



Goat health - pregnancy toxæmia

September 2017, Primefact 1600, third edition
Animal Biosecurity, NSW DPI

Pregnancy toxæmia, also known as twin kid disease or twinning disease, is a serious metabolic condition of pregnant does. It affects does in the last month of pregnancy and is associated with the presence of a large single kid or multiple pregnancies. The doe's health deteriorates steadily.

Treatment must be prompt or the condition will be fatal.

Does at risk

Fat does in the last month of pregnancy are at risk, particularly if they are kept in small yards with limited opportunity for exercise. The aggressive does which stand over the feed bins and get more than their share of grain are likely candidates for pregnancy toxæmia.

The condition may be precipitated by sudden changes of feed or by stresses such as inclement weather or poor handling during transportation or yarding.

Cause

In late pregnancy there is an increased demand for energy as a result of rapidly growing foetuses. In well managed animals this increased demand for energy is met from adequate feed. In fat animals, stressed by a period of inclement weather, poor feed or lack of exercise, fat reserves are used to meet the increase in energy needs. In these situations accelerated fat breakdown leads to the production of ketones, which circulate in the blood and which can increase to toxic levels.

Signs

- Fat does getting little exercise become lazy and lie down for long periods.
- The feet and lower limbs swell up, and the doe may walk gingerly.

- The doe ceases to eat, loses condition rapidly, becomes dehydrated and is unable to stand.
- Moaning or grunting is often noticed.
- Death usually occurs before the doe is due to kid. The doe may attempt to kid on the day she dies.
- The sweet ketone smell may be detected on the doe's breath.

Diagnosis

Pregnancy toxæmia is diagnosed on history and appearance of characteristic signs. A simple test can detect the ketones in urine of affected does.

A post mortem examination will reveal characteristic changes: the liver is enlarged, soft and a yellow-orange colour. The fatty tissue has white necrotic flakes in it. There are usually twins or a very large kid.

Treatment

Early detection of the condition and prompt treatment can lead to a rapid return to normal. Late treatment is generally unsuccessful. In late cases, humane destruction of the doe and a rapid recovery of the kids can often salvage live kids.

- Force the doe to exercise a couple of times a day by leading her around the yard. A minimum of half an hour of exercise is necessary.
- Ensure a correct level of nutrition. This includes a portion of selected shrubs and leaves such as mulberry, apple, roses, and gum. Lucerne hay may also help.
- A twice-daily drench of 120 to 180ml of glycerine or propylene glycol mixed with an equal volume of water or, an intravenous injection of 100 to 200ml of a 50 per cent dextrose or glucose solution will give a rapid initial effect.

Prevention

Pregnancy toxæmia may be avoided by careful management of does in late pregnancy.

- Do not let does get overfat.
- Encourage (or force) the doe to exercise regularly.
- Avoid nutritional stress.

Recognition of early signs and prompt preventative measures will improve the likelihood of success.

More information

- Local Land Services, Tel: 1300 795 299
- To view details of your LLS region: <http://www.lls.nsw.gov.au/>
- Animal Biosecurity and Welfare Tel: 1800 680 244
- Department of Primary Industries biosecurity@dpi.nsw.gov.au
- Meat and Livestock Australia –[pregnancy toxæmia](#)
- Colorado State University Extension –[pregnancy in ewes and does](#)

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ISSN 1832 6668

PUB17/592