



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
PI3	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

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 BCS data should be recorded within 45 days of collecting calf weaning weight data.
3. Cull females that are open this fall. Research has shown that retained open cows average about 60% pregnancy rate going forward.
4. Report whole-herd records to the Association office. Include individual cow weight and BCS data if possible. This information is increasingly important as the beef industry strives to improve cow efficiency and optimize mature cow size for different environments.
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 the time of weaning, since the cattle are gathered.
6. If your spring-calving cows are marginal in body condition at weaning, and assuming they are grazing lower-protein tallgrass native rangeland, begin supplementing protein in October.

Fall-calving herds

1. If possible, ask to see the dams (and their records) of bulls you are interested in purchasing, whether for use in natural matings or AI. Selection for good udder quality 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.

Western Region

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

Fall-calving herds

Main focus — Finish the calving season and prepare for the breeding season.

1. Continue developing a list of potential AI sires. Focus on bulls that will produce high-quality herd replacements. Talk to other producers about bulls that have worked well for them. I also like to read bull sale reports and see if any sires are consistently producing the high selling bulls in numerous programs.
2. Be sure to get cows and heifers vaccinated with prebreeding vaccinations at least 30 days prior to the start of the breeding season. At a minimum, females should be receiving at least two vaccinations: 1) the respiratory complex plus leptospirosis and possibly vibriosis and 2) either a seven- or eight-way clostridial vaccination.
3. Consider deworming females at the same time they are vaccinated with either an injectable, paste or pour-on product. We prefer to deworm twice per year and use an orally active product in the fall and a pour-on product in the spring or early summer.
4. Consider injecting females with MultiMin® at the same time that vaccinations are given. Boluses such as selenium or copper boluses could be used in place of MultiMin.
5. Continue to monitor females for the incidence of retained placenta. If problems arise, treat them promptly with a prostaglandin injection (5 cc or 6 cc). If that treatment does not result in the females cleaning promptly, then reinject with another prostaglandin injection and combine that injection with an antibiotic either infused into the uterus or given either IM or subcutaneously (sub-Q).
6. Be sure that females are receiving adequate levels of calcium, phosphorus and trace minerals that are deficient in your area. Mineral supplementation becomes even more important as we approach the breeding season.

7. Continue to monitor BCS of calving females. The target level of BCS is 5.0 on a 1-to-9 scale for both cows and heifers. Ideally, this level of body condition should be maintained during the breeding season. However, this becomes more difficult as forage resources start to get depleted at this time of year and at the same time cow's nutrient requirements increase due to an increasing lactation curve.
8. Avoid getting cows overconditioned during the breeding season as reproductive performance starts to decline if cows are above a BCS of 6.5 to 7.0. This is not typically a problem on most operations. However, if you are somebody that likes to waste money and overfeed cows, then it could be a problem on your operation.
9. Be certain that both protein and energy requirements of females are being met. If possible, try to have females in a state of positive energy balance (gaining weight) going into the breeding season. However, this is not easy to achieve because of the conditions described in point No. 7 above.
10. Treat calves for either scours or pneumonia promptly. You are well-advised to have first and second treatment options for both conditions.

Spring-calving herds

Main focus — Getting calves weaned and keeping them healthy.

1. Try to minimize stress on weaned calves as much as possible. Pasture weaning is a big advantage. Try to avoid dry, dusty lots for weaned calves. Shade is extremely valuable and either sprinklers or a water wagon to control dust is well worth the trouble and expense, in my opinion.
2. Hopefully Mother Nature cooperates in terms of weather changes as weaned calves are getting adjusted and transitioned to a new environment. In our experience, the difference in temperature between the daytime high and nighttime low is extremely important. If that number exceeds 40°, we experience a lot more

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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.

- problems with respiratory disease.
3. Get calves started on feed as smoothly as possible. Try to avoid any big changes either in terms of the amount of consumption or the type of ration being fed. Transition calves slowly from a total forage diet to a combination of roughages and concentrates.
 4. Be sure that both weaned bull and heifer calves are being developed at adequate rates of gain so that differences in terms of genetic potential for growth can be exhibited. However, neither sex should be developed at extremely high rates, as excessive fat deposition can hinder future reproductive performance and detrimentally impact foot and leg soundness.
 5. Our target level of performance in developing bulls is an ADG of 3 lb.-3.5 lb. per head per day. A general rule of thumb concerning the level of concentrates for bulls to achieve that level of performance is 1% of body weight (Example: 600-lb. bull calves need 6 lb. of grain or concentrate per head per day; 900-lb. bulls need 9 lb. of concentrate, etc.).
 6. Our target levels of performance in developing heifers is an ADG of 1.5 lb.-1.75 lb. per head per day. I prefer to develop females on pasture without them ever receiving any grain or concentrates. They must have access to good pasture resources in order to achieve this level of performance. For many producers, they don't have good pasture available during the fall and winter and thus they must feed their females in a lot during this time of the year.
 7. After weaning, control internal and external parasites and heifer calves should be Bang's vaccinated.
 8. Fall and early winter is a good time of the year to put some thought into developing or refining business and marketing plans for your operation. Get input from employees and involve them in the process. Many times we set operational goals without input from the people who are going to be involved in helping us to achieve those goals. It is typically much easier to get "buy in" from employees if they feel that they had input in developing the mission and goals of an operation.

