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RAISING CALVES...The 5 C's OF A HEALTHY START

Raising healthy calves is a challenging and rewarding job. Calf raisers are responsible for the dairy herd's future—the next generation of milk cows. Minimizing death and disease losses in the calf herd can save hundreds of dollars per replacement animal raised. What does it take to raise healthy calves? We have listed the five C's of a healthy start:

Colostrum—why is it important to calves?

Colostrum contains high levels of antibodies that calves need to prevent diseases caused by organisms present on most dairy farms. Calves are born with few antibodies of their own and an immature immune system that is not capable of producing antibodies for some weeks. Colostrum provides the needed disease-fighting antibodies. Colostrum is a nutrient-rich first meal for the calf. It is high in protein, energy (fat) and vitamins. It should be fed as soon as possible after birth, ideally within one hour. The calf is capable of absorbing the antibodies in the colostrum for only the first 24 hours after birth. With each passing hour after birth, the calf's ability to absorb the antibodies decreases.

Calories

After the first day of life, begin feeding calves a sufficient quantity of high-quality milk replacer or pasteurized milk at least twice a day. Generally, with milk replacers, you get what you pay for. As price increase, so does the quality. Increase the number of feedings or enhance the caloric intake of calves in cold weather. Begin offering a small amount of high-quality calf starter on the second day of life. Adjust the feeding rate in 0.5 lb. increments. High-quality calf starter is palatable, high in protein (18-20%), high in energy and low in fibers. It is important they get this because the calf starter stimulates the development of the rumen. Calves need to be eating at least 2 lbs. of calf starter daily before they are weaned at 5-8 weeks of age.

Cleanliness

Calves should be born in a clean, dry place. If these areas are dirty, newborn calves will be exposed to a variety of disease-causing organisms, such as E. coli, Salmonella, and Johne's Disease. The outcome will be more sickness and a higher death loss in the calf herd.

Comfort

Calves need to be comfortable. Provide plenty of dry bedding and shelter from drafts and wind, especially in cold weather. Calf coats are beneficial in bitter weather.

Consistency

Calves should be fed the proper amounts of the same feeds at the same temperature every day. Calf management work should be handled by the same person(s) every day. Changes in the routine will stress calves, and animals that are stressed are more likely to get sick. (OVA)

**WE WILL BE CLOSED
OCTOBER 14th FOR
THANKSGIVING.**

**PLEASE ORDER YOUR
FEED ACCORDINGLY.**

SPECIALS

All beef feeds are on sale for the month of October.

2-4 MT—\$4.00 discount / tonne

5-10 MT—\$5.00 discount / tonne

12+ MT—\$6.00 discount / tonne

MARKETS

BEEF

OCTOBER 127.32

DECEMBER 131.22

FEBRUARY 132.90

PORK

OCTOBER 90.05

DECEMBER 86.08

FEBRUARY 88.05

HOG SPACES

We are looking for 4000 finishing hog spaces on a contract grower basis. This may be in one location or 2 separate 2000 head barns. Please contact Paul Wide-man if you are interested.

FERTILITY IN DAIRY COWS—CHALLENGES AND OPPORTUNITIES

Annual milk yield has increased significantly during the past 50 years but this has been associated with a decline in fertility, which has not been definitively associated with genetics or milk yield per se. This decline in fertility is multi-factorial and includes nutrition, immunology, genetics, endocrinology, metabolic and reproductive physiology, welfare and cow management. It is clear that multiple hormonal and metabolic signals regulate feed intake, energy balance and metabolism.

Challenges

The dairy farmer faces a number of changes including: 1) maintaining a high level of milk output, which is optimum for the genetic base of the herd, 2) maintaining or minimizing body condition loss between calving and the nadir of loss, 3) ensuring low or minimal incidence of metabolic disorders; 4) minimizing loss of immune-competence; 5) control/decrease days to first post-partum ovulation and establish/maintain high pregnancy rates and 6) make a profit compatible with investment in the enterprise. In order to meet these major challenges the farmer must ensure that cows are well managed during the dry period to calve down in optimum body condition, which will set the base for return to follicular growth and ovulation in the early post-partum period while minimizing loss of immune-competency and thus reduce the incidence of reproductive tract infections. It has been established that food intake in the pre-and -post-partum period will have a major influence on time of ovulation and the success of mating. Subtle changes in intake can have a major effect on the time of ovulation and fertility, in cows that produce the same milk yield; cows with lower intake in the pre-and post-partum period had similar milk yields but ovulated significantly later and had lower conception rates. Cows with low dry matter intake are more prone to some form of uterine infection, which will affect up to 35-50% of the herd. Ensuring that dry matter intake is good is much more difficult to achieve on a herd basis than might be imagined.

Cows resume follicular growth in the early post-partum period and about 45% of cows ovulate the first dominant follicle, which grows and they have an interval of about 20 days to ovulation; 35% of cows that follicle will regress and have an interval to ovulation closer to 50 days while 20% of cows develop cystic follicles and also fail to ovulate until about 50 days after calving. These deviations can contribute to a delayed insemination and consequently to a prolonged calving interval. Many factors contribute to the delay in first ovulation post-partum including reduced dry matter intake; low blood glucose and insulin concentrations; high blood non-esterified fatty acids; increased blood ketone concentrations and metabolic effects of negative energy balance on gonadotrophin hormones.

Solutions

A holistic approach is required to address the reduced fertility observed. Breeding programs that include reproductive parameters as part of the program have been shown to halt the decline in fertility that was evident over an extended period. There is evidence that polyunsaturated fatty acids of the n-3 and n-6 families can have a beneficial effect of fertility in males and females. These have been shown to increase the size of the ovulatory follicle in beef cows and to enhance the membranes in oocytes and sperm cells. The n-3 fatty acids may attenuate the effect of prostaglandin F2a and thus have the potential to enhance maternal recognition of pregnancy and lead to higher pregnancy rates in lactating animals as there is a high rate of embryonic mortality in cows and some of this occurs about the time of maternal recognition of pregnancy. They can also provide an increased source of cholesterol, which is a precursor for the progesterone synthesis, which is essential for maintenance of pregnancy. We plan on examining the role of specific algae, which has high concentrations of docosahexanoic acid (DHA) in farm animals with a view to enhancing fertility in males and females. This can be part of a program to align nutrition to optimize both production and reproduction while maintaining a sustainable environment that will be essential to support a growing dairy industry. Nutritional and management practices must focus on how to improve the immune system so that cows can enter the lactation cycle and produce milk compatible with their genetic merit and also have the best chance of establishing and maintaining pregnancy (Boland).

For more information, please contact your W-S Feeds sales representative or e-mail info@wsfeeds.ca.