 **February** NEWSLETTER **2020**

 Here’s hoping this February will be a little kinder to us than last year! Regardless of how you predict the weather, it seems we are nearing the halfway point of the season and knowing there is more winter before us, we can also look ahead and know that it won’t last forever. Calving season can be a little like raising children in the sense that the days and nights are long, but the weeks and months go by quickly. All things considered, we will pretty much just have to tackle one day at a time and get what we get!

 With some long nights of our own, we didn’t get a chance to print the newsletter last month and so we want to wish you all a Happy New Year! It is pretty cool to start a new decade. Thinking back over the past ten years truly shows the resilience of the cattle industry. Efficiency and innovation surrounding the concept of sustainability in the industry currently holds the attention of most major stakeholders. The Canadian Roundtable for Sustainable Beef (CRSB) Annual General Meeting takes place in Calgary at the end of March and would be great to sit in on. The stated mission is to advance continuous improvement of Canadian beef industry sustainability through multi-stakeholder engagement, collaboration, communication and science. The stated vision for CRSB is that the Canadian beef industry is recognized globally to be economically viable, environmentally sound and socially responsible. It’s exciting to think where we might be in 10 years!

****The five pillars outlined under the Global Roundtable for Sustainable Beef include:

* Our use of natural resources
* Our impact on people and surrounding communities
* Animal health and welfare
* The food we produce
* Our effort to improve efficiency and innovation.

**What Makes a Good Electrolyte for Calves?**

 Oral electrolytes are widely used to restore fluids, correct the pH and electrolyte levels in the blood, and provide nutritional support with the added benefit of being relatively inexpensive and easy to administer. They are a great and often necessary supportive measure for cases of calf scours, pneumonia, or other causes of dehydration. There are many options on the market, and they can widely vary. When oral fluids are needed, the solution chosen must satisfy the following requirements:

1. It must supply enough sodium to rapidly correct the losses that have occurred.
2. It must include agents (glucose, citrate, acetate, propionate, or glycine) to encourage absorption of water and sodium across the intestine.
3. It must provide an alkalinizing agent (acetate, propionate, or bicarbonate) to correct the blood from being too acidic
4. It must provide energy because often sick calves are in a negative energy balance.

 Sodium and Potassium are lost in feces of calves with diarrhea. Sodium absorption from the small intestine is dependent on glucose or an amino acid such as glycine, alanine, or glutamine to join with sodium and cross into the gut cells and get to the blood. Ideally the ratio of glucose to sodium in an electrolyte solution should fall between 1:1 (regular) and 3:1 (high energy). Ideal sodium levels are between 90-130mmol/L and potassium between 10-30mmol/L.

 The strong ion difference of an electrolyte solution is a calculation to see how effective the ions in electrolytes will be at correcting a portion of the acid-base balance in the blood. It is extremely important that the oral or intravenous fluids chosen for rehydration will be able to increase blood pH from an acidic state to a more neutral state when needed. This is normally accomplished by the addition of alkalinizing agents typically bicarbonate, acetate or propionate all having similar effects, though acetate and propionate have the following advantages over bicarbonate:

1. Acetate and propionate help sodium and water to be absorbed in the small intestine; bicarbonate does not
2. Acetate and propionate are sources of energy; bicarbonate is not
3. Acetate and propionate will not alkalinize (raise the pH) in the abomasum or true stomach but bicarbonate will; this is important because an acidic stomach beneficially kills harmful bacteria before they can reach the small intestine
4. Acetate and propionate do not interfere with milk clotting in calves whereas bicarbonate does. For this reason, it is recommended that bicarbonate-based electrolytes not be used when the calf is nursing the cow. Acetate and propionate are well tolerated when fed with milk.

 Commercial electrolytes can vary in the amount of particles dissolved in the solution and it is advised to follow proper mixing instructions. A “hypertonic” oral electrolyte product has a larger amount of glucose (sugar) in the preparation and may have the denotation “HE” for high energy. These differ from “isotonic” solutions, which have a similar amount of particles in the solution as is normally found in the blood stream. Hypertonic solutions give greater nutritional support because of the higher glucose level, yet they can cause abomasal bloat and increased diarrhea if the calf is unable to absorb this large amount of sugar.

 A good rule of thumb is that depressed calves not nursing can be given a hypertonic (HE-high energy) electrolyte product if separated from the dam. Beef calves that continue to nurse should receive isotonic (regular) solutions.

 Keep in mind that milk is the best substance for maintaining a normal blood glucose level over any electrolyte solution so allow the calf to continue nursing. Unless specifically designed to be mixed, do not mix electrolytes with milk or milk replacer but rather follow the instructions for temperature and amount of water.

While there is much more to discuss on the topic of electrolytes this gives a basic overview to help when comparing products!

**Ringwomb In Ewes—Something you Shouldn’t Get Ewe’s To**

 Ringwomb is a term used to signify an incompletely dilated cervix more than 6 hours after fetal membranes have first appeared at the vulva. Typically the narrow cervix does not progress more than 3-5 cm (2-4 fingers). The number of cases of ringwomb in flocks varies between farms and also between years. The true cause of ringwomb is unknown though many researchers point to a heritable component. Ringwomb is more common in ewes but can also occur in does. Failure of the cervix to dilate during the birth process can also occur with different malpresentations such as breech lambs where insufficient stimulation of the cervix occurs. For this reason there are a couple of interventions you can safely try:

The use of oxytocin, an injection of which causes smooth muscle contration and therefore increases the pressure of uterine content (fetus and fluids) against the cervix can be used with caution. Ewes that receive oxytocin should be those ewes with failure to progress longer than 4-6 hours but that are not currently actively straining to labor. Ewes that are straining with no progress should not receive oxytocin. Increasing uterine pressure on the fetoei can also cause fetal distress and decrease survivability of lambs born. A veterinary prescription is required for oxytocin and its appropriate use and doses are discussed ahead of use.

 Manual stimulation of the cervix is another way to attempt cervical dilation. It is wise to clean the ewe’s vulvar area thoroughly with warm water and a disinfectant, such as stanhexidine, and use clean gloves to enter the vagina. A small amount of lubrication can help facilitate entry into the vagina in smaller females. While inserting fingers into the cervix (tight ring) you can spread the fingers and gently attempt to stretch the opening focusing on the top of the opening and working to massage all areas. Alternately if the legs or nose are entering the cervix you can apply gental traction (pull) on the lamb to similarly stimulate the cervix though this will cause fetal stress much quicker than digital stimulation. Some resources advocate that you can attempt this stretching for up to 30 minutes, but our best recommendation is to limit manual stretching attempts to 10 minutes. Fetal stress and uterine contamination risk will increase with duration of intervention and again potential impact the survivability of lambs born.

 A caesarean is the best intervention when ringwomb cannot be resolved to preserve both lamb(s) and ewe. Ewes that have undergone ringwomb may or may not repeat the issue in subsequent pregnancy though it is the current industry recommendation that ewes be considered for culling. Caesarians can be done in clinic and can also be done on farm when needed.

**Around the Community and Clinic**

**Join us for our free Horse Talk!**

February 13, 2020 @ 7pm at The Stettler Vet Clinic

Learn about **Dentistry & Vaccines** from Dr. Cheryl Malin

Learn about **Reproduction** from Dr. Tara Snow

RSVP 403-742-3338

*Snacks and drinks included! We hope to see you there!*

 What a blast the Heartland Cattlemen’s Classic was! So good to see this great event return to Stettler and congratulations to the Stettler Agricultural Society for planning and hosting successfully. We were proud to be a gold sponsor and truly enjoyed the supper, breeder displays, vendors, and shows! Congratulations to all winners—a lot of great quality cattle!

 Heartland Youth Center is hosting the annual Bowl for Kids and SVC is proud to be the longest participating member of the event. Watch for pictures of our generally hilarious costumes and please consider sponsoring this awesome fundraiser for youth in our community.

 We recently added a new member to our team! Shelby Boehlke is a Veterinary Medical Receptionist and Technical Assistant. You may see her in clinic or out on the farm, so make sure to give her a warm welcome!

 Dr. Dobinson thoroughly enjoyed the recent Western Canadian Association of Bovine Practitioners annual conference garnering a great deal of information to apply in practice. Dr. Munholland and Terra Heier are soon taking flight to the Western Veterinary Conference in Las Vegas and are excited to take in many great speakers and labs as well as shop the largest veterinary trade show in America! (Not to mention all the other Vegas activities they will be enjoying!)

**Calling Long Distance? Use our toll-free number 1-888-GET VETS (1-888-438-8387)**

**Barb Munholland, DVM, Jackie Dobinson, DVM**

**Associates Cheryl Malin, DVM, Tara Snow, DVM, Mirjam Stigter, DVM, Alicia Laniak, DVM**

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