# Angus Advisor

►**JANUARY** herd management tips

## Southeast Region

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

### Spring-calving herds

- ►Begin to gather calving supplies.
- ►Keep late pregnant cows gaining 1.0 pound (lb.) per day.
- ►Pregnant heifers and 3-year-olds should gain 2.0-2.5 lb. per day.
- ►Keep high-quality minerals available.
- ►Review calving assistance procedures.
- ►Stockpile a few gallons of colostrum.
- ►Attend performance-tested bull sales and/or order semen for artificial insemination (AI).
- ►Treat cattle for lice if needed.
- ►Soil-test pastures not tested in the last three years.
- ►Order clover seed for frost-seeding later this winter.

### Fall-calving herds

- ►Begin/continue breeding.
- ►Check cow and bull condition.
- ►Supplement energy to young bulls during breeding season.
- ►Send in forage test if not done earlier this year.
- ►Continue to check calves closely for health problems.
- ►Reimplant September- and early October-born calves that were implanted at birth (commercial herds).
- ►Treat cattle for lice if needed.
- ►Soil-test pastures not tested in the last three years.
- ►Order clover seed for frost-seeding later this winter.

### January nutrition could be critical

Forage availability was highly variable this fall in the Mid-Atlantic and Southern states. As a result of abnormal pasture availability and quality this fall, many herds entered the winter in less than optimal body condition. Cattlemen should condition score their cows and make adjustments to the winter feeding program. Cows need to reach a body condition score (BCS) of 5 to 6 (on a 9-point scale) by 30 days before calving.

Remember, winter weather conditions in the Southeast and Mid-Atlantic states can be worse than in the Midwest. Temperatures that hover near freezing, combined with rain and sleet, increase the energy needed by cattle to stay warm. The air temperature below which cattle expend energy to keep warm is the lower critical temperature (LCT). Wet cattle expend energy to keep warm at temperatures as high as 60° F. In contrast, dry cattle with winter hair coats use little extra energy to keep warm until 32° F to 20° F or less. During extended periods of wet, cold weather, producers should increase the amount of energy fed to cows by 1% for each degree below the LCT to prevent weight loss. In practice, producers need to feed 1.25 to 1.5 lb. of energy supplement (i.e. corn, corn gluten feed, soyhulls or barley) to pregnant cows and 1.6 to 2.0 lb. of supplement to lactating cows for every 10 degrees below the LCT.

## Midsouth Region

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

### Spring-calving herds

Due to rapid fetal growth, energy and protein requirements are approximately 25% greater during late gestation compared to mid-gestation.

A 1,200-lb. Angus cow in good body condition requires a minimum of about 13 lb. of total digestible nutrients (TDN) and 2 lb. of protein per day during late gestation. Consequently, hay or other forages should contain a minimum of 54% TDN and 8% protein to meet requirements for maintenance prior to calving.

Prepare calving facilities and equipment. Purchase and organize calving supplies such as tags, naval dip, tattoo equipment and ink, calf scales, etc.

Check first-calf heifers (due to calve) several times daily for possible calving difficulties.

Feed during evening hours to encourage daytime calving.

### Fall-calving herds

Continue supplemental feeding of bulls, cows and calves.

If a creep-feeding program is desired, consider limit-feeding a high-protein (30%-40%) supplement, such as recommended in the Oklahoma Silver program. When available, small-grains winter pasture is an excellent creep-grazing resource for fall-born calves.

A high-calcium (Ca), high-magnesium (Mg) mineral supplement should be provided to lactating cows grazing small-grains forage.

### General recommendations

Break ice in ponds and water tanks at least once daily when necessary.

Evaluate the mineral supplementation program, considering forage and feed mineral contributions along with requirements.

- Due to extreme drought in the Southern Great Plains, many producers are feeding greater quantities of concentrate feeds that contain high phosphorus (P) and/or high sulfur (S). Examples of feeds that are high in phosphorus include corn gluten feed, distillers' dried grains, wheat midds, and barley malt sprout pellets, among others. Distillers' grains, corn gluten feed and barley malt sprout pellets are examples of feeds that contain moderate to high levels of sulfur. Be sure to consult your local Extension educator or other nutritionist for assistance in balancing the mineral program so that severe mineral imbalances are avoided.

Test soil to determine phosphorus, potassium (K) and lime needs for spring-seeded legumes, such as lespedeza, sweet clover, red clover and white clover.

Plan the financial management program for the year, including cash flow and deadlines for payment of interest.

## Midwest Region

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

### Cow herd management

- ►Historically, cull cow prices will increase over the next two or three months. Feeding cull cows can be an efficient and profitable management decision.
- ►Continue feeding or grazing programs started in early winter. Weather conditions may require wrapping up grain sorghum and cornstalk field grazing. Severe winter weather may begin to limit crop residue utilization, so be prepared to move to other grazing and feeding systems.
- ►Supplement to achieve ideal BCS at calving. Use this formula to compare the basis of cost per pound of crude protein (CP):

  Cost of supplement, $ per hundredweight (cwt.) ÷ (100 × % CP) = cost per pound of CP.

  Use this formula to compare energy sources on basis of cost per pound of TDN:

  Cost, $ per ton ÷ [2,000 × % dry matter (DM) × % TDN in DM] = cost per pound of TDN.

**Table 1: Wind chill factors**

| Wind speed (mph) | Temperature (°F) 0 | 5 | 10 | 15 | 20 | 25 | 30 |
|---|---|---|---|---|---|---|---|
| 0 | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| 5 | -5 | 1 | 5 | 10 | 15 | 20 | 25 |
| 10 | -8 | -6 | -4 | 4 | 9 | 14 | 19 |
| 15 | -16 | -11 | -6 | -1 | 4 | 9 | 14 |
| 20 | -20 | -15 | -10 | -5 | -1 | 3 | 8 |
| 25 | -27 | -22 | -17 | -13 | -9 | -2 | 3 |
| 30 | -36 | -31 | -26 | -21 | -16 | -11 | -6 |
| 35 | -50 | -45 | -40 | -35 | -30 | -25 | -20 |
| 40 | -66 | -62 | -59 | -53 | -48 | -43 | -34 |

**Table 2: Beef cattle lower critical temperatures**

| Coat description | Lower critical temperature |
|---|---|
| Summer coat | 59° F |
| Wet coat | 59° F |
| Fall coat | 45° F |
| Winter coat | 32° F |
| Heavy winter coat | 18° F |

- Control lice; external parasites could increase feed costs.
- Provide an adequate water supply. Depending on body size and stage of production, cattle need 5-11 gallons (gal.) of water per head per day, especially in cold weather.
- Sort cows into management groups. BCS and age can be used as sorting criteria. If you must mix age groups, put thin and young cows together to feed separately from the mature, properly conditioned cows.
- Use information from forage testing to divide forage supplies into quality lots. Higher-quality feedstuffs should be utilized for replacement females, younger cows, and thin cows that may lack condition and that may be more nutritionally stressed.
- Consult your veterinarian regarding pre- and postpartum vaccination schedules.
- Continue mineral supplementation. Vitamin A should be supplemented if cows are not grazing green forage.
- Plan to attend local, state and regional educational and industry meetings.
- Develop replacement heifers properly. Weigh them now to calculate necessary average daily gain (ADG) to achieve target breeding weights. Target the heifers to weigh about 60%-65% of their mature weight by the start of the breeding season. Thin, lightweight heifers may need extra feed for 60-80 days to "flush" before breeding.
- Bull calves to be fed out and sold in the spring as yearlings should be well onto feed. Ultrasound measurements should be taken around one year of age and provided to your breed association.
- Provide some protection, such as a windbreak, during severe winter weather to reduce energy requirements. The LCT is the temperature at which a cow requires additional energy to simply maintain her current body weight and condition. The LCT for cattle varies with hair coat and body condition. Increase the amount of dietary energy 1% for each degree (including wind chill) below the LCT.

# Northwest Region

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

## Management

- Evaluate the advantage of a value-added marketing program for your 2007 commercial calf crop. These options can include natural vs. conventional management systems, preconditioning, marketing calves to branded beef programs, and age- and source-verification protocols.
- Provide thawed water supply during freezing weather. Dry cows and heifers will consume 6-8 gal. of water per day; wet cows will consume 11-12 gal. of water per day. Cattle will die from water deprivation sooner than from feed restriction during winter storms. Check heated water tanks for stray voltage and proper temperature. Cattle water consumption will be the greatest when water is 62°-68° F. Warmer water will waste energy and reduce water intake.
- Prepare a clean calving area and have calving supplies well-stocked.
- Kansas State University (K-State) data have shown that feeding forage between 4 p.m. and 6 p.m. resulted in 85% of the calves being born in daylight hours.

## Nutrition

- Seven weeks before calving, nutrient requirements increase for the bred cow or heifer. Before calving, cows need to be fed hay to appetite and consume 1-1.5 lb. of protein. Identify the most economical protein source by dividing the cost of a unit of feed by the amount of protein within that unit of feed [example: alfalfa hay cost $120 per ton and has 18% CP: $120 per ton ÷ (2,000 pounds per ton × 16% CP) = 37.5¢ per lb. of protein.] After calving, protein requirements double for lactating cows. Legume hays, soybean meal, cottonseed meal, distillers' grain and lick tanks or tubs can be viable protein supplementation sources.
- Maintain a BCS of 5 or higher in bred heifers and cows.
- Provide readily accessible mineral and vitamin supplement as needed for your area.

## Herd health

- Consult with your veterinarian about precalving vaccinations in order to boost antibody content in the cows' colostrum. Antibodies for enterotoxemia, scours and viruses can be boosted by vaccination. First-calf heifers will have the lowest levels of antibodies in their colostrum. Vaccination timing and proper nutrition are important keys to improving maternal antibody concentration in colostrum.
- Conduct a complete breeding soundness exam (sometimes referred to as a BSE) every year on the herd bulls 30-90 days before turnout. Monitor bull body condition in order to maximize their breeding potential and serving capacity.
- Recognize the value of establishing a bovine viral diarrhea (BVD) monitoring program. The absolutely best time and procedure to screen for BVD is to collect an ear chip sample when calves are tagged and weighed at birth. Screening newborn calves will serve as a check for any persistently infected (PI) dams as well as prevent any newborn PI calves from infecting cows in the upcoming breeding season. AJ