



Angus Advisor

▶ OCTOBER 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

This month I am going to change the format of my column as I have done in the past few previous years. Rather than focusing on the details concerning herd management in different areas, I am going to cover a couple topics that are extremely important for any purebred herd.

Business plan. The first topic is the importance of developing a business plan. One of the problems with the purebred cattle industry today, in my opinion, is that many smaller producers depend on off-the-farm income to finance their purebred beef cattle operation. The high cattle prices of the last few years helped as the value of cull cows, bulls and younger stock increased substantially. However, those prices are gone and who knows if and when we will see them again.

Most of the purebred breeders in our part of the country have historically generated most of their income through the sale of bulls and a limited number of purebred females to commercial customers. Although the extended drought has forced major liquidation of many commercial cows in our state, the demand for and prices received for bulls has been outstanding the last few years. By the time this article is printed, we will know the impact of decreased calf prices on average bull prices and demand this year. At this point, it is all speculation but we do know that most likely the impact is not going to be positive.

We are fortunate that feed costs have decreased and thus the costs associated with developing and preparing bulls for sale have decreased. However, on a percentage basis, the feed costs have not decreased to the extent that calf prices have fallen.

The marketing of purebred females has been more challenging in the last five- to 10-year period. The high cattle prices that we discussed did help in this area for a few years, but again, those prices are gone. Historically, new cattle breeders getting into the business have been the ones who, over time, have created most of the demand for these females. We could speculate on the reasons for the change, but it appears that we do not have as many new breeders getting into the business today as we once had. I am not sure

if the Association data would support that statement.

Again, I think it is extremely important that breeders sit down and really put some time, effort and energy into developing a business plan for their operations that addresses how their operation can be most efficient. It is paramount that breeders really understand how to optimize that relationship between expenses and income so that the need for outside capital can be minimized.

Marketing plan. The second topic, and one that is critically important in determining the level of success with any species of purebred livestock, is marketing ability. Many management areas such as reproduction, health or nutrition, are equally important regardless of whether a person is managing purebred or commercial livestock. However, that is not the case in the area of marketing. In my opinion, often it is the factor that differentiates the really successful vs. average purebred operations. Many times average producers will have cattle that are just as good from a genetic and phenotypic standpoint; however, they never get to that elite level because they simply don’t have the marketing ability to get there.

I am of no help in this area as my marketing skills are average at best. However, many outstanding individuals and firms are available to assist breeders with the development of advertising plans and the development of marketing materials, including the design and building of websites.

In addition, I would encourage purebred breeders to develop a marketing plan that ensures their advertising dollars are being placed in media that are tailored most closely to their potential clientele and that the timing of those advertisements will reach potential customers at the most opportune time to achieve marketing success. In addition and probably most important, study and learn from the purebred operators who do a tremendous job in this area, because in this breed of cattle, there are many operations that simply do an outstanding job in the area of marketing.

Midwest Region

by **Patrick Gunn**, Iowa State University, pgunn@iastate.edu, and **Denise Schwab**, dschwab@iastate.edu

Reducing feed costs

Year over year, feed costs remain the single largest expense in the cow-calf sector. In a typical year, feed equates to approximately half of total enterprise costs. However, feed may represent as much as 70% of all cow-calf costs when extremes such as drought occur. Thus, it is no surprise that feed is almost always the primary factor that determines profitability in beef operations. As such, it is important to minimize feed costs, but only when it can be accomplished without hindering production. Keeping this in mind, the following feed management practices should help optimize production this fall.

1. Extend the grazing season. Standardized performance analysis (SPA) consistently demonstrates that the most profitable operations observe an extended grazing season. In the Midwest, extended grazing often incorporates some combination of stockpiled grazing (predominantly tall fescue) and/or grazing corn residue. Days available for extended grazing are dramatically impacted by acres available and weather, but in many instances corn residue can provide around 60 days of grazing prior to use of stockpiled pasture. Operations that use both corn residue and stockpiled grazing practices often can delay delivery of harvested forages until after the first of the year.

2. Analyze forages. Forage sampling with nutrient analysis is easily one of the best returns on investment in any operation. It probably goes without stating that weather, maturity, harvest and storage methods all have a dramatic impact on forage quality. However, without a forage analysis, any supplementation strategy that is implemented is purely a guess and rarely mimics the true needs of the herd. Overfeeding is an obvious waste of money, while underfeeding is a waste of production and genetic potential.

3. Incorporate alternative feeds. Coproducts of the ethanol industry and byproduct feeds such as soybean hulls traditionally have been labeled “alternative feeds.” Given the prevalence of use in many Midwestern operations, these feeds are far from alternatives. However, they are almost always a cheaper energy and/or protein source when compared with other commercially available supplements. These feedstuffs also are low in starch and high in digestible fiber, which complement a forage-based diet extremely well.

Do not overlook local opportunities to

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acquire unique feedstuffs that meet your supplementation needs at a lower cost per unit of needed nutrient. Ruminants can make nutritional use of a wide array of products, so don't be afraid to work with your local

extension professional and nutritionist to evaluate how novel feeds can be worked into your own feeding systems.

4. Utilize a ration-balancing program. Ration-balancing programs such as Iowa State

University's Beef Ration and Nutrition Decisions Software (BRANDS) are a tremendous resource. These programs allow producers to quickly adapt to changes in forage quality, supplement resources, weather and stages of production to ensure least-cost feeding strategies. The initial cost of software typically is offset in feed savings within the first handful of rations that are balanced. This is a particularly strong investment over the next year, as the new nutrient requirements for beef cattle were just published this summer. Updated ration-balancing software will soon be on the market.

5. Split cattle into age/size appropriate groups. Separating cows based on their nutrient needs provides for targeted feeding strategies, minimizes dominant/subordinate relationships at the bunk, and reduces overall feed costs of the herd. Young, growing females need more total dietary energy and protein, but cannot ingest as much dry matter as mature cows. When multiple age groups are commingled, young cows do not consume enough to meet their needs, while older cows often overeat. This either drives up the cost of feed for the entire herd in an attempt to meet requirements of young cattle, or results in thin young cows and overweight older cows. Thus, managing them as separate groups will optimize performance of yearling and first-calf females. In larger herds, there is value in splitting mature cows into two or more groups to better meet the nutrient demands of aging cows that may not be as thrifty as those in their prime.

As always, for more information on optimizing your feeding regimen, consult with the team of experts you have assembled, including your beef extension specialist, herd health veterinarian and nutritionist.

Southern Great Plains

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

Spring-calving herds

1. Wean and individually weigh calves and administer booster vaccinations according to the herd health plan.
2. Individually weigh, condition score and preg-check cows and bred heifers. Remember that cow body weight and body condition score data should be recorded within 45 days of calf weaning weight data.
3. Cull females that are open this fall. Our

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Mid-South Atlantic Region

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

We are now in the heart of fall shipping season across the region, and it brings to mind a question I was asked recently: "Why don't you place greater emphasis on weight, particularly weight per day of age (WDA), in selecting bulls when commercial producers sell by the pound?" The following is my response.

Because there is a limit to the amount of milk production/weaning weight the natural environment can sustain, hard work and superior management are instrumental in generating heavier weaning weights and a greater weight per day of age; however, neither hard work nor management are heritable traits in cattle. From a seedstock perspective, the principal marketable product is DNA, not pounds, so the focus must be on identifying and selecting for heritable traits.

Weight per day of age can serve as a means to select for heritable growth performance within a herd; however, it has little value in comparing animals across herds or even contemporary groups because the vast majority of observed differences in WDA at a year can be attributed to preweaning differences. Look at the correlations between WDA at weaning and delivery to a central test station with off-test WDA and final ADG in Angus bulls participating in the Wardensville Bull Test in 2015 (see Table 1). There are significant, strong correlations between WDA at weaning and delivery with off-test WDA, but absolutely no relationship to growth performance on test when environment and management are the same. Therefore, WDA is primarily a function of preweaning environment/management, and is not a good indicator of genetic merit for growth performance across herds or contemporary groups.

Table 1: Correlation between WDA at weaning and test station delivery to off-test WDA and ADG in non-creep-fed and creep-fed Angus bulls

	Non-creep-fed (n = 103)				Creep-fed (n = 23)			
	Off-test WDA		ADG		Off-test WDA		ADG	
	R	P-Value	R	P-Value	R	P-Value	R	P-Value
WDA, weaning	0.60	<0.001	0.02	0.84	0.57	0.0049	0.13	0.55
WDA, delivery	0.81	<0.001	0.01	0.94	0.76	<0.0001	0.09	0.68
WDA, off test			0.45	<0.0001			0.38	0.07

Furthermore, when you break the bulls into high, middle and bottom thirds based on WDA at delivery, there is no statistical difference in total weight gain or ADG (Table 2), indicating that postweaning growth performance is equally variable regardless of WDA at delivery (i.e., lower WDA bulls at delivery did not consistently gain more or less than higher WDA bulls).

Table 2: Difference in total weight gain and ADG between WDA classifications of Angus bulls at test station delivery

Trait	Bottom 1/3	Middle 1/3	Top 1/3	SEM	P-Value
	n = 31	n = 44	n = 28		
WDA, delivery	2.61	2.89	3.19	0.02	<0.0001
WDA, off test	2.95	3.13	3.36	0.03	<0.0001
Total gain, lb.	313	318	319	7.99	0.81
Final ADG, lb./day	3.60	3.66	3.67	0.09	0.82

Classifications are: Bottom one-third = >0.5 SD below mean; Middle one-third = ± 0.5 SD around mean; Top one-third = >0.5 SD above mean.

It is a delicate and challenging task for seedstock producers to balance creating an appropriate and objective within-herd genetic evaluation program while achieving an acceptable and marketable level of animal performance; however, managing for maximum preweaning performance achieves neither task — identifying well-rounded superior genetics or producing a marketable product at an economic optimum.

experience in the OSU research herd and other data shows that rolling open cows into the fall-calving herd or keeping them for an entire year results in a very poor success rate: around 50%-60% pregnancy rate in subsequent breeding seasons.

4. Report whole-herd records to the Association office. Include individual cow weight and body condition score data if at all possible. This information is increasingly important as the beef industry strives to improve cow efficiency.

5. Treat cows and calves for internal and external parasites as recommended by your veterinarian. This is best timed after the first killing frost, although many understandably do this at weaning since the cattle are gathered.

Fall-calving herds

1. If possible, ask to see the dams of bulls you are interested in purchasing. Selection for good udder quality and other desirable female characteristics (like moderate mature size, fleshing ability and a long history of reproductive success) begins with bull and semen purchases.

2. Prepare for the breeding season by purchasing semen and other breeding supplies and testing your breeding equipment.
3. Evaluate herd bulls for semen quality and purchase new herd bulls using a balanced, multiple-trait selection approach.
4. Closely monitor late-calving heifers as the frequency of calving difficulty may be higher in heifers that have experienced long gestation periods.
5. Purchase herd health products that will be needed for the fall “branding” time herd health program.

