same amount of milk when calves are being

creep-fed, compared to calves receiving no supplemental feed.

- Creep feed does, however, replace (or reduce) forage intake when more than about 3 lb. of creep feed is consumed. Creep-feeding programs are more efficient when forage is short and/or forage is low in nutritional value compared to times when forage is abundant and has high nutritional value. Remember to report creep-fed calves as a separate contemporary group.

General recommendations

- This fall, native hay meadows have as much forage or even more than when it was baled in June or July. These meadows should be grazed after a hard frost. Leave a minimum of about 6 in. of standing forage and remove the cattle from the meadow if wet conditions develop. Plan to burn the remaining dead material in the spring. This will greatly improve next year's hay quality and allow you to benefit some from the late-summer and fall regrowth.
- Before the end of the year, check your financial management plan and projected tax situation in case income or expense adjustments are necessary to minimize your tax burden. Numerous financial tools are available at www.beefextension.com.

