

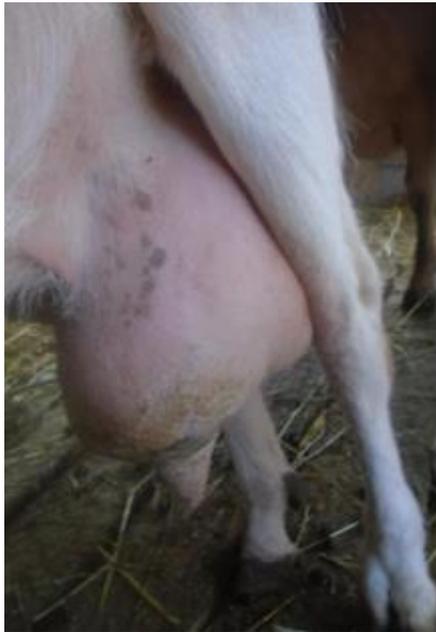


Browser's Bulletin 48:

Per-Acute Mastitis in a Saanen Doe in the Hunter

September is a joyous time with kids hitting the ground, but as mentioned in the previous Browser's Bulletin we are seeing a lot of twins and triplets born this season. With multiple mouths to feed the mammary glands are producing more milk and enduring more physical injuries from the kid's sharp teeth.

Mastitis is the inflammation of the mammary gland, regardless of the cause. Mastitis will result from physical injury, stress or bacteria.



Emerald, a Saanen doe, had recently had twins and was going along very well until one morning the producer noticed the doe had gone off her food and was reluctant to get up. The producer took the doe's temperature, which was 41.4C. The normal temperature of a goat is 38.6-40.6C (average 39.3C), 41.4C rings alarm bells! After checking for any smelly vulval discharge and then assessing her udder it was noticed that one half of the udder was very hard, hot to touch and difficult to express milk. The small amount of milk had obvious clots and was collected in a sterile container to send away for culture and antibiotic sensitivity testing. Diagnosis of mastitis is based on clinical signs, culture of the organism and Somatic Cell Count (SCC). There are multiple pathogens that can cause mastitis but the most common is *Staphylococcus aureus*, which is what the laboratory grew from Emerald's milk. The antibiotic sensitivity test shows which antibiotics the bacteria is sensitive to and fortunately it was sensitive to all antibiotics it was tested against.

The doe was treated with antibiotics, anti-inflammatories and 4-in-1 (Calcium, Magnesium, Phosphorus and glucose), her temperature dropped but she continued to deteriorate over the next 24 hours and sadly died.

Clinical signs of severe per-acute-acute mastitis include an udder that is swollen, hot, hard, painful, the milk is often abnormal with clots, blood tinged or yellow and a foul odour and the kids may refuse to drink from that side. The doe will develop a severe fever, become depressed and off their feed and often progress to a toxemia with a subnormal temperature and death. Some does with per-acute mastitis can present as a sudden death with no noticeable clinical signs prior to death. If the animal survives, the affected half becomes gangrenous, cold, blue and eventually sloughs off or requires removal by a veterinarian. Treatment of per-acute mastitis is often unsuccessful, with the best chance of survival on IV fluids, anti-inflammatories, IV antibiotics and good nursing.

Given the number of multiple births we are seeing in the Hunter, I thought other local producers may also see an increase in mastitis cases on their properties and it was important to discuss preventative measures that could put into place. Subclinical mastitis is common in goats and often goes unnoticed. The udder appears normal, but the milk quality and quantity are altered, subclinical mastitis can progress to more severe forms of the disease.

Preventing Mastitis



- 1) Good udder and teat conformation (breed away from does and bucks with abnormal teats)
- 2) Ensure the lactating doe is on good quality feed (sufficient energy, high quality forage available always, high protein 18% and vitamins and minerals, and clean fresh water)
- 3) Regular udder palpation, examination and check milk consistency. Get to know what a good healthy udder feels like. Palpate each half when the kids have stripped it empty. Start with one side, put one hand on the inside of one half and the other on the outside. Starting at the top, work your fingers down pushing them towards each other. Does it feel all the same consistency, or does it have lumps and bumps, it is hard to palpate and do both sides feel the same? The outer skin should pull away from the underlying tissue or

does it appear to be stuck to the mammary tissue? Can you notice any small cuts and abrasions on udder? Does the milk look grossly normal or can you notice clots and/or blood? Make sure that you have clean hands when examining a doe's udder, as humans can be carriers of Staph aureus and can transfer other diseases like CAE.

- 4) Lacerations are commonly from kids with sharp teeth or animals stepping on their udder. It is important to clean injuries with Chlorhexidine or betadine scrub and warm water and apply a disinfectant ointment or spray to create a barrier to infection. If the laceration is severe, the kid may need to be removed from the doe in order to help the lesion heal. Daily spraying teats with iodine post-milking teat spray may prevent small injuries to the teat becoming a mastitis
- 5) Hygienic environment with clean dry bedding
- 6) Some producers will clip off the hair around the perineum and the udder prior to kidding to minimize faecal and uterine fluid contamination of the hair around the teats.
- 7) Try to establish the cause of mastitis on your farm to assist with prevention in future. The bacterial culture can give you some direction in establishing the cause.
- 8) Treat cases promptly when recognised
- 9) Dairy operation: clean equipment, teat and udder hygiene on entrance and exit from milking, ensure equipment is in good working order with regular servicing, monitor somatic cell count regularly.
- 10) Ensure your dairy goats do not have CAE, a simple blood test is available.
- 11) If you are milking goats, then isolate does with mastitis and milk these girls last
- 12) Cull animals with chronic mastitis, or incurable cases as they may act as a constant reservoir.
- 13) Good record keeping, make sure you know who has had mastitis, if they have been treated, the antibiotic with holding period
- 14) Check the doe's temperature if she is looking unwell. Have a thermometer in your kit. The Hunter LLS have thermometers to give out, if you would like us to send one to you please let me know.
- 15) Goats with pustular dermatitis, pimples, and pustules around the udder and groin region, could easily be spread to the teats and udder. Ensure doe is treated for the dermatitis.
- 16) Ensure there are no underlying health conditions which would make them more susceptible to infections (already listed CAE and dermatitis) including internal parasites.

If you have any further questions on Mastitis prevention, please drop me an email at kylie.greentree@lls.nsw.gov.au

References:

Matthews, J. 2009. Diseases of the Goat (3rd edition)

© State of New South Wales through Local Land Services 2019. The information contained in this publication is based on knowledge and understanding at the time of writing November 2019. However, because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of Local Land Services or the user's independent adviser. For updates go to www.lls.nsw.gov.au

