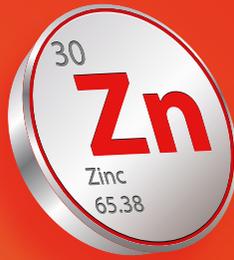


ZINC - THE 'MINERAL ZEUS'



Profitability can be assessed by reproduction, production, and weaning, among other measurements. These are often primarily mentioned because they are the main source of revenue or the basis from which we can budget. In other words, they tell us what the overheads will be punching at. In this article, we touch briefly on the impact of mineral nutrition on the factors mentioned above, specifically zinc, and the corresponding all-round impact of zinc on the revenue indicators of the flock.



→ by Cleopas Tlotlang Lephallo

It is important to provide sufficient nutrients to our ewes. This is more crucial at the late gestational stage as the nutritional intake potentially affects milk production, body condition score, wool growth, immunity, and growth of the lamb, which ultimately takes us back to revenue.

Trace minerals play a vital role in animal nutrition and in counteracting the negative effects of stress that compromise the immune function and, hence, efficiency and production. Zinc is one mineral that could be described as the "Zeus" of minerals, as it impacts on numerous metabolic functions. The following will give us an overview of the role it plays in ewe and lamb nutrition.

Immunity

Minerals are commonly overlooked as a nutritional component; yet, they play an integral role in the forming of a strong, healthy first line of defence (i.e. epithelial/skin and hooves) and in the functioning of the immune system. One way of putting the immune system in a state of readiness involves zinc's antioxidant activity to protect cellular tissue (the first line of defence) and also through eliciting a fast and effective immune response that will save nutrients from being diverted from production. The improved health and well-being of a sheep through feeding zinc has been shown to have a profound effect on the quality of the colostrum, which translates into a better weaning percentage due to the

additional protection provided by increased immunoglobins.

Production and reproduction

When health is optimised, then performance is guaranteed! More nutrients are made available for the efficient productivity of the ewe and lamb. Zinc, specifically, plays a role in:

- increased lamb weight gain – protein synthesis for bone growth and repair as well as to support muscle growth and development;
- increased dry matter intake by stimulating appetite/rumen function;
- wool growth through epithelial tissue integrity to support wool growth and development;
- improved foot conditions through the synthesis and support of quality hoof growth and repair (in Vol 9 Nr 1 of *Wool Farmer/Wolboer*, Anri Strauss dwells more on the role of zinc in hoof health); and
- reproduction – tissue integrity in the reproductive tract and improved conception rates.

Minerals are micronutrients, but it is said that dynamite comes in small packages!

Remember lack of a nutrient required in minute amounts such as zinc could reduce your revenue through compromised immunity, reproduction, growth and development, and lameness. It is also important to consider the source of the mineral, because not all sources will give you a performance response.

ZINC IT UP, ZEUS IT UP! 