

Mineral supplementation improved the calcium status of pregnant ewes grazing cereal crops.

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Mixed farming enterprises have an opportunity to graze young cereal crops to fill the winter feed gap. The high nutritive value of cereal crops make them well suited to meet the high nutritional requirements of pregnant ewes in late gestation. However, metabolic disorders have been reported and therefore many producers avoid grazing crops with pregnant ewes.

A project conducted across WA and NSW during 2016 and 2017 aimed to define the risk associated with grazing cereal crops and evaluate mineral supplementation to reduce the risk of metabolic disease.

In 2016, 18 farms in WA and NSW were monitored to determine the mineral status of both the crops and the pregnant ewes.

In 2017, the effectiveness of two mineral supplements was assessed across 6 farms. On each farm, 90 twin bearing ewes were split into 3 equal groups and given either no supplement (control), industry standard supplement (40% causmag, 40% limestone and 20% salt) or a newly formulated supplement (12.5% magnesium chloride, 32.5% gypsum and 55% salt).



In both experiments samples of blood and urine were collected pre- and post-grazing from ewes. Samples of crop and soil were also collected for analysis.

- **Winter cereal crops have a complex mineral composition with low sodium, magnesium and calcium and high potassium**
- **WA crops have a lower risk of mineral deficiency compared to the eastern states. Regardless of location the risk is greater for wheat > barley > oats**
- **Ewes gained condition score (3 to 3.2) while grazing the cereal crops even when FOO was as little as 200 kg DM/ha**
- **The Ca status of ewes in late pregnancy can be improved by providing supplements containing Ca, Mg and Na and is likely to reduce metabolic risk and improve ewe and lamb survival**

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