

Mycoplasmas

Recent improvement in laboratory techniques have resulted in a lot more isolations of mycoplasmas in Australian dairy cattle and calves. Many Australian dairy farmers are now testing samples of bulk milk for mycoplasma before buying replacement heifers from a herd. Recently *Mycoplasma bovis* was isolated from a small number of dairy cow farms in New Zealand and these were placed in quarantine.

Mycoplasma infections in goats overseas can devastate herds. One of the most serious diseases they can cause is contagious agalactae. This causes fever, loss of appetite and almost complete stoppage of milk production within days. The milk becomes thick, yellow and with lots of clots. There can also be eye infections, arthritis and pneumonia.

Contagious agalactae can be caused by any of 4 different mycoplasma (M) species:

- *M. agalactae*
- *M. mycoides* subspecies *caprae*
- *M. putrefaciens*
- *M. capricolum* subspecies *capricolum*.

Unfortunately the names of these mycoplasmas and their grouping have changed over

the decades as taxonomists have regrouped them. For example, *M. mycoides* subspecies *mycoides* Large Colony type is now considered to be just one type of *M. mycoides* subspecies *capri*, which has caused outbreaks of mastitis & pleuropneumonia in goat herds overseas in the past.

A paper published in the Australian Veterinary Journal in October 2017, reported on a project where samples (milk, ears, nose, eyes, joints and lungs) from carcasses from 2 abattoirs and milk from dairy ewes and goats were tested for mycoplasmas. A total of 1358 samples were tested but only *M. mycoides* subspecies *caprae* was found.

However as there were no clinical signs of contagious agalactae associated with these isolations, it is felt that the strains in Australia don't cause disease i.e. are avirulent. Australia is considered by the International Animal Health Organisation to be free from contagious agalactae, which causes major economic losses in goat herds around the rest of the world.

A range of mycoplasmas were found in Australian goats in the 1980s, when the cause of "big knees" was

Baking Soda

Feeding baking soda ad lib (always on offer in a container) is common practice by goat owners in the USA. I advise against feeding baking soda for males as you want their urine as acid as possible so feeding a base, such as baking soda doesn't help urine acidification. Also male goats should not be getting significant amounts of grain so they don't need it. Does getting grain need baking soda to prevent rumen acidosis and subclinical rumen acidosis where grain is converted to acids in the rumen by the rumen micro-organisms. But I prefer people to use a good quality commercial feed mix designed for goats which has the baking soda (sodium bicarbonate on the label) mixed in with the grain so they get both together. If it always there, you don't know that every goat is eating it. Also the baking soda can get very dirty and unpalatable quickly. For does, having baking soda out does no harm as long as there is also some mixed in with the grain ration at the feed mill.

being investigated and before the CAE virus was found. Most were just normal bacterial inhabitants of goats' ears and body.

Cheesy Gland (CLA)

Cheesy gland or to give it the scientific name, Caseous Lymphadenitis, is a bacterial infection. The bacteria settle in the lymph nodes and then grow, turning the lymph node into a large abscess full of white or greenish cream pus. The typical sites for these abscesses are in the head and neck (especially under the ear), in front of the shoulder and in front of the back stifle. However any lymph node can be infected.

The bacteria enter the body via any skin abrasions e.g. from fighting, teeth breaking through the gums, barbed wire, shearing wounds or from feeders or fences. If a goat has an abscess in the lung, then the bacteria can be spread by coughing. The bacteria then travel via the white blood cells, which swallow but don't manage to kill the bacteria and then into the lymph nodes where they slowly grow.

If the lymph node is internal, serious health consequences can occur depending of where it is. External abscesses are less likely to affect the goat's health but

when the abscess ruptures, the pus contaminates the environment and can last in moist shady areas for months.

A sterile sample taken from an unruptured abscess is the only way to confirm CLA.

Treatment options include:

- Surgical removal of the intact abscess
- Lancing the abscess and flushing out with diluted iodine until healed. The goat must be isolated and all pus collected and disposed of carefully.
- Injecting the abscess with long acting antibiotic before it ruptures.
- There is no treatment for internal abscesses as antibiotics cannot penetrate the thick abscess wall.

Prevention is by good hygiene and vaccination with Glanvac 3 or Glanvac 6. Vaccination is not 100% protective but very useful and even if the goat is already infected, can reduce the severity of the abscesses.

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JD bacteria in soil

A scientific paper was presented at the recent Australian Veterinary Association conference. Faecal samples with either cattle or bison strains of the Johne's disease (JD) bacteria added, were put into trays of soils in secure sites in 4 sites in tropical and subtropical Queensland. Each site had temperature and humidity recorders. Trays were either kept moist or dry. Sub-samples were taken from these trays every month and tested for JD bacteria by culture and DNA tests. Results were interesting in that the JD bacteria only lasted 3 months in moist soil. It is thought that moist soil had so many bacteria present that the JD bacteria couldn't compete. However in the dry trays the JD bacteria were isolated after 16 months, although there were periods of dormancy. There may have been some effect of humidity but this needs more work. Soil used ranged from neutral to acid but this had no effect, nor did temperatures (not surprising as it is known that JD bacteria require higher temperatures when pasteurizing). So keep JD off your goat farm as it will persist.