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NSW DEPARTMENT OF  
PRIMARY INDUSTRIES

## Goat health— caseous lymphadenitis (cheesy gland)

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(Reviewed JT Seaman

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Caseous lymphadenitis (CLA) is a recurring bacterial disease in goats that causes abscesses in lymph nodes in internal organs and under the skin.

It is the cause of extensive loss through carcase condemnation in sheep and, as the goat meat industry increases, a similar substantial loss is likely in the goat industry.

### CAUSE

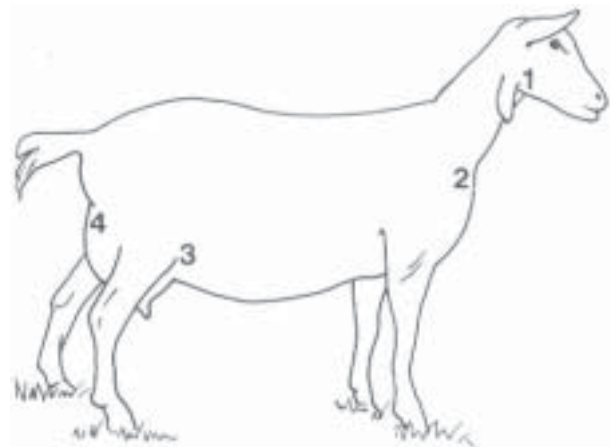
Cheesy gland is caused by infection with the bacterium *Corynebacterium pseudotuberculosis*. The organism occurs in abscesses as well as in the gut and faeces of the goat. It can survive for up to 4 months on the ground and on fences, feed troughs and head bails depending on shelter from wind and sun.

### SPREAD OF INFECTION

The bacteria are abundant in the pus inside abscesses. When these abscesses burst, the pus containing bacteria is transferred to the environment around the goat pens. The infection is then picked up by other goats through contamination of wounds and broken skin.

The common behavioral habit amongst goats of frequent licking, as well as of rubbing their heads and necks against fence posts and sheds, allows the rapid spread of cheesy gland. Where goats are kept in small yards, the direct contact and close grazing of contaminated grass or feeds in feed troughs also encourages spread.

Dairy goats that are placed in head bails for milking are particularly prone to being infected through splinters around the neck.



- 1 parotid and submandibular
- 2 preescapular
- 3 prefemoral
- 4 supramammary

### Superficial lymph nodes (glands) where caseous lymphadenitis abscesses commonly occur.

Contaminated grooming gear can spread the bacteria to other goats. Contaminated shearing blades are an important method of spread in Angoras and Cashmere goats.

Once the bacteria enter the goat's body, they spread in the bloodstream until they become localized in the lymph nodes, organs or subcutaneous tissue.

### SIGNS

Infected lymph nodes grow to become large abscesses ranging in size from an egg to a grapefruit. The contents are thick green/yellow cheese-like pus, hence the common name 'cheesy gland'.



**Cheesy gland is more noticeable in dairy goats because infected glands are not hidden under the fleece. Photos: Douglas H. Burrell, Principal Research Scientist, CSIRO.**



In short-haired dairy goats these swollen glands are obvious, particularly in the head (parotid and submandibular) and neck, in front of the shoulder (prescapular), in the flank (prefemoral) and udder (supramammary) lymph nodes.

Abscesses that develop in the internal lymph nodes present different problems.

Abscesses in the lungs, liver and spleen may cause illthrift in the goat, making it lose condition or show other signs such as a chronic cough or loss of milk production. Severely affected goats may die or have to be put down because of debility.

Other abscesses occur in goats due to infection of a local wound.

Examples are vaccination sites after using contaminated needles, grass seed and thistle spines causing abscesses around the mouth and lips, and pustules (especially on the udder) which become infected with bacteria such as *Staphylococcus* spp. and develop into larger abscesses. These are not necessarily cheesy gland; however, treatment in individual goats is the same.

### **TREATMENT**

In individual goats with large abscesses, lance the abscess at the lowest point. Flush out the cavity with disinfectant after the pus has drained. Because pus is the main method of spread, it should be collected and disposed of safely by burying or treating with disinfectant.

Once the cavity is clean, infuse with antibiotic cream or ointment to assist recovery. Tubes such as those used for mastitis treatment are very suitable.

### **STOPPING THE SPREAD**

- Isolate infected goats with discharging abscesses until satisfactorily treated.
- Treat infected goats promptly.
- Try to limit possible wounding of goats around the head and neck from head bails or fences with protruding nails, wire or splinters.
- Disinfect shearing equipment after use on infected goats.

### **PREVENTION**

A vaccine is now available for the effective control of cheesy gland in goats. Glanvac 3, Glanvac 6 and Glanvac 6, B12 are registered vaccines for goats. Kids should be vaccinated at 6 to 8 weeks of age to prime their immune dose.

Revaccination 4 to 6 weeks after the first dose is necessary to ensure immunity. Cheesy gland vaccine also contains other clostridial disease vaccines.

### **PERSONAL HYGIENE**

After handling goats infected with cheesy gland, ensure you take personal hygiene measures, especially if you have cuts and abrasions on your hands or arms. These wounds can become infected, involving lymph nodes, which in turn become tender and swollen.

There may be some general malaise, fatigue and fever.  
Seek prompt medical attention if these signs occur.

**FURTHER INFORMATION**

For further information, contact your RLPB  
veterinary inspector or veterinary practitioner or the  
NSW Department of Primary Industries.

See also Agfact A3.9.21, *Cheesy gland Caseous  
Lymphadenitis in sheep.*

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**DISCLAIMER**

The information contained in this publication is based on knowledge and understanding at the time of review August 2004. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the NSW Department of Primary Industries or the user's independent adviser.

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