Strong Start: The 5Q's of Colostrum

Quickness **Q**uality **Q**uantity s**Q**ueaky clean **Q**uantify

Newborn calves need plenty of good quality gold colostrum ASAP after birth to ensure they get the protection they need to be healthy and productive, your job is to make it happen

*Tick all **5 Q's** and give your calves the best start!*

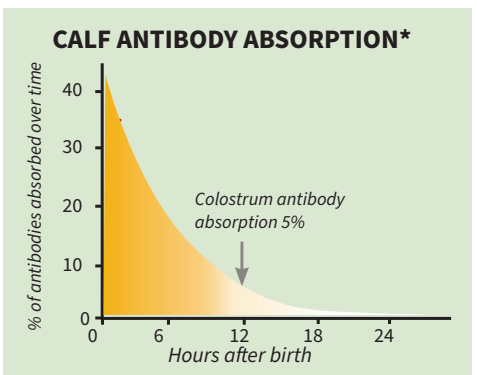
QUICKNESS

Every hour counts. Feed gold colostrum ASAP, but at least within 6-12 hours of birth

1. The longer you wait, the less antibodies calves can absorb. Feed newborn calves ASAP, but at least within 6-12 hours of birth

2. Pick up calves ≥ 2 times/day - more often in cold (<10°C) or wet conditions. A fine weather alternative - feed calves in paddock

3. Feed newborn calves immediately at pickup or at the shed. Don't make them wait



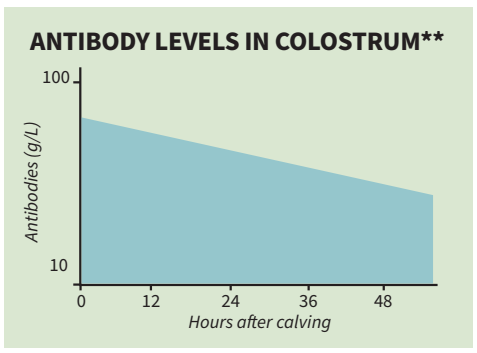
INTERESTING FACT: Antibody absorption declines over time - by 12 hours, calves only absorb 5% of the available antibodies

QUALITY

Don't guess the quality, test it. Feed newborn calves gold colostrum with a brix reading >22

1. Vaccinate cows with BioBos RCC 3-12 weeks prior to calving to boost the antibody levels in gold colostrum to help protect against calf scours

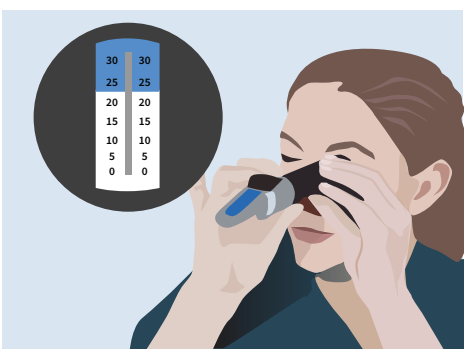
2. Gold (first milking) colostrum is packed with antibodies, but those levels drop fast once the cow calves. Milk freshly calved cows ASAP before colostrum quality starts to decline



3. Use a brix refractometer to test individual cow's gold colostrum: >22 Brix = good quality

4. Feed only gold colostrum >22 Brix for the first 2 feeds. Colostrum with lower Brix readings can be fed to older calves

Note: cows that have fed their calf in the paddock and high producing cows are likely to have lower readings. Don't rule out gold colostrum from heifers, test it



QUANTITY

Feed 15% of birthweight as gold colostrum, split into 2 feeds

1. Feed enough gold colostrum so the calf gets plenty of antibodies for a strong start

2. Split into 2 x feeds of 2-3L depending on calf size:

- *First - ASAP*
- *Second - within 12 hours of birth*
- *Feed colostrum warm (20-40°C)*

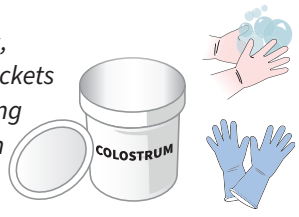
3. To tube or not to tube? This is up to the individual farmer. If you are tubing ensure you are trained and confident

TIP: weigh a sample of calves from mixed age cows to get an average birth weight

sQUEAKY CLEAN

Clean equipment, clean colostrum = healthy calves

1. Clean hands, gloves, and buckets before collecting gold colostrum



2. Store colostrum in a clean lidded bucket. Refrigerate or preserve colostrum if not fed within 3 hours.

Dirty colostrum = harmful bugs + less antibodies = sick and weak calves

Cleaning equipment

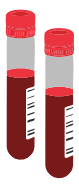
*1 Rinse in **cold water** to remove milk and muck*
*2 Wash in **hot water** (20L), household bleach solution (1/4 cup), and dishwashing liquid*
*3 **Scrub** every surface well - inside, outside, and all the hard-to-reach spots*
*4 Rinse thoroughly and let equipment **drain and dry** on racks*

QUANTIFY

The only way to know if calves are getting enough antibodies (passive transfer) is to test them

Ask your vet to take blood from 12 calves, aged 1-7 days, to check antibody levels

*Do this **twice each calving season** (early and mid)*



Passive transfer result targets
Total protein:

Excellent >62 g/L	Good 58-62	Fair 53-57	Poor < 53
>40%	>30%	<20%	<10%

***Aim:** The more calves in the excellent and good categories, the healthier your herd!*

If results fall outside the targets, talk to your vet, don't wait for a problem to occur

INTERESTING FACT: Calves with poor passive transfer are more likely to get sick or die in the first year of life†

*Quigley, J. D. (2002). Passive immunity in newborn calves. Western Canadian Dairy Seminar, 14, 273–292. University of Alberta. **Morin, D. E., et al (2010). Effect of colostral volume, interval between calving and first milking, and photoperiod on colostral IgG concentrations in dairy cows. Journal of the American Veterinary Medical Association, 237(4), 420–428. †Cuttance E.L., et al. (2018). The relationship between failure of passive transfer and mortality, farmer-recorded animal health events and body weights of calves from birth until 12 months of age on pasture-based, seasonal calving dairy farms in New Zealand. The Veterinary Journal, 236, 4-11