**UDDER EXAMINATION IN RUMINANTS**

The history of the animal aids in the examination of the udder, as it guides the vet towards a diagnosis. Older animals with multiple prior parturitions may have a greater chance of mammary disease, and the breed of the animal (For example, Holstein cows) may predispose to mastitis. The personal and herd history will also help, as if may be another episode of a prior disease, or a disease being present in the whole herd that may be spread between animals during milking. Environmental pathogens may also cause mammary disease, and the housing of the animals should be noted.

For a distance exam, symmetry can be evaluated. The size and shape of the udders can also be examined, to determine if there are any swellings, lumps or if the udders are pendulent. Lesions can also be identified, whether they are from trauma or infection. The udders should be cleaned prior to the examination to prevent dirt from being mistaken for a discolouration.

The physical exam is primarily palpating the udders and teats. The udder should be soft and pliable; if it is fibrous, especially in a younger cow, the udders may have been damaged. There should be no lumps in the udders. The teats, if the canal is full of milk, would be somewhat taught, but should still be soft and pliable with no lumps. While feeling the udder and teats, the skin itself should be examined for injuries or vesicles. Lastly, the associated lymph nodes for the udders, the superficial inguinal lymph node, should be palpated for signs of infection.

The last part of a mammary gland examination is the milk itself. To obtain the cleanest samples possible, the teats must be cleaned. If the individual taking samples is on one side of the cow, the teats on the opposite side should be cleaned first, but the teats on the near side are sampled from first. This is because the sampler’s arm will come into contact with the near teats when handling the far teats, contaminating them, therefore the near teats should be cleaned last and sampled first. The qualities of the milk that can be assessed without lab work are appearance and smell. Flakes or discolouration are signs of clinical mastitis. However, subclinical mastitis requires the California Mastitis Test to identify. Using a four-well paddle, where each well has milk from one quarter each, a reagent is added. If the milk is unchanged, the quarter has no mastitis, however if the milk becomes similar in consistency to a gel, then it is a positive result for subclinical mastitis.



