

Best Beginnings

Top seven ways to start calves on the right hoof.

by **BARB BAYLOR ANDERSON**

Good endings start with solid beginnings. If you want to give baby calves the best opportunity to flourish, start with this list of top priorities from Extension beef specialists.

1. Guarantee colostrum.

Many Extension specialists say the importance of colostrum cannot be stressed enough.

“Colostrum needs to be consumed early in life for the calf to absorb through the intestinal tract the proteins and large immunoglobulins they need before the gap junctions close,” says Matt Hersom, Extension beef cattle specialist, University of Florida (UF). “It is important for producers to guarantee colostrum intake within the first 12-18 hours.”

The ability to absorb the immunoglobulins is nearly gone after 24 hours, adds Dan Buskirk, Extension beef specialist with Michigan State University (MSU).

“The intake of immunoglobulins immediately following birth is extremely important in enabling a response to disease challenges,” he says. “Immunoglobulins may also act in the gut to restrict the growth of pathogenic bacteria and help reduce the onset of diarrhea. Fresh colostrum from the calf’s dam is best, but stored colostrum from other cows in the herd is the next best, provided care is taken in storage and thawing.”

2. Provide adequate dam nutrition, including minerals.

Adequate dam nutrition ensures a better calving experience, and helps make certain that the cow has adequate colostrum and milk production.

“Adequate dam nutrition is necessary to get the calf off to the right start,” Hersom says. “Cows should have adequate nutrition prior to calving and through early lactation.”

Part of that strong nutrition plan is a good mineral program, adds Jason Cleere, Extension beef cattle specialist, Texas A&M University (TAMU).

“Research and observations from the field emphasize more than ever that a delicate balance among minerals is necessary if biological efficiency is to be realized,” he says. “The reality is that minerals are no more important in good nutrition today than they were before. But today we recognize the problems in production, especially in the areas of health and reproduction, that can be corrected with proper mineral supplementation.”

3. Ensure good body condition score.

Going hand in hand with adequate nutrition is body condition score (BCS). Cleere says cows must be in good body condition at calving for calves to have the best shot at success.

Buskirk agrees. “Cows and first-calf heifers need to be in moderate to good body condition prior to calving. Cow and heifer nutrition directly affects calf development and survivability,” he says. “Females deficient in energy or protein just prior to calving tend to have greater calf death losses.”

Buskirk notes research has shown that first-calf heifers fed diets



low in protein produce less colostrum and have calves that produce less body heat, indicating they would be less tolerant of cold stress. Immunoglobulins in the colostrum of cows and heifers in good body condition also appear to be more readily absorbed by calves. He recommends producers score cows for BCS 60-90 days prior to calving, group cows in marginal condition and feed that group to a moderate condition score by calving time.

4. Secure a sufficient cow herd health program.

In addition to nutrition, Extension beef specialists suggest that a sound cow herd health program is necessary. UF’s Hersom says cows that have an appropriate herd health program will likely be able to transfer a better level of innate immunity to their calves through an improvement in colostrum quality.

“The best way to develop an effective cow herd program is to work with your local large animal veterinarian. Your local veterinarian can help design an appropriate health program for the cow herd that can address the diseases specific to your environment,” he explains. “There is no one-size-fits-all program to cow herd health, so a good working relationship with your vet is critical. Ultimately, the precalving vaccination program should have a positive impact on the calf in the postcalving period.”

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5. Pay attention to calving season details.

Once cows are ready to calve, attention must be paid to calving details. Hersom stresses producers should manage such details as the calving process, when calves are set to drop, location of calving pastures and appropriate processing management practices.

Michigan State's Buskirk urges producers to give calves the opportunity to stay dry. "Calves can tolerate cold weather surprisingly well if they are dry. A calf with a dry coat does not have to expend extra energy to stay warm until temperatures go below freezing," he explains. "If a calf is wet due to snow, rain or mud, the calf may have to use up energy to stay warm even at 40° F to 50° F. If the weather is unfavorable, bedded mounds or movable hutches can help calves stay dry and conserve their own body heat."

Tom Turner, Ohio State University Extension beef specialist, recommends the calving spot be out of the wind and away from mud. "Stockpiled fescue works well," he says. "You also need to give calving cows enough acres to move away from the herd. Doing so will create a stronger bond between mother and calf."

Turner also stresses that calving near hay rings can lead to problems. "Calves will often lay next to the ring because it is drier. The result is generally that they can get stepped on by other animals," he says. "A better solution is to unroll the round bales."

6. Establish clean calving areas.

Outside calving areas should also be clean. Hersom encourages producers to rotate calving pastures from year to year to minimize the disease load.

"Calving areas tend to be located where they are most convenient to the operator," Buskirk says. "A high concentration of animals in the same location also increases the concentration of disease organisms. Sickness in calves is directly related to the degree of exposure to pathogens. Rotating calving and newborn calf areas and keeping animals dispersed can reduce exposure to disease and keep calves healthy."

The outdoors is a more preferable area to inside barns, Turner says. "Outside is a much cleaner environment, especially if you can move to a stockpiled area or one that has not been grazed for a while. If you must calve in a barn, dip the navel with 7% iodine."

7. Prevent dystocia.

Calves that have gone through a difficult birth have a greater chance of dying soon after birth, notes TAMU's Cleere. "You need to prevent dystocia, and the best way to avoid calving problems is to choose quality heifers as replacements, grow them to an acceptable weight and mate them to an easy-calving bull," he says.

"The approach is successful in reducing dystocia, except in those instances involving improper calf posture," he continues. "Since the incidence of posture problems is low, dystocia attributed to excess birth weights and small pelvic openings can be almost entirely eliminated."

