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NSW DEPARTMENT OF
PRIMARY INDUSTRIES

Goat health— Pregnancy toxaemia

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(Reviewed JT Seaman

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Pregnancy toxaemia, 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

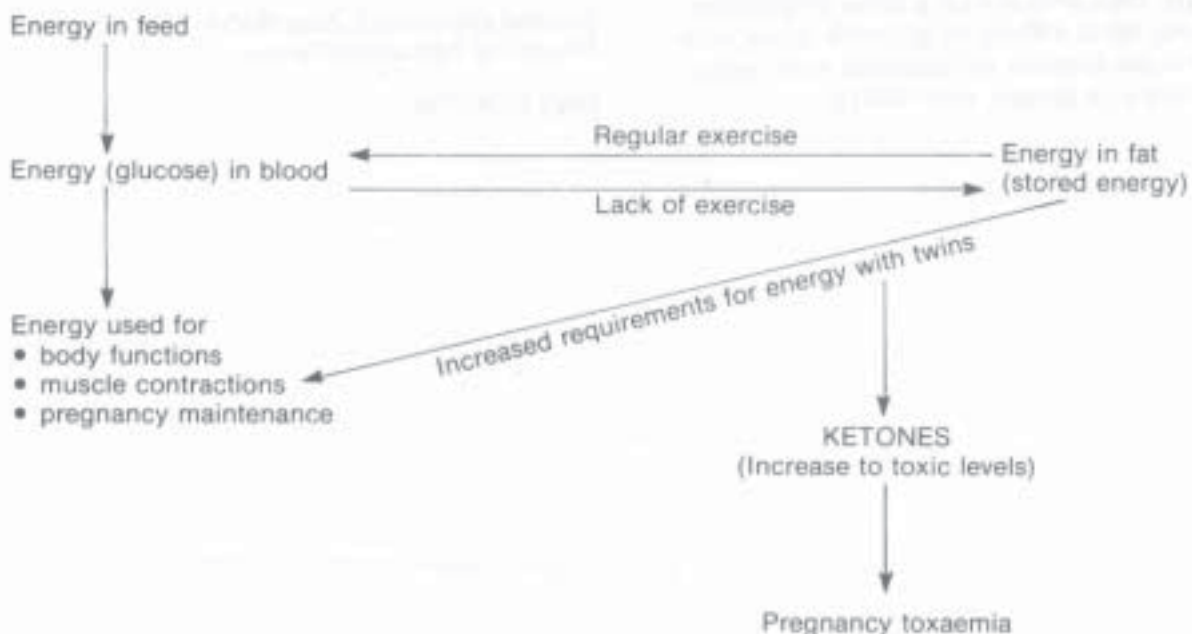
Fat does in the last month of pregnancy are at risk, particularly if they are kept in small yards with limited opportunity for exercise. The aggressive does which stand over the feed bins and get more than their share of grain are likely candidates for pregnancy toxaemia.

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.

A rapid breakdown of fat to meet increased energy needs can lead to the production of toxic levels of ketones and pregnancy toxaemia.



SIGNS

- Fat does getting little exercise become lazy and lie down for long periods. They defecate while lying down.
- 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 2 to 3 days 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 toxemia 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 twins or a very large kid.

TREATMENT

Early detection of the condition and prompt treatment can lead to a rapid return to normal.

- Force the doe to exercise a couple of times a day by leading (or pushing) 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.
- If the doe has progressed to a more severe state, then drench with glucose or glycerine (dose: 60 to 100 mL of glycerine mixed with an equal quantity of lukewarm water given slowly as a drench, twice daily).
- Other treatment includes vitamins A and D (dose: 4 to 5 mL of 12 000 i.u. vitamin A, 2000 i.u. vitamin D per millilitre injected intramuscularly or given orally to affected animals).

INDUCE KIDDING

Injections with steroids to induce early kidding can often save the doe. Occasionally the doe's condition is such that recovery is unlikely. Humane destruction of the doe and a rapid recovery of the kids can often salvage live kids.

The kids born prematurely will need particular attention for survival.

PREVENTION

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

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

Recognition of early signs and prompt preventative measures will reduce the impact of this serious condition.

FURTHER INFORMATION

For further information, contact your local veterinarian.

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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.