Angus Advisor

► **JUNE** 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

- Follow the vaccine program outlined for branding time.
- Consult your veterinarian regarding the need to deworm young cows and calves in June. This investment will depend a great deal on the location of your operation, forage species, stocking density, previous internal parasite management and other factors. More information is available now regarding parasite resistance to specific products, and your veterinarian will be aware of products and programs that should be appropriate in your area.
- June mid-day temperatures can suppress aggressive estrous activity. Therefore, visual heat detection should be done in early-morning and late-evening hours.
- Turn bulls out with cows after the AI program is completed. The bull-to-cow ratio will vary depending on the number of cows or heifers serviced to AI and the age of the bull. A conservative rule of thumb is to expose bulls to about 10 cows per year of age, and up to 30 open cows.
- For breeders who choose to creep-feed calves grazing native pastures, consider using a limit-fed, high-protein creep beginning around the end of June. Locally, we refer to this approach as the Oklahoma Silver program, where calves consume around 1 lb. per day of supplement. Weight gain is improved substantially, and calves do not become fleshy compared to calves on free-choice, lower-protein creep-feeding programs. The conversion of feed to additional weight gain is drastically improved compared to a traditional creep-feeding program.

Fall-calving herds

- Depending on pasture and range conditions, producers may need to consider weaning fall-born calves earlier this year. A dam's milk production and calf performance decline dramatically in late June and July due to declining forage quality and summer heat. However, a dry cow's nutrient requirements are substantially lower than a growing calf's requirements. Therefore, a dry cow can graze lower-quality late-summer forage and still gain weight and body condition with no supplementation.
- At weaning, vaccinate calves according to your veterinarian's recommendations, deworm calves, weigh and condition score cows, and weigh calves. Transfer records for your whole herd to the American Angus Association.
- A high-protein supplementation program, such as the Oklahoma Gold program, can facilitate around a 2-lb. ADG in weaned calves grazing native pastures with abundant forage.

General recommendations

- As of late April, the Southern Great Plains region has received very little precipitation through late winter and spring. Range scientists and agronomists continue to encourage judicious grazing management to prevent overgrazing and long-term damage. Relatively lower feedgrain prices provide some flexibility in terms of drylot feeding programs, allowing cattle to be removed from pastures as necessary. Drylot feeding a concentrate-based diet is not for everyone because it requires additional management, equipment and facilities.
- In Oklahoma, more foot rot cases are observed in June than any other month. Develop a plan for treatment with your veterinarian, and acquire the necessary supplies.
- Plan to harvest native grass hay during early July to achieve near-optimum balance between quality and quantity of hay. Harvest Bermuda grass hay, or graze Bermuda grass at about 30-day intervals when precipitation is abundant. All else being equal (maturity, precipitation, soil fertility, etc.), Bermuda grass harvested for hay in June has higher digestibility than Bermuda grass harvested in the hot summer months of July and August.
- Begin grazing Sudan grass and Sudan hybrids when 18- to 24-in. high, and be sure to check the plants for nitrates, particularly if the plants are drought-stressed.
- Federal and state estimated tax payments are due June 15.

Western Region

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

Fall-calving herds

The main focus is to keep weaned calves healthy. Cows are on cruise control.

Reproductive management

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

Nutritional management

Body condition. Monitor body condition of cows. The target level of body condition at calving is 5.0 for mature cows and 5.5 to 6.0 for 2-year-old heifers (scale = 1 to 9).

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 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.

Health management

Weaned calves. Weaned calves should be treated to control any internal or external parasites. Heifer calves should be Bang's vaccinated if not already done, and both bulls and heifers should be PI-BVD tested if that is part of your animal health management program.

Pregnant cows. If late-term abortions have been a problem in the past, consider booster vaccinations for leptospirosis at preg-check time.

Spring-calving herds

The main focus is breeding season and suckling calf health.

Reproductive management

Breeding season. Depending on desired calving dates, the AI breeding period should be close to being concluded. Monitor return heats for any patterns that may arise in terms of low conception rates with specific sires. Also consider using GnRH injections with repeat inseminations. In addition, be sure that cleanup bulls have been semen- and trich-tested and are ready for use in terms of vaccinations and health, body condition, and foot and leg soundness.

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Nutritional management

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.

Many of the companies have mineral mixes that are available that have a higher percentage of chelated minerals. These products are more expensive, but we have had very good results feeding these during the breeding season. Many breeders also have experienced good results using injectable products such as Multimin® prior to the breeding season.

Energy balance. Energy balance has a major impact on fertility and, thus, it is critical that cows are in a state of positive energy balance or gaining weight during the breeding season. June is normally a month when cows will be grazing pastures that are of sufficient quality to maintain cows in positive energy balance without any need for supplementation.

Health management

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. Early summer is typically the time of the year when we experience the most problems with pneumonia in young calves. Monitor calves closely, and be quick and aggressive with treatment, as young calves will go downhill quickly.

General management

Castrate bottom-end bull calves. Producers should consider castrating the bottom end of their bull calves at 2 to 3 months of age when they receive their first round of vaccinations. Some producers are reluctant to do this because of the impact that it has on contemporary groups and performance records. However, there is typically more profit in selling a weaned steer calf vs. a cull yearling bull that has accumulated a significant amount of development costs.

Pinkeye prevention. 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. Our preferred treatment is an injection of approximately 2 cc (mixture of 90% penicillin and 10% dexamethasone) under the membrane that covers the upper portion of the eye and to then cover the eye with an eye patch.

Midwest Region

*by **Justin Sexten,** University of Missouri, sextenj@missouri.edu*

Water — the most important nutrient

Water is the most important nutrient, essential for life and expensive to transport. No other nutrient influences cattle management decisions like water. Whether grazing pasture or confined to a drylot, cattle require access to clean water.

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Water

If there was a benefit to the drought of 2012, many ponds were cleaned out, increasing holding capacity while reducing the sedimentation that many times contributes to poor water quality due to moss and algae growth. To prevent future sedimentation and contamination, control cattle access to ponds by fencing cattle out, or use controlled access points. Access points need not be complicated; a floating access point can be constructed of PVC and moved into and out of the pond as water levels change. An alternative to pond access is gravity-flowing water through stand pipes to waterers below the dam.

Regardless of the method chosen to restrict access to the pond, bank erosion and sedimentation will be minimized by focusing traffic to an access area with the additional benefit of minimizing the cattle's ability to stand in ponds. Reduced pond standing helps to minimize the manure contamination of the water source while limiting the incidence of foot rot.

Water intake is closely related to dry-matter intake. Failure to provide adequate, clean drinking water will depress forage intake and ultimately reduce performance through reduced gain or milk production. The importance of adequate water intake increases as temperatures rise due to the role water plays in regulation of body temperature.

Given a preference, cattle prefer water temperatures between 40° and 65° F. If temperatures exceed 80°, animal productivity can decline due to reduced dry-matter intake and inability to dissipate heat. Water plays a key role in reducing body heat; therefore water sources with sun exposure, such as above-ground water lines and small tanks, may need to be shaded to prevent excessive heating.

While water quality is important, water quantity has greater importance as we begin summer. Those of you who have spent time hauling stock water can appreciate water intake during heat stress. As a rule of thumb, water intake is approximately 1 gallon per 100 lb. of body weight during thermal neutral conditions. As temperatures increase above 90° or even during lactation, cattle's water intake can double. This increased water intake is the animal's attempt to replenish body water due to losses associated with perspiration, respiration or milk production.

During high water-intake periods, ensure adequate waterer space of 3 linear in. per head. Additionally, provide adequate

tank reserves to ensure water supply is not exceeded by animal demand if the herd comes to water all at once.

Total dissolved solids (TDS) is a measure of water salt content and is commonly used as an indicator of water quality. Salinity's effects on animal performance are not clear, due to the wide range of mineral salts that can contribute to TDS. Therefore, TDS serves only as an indicator of water quality. Surface-water testing results will vary over time due to precipitation, agitation and runoff. Periodic water testing will help identify water sources unsuitable to livestock. Remember, during extended drought periods surface water evaporation can increase TDS to the point where animal performance is reduced.

At 1,000 parts per million (ppm), TDS water is generally safe for all classes of livestock without adverse health risk. As TDS increase to 5,000 ppm, some diarrhea may be observed. When TDS exceed 10,000 ppm, alternative water sources should be used due to adverse health risk.

If TDS results repeatedly indicate poor water quality, consider further testing to evaluate if a specific mineral is contributing to the excessive TDS. Previous months' articles discussed mineral requirements and recommendations to meet these requirements. Water can serve as a good mineral source when availability is consistent with requirements. However, the downside to mineral-rich water is the potential overabundance and the resulting antagonism water minerals can provide.

Resident cow herds may not show mineral contaminant symptoms associated with water due to long-term exposure and adaptation. Water contamination symptoms are most common in stressed or naïve calves and those with increased water intake due to heat stress. Mineral contaminations are long-term challenges most operations have learned to manage over time.

A more common short-term contamination problem is associated with dirty waterers. A good rule of thumb to know when to clean a waterer is if you cannot remember when the waterer was last cleaned. If that's the case, it needs cleaned again. Alternatively, if you cannot see the bottom of the waterer then cleaning may be in order. As summer begins, make a commitment to ensuring a clean supply of the cheapest and most essential nutrient.

Mid-South Atlantic Region

*by **Scott Greiner**, sgreiner@vt.edu; and **Mark McCann**, mark.mccann@vt.edu, both of Virginia Tech*

June normally marks the conclusion of harvesting the first cutting of hay and hoping for rain to stimulate regrowth. Equal attention should be given to pasture management in an effort to minimize future hay consumption. Pasture management now can impact future forage growth and vigor. Research has repeatedly shown that rotational grazing that ensures a rest period can make grasses more productive. Generally, three to four weeks of rest is recommended. That means weekly rotation among four pastures can accomplish the desired rest period.

Rotational grazing does require some planning, time and inputs, but the return is 25%-33% more forage and cows that are at the gate when you rotate pastures. Other benefits include enhanced forage diversity, reduced cattle trails, better distribution of nutrients and improved ground cover of sensitive areas.

Although the official start of the summer isn't until the 21st of the month, summer conditions have already made an appearance. Pasture rotation during the summer months will guarantee a rest period for forages, yielding a more productive, diverse pasture. Hot weather also signals the onset of fly season. Delaying fly-tag application in early

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summer extends protection into the warm days of early fall.

Spring-calving herds (January-March)

General

- Focus on forage management, cow nutrition and young-calf health.
- Manage first-calf heifers separately; give them the best forage and supplement.
- Cattle comfort should be monitored; ensure adequate shade and availability of clean water.

Nutrition and forages

- Continue feeding high-magnesium minerals to prevent grass tetany; may be able to switch to high-selenium mineral as grass matures.
- Complete harvest of first cutting of hay early in the month.
- Start grazing warm-season grasses.
- Implement rotational-grazing management system, which will provide a rest period for pastures.
- Cool-season grasses are now mature; if weather conditions are dry, delay pasture clipping until there is adequate soil moisture for forage regrowth.
- Make plans to store your high-quality hay in the dry.
- Collect and submit forage samples for nutrient analysis.

Herd health

- Implement parasite- and fly-control program for herd. Delay application of fly tags until a threshold of about 100 flies per side is reached.
- Administer mid-summer deworming and implant calves late in the month or early next month.
- Plan vaccination and preconditioning protocol for calf crop.
- Castrate commercial calves if not done at birth; consider castrating bottom end of male calves in seedstock herds.

Reproduction

- Finish AI; turn out cleanup bulls.
- Remove bulls from replacement heifers after 45-day breeding season
- Make plans to preg-check heifers as soon as possible after bull removal. This will allow options in marketing open heifers.
- Use 48-hour calf removal for thin cows and first-calf heifers at beginning of breeding season.
- Monitor bulls closely during the breeding season. Observe frequently to confirm breeding performance and soundness, and monitor cows for repeat estrus. Avoid overworking young bulls (yearling bulls should be exposed to number of cows equal to their age in months).

Fall-calving herds (September-November)

General

- Plan a marketing strategy for open cows. Cull-cow prices typically peak mid-spring through mid-summer, and prices are generally stronger for cows in good body condition vs. thin cows. Evaluate forage availability and potential feed and management costs to increase BCS of cull cows, if warranted.
- Finalize marketing plans for calf crop. Time weaning, vaccination program and weaning management to meet operational goals. Calculate breakevens on various marketing options and consider risk-management strategies.
- Reimplant commercial calves.

Nutrition and forages

- Switch to high-selenium trace-mineral salt.
- Condition-score cows. Plan nutrition and grazing program based on BCS. This is the most efficient period to put weight and condition on thin cows.
- As calves are weaned, move cows to poorer-quality pastures.
- Use palatable feeds during the weaning period to bunk-train calves and minimize weight loss.
- Reserve high-quality hay and a pasture area for calves postweaning.
- Start grazing warm-season grasses.

Herd health

- Administer mid-summer deworming on replacement heifers and pregnant heifers
- Implement parasite- and fly-control program for herd. Delay application of fly tags until a threshold of about 100 flies per side is reached.
- Consult with veterinarian on vaccination protocol for calf crop. Design vaccination and weaning program around marketing goals and objectives. Vaccinate, wean and certify calves to be marketed in late summer.

Genetics

- Identify replacement heifers. Utilize available tools, including genetics, dam performance, individual performance and phenotype. Restrict replacement-heifer pool to those born in defined calving season.
- Finalize plans for postweaning development and marketing of bulls in seedstock herds.