MANAGEMENT

Angus Advisor

► **MAY** 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 synctial 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

Southern Great Plains

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

Spring-calving herds

►For most producers in the Southern Great Plains, May is "branding" time in spring-calving herds. Your veterinarian should be consulted regarding the appropriate animal health strategies to administer at this time. Typical protocols will include branding, fly tagging, castrating bulls not intended for breeding purposes, vaccinating with a seven-way clostridial bacterin, and occasionally with an IBR and PI_3 product. Be sure to replace missing animal ID tags in both calves and cows.

►Recent research published by Oklahoma State University (OSU) veterinary scientists indicates that, in properly immunized cow herds, a modified-live respiratory viral combination vaccine given at branding, followed by revaccination at weaning, is as effective a vaccination strategy as vaccine given preweaning (21-30 days) followed by revaccination at weaning. Previously, it was thought that maternal antibodies reduced the effectiveness of a respiratory viral vaccine given at branding time (30-90 days of age). This vaccination protocol is becoming a very popular strategy as animal handling and labor are minimized, because calves are traditionally handled at branding and weaning. Additional respiratory viral vaccine revaccination or booster vaccination will be dependent on future production channels — feedlot, replacement heifer, bull feeding trials, etc.

►Late May to early June is a good time to deworm cows and bulls that are grazing cool-season forages such as fescue and brome.

►Breeding soundness exams should be performed on bulls before they are turned out with cows. The appropriate bull-to-cow ratio will depend on many factors, including age of the bull, size of the pasture and the number of cows or heifers serviced to AI. A conservative rule of thumb is to expose the same number of cows or heifers according to a young bull's age in months. For example, a 14-month-old bull might be exposed to 14 females, while a 2-year-old bull might be exposed to 20-25 cows.

Fall-calving herds

►Purebred breeders in the Southern Great Plains wean fall-born calves between April and July. If the calves will be handled (constrained in a squeeze chute) in the spring and weaned during summer, take advantage of the May "calf working" event by administering a vaccination program recommended by your local veterinarian.

►Look for and record cows that should be culled due to calf performance, feet, leg, eye, udder and attitude problems. These records are often more practical to collect and record prior to the weaning date.

►At weaning, vaccinate calves according to your veterinarian's recommendations, weigh and condition score cows, and weigh calves.

►While we are on the subject of weighing cattle, remember that being consistent in terms of weighing "conditions" is an important part of collecting quality data over time. Industry standard weighing conditions can be described as semi-fasted. This simply means that cattle are generally gathered in the early morning hours before they've had a chance to graze very much. Weights should then be recorded within the next few hours, if possible.

►Transfer whole-herd records to your national breed association for processing.

General recommendations

►Most agronomists and rangeland specialists agree that pastures and rangelands will require some time to recuperate from the extreme drought of 2011. Assuming adequate precipitation during the 2012 growing season, an initial light to moderate stocking rate on most pastures is recommended if at all possible. The flexibility to increase stocking rate or harvest excess forage production may be advisable should forage production be better than expected.

►Implement a fly and tick control program for all cattle.

►Plant Sudan grass and Sudan hybrids for summer grazing or hay, fertilizing according to soil tests.

►Nitrogen fertilizer efficiency is improved when nitrogen applications are split into two or more applications approximately 30-45 days apart during the growing season. Late May or early June is a good time to plan the second application.

►In most cases, mineral supplements containing 4%-10% phosphorus are adequate during this time of year.

►In this region, foot rot is a common problem through late May, June and early July. Limited research indicates that the

addition of chlortetracycline to mineral supplements can reduce this problem. Adequate zinc supplementation is also important because many soil types and forages in the Southern Great Plains do not contain adequate zinc.

Western Region

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

Fall-calving herds

The main focus is to prepare for weaning. Cows are on cruise control.

Pregnancy-check. Cows should be preg-checked at weaning time. Avoid holding over open cows even if they have been excellent producers, as typically the problem will reoccur.

Heifer and bull development. The developmental period from weaning until yearling time and beyond to the start of the breeding period is critical in terms of influencing the future productivity of both bulls and heifers. Both sexes need to be developed at adequate rates of gain so that differences in terms of genetic potential for growth can be expressed. However, neither sex should be developed at extremely high rates, as excessive fat deposition can hinder future reproductive performance and detrimentally affect foot and leg soundness.

Weaned calves. Weaned calves should be treated to control internal and external parasites, and heifer calves should be Bang's-vaccinated. Both bulls and heifers should be PI-BVD-tested if that is part of your animal health management program. The first 30 days after weaning is the most critical period concerning problems with BRD in cattle. If calves are exposed to dusty lots, run a sprinkler or water wagon — it will more than pay for itself.

Pregnant cows. If late-term abortions have been a problem in the past, consider booster vaccinations for respiratory diseases and lepto at preg-check. Some producers may be only vaccinating at preg-check time; however, we prefer to vaccinate between calving and breeding and then revaccinate at preg-check for diseases that are a problem.

Spring-calving herds

The main focus is to prepare for the breeding season.

Sire selection. Sire selection is the most important management decision that is made each year in a purebred cattle operation. Be sure that you are using the best sires available that fit your genetic goals or objectives.

AI program. Semen should be on hand

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and a synchronization protocol should have been selected. In addition, all AI equipment and facilities should be ready for use. Don't overlook the importance of good heat detection and attention to details concerning semen handling. Breed yearling heifers from 2 weeks to 1 month prior to the mature cows; therefore, they have the extra time to recycle and rebreed as 2-year-old first-calf cows.

Mineral supplementation. Be sure that 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 the period from calving until conception is the most critical in terms of influencing reproductive performance.

Vaccinations. Cows should have been vaccinated at least 30 days prior to the start of the breeding period. This is also an excellent time to deworm cows. We prefer to use a pour-on dewormer at this time of the year as it also knocks down fly populations. If not already done, calves should receive their first round of vaccinations for the respiratory disease complex and the clostridial diseases.

Pinkeye. To help control pinkeye, consider mowing tall pasture grasses, reducing fly populations with sprays, dust bags or fly tags, and treating problems quickly so they do not spread within groups. Access to shade will help reduce the incidence of pinkeye. We prefer to treat pinkeye with a mixture of 90% penicillin and 10% dexamethasone and an eye patch. We inject approximately 2 cc under the membranes on the upper portion of the eyeball.

Treatment protocol. Treatment protocols and products should be on hand for scours and pneumonia in suckling calves. It is well-advised to have first and second treatment options for both conditions, and be sure that the protocols have been communicated to the appropriate personnel.

Midwest Region

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

Breeding season is beginning or continuing for many operations; therefore, both females and males must be reproductively fit.

1) Several estrus synchronization procedures have been developed. To determine the correct synchronization program to use, consider the following: age group of females (yearling replacement heifers vs. cows); commitment of time and effort for heat detection; potential number of females that are anestrus (days postpartum, BCS, calving difficulty); labor availability; and the return on investment for total commitment to the breeding program.

2) Handle semen properly and use correct AI techniques to maximize fertility.

3) Natural-service bulls should have body condition, eyes, feet, legs and reproductive parts closely monitored during the breeding season. Resolve any problems immediately.

4) All bulls should have passed a breeding soundness examination prior to turnout.

Begin your calf-preconditioning program. Vaccination, castration and parasite control at a young age will decrease stress at weaning time. This is the time to add value to the calf crop.

Implanting steer and heifer calves older than 60 days of age will increase weaning weight.

Properly identify all cows and calves. Establish premises numbers for compliance with state ID programs.

Use BMPs to establish sustainable grazing systems.

Use good management practices when planting annual forage sources and harvesting perennial forages.

Maintain records that will verify calving season, health programs and management practices.

Southeastern Region

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

Don't forget minerals

The warm weather is giving us some early grass, but don't forget about the minerals.

For a lot of us in the cattle business, we're finally seeing some moisture, while others are still waiting. Although some are finally getting some grass to grow, we're still looking for ways to cut cost — one of which is on the mineral bill. I have heard several comments that producers are cutting phosphorus out of their mineral because they are using poultry litter as fertilizer. Although there is potential to improve the phosphorus levels in forage with litter, assumptions are being made on the ability of the plant to make the phosphorus available to the animal. This is one of the examples of how we need to make

sure we're cutting cost and not cutting corners in our production system.

In fact, some producers may cut minerals out all together to help cut cost because performance does not appear to change. Short-term maybe, but the long-term consequences may be more costly. If you look at a cow-calf annual budget, minerals represent only about 3.5%; a very small cost to ensure health and performance. The greener pasture we're seeing may reduce the feed bill, but we need to remember many forages in the Southeast are deficient in several minerals. Although minerals represent a small cost in your total budget, we can cut some extra expenses by taking a second look. We can learn a lot by getting our forages tested and reading the mineral tag.

Forage testing

This is the cheapest initial investment you will make. We have to have a starting place if we want to know what minerals, and how much, we need in our minerals.

1. Calcium and phosphorus. These are two macro minerals that need to be addressed together due to their interaction in biological processes. On well-managed pastures, forages are typically close to meeting the requirement of brood cows, but are deficient for growing cattle. However, almost as important as the quantity of these is the ratio between the two. The ratio of calcium to phosphorus needs to be greater than 1.5:1.

2. Sodium and chlorine. More commonly referred to as salt, these minerals are the only ones cattle will crave and need to be offered daily.

3. Magnesium. This is a crucial mineral when cattle are transitioning into and during lactation. Generally, extra magnesium is only needed during lactation while grazing lush pastures. Oftentimes, producers do not realize they are feeding magnesium unnecessarily through the summer.

4. Sulfur. Although sulfur is essential, it is not usually limiting in the diet. However, it may be present in mineral mixes due to inclusion of other minerals as sulfates. The concern with sulfur is its antagonism with copper, selenium and the B vitamin thiamin. Therefore, it sometimes is necessary to feed additional copper and selenium to compensate this antagonism.

5. Microminerals. These are minerals needed in smaller amounts such as copper, zinc and selenium. Most forages are deficient in these minerals and need to be offered as a trace mineral pack.

Read the mineral tag

1. You can learn a lot by reading the mineral tag. Usually, the mineral company makes mixes to fit general needs. Some of these may fit your operation; however, there may be times you're paying for ingredients you don't need and/or not getting what you need.

2. Check for the right mineral levels. Going back to our forage test, make sure you are getting the appropriate levels of each mineral and the appropriate calcium-to-phosphorus ratio. Also, if a supplement is being used, make sure you consider the mineral content. For example, if distillers' grains or corn gluten feed is being utilized, phosphorus should be adequate, but calcium should be supplemented to maintain the proper calcium-to-phosphorus ratio.

3. Look for additives. Oftentimes, additives such as ionophores (Rumensin, Bovatec), antibiotics (chlortetracycline, GainPro) and fly control compounds (IGR) are administered through mineral mixes. Although these may improve performance, they may not be wanted in your operation and come at additional cost.

If your local feed store doesn't provide the mineral that fits your production system, many will work with you to formulate a custom mix that will provide the nutrients you need and may decrease cost. Table 1 presents an example of a free-choice mineral for lactating cows grazing Bermuda grass pastures.

Table 1: Example free-choice mineral specifications for lactating cows

Mineral	4 oz. intake per day
Calcium	9-12%
Phosphorus	6-8%
Salt	15-20%
Magnesium*	1%
Sulfur	0.5%
Copper	1,200 ppm
Zinc	3,000 ppm
Cobalt	10 ppm
Iodine	80 ppm
Selenium	26 ppm

*Magnesium should be increased to at least 10% when grass tetany is a concern.

Remember, our goal is to cut cost and not corners to survive in the cattle business these days. For a complete description of both macro and microminerals please refer to the University of Georgia (UGA) publication *Mineral Supplements for Beef Cattle* (search for title at *www.caes.uga.edu/Publications).*