

## Grazing Winter Pastures

As we follow a good autumn break into winter, evaluating the suitability of crops and pastures to provide adequate nutrition for grazing livestock is essential. We are fortunate that for many producers this year, there is feed ahead of animals as we enter the winter months. However, providing enough feed is only one aspect that needs to be considered. Energy, protein, fibre and mineral balance of the diet all need to be addressed to optimise animal performance. This article outlines some important considerations to get the most out of your pastures over winter.

### **Green Feed**

Short, lush, green feed lacks adequate fibre. Without sufficient fibre, feed passes rapidly through the digestive system reducing the animals' ability to absorb key nutrients and potentially leading to bloat, acidosis, or other metabolic diseases like grass tetany<sup>1</sup>. Short, green feed is often high in nitrogen and potassium, which can reduce the uptake of other essential nutrients like calcium, magnesium, and certain trace elements<sup>2,3</sup>. An insufficient supply of these key nutrients will reduce growth rates in young stock. Studies have shown that providing lambs with calcium, magnesium, and sodium as a loose lick of lime, Causmag and salt whilst grazing vegetative cereals crops can increase liveweight gain by 30 to 50%<sup>4,5</sup>. For autumn calving herds, this presents a heightened and prolonged risk of grass tetany as these conditions coincide with the time of greatest demand for these nutrients.

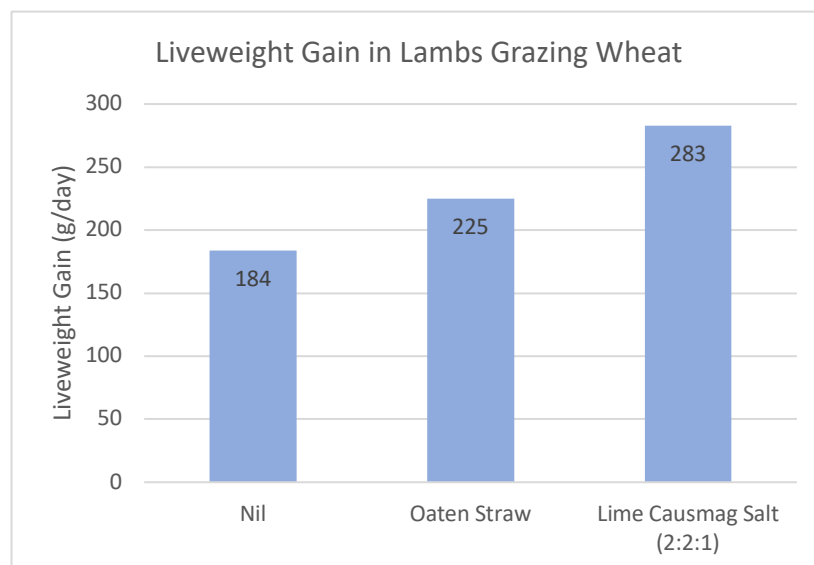


Figure 1: Daily liveweight gain of lambs grazing wheat with straw, mineral or no supplements<sup>5</sup>

## Grass Tetany

Grass tetany is a deficiency of magnesium in the blood and cerebrospinal fluid<sup>3</sup>. Low blood Magnesium is often associated with low blood calcium (a sudden drop in blood calcium at calving is called 'milk fever'), and as such lactating cows are most at risk due to the increased demand for both nutrients in milk production. Sheep and cattle cannot store Mg and therefore require a constant dietary supply<sup>2</sup>. Lush, grass-dominant pasture or vegetative cereal crops often do not contain sufficient calcium, magnesium, or sodium, which is needed to help transport magnesium across the rumen wall. To further exacerbate this, these forages are often high in nitrogen and potassium, reducing the plant and animals' ability to absorb magnesium<sup>1,3</sup>.

The common symptoms of grass tetany include twitching ears, acting hypersensitive, excitable, aggressive, paddling, and sudden death. If symptoms are observed early, treat with a 4-1 Flopak<sup>2</sup>; otherwise, the focus should be on preventing grass tetany. This can be achieved by<sup>2</sup>:

- 1) Identifying high-risk paddocks by soil or tissue testing
  - Target a K:(Ca+Mg) ratio of less than 2.2
  - Grazing can be delayed allowing more pasture growth or using a lower-risk class of stock.
- 2) Be mindful of fertiliser practices and avoid overusing nitrogen and potassium
- 3) Consider lime for acidic soils with low calcium levels
- 4) Increase the amount of legumes in pastures as they are higher in calcium
- 5) Provide supplements:
  - Loose lick of lime, Causmag and salt at a 1:1:1 ratio
  - Causmag at 60g/head/day made into a slurry with water and poured over hay
  - Epsom Salts at 3g/L in trough water

## Summary

When grazing lush crops and pastures:

- Transition to new feed gradually over two weeks
- Provide a good fibre source
- Supplement with calcium, magnesium, and salt
- Ensure animal health practices such as pulpy kidney vaccination and worm control are up to date

## References

- <sup>1</sup> Bird, B. (no date). *Getting the Most Out of Green Feed* [Slide set]. Nutrien Ag Solutions.
- <sup>2</sup> Revell, J. (2015). *Animal Production Update – Grass Tetany* [Tech sheet]. Landmark.
- <sup>3</sup> Elliott, M. (2008). Grass tetany in cattle – predicting its likelihood. *NSW DPI Prime Fact 785*. Retrieved from [https://www.dpi.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0006/226743/Grass-tetany-in-cattle-predicting-its-likelihood.pdf](https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0006/226743/Grass-tetany-in-cattle-predicting-its-likelihood.pdf)
- <sup>4</sup> Dove, H., McMullen K. G. (2009) Diet selection, herbage intake and liveweight gain in young sheep grazing dual-purpose wheats and sheep responses to mineral supplements. *Animal Production Science* **49**, 749-758. Retrieved from <https://doi.org/10.1071/AN09009>
- <sup>5</sup> Dove, H., McMullen, G., Virgona, J., Condon, K. (2005). Grazing Wheat – Liveweight Gains. In Grain & Graze Research Priority: addressing rotations for mixed farming systems. Retrieved from <https://static1.squarespace.com/static/611c40312565b92cccbaa3ab/t/611c915e55f3332cd729e28d/1629262180410/Grazing%2Bwheat%2BR%26D%2Btrials%2B2005.pdf>

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