Pregnancy toxaemia

What causes pregnancy toxaemia?

In the final two months of a ewe's pregnancy, 70% of the lamb's growth is taking place so the ewe has a very high energy requirement to provide for her own needs and the growth of the lamb/s she is carrying.

Pregnancy toxaemia is a metabolic disorder where the body's energy requirements are not being met by feed intake, resulting in the ewe breaking down her own body reserves (fat and muscle) to meet the shortfall in energy. When fat is used as an energy source, ketones are produced. If the rate at which the ewe breaks down her body reserves is too rapid, ketones from the breakdown process accumulate and pregnancy toxaemia occurs.

What you will see

Wool	Body weight	Behaviour over 5–7 days	Muscles	Death	Autopsy
Less staple strength	Lose weight, small birth-weight lambs	Depression, less appetite, appear blind, unresponsive, coma	Weak, stagger, lie down	Slow	Liver is yellow/ brown, abdomen still has fat

Strategic prevention

- Follow condition score targets for ewes from Lifetime Ewe Management.
- Pregnancy scan for twins and preferentially manage twin-bearing ewes to meet condition score targets.
- Targeted feeding at lambing (assuming the green feed of high quality that is 75% digestible):
  - single-bearing ewes need 1,300 kg dry matter (DM)/ha
  - twin-bearing ewes need 1,800 kg DM/ha.
- Use low-stress stock handling techniques and avoid handling ewes within 4 weeks of lambing.
- Minimise other disease risks.

Tactical response

Immediately get professional advice to rule out hypocalcaemia because the opportunity to successfully treat either disease is small. Treatments include:

- a glucose or dextrose injection or drench, or a balanced rehydration drench for a rapid energy boost.
- a glycerine glycol drench for prolonged energy.
- typically, ewes need to be treated with multiple energy drenches.
- dehydration is a significant feature of pregnancy toxaemia. Ewes need access to water and, if depressed, should be drenched with water and electrolytes.

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Likelihood

Pregnancy toxaemia can become a problem when there is increased demand for energy or limited feed intake or quality. Likely triggers for pregnancy toxaemia:

- sheep in low condition score, over fat, carrying twins, diseases that reduce appetite slowly or quickly (infection, lameness, hypocalcaemia), broken mouth, yarding, droving or trucking.
- drought, young pasture flush, a cold snap or a sudden feed change.

Impact

- Many ewes can be affected at one time.
- Treatment options are minimised when ewes 'go down' or when the disease triggers act slowly.

A management focus on condition score and ensuring feed matches ewes' nutritional requirements delivers productivity benefits beyond just avoiding the loss from pregnancy toxaemia. Proven benefits are higher lamb birth weight and survival, higher lamb growth rates and wool growth rates and better ewe fertility next joining.

TIPS AND INFORMATION

- **The target birth weight for lamb survival is 4.5–5.5 kg.**
- **Lamb birth weight is determined by ewe nutrition throughout pregnancy.**
- **Target condition score for single-bearing ewes is 3 or better.**
- **Target condition score for twin-bearing ewes is 3.3 or better.**
- **A Lifetime Ewe Management (LTEM) course gives you the skills to achieve optimal ewe health and reproductive performance.**

Resources

AWI Drought resources

AWI Lifetime Ewe Management

AWI Lifetimewool

MLA Ketosis/pregnancy toxaemia

MMFS Chapter 8.2 Know your animal demand

MMFS Chapter 10.2 Manage your ewes to improve lamb survival

New South Wales

Pregnancy toxaemia in breeding ewes

Queensland

Lambing sickness and milk fever in ewes

South Australia

Sheep diseases – the farmers' guide

Tasmania

Pregnancy toxaemia

Western Australia

Pregnancy toxaemia and hypocalcaemia of ewes

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