

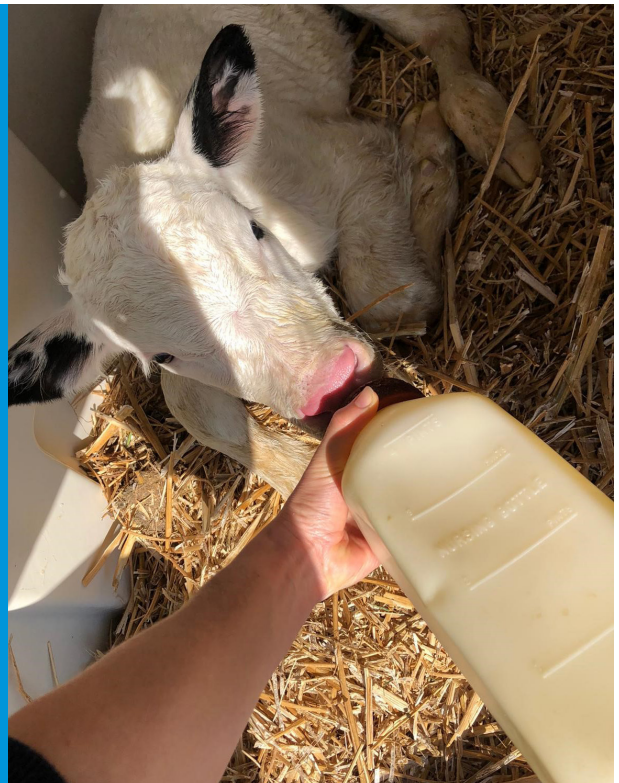


COLOSTRUM PROTOCOL

A calf is born with no active immune system. That makes it very important that the calf be provided as quickly as possible with the first colostrum from the mother, which is rich in immunoglobulins (IgGs) and a whole raft of other important nutrients. IgGs are absorbed via the intestinal wall, and help the calf build up resistance to a whole array of pathogens that the calf will encounter.

COLOSTRUM STEP-BY-STEP PLAN

1. Thoroughly milk the cow as quickly as possible following the birth of the calf.
2. Ensure that the colostrum is hygienically captured in order to keep the germ counts as low as possible.
3. Check the quality of the colostrum with a refractometer (BRIX meter).
4. Using the table, calculate the minimum number of litres the calf must ingest.
5. Feed the colostrum to the calf as quickly as possible.
6. Store any remaining colostrum in the refrigerator for the next feed.



BRIX value

The table below shows the BRIX value that matches the IgG content of the colostrum. An average calf (with a weight at birth of 40 kg) should ingest at least 200 g of IgGs during the first feed. On this basis, the minimum number of litres the calf requires of colostrum of a specified quality is calculated. Feeding more litres is never wrong.

BRIX VALUE (%)	COLOSTRUM IgG (g/L)	MINIMUM NUMBER OF LITERS TO REACH 200g IgGs
12	6	Insufficient quality - use colostrum of good quality
13	12	
14	17	
15	23	
16	29	
17	34	
18	40	
19	46	4,4
20	51	3,9
21	57	3,5
22	63	3,2
23	68	2,9
24	74	2,7
25	80	2,5
26	85	2,4
27	91	2,2
28	97	2,1
29	102	2,0
30	108	1,9

Example

You measure a BRIX value of 23%. This means the colostrum contains 68 grams of IgG per liter. As you need at least 200 grams divide this number by 68 -> $200/68 = 2,9$. You should provide at least 2,9 L of colostrum to the calf for a good resistance.

- Insufficient
- Moderate
- Reasonable
- Good
- Excellent

