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We will provide industry-leading, reliable, knowledgeable service, in a friendly, courteous and timely manner, to benefit our clients and the communities we serve.

St Clements Clinic Hours: Mon-Fri 7am – 5pm Open Saturday 7am-12pm

Hwy 89 Clinic: Mon-Sat 7am-1 pm

NOTE: CLINICS ARE CLOSED SUNDAY and NO DELIVERY SERVICE SATURDAYS AND HOLIDAYS

Orders for Delivery: Please, call BEFORE 9:30 am, for same day local delivery Monday to Friday

24 Hour Emergency Vet Service call any clinic number 1-800-663-2941 519-698-2610 519-323-9002

NOVEMBER 2019 NEWSLETTER

Clinic News

Thank you to those who took time out of their busy fall schedule to join us for lunch at our Grand Opening on October 24th at our new location in St. Clements, and to all of you who have otherwise found your way to our new location this year. We are always happy to see you!

ORDERING: Now is a good time to start planning what important products you should have on hand over the winter holidays and bad weather days. Some of our vendors have year-end shut downs and limited incoming shipments to work around.

Please check your orders upon arrival. We appreciate a call regarding any discrepancies as soon as possible. Ensure your products are stored in temperature ranges that follow package directions.

When the snow flies, please keep your lanes clear for our Delivery Drivers, Vets and RVT's to access your barns.

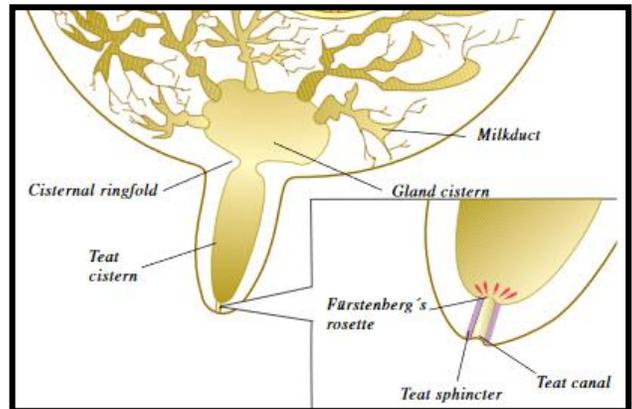
Fall Beef Tip

Just a reminder regarding the use of Chlor 50 for groups of calves struggling in the variable fall weather. Top dressing or TMR mixing choices are available based on body weight and number of calves in the group. In addition consider repeating Inforce 3/Once PMH Intranasal at 60 days of age to extend respiratory pathogen protection to four months of age on growing calves during times of weather stress.

Understanding the Udder

It is helpful for dairy farmers to understand the udder, it's development, anatomy, and function. This knowledge helps us understand how to maximize udder health, why mastitis occurs, as well as appreciate the incredible process of milk production. The udder begins to develop in a heifer calf while she is still a fetus inside her dam. Teats begin to form when the fetus is 2 months along, and the mammary gland continues to develop until it is 6 months along (development of 4 separate glands/quarters, support

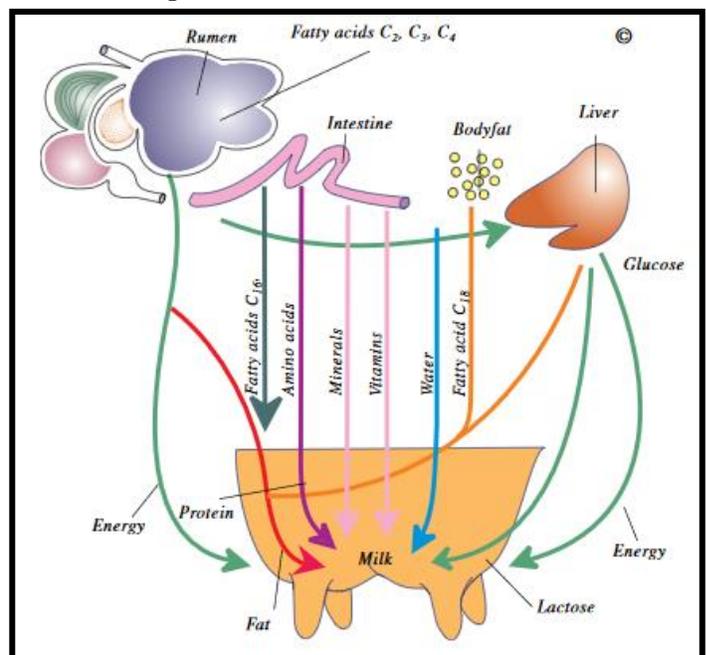
structures for the udder, and gland cisterns). The udder's final stage of development (development of milk ducts and secretary tissue) occurs between the heifer's onset of puberty and her first calving. Although the udder is completely functional at first parturition, it will continue to grow in cell size and number for the first 5 lactations of the cow's life. Interestingly, production capacity also increases within these first 5 lactations - longevity of a cow in your herd is important for you to see these results!



The average udder weighs approximately 50kg, including secretory cells that make milk, fat tissue, blood vessels, lymph nodes, and connective tissue! The udder has extensive attachments made of connective tissue to support this very important organ. Each quarter of the cow is a separate gland - that's why we can have mastitis in 1 quarter and still have 3 functional quarters. The right and left sides of the udder are separated by a median ligament which has lots of stretch. If this ligament is damaged, you will see a low hanging udder that milk machines often do not work well with. The big hanging udders are often thought of a 'good producers' but they can actually be made up mostly of connective tissue and fat - size can be deceiving!

The teat can be broken down into 2 parts - the teat cistern, and the teat canal. Where the 2 parts meet is called the rosette. The rosette is our first defense against mastitis, it has several folds to keep bacteria out of the udder. The teat canal is wrapped in muscles which squeeze the canal shut between milkings - another defense against mastitis. The teat canal can also produce keratin which forms a temporary plug between milkings - yet another defense against mastitis!

In order to produce milk, the udder must receive a constant supply of nutrients via the blood stream. To produce 1L of milk, 500L of blood must pass through the udder! That means a good milking cow who produces 60L of milk per day sends 30,000L of blood through her udder! Since the udder is such a hard working organ, it also creates many waste products which are taken away and filtered through lymphatic vessels and lymph nodes. The lymph nodes filter the vessel's contents, and provide white blood cells to fight infections. If you've ever had a first calver with a swollen udder and teats (edema), this occurs because the volume of milk she is producing compresses the lymphatic vessels so it cannot drain away easily.



The udder is complex, and works very hard to produce milk for us. To maximize its capacity, we must provide the necessary nutrition, water, and comfort for the cow, while maintaining udder health through quality bedding, good milking routines, proper milking equipment, and prudent treatment of mastitis. Contact your veterinarian today to see if you are doing all that you can for optimal udder health!