MANAGEMENT

Angus Advisor

►**DECEMBER** herd management tips

Southeast Region

*by **John Hall,** Virginia Tech, jbhall@vt.edu*

Spring-calving herds

- Market backgrounded calves.
- Feed replacement heifers to gain 1.5-1.75 pounds (lb.) per day or use the target-weight method to calculate rate of gain.
- Monitor body condition of cows.
- Test hay for nutrient content and supplement accordingly — don't guess.
- Increase energy during cold periods.
- Check heaters in watering areas regularly.
- Monitor stockpiled grass to keep cows well-fed.
- Attend bull and replacement heifer sales.
- Market cull cows this month or in January.
- Send in soil samples if not done earlier this year.
- Enjoy the holidays!

Fall-calving herds

- Begin breeding season on cows; complete artificial insemination (AI) on heifers.
- Monitor body condition on cows and especially first-calf heifers.
- Keep 2- and 3-year-old cows separate from main herd.
- Feed cows extra energy after calving; some protein may be needed also if good stockpiled forage is not available. Cows calving at a body condition score (BCS) of less than 5 (on a 9-point scale) should receive special nutritional attention.
- Keep high-quality, high-magnesium (Mg) and high-selenium (Se) minerals available.
- Keep cows on stockpiled grass as long as available.
- Monitor condition and health of all bulls; remove and replace injured or thin bulls.
- Check heaters in watering areas regularly.
- Send in soil samples if not done earlier this year.
- Enjoy the holidays!

Cold stress kills calves quickly

Cold stress on calves has more lethal consequences than it does on cows. Newborn calves are the most susceptible cattle to cold stress and hypothermia. Calves less than 2 weeks old and sick calves are also at risk.

Figure 1 below illustrates the dramatic effect cold and/or precipitation has on calf survival. The lower critical temperature (LCT; temperature when animals burn energy to keep warm) for calves is close to 60° F, with calf mortality increasing exponentially as temperatures move below 50° F. Add a little rain or snow and the LCT moves closer to 70° F. As little as ⅒ inch (in.) of rain on the day the calf is born can increase calf losses by 2%-4%.

In the Southeast, where typical winter weather is 40° F with rain, calves can be highly stressed. In general, most of the Southeastern states will receive 12-18 in. of rain from December through March.

Strategies to reduce this stress start with keeping the cows well-fed and in good body condition. Cows that calve in good body condition (BCS 5-6) have stronger calves with greater energy reserves. These cows are also less likely to run out of energy during calving and will be up drying off the calf sooner than underfed cows.

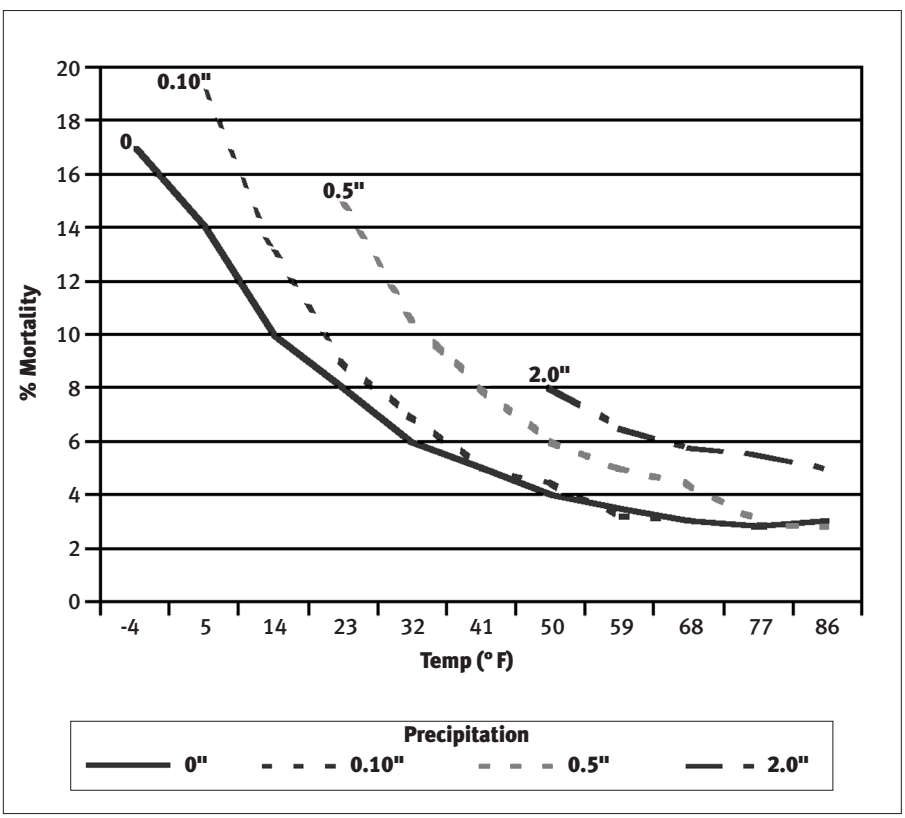
Extra diligence in checking cows for signs of calving during extreme weather conditions is also important. Calves need to nurse within 2-4 hours of birth or sooner during cold or wet conditions. Feeding cold-stressed calves 2 quarts of warm colostrum with an esophageal feeder (calf tube feeder) will help reduce calf losses and give calves enough energy to nurse on their own.

A clean, well-drained calving location with windbreaks or woods will help decrease the effect of poor weather on calves. In some cases, cows and calves may need to be moved to sheds or barns for the first day or two of the calf's life. However, cows and calves should be moved to pastures as soon as the calf is strong and eating well, usually one to two days after calving.

Due to health considerations, cows should be calved out on clean pastures whenever possible; calving in barns should be avoided.

Commercial calf blankets such as the Woolover® blanket can increase calf survivability and gain. Research from North Dakota State University demonstrated a 0.3-lb. increase in average daily gain for beef

Fig. 1: Effects of temperature and precipitation on calf mortality



Adapted from Assam et al., 1993.

calves wearing blankets for the first three weeks of life. In the Southeast's environment there may not be an advantage to having calves wear the blankets for several weeks, but weak or chilled calves may benefit from wearing the blankets for a few days.

Midsouth Region

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Spring-calving herds

If not done in November, create a contemporary group (sort and manage separately) of 2-year-old cows and, if necessary, 3-year-olds and old cows that you intend to retain. This contemporary group can then be provided access to higher-quality stockpiled pasture, fed better-quality hay, fed more supplement or provided access to small-grain forage as a supplement.

The nutritional goal for this contemporary group should be to obtain a body condition score at calving that is similar to that of the remaining cow herd. Most purebred breeders do not separate thin cows from the herd because this makes genetic evaluation difficult.

Bred heifers should have a minimum BCS of 6 by this time of year. If they do not, an immediate intervention strategy is necessary to achieve positive condition gain (not just weight gain due to fetal growth) before calving.

December and early January are excellent times to check weights by weighing a portion, if not all, of the virgin replacement heifers. Using this information and the targeted breeding weight and rate of weight gain established at weaning, producers can evaluate the nutritional strategy and make necessary adjustments.

Fall-calving herds

December is the heart of the breeding season for many fall-calving herds in the Southern Great Plains. Consequently, the goal of the nutritional program is to minimize weight and condition loss of cows that are nursing 30- to 100-day-old calves. To achieve this, 5-8 lb. of a concentrate supplement, along with 5-10 lb. of high-quality legume hay or silage may be necessary.

In this region, limited access to small-grain pasture is an excellent and cost-effective supplementation program for fall-calving cows. Some breeders choose to graze purebred cows on small-grain pasture full-time for the purpose of maximizing genetic potential for milk production and weight gain of calves.

A high-calcium (Ca), high-magnesium (Mg) mineral supplement should be provided to lactating cows grazing small-grain 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 with 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 (like during December) 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

- Cattle afflicted with fescue foot should be removed from fescue pastures and fed different forage until they have recovered.
- Begin grazing dormant weeping lovegrass pastures, feeding supplement accordingly.

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- Check your financial management plan and make appropriate adjustments before the end of the year.
- Native hay meadows can be lightly grazed after a hard frost. Leave a minimum of about 6 in. of forage regrowth and remove cattle if wet conditions develop.

Northwest Region

*by **Thomas Hill,** Oregon State University, Thomas.w.hill@oregonstate.edu*

Cow herd management and nutrition

Monitor cow BCS. Cows with a BCS of less than 5 on the 1-to-9 scoring system during the last trimester of pregnancy will experience a prolonged anestrus. Prolonging the anestrus period after calving will result in a delayed calving season for the following year. The major limiting nutrient in most third-trimester cow diets is energy.

December is also a good time to monitor your feed inventory for not only quantity but also quality. Feeds higher in nutrient density and protein should be saved for growing heifers and lactating cows. Feeds as low as 10% crude protein (CP) when supplied in adequate amounts can maintain body weight on dry mid-gestation cows. Cows in the third trimester of pregnancy need to gain ½ to ¾ lb. per day.

Beef cows will consume approximately 3% of their body weight in air-dried forage, including waste, per day. A 1,000-lb. cow will consume 900 lb. of feed every 30 days. A 1,500-lb. cow will consume 1,350 lb. of feed every 30 days. Vitamin A supplementation will be required if cows are consuming dry hay or weathered forage.

Midwest Region

*by **Twig Marston,** Kansas State University, tmarston@oznet.ksu.edu*

Cow herd management for spring-calving cows

- In late fall and early winter, start feeding supplement to mature cows using these guidelines:
  - Dry grass — 1-2 lb. per day of a 40% crude protein (CP) supplement
  - Dry grass — 3-4 lb. per day of a 20% CP supplement
  - Dry grass — 10 lb. good nonlegume hay, no supplement needed
- Compare supplements based on cost per pound of nutrient.
- Utilize crop residues.
- Strip-graze or rotate cattle to improve grazing efficiency.
- Cows in average body condition can be grazed at 1-2 acres per cow for 30 days, assuming normal weather. Available forage is directly related to grain production levels.
- Limiting nutrients are usually rumen degradable protein, trace minerals and vitamin A.
- Control lice.

General management

- Document your cost of production by participating in Standardized Performance Analysis (SPA) programs.
- Review management decisions; lower your costs per unit of production.
- Check your financial management plan and make appropriate adjustments before the end of the year.

Precalving vaccinations

Examine your vaccination strategy for improving calf health and vigor. Precalving vaccinations given to cows are designed to improve the antibody concentration in colostrum. Antibody levels in colostrum can be improved by vaccinating cows two months to two weeks before calving for specific pathogens. Calf diseases that can be reduced due to an effective pregnant cow vaccination program include scours, respiratory diseases and clostridial disease.

Timing of precalving vaccinations and vaccine forms (killed or modified-live) are extremely important management variables that must be completely understood before administration.

Replacement heifer management

Replacements or heifers that will be later sold across most state lines need to be vaccinated for brucellosis by a licensed veterinarian before they reach 10 or 11 months of age. Replacements should be managed to gain approximately 1-1.5 lb. per day from weaning to breeding.

Bull management

Be sure the bull battery has both adequate nutrition and protection from severe winter storms. Most winter storm losses of livestock are caused by lack of water and ultimately dehydration.

Bulls without adequate shelter or bedding may experience scrotal frostbite. Scrotal frostbite can result in temporary or permanent infertility in bulls. Scrotal frostbite becomes a serious concern as temperatures approach zero and escalate with wind chill factors.

Mineral supplements

Provide a well-balanced mineral mix that is specific for your ranch location. Copper (Cu) and selenium (Se) levels are critical to monitor for optimum cow performance.

Future planning

Study the realities of the National Animal Identification System (NAIS) and premises identification.

The greatest limitation in production agriculture is skilled and effective labor. Take time to communicate goals, expectations and thanks to members of your farm production team.

Plan a vacation to look forward to in 2007. Rest and relaxation are important to a great many people beside yourself.