

Grass tetany

What causes grass tetany?

Grass tetany (hypomagnesaemia, also known as grass staggers) occurs when blood magnesium levels fall below a critical level. This occurs when animals are on pasture or cereal crops which have low available levels of magnesium or because of increased body demands for magnesium

during late pregnancy or lactation. Application of nitrogenous and potassium fertilisers reduces the availability of magnesium to the plant (and therefore the animal grazing the plant) which leads to a decline in blood magnesium levels.

Grass tetany is often seen in conjunction with hypocalcaemia.

What you will see

	Behaviour	Muscles	Convulsion	Death
Any sheep	Agitated when approached, over-alert appearance, sit on brisket with head to flank	Stiff, uncoordinated walk, muscle spasms, readily collapses	Yes	Rapid (a few hours)

Strategic prevention

- Avoid sudden feed changes.
- Limit time off feed.
- Use low-stress stock handling techniques.
- Use magnesium supplements (licks, pasture sprays and drenches and quality hay) with ewes and weaners to buffer against a disease trigger (usually combined with salt and calcium).
- Have combined calcium and magnesium injecting solution on hand at lambing time.

Tactical response

- Take action immediately.
- Treat with a combined calcium and magnesium injection under the skin and massage the area to aid rapid absorption into the blood stream.
- Provide good shelter and feed and regularly monitor treated sheep as more than one treatment may be required.
- If only using magnesium salts for drenching, seek professional advice as sheep commonly relapse shortly after dosing.

Likelihood

Disease triggers occur when feed intake or quality is limited or demand for magnesium is increased. Likely triggers for grass tetany:

- Sheep are under high physical stress or have limited access to feed (e.g., yarding, droving, trucking, shearing, crutching, cold snap).
- Sheep have concurrent diseases that reduce feed intake (e.g., infection or lameness).
- During high demand from late pregnancy or lactation.
- Grazing grass-dominant pastures, a young pasture flush, rapidly growing cereal crops, potassium and nitrogen-rich fertilised soils or acid soils (with low sodium or high potassium) in late autumn to spring.

Impact

- Sudden onset of symptoms.
- Many sheep can be affected at once (at any age).
- Ewes within four weeks of lambing or with the heaviest lactation are most often affected.
- Treatment is usually successful if carried out immediately.



TIPS AND INFORMATION

- Manage stress, feed and supplements and have magnesium injections on hand.
- If suspected, diagnose quickly and supplement.

Resource links

New South Wales

[Assessing stock feed additives and mineral supplements](#)

South Australia

[Sheep diseases – the farmers' guide](#)

Tasmania

[Grass tetany – Grass staggers](#)