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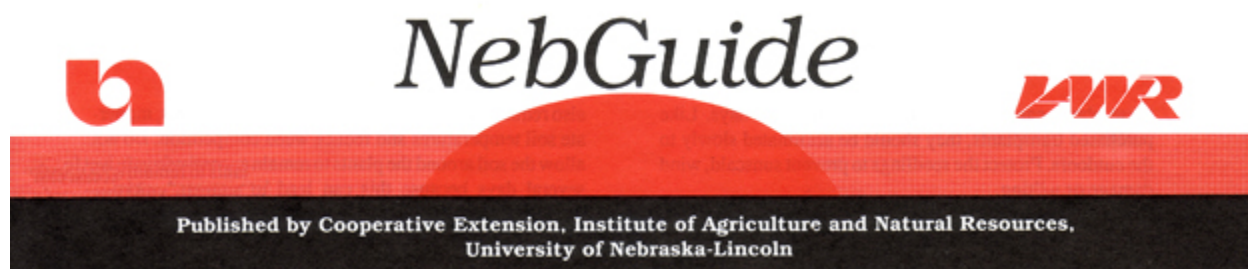
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Reducing Calf Losses with Top Management

A herd health program, replacement heifer selection, cow nutrition, calving management and more are covered here.

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Seventy-five to eighty percent of the death loss in calves occurs at birth or in the first two weeks of life. Many factors affect the livability of the calf, including: nutrition of the heifer and the cow, calving difficulty, sanitation in the calving area, and management of the cow-calf pair after calving.

Herd Health Program

A good herd health program includes a vaccination program that helps maintain a healthy, fertile cow herd (See *NebGuide* G75-232). Cow vaccines are available to help prevent rota and corona viral and *E. coli* bacterial scours, and *Clostridium perfringens* types C & D (enterotoxemia) in the baby calf. These vaccines administered prior to calving increase the antibodies in colostrum. As the newborn calf nurses, the antibodies are available to protect the calf.

Cow vaccination greatly reduces the shedding of these viruses and bacteria by the cow during the calving season.

To arrive at an accurate diagnosis, a producer should work with his or her veterinarian to obtain a postmortem examination on all calves lost. When indicated, tissues can be forwarded to a diagnostic laboratory for further studies. This data can be used to improve treatment programs, and is important in updating the herd health program for the next calving season.

Replacement Heifer Selection and Development

Heifers selected for breeding should be fed to grow to appropriate size for the breed from weaning to breeding (See [NebGuide G80-493](#)). Heifers should weigh 65 percent of their expected mature weight at the time of breeding. This increases the number of heifers cycling at the time of breeding.

Research indicates that the feeding of ionophores such as Rumensin® or Bovatec® decreases the cost of feeding the replacement heifer, and enhances her growth rate. In addition, replacement heifers fed an ionophore tend to reach puberty (first heat cycle) earlier, and are more fertile early in the breeding season.

To reduce calving difficulty (dystocia) in heifers, pelvic measurements can be taken two to three weeks prior to breeding. A 600 pound yearling heifer with a pelvic area of 140 square centimeters usually can deliver a 67 pound calf, without major difficulty, as a 2-year-old. The pelvic area has a 2.1 to 1 birth weight ratio. Calving difficulty increases as the ratio decreases (See *NebGuide G88-895*).

Nebraska studies show average losses of 4 percent within 24 hours of birth for calves born unassisted, compared to 16 percent for those born during difficult calving.

Cow Nutrition

Adequate nutrition during the last 60 days of gestation plays a big role in the overall health of the calf and the cow. This is reflected in the vigor of the calf at birth. Also, the amount and quality of colostrum the cow has available, and her mothering drive, are increased.

Survival rate of the neonatal calf is approximately 20 percent higher in the cow herd fed to meet their nutritional requirements during the last 60 days of gestation and early lactation.

You cannot starve calving difficulty out of cows and heifers. Recent studies show underfeeding protein and energy do not reduce dystocia.

Underfeeding *did* decrease calf vigor. It delayed uterine involution, increased interval to first estrus (heat), and decreased conception rates following calving.

Overfat cows appear to have increased dystocia because of a fat-filled birth canal and increased abnormal presentations. Thin cows do not have the strength to withstand the birth process and generally have weaker, non-vigorous calves. It is extremely important that cows and heifers are fed to meet their nutritional requirements (See *NebGuide G80-489*).

Calving Management

Calving is a very intensive time for the cow-calf producer. Time spent with heifers and cows at calving pays big dividends, resulting in more live calves at birth and more calves receiving adequate colostrum in the first few hours of life (see *NebGuide G81-539*).

Hiring extra labor can pay in terms of live calves and pounds of calf weaned. Many calf diseases start in the calves that fail to receive adequate colostrum.

Colostrum is high in antibodies, energy and other nutrients. The antibodies absorbed protect calves from most infections until their immune systems becomes functional in two to three weeks.

The calf that has a difficult birth or has not had an opportunity to nurse within four hours should be fed colostrum. Colostrum can be milked from the cow and fed with a nipple bottle or an esophageal feeder. Each hour after birth a calf fails to nurse decreases the amount of antibody absorbed by the calf.

A supply of frozen colostrum can be a life saver for an injured, severely chilled or abandoned calf. The best source of colostrum is the first milking from an older cow within the same herd. She has been exposed to most of the disease organisms in the herd and should produce quality colostrum.

Another source would be from a dairy herd in the area. Colostrum can be frozen in pint plastic bags and stored in the freezer. A calf should receive from 1 to 2 quarts of colostrum per feeding, depending on the size of the calf.

Colostrum will keep for three years or more when frozen. It should be thawed in a hot water bath.

Colostrum **should not** be thawed in a microwave oven as microwave ovens may overheat portions of the colostrum and be detrimental to the antibodies. Commercially prepared colostrum from milk products is supportive but not as good as the mother's colostrum.

Sanitary procedures in the calving barn include: (1) use disposable OB gloves; (2) clean the vulva and surrounding area with soap and water prior to calving; (3) keep the OB instruments in disinfected water; (4) maintain a clean calf puller and disinfect it after each use; (5) keep the calving stall clean, dry, and bedded; (6) apply iodine to the calf's navel after delivery; and (7) establish a treatment area separate from calving facilities to avoid treating sick calves in the calving barn.

Managing The Cow Herd at Calving

At calving time, sort the heavy springers into the calving area on a daily basis. Move the newborn calf and its mother (pair out) to clean pasture as soon as possible. This management practice plays a big part in reducing the number of disease organisms to which the baby calf is exposed. It also makes it much easier to feed and meet the nutritional requirements of the new mother. Her protein and energy needs are greatly increased after calving. The newly calved cow needs to milk well, regain her weight and return to estrus prior to the breeding season.

Goal Setting

The goal of the cow-calf producer should be to wean a good, healthy calf from each cow. Each calf lost reduces pounds of calf weaned and pounds of calf to sell. Top management is the key to weaning a good calf from every cow.

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