



Interpretation of milk urea concentration in sheep milk

Need/issue: Urea levels in milk

Aim: Better knowledge on how to interpret the concentration of urea in sheep milk

How to implement:

- To establish target values of urea in milk, consider the physiological stage and the production level.
- Early-mid lactation stage :
 - Levels of urea in milk in similar groups are shown. In varied groups, the level of urea in bulk milk can be greater by 5 mg/100 ml to prevent under-feeding of more productive sheep.
- End of lactation: The concentration of urea in milk should be 30–40 mg / 100 ml.



Description:

- Urea is present in the blood, milk and urine of ruminants, and is formed in the liver mainly from ammonia resulting from the fermentation of feed proteins in the rumen. The liver cells transform a toxic compound (ammonia) into one that is not toxic (urea).
- The concentration of urea in milk is an indicator of both the percentage of protein in the diet and the ratio of protein to energy in the diet. It is also an environmental indicator.



Expected benefits:

- Better health of the flock
- Better farm hygiene (absence of diarrhea due to protein excess)
- Less waste of protein-based concentrates
- Better productive and reproductive results.

Prerequisites and/or limits:

- Prerequisite: milk urea analysis of tank milk
- Constraint: Difficult diet balancing to target milk urea levels with non-rationed grazing.

Country: Italy

Dairy or/and meat sheep: Dairy sheep

Category of Animal (ewe, replacement, lamb):
Ewes & replacement

Topic:

- Health
- Nutrition
- Management

Level of solution:

- Knowledge
- Practical

Source of information:

Booklet "Tecniche di alimentazione per migliorare la riproduzione della pecora Sarda"
Giovanetti et al., 2019. Milk Urea Concentration in Dairy Sheep: Accounting for Dietary Energy Concentration

