



**serval**

# ADVICE SHEET

Immunoglobulins  
Nursing  
Maternal Lambs  
Colostrum  
Immunity  
Quality  
Milk  
Protection  
Refractometer  
Antibodies

**LAMBS**

**Colostrum**



## COLOSTRUM

# CARACTERISTICS

The real colostrum is milk from the **first milking**, it is rich in antibodies & protects the lamb against neonatal diseases, until its own system is fully functional. Colostrum is also important as a primary source of **nutriments**. It is essential for the **immunisation of lambs** against post-partum infections.

## ROLES





## NEEDS

**Distribution at the earliest (immediately after birth), sufficient quantity of quality colostrum is essential** for the life insurance of young animals.

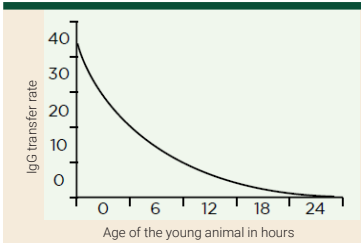


lambs

	Within the first 6 hours	First drench: 10-15% of bodyweight
	Within the first 24 hours	Supply: 10-15% of bodyweight in three drenches

First early drench : not later than 6 hours after birth, sufficient quantity of colostrum: 200mL/kg of bodyweight. At least half of which in the first 6 hours,

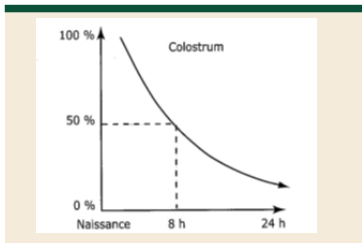
**Careful monitoring:**  
**Lift lambs by the belly to evaluate the filling level of the abomasum in the first 6 hours.**



Graph adapted from Blomquist, 2009.

**The ability of the small intestine of the lamb to absorb immunoglobulins decreases rapidly during the first hours after birth.**

If a lamb has not received any colostrum within 12 hours of birth, it is unlikely that he will be able to develop enough antibodies later to develop immunity.



**The colostrum contained in the “first milk” is the richest in antibodies and nutrients. These amounts decrease in the colostrum produced later by the mother.**

## QUALITY

The quality of colostrum is measured in g of **type G immunoglobulins (IgG)**.



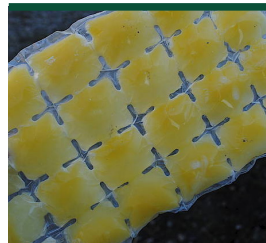
IgG quantity for ovines (g/L)	QUALITY
0-25	<b>VERY BAD</b>
25-50	<b>BAD</b>
50-100	<b>GOOD</b>
GREATER THAN 100	<b>EXCELLENT</b>

**Excellent quality colostrum can be frozen.**

Thawing is done in a water bath or at room temperature.

**NEVER IN THE MICROWAVE**

If the colostrum is of poor quality, do not hesitate to supplement or replace with a colostrum-replacement.

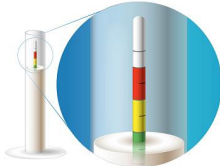


## COLOSTRUM

# MEASURE

Two tools can be used to measure the quality of colostrum: the colostrum scale and the refractometer.

The colostrum scale is calibrated for bovine colostrum. Density is different for goat or sheep milk.



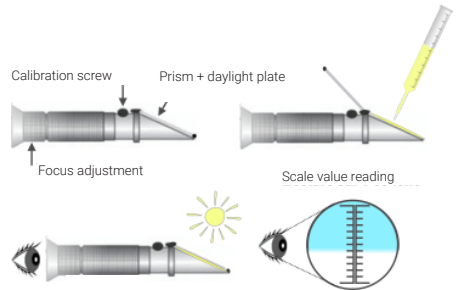
a colostrum scale



a refractometer

## REFRACTOMETER

- Put a few drops on the plate (prism).
- Close and look through the eyepiece.
- Read the number between light and dark on the left.
- Clean and dry thoroughly after each use.



lambs

	Brix	Actions
<b>VERY BAD</b>	< 15 %	Take colostrum from another ewe
<b>BAD</b>	15-24 %	500 ml + 1/2 bag of colostrum-replacement
<b>GOOD</b>	25-29%	500 ml
<b>EXCELLENT</b>	> 30%	350 ml

### CONSEQUENCES of a bad distribution of colostrum (quantity, quality, delay)

- risk of mortality x 5
- risk of disease x 8
- mediocre weaning weight: inferior ADG

### Areas for improvement to study in the event of bad colostrum:

- Ratio of dry up cows (in quality and quantity, minerals included)
- Control of parasitism (especially fluke)
- First milking as early as possible (possibly within a few hours after calving)