



ENHANCED ABATTOIR SURVEILLANCE PROGRAM

Nephritis

Nephritis is inflammation and damage to the kidneys and may be caused by bacteria entering the blood stream from infected skin wounds, inflammation of the rumen, poisonous plants, and bladder and kidney stones. It is most commonly seen in lambs and is more prevalent in drier regions in South Australia. Affected animals often show no clinical signs, and its impact on farm productivity is poorly understood.

Condition summary



A kidney with nephritis with multiple pale spots (circled) suggesting recent damage



Nephritis is the term used to describe damaged kidneys. The damage seen in the kidneys at the processor may have been caused recently where kidneys are usually swollen and may be discoloured or spotty. If it occurred some time ago, kidneys are usually shrunken, irregularly shaped and scarred. In both instances, damage can vary from mild to severe.



In many cases there is no effect on production. However, reduced growth rate or weight loss may be seen in cases of long term kidney damage and production losses can be significant. Deaths may be sudden or seen after weeks to months of doing poorly (depending on cause).



Affected kidneys are condemned. This is an industry cost as it does not affect carcass weight for producers. Carcass condemnations are rare and are due to effects of kidney failure on the whole carcass.



Treatment and prevention depends on the cause and whether the problem is sudden or has developed over time. Preventing bacteria from entering skin wounds, ensuring balanced feed rations, managing access to toxic weeds, and correct dosing for any medications all impact positively on kidney health.

What impact does this have?

Impacts of nephritis on farm productivity are unknown due to variable degrees of severity and variable causes. Offal cost recovery by the processor is affected due to kidney condemnations.

How do sheep get nephritis?

There are many causes of nephritis. The most common are bacterial infections which spread to the kidneys, and are often associated with marking and mulesing wounds, and rumenitis due to grain poisoning/acidosis. Other causes can include:

- Poisonous plants – soursobs, lesser loosestrife, sorrel, pigweed, lantana, buffel grass and oaks (acorns)
- Toxins
- Over drenching – especially debilitated lambs
- Some antibiotics
- Some fertilisers (e.g. direct access to superphosphate)

What might be seen on farm?

Signs of nephritis will only be seen if 75% or more of the kidneys are damaged, as kidneys have a large reserve capacity. Signs of nephritis are highly variable as there are many possible causes which result in both sudden and longer term problems.

If damage is mild then sheep may show no signs of illness or adverse production affects. If damage is significant, it can result in decreased production, growth and/or death. Signs in a flock with chronic kidney damage can include ill-thrift, pale gums, increased urination, and sporadic deaths.

How do I prevent nephritis?

1. Marking and mulesing hygiene and management.
2. Ensuring any rations fed are correctly balanced and introduced slowly.
3. Preventing the introduction of weeds.
4. Controlling weeds and managing grazing.
5. Measuring drench and antibiotic dosage rates accurately and drenching strategically using worm egg counts.

Some handy tips include:

- Use sharp and clean marking equipment – disinfect and change disinfectant regularly. Use a chlorhexidine based disinfectant e.g. Hibitane.
- Avoid marking in wet and muddy conditions, and avoid driving which causes crowding and dust.
- Allow lambs to mother up following marking and to walk back to their home paddock quietly.
- Minimise the time lambs are held in yards, place lambs onto their feet when released from the cradle and don't overcrowd stock to reduce faecal contamination of fresh wounds.
- Seek nutritional advice to ensure rations are balanced, and ensure adequate roughage is fed. Hay digestibility, quality and quantity is important.
- Gradually introduce rations over a minimum of two weeks.
- Quarantine newly purchased sheep for seven days; weeds will be easier to control in one paddock if they are inadvertently brought in.
- Sow certified seed, and feed hay and grain from known uninfested sources.
- Control weeds with spray topping, crash grazing, spray-grazing and slashing, as indicated.
- Ensure weed control includes laneways, yards and shelter belts; pay particular attention to soursobs around yards.
- Provide adequate hay if there is no option other than to let hungry stock onto weedy paddocks. Introduce slowly.

FOR FURTHER INFORMATION:

Contact your local veterinarian, livestock consultant or PIRSA Animal Health Officer
Or visit www.pir.sa.gov.au/eas

