



REPRODUCTIVE HERD HEALTH

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COLOLOSTRUM MANAGEMENT IN NEWBORNS

colostrum management

The continuity of the herd in cattle breeding depends on the success of the healthy calf breeding program



Colostrum management

15-20% of calf deaths are due to misfeeding methods.



(Küplülü ve Vural, 2015 TiGEM)

Colostrum management

With a good care-feeding method, the mortality rate can be reduced to 3-5%.



Colostrum management

colostrum is a unique food source for
minimizing health problems



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Colostrum management

Colostrum starts to be produced during colostrogenesis. especially Ig is different from normal milk. After 24 hours, it starts to return to normal milk. It becomes normal at 72 hours.



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Colostrum management

Immediately after birth, the offspring should absorb their mother to provide passive immunity



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Colostrum management

İçerik	Kolostrum	Transit süt		Normal süt
	(1. gün)	(2. gün)	(3. gün)	
Kuru Madde (%)	23.9	17.9	14.1	12.6
Yağ (%)	6.7	5.4	3.9	3.6
Yağsız KM (%)	16.7	12.2	9.8	9.6
Top. Protein (%)	14.0	8.4	5.1	3.2
Laktoz (%)	3.3	4.0	4.7	5.0
Mineral (%)	1.03	0.90	0.81	0.74
Ig (%)	6.0	4.2	2.4	0.09

Colostrum management

According to Ig concentration, colostrum is divided into three classes:

- a) Weak <22 mg / ml
- b) Medium 22-50 mg / ml
- c) Very good > 50 mg / ml

Colostrum management

Level of immunoglobulin fractions of colostrum and normal milk

Ig fraksiyonu	Kolostrum	Normal süt
IgG1 (mg/ml)	52.0-87.0	0.32-0.40
IgG2 (mg/ml)	1.6-2.1	0.03-0.08
IgM/mg/ml)	3.7-6.1	0.03-0.06
IgA (mg/ml)	3.2-6.2	0.04-0.06

Colostrum management

colostrum consumption after birth

Doğum sonrası tüketim zamanı (saat)	Tüketildikten 24 saat sonraki plazmadaki Ig yoğunluğu (mg/ml)	Absorbsiyon (%)
6	52.7	66
12	37.5	47
24	9.2	12
36	5.4	7
48	4.8	6

Colostrum management

Factors affecting colostrum quality

- Race
- Age
- Colostrum administration time
- Feeding before birth
- Corticosteroid use
- Early birth