



How to use a Brix refractometer to measure colostrum quality

Set up a simple Brix testing system that is easy for your team to use. Each test is quick to complete and helps make sure your calves receive the best quality colostrum available.

Calibration

Calibrate your refractometer at the start of every season to ensure accurate readings.

Place a drop of distilled water on the glass plate. The blue line should sit on the zero. To calibrate, remove the cap from the calibration dial and use the screwdriver to turn the dial until the blue line is intersecting with the zero.



1 Stir colostrum. Draw up a small amount with the pipette.

2 Place 1-2 drops of colostrum onto the clean, dry glass plate.



3 Put the plastic cover down.



4 Turn to face a light source and look through the viewing end.



5 Adjust the focus by turning the eyepiece until the numbers are clear.

6 The Brix reading is the point where the blue and white areas intersect. Thick colostrum can create a blurry line - in this situation, estimate where the middle of the line is and take the reading at that point.



Interpreting the reading

22% or higher = good quality

This colostrum is suitable to feed to newborn calves, and given quickly enough in the appropriate volume, should provide the calf with good immunity. Save this colostrum for newborns (appropriate storage will help maintain the quality e.g. preserve with potassium sorbate).

20-21% = moderate quality

This colostrum is usable but not ideal for the first two feeds. Risk of failure of passive transfer (FPT) is high if fed to newborns.

Below 20% = poor quality

This colostrum is extremely low in antibodies and will result in FPT if fed to newborns. Only feed this colostrum to older calves.

Cleaning your refractometer

After each reading, clean the glass plate and plastic cover slip with a teat wipe. Do not immerse in water.

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