

HOW TO REAR CALVES

Pre-calving management

- Calf management begins before birth, and at the last stage of pregnancy.
- Dry off the cow 60 days before the expected calving date, so she will be able to recoup and get ready for the next lactation.
- Steam up the cow by feeding some concentrates about 4 weeks before the expected calving date. Proper, highly palatable, feeds are the most important in this stage to help the cow start lactating well and give a strong calf.

Separation and hygiene measures

- 1-2 weeks before the expected date of calving, the pregnant cow may be shifted to an individual calving pen or maternity house (Figure 1).
- The maternity house/calving pen should be thoroughly cleaned and disinfected before moving the cow/in-calf heifer in.
- Keep the cow/in-calf heifer separate from the herd in a clean place and on clean bedding (the maternity pen).
- Allow the cow to behave naturally, as far as possible.



Figure 1: Keep the maternity house/calving pen clean and disinfected.

Provide the correct balance of nutrients (energy, protein, calcium, magnesium and phosphorous) during the last 3 - 4 weeks of pregnancy. This may affect ease of calving and the quality and quantity of colostrum. Ultimately, this will influence the health and survival of the calf.

Management at birth

After the calf was born:

- Clear mucus from its mouth and nostrils.
- Ensure that the calf is breathing.
- Disinfect the umbilical cord with iodine.
- Assess the calf's vigour by monitoring its responsiveness to external stimuli, muscle tone and sucking reflex, as well as the time it takes the calf to lift its head and stand for the first time.

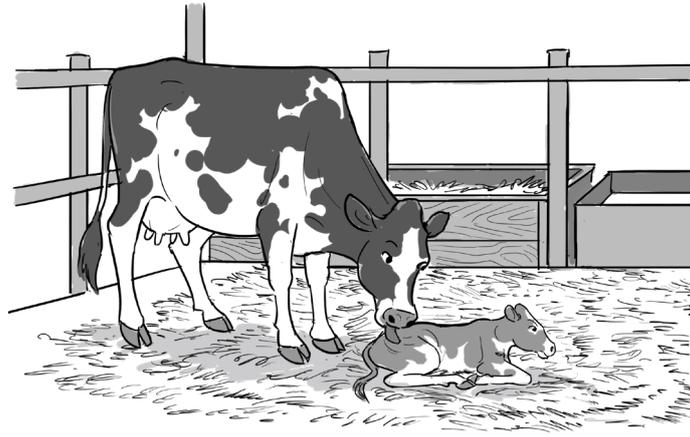


Figure 2: Monitor the calf closely, post-birth.

Feeding management of calves

DAY 1: FEEDING COLOSTRUM

- Weigh the calf and record the details on a new individual animal card (Figure 3).
- Ensure that colostrum is milked immediately and in a clean environment that allows the quality to be retained.
- Feed 3-4L of colostrum within 1hr of birth, using a nipple bottle, or let the calf suckle to its fill.
- Repeat the feeding of colostrum multiple times for the first 24 hours. In this period, the calf is able to absorb antibodies found in the colostrum.
- Continue to feed colostrum to calves beyond the initial 24 hours (after the calf's gut 'closes'). This has additional advantages, such as that antibodies can still bind to pathogens in the gut and help to protect the calf from infections.

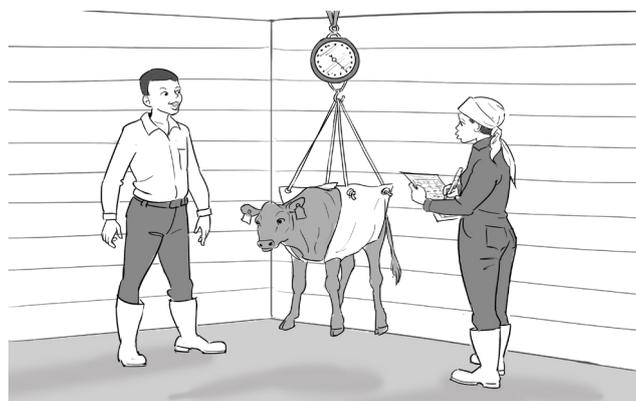


Figure 3: Weigh and record calf details.

DAY 2 – 27: FEEDING MILK AND CALF MILK REPLACERS

- Calves should be reared on fresh, clean milk.
- Feed 10-12% of body weight as milk or milk replacer (approximately 4L per day).
- Milk feeding can be done twice a day, this allows calves to be closely observed. Reluctance to drink or other signs of disease can be detected and action taken.
- Liquid milk should be fed to the calf at around body temperature (38°C).
- Introduce small quantities of high quality calf starter on day 4. Make the starter available at all times.
- Introduce small amounts of high quality calf starter in the milk to increase consumption.
- Water should be made available to the calf at all times. Provide fresh water every day. However, at this early phase the amount of water consumed by the calf should be monitored closely, to avoid salt poisoning.

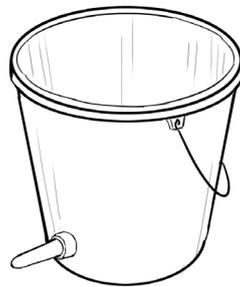


Figure 4: Nipple bucket for calves.

DAY 28 – 60: INTRODUCING FORAGE AND REDUCING THE AMOUNT OF MILK

- A healthy calf should consume 0.5 – 1 kg of calf starter per day.
- Once the calf is consuming 0.5 -1 kg of calf starter per day, the amount of milk can be reduced gradually.
- Introduce fresh high quality fodder to calves.
- Fresh water should be available at all times.

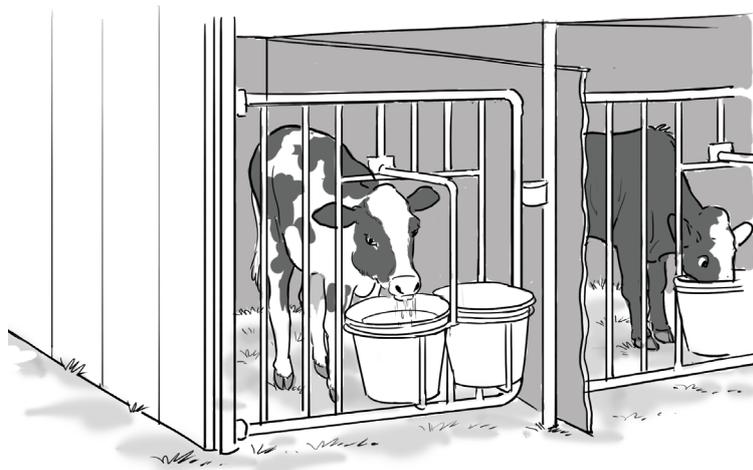


Figure 5: Make fresh water available to the calves at all times.

Weaning management of calves

- Calves should be weaned at around 8 -12 weeks.
- Weaning should be done gradually. The twice-a-day milk feeding should be reduced to once a day, then to once every other day, to allow the calf's digestive system to adjust to the new diet.

Time of weaning will depend on:

- Calf doubling its birth weight (80kg).
- Calf being able to consume 1.5% of the bodyweight (approx. 1kg of dry feed)
- Calf being free of health problems.
- Calf being approx. 8-12 weeks old.

Calf house design

- The calf house floor should be raised. If at ground level, the floor should be made of material that can be easily cleaned (e.g. concrete) and should be bedded using straw.
- The sides can be made of concrete or wood.
- Slats made of timber spaced at 2.5cm will allow urine and faeces to fall on the ground. The house should be at least 30cm from the ground.
- A calf stall should be 1.5m long and 1.2m wide.
- The house should be kept clean, dry and free from strong winds.
- Adequate ventilation is important when housing the calve(s) indoors.
- Keep calves in individual pens or stalls during the milk-feeding period to minimize spread of disease.
- Keep the house calves away from other cows and older animals, as they are highly vulnerable to diseases at this early stage in life.



Figure 6: To limit the spread of disease, isolate calves during the milk-feeding period.

Heifer management

- Heifer live weight gain is the best indication of meeting nutritional requirements as well as adequate minerals and water provision.
- Farmers should focus on meeting the key weight targets for heifers of specific age.
- After weaning, heifers should be grouped based on weight.
- Heifers should be closely observed and fed correctly to avoid the growth slump that can occur after milk is withdrawn.
- Ensure food feed quality and provide sufficient quantity of fodder to the heifers.
- Heifers should achieve a growth rate of approx. 700 g/day (this ensures that they will come on heat at the right time, as puberty is related to size rather than the age).
- Monitor the growth rate compared to the age. Growth charts that provide expected weight at different ages are available.
- Once the heifer is ready for insemination, it is important to monitor heat signals so that a successful insemination can be done.
- During the last weeks before calving it is important to introduce concentrate so the heifer can get used to the new rations.

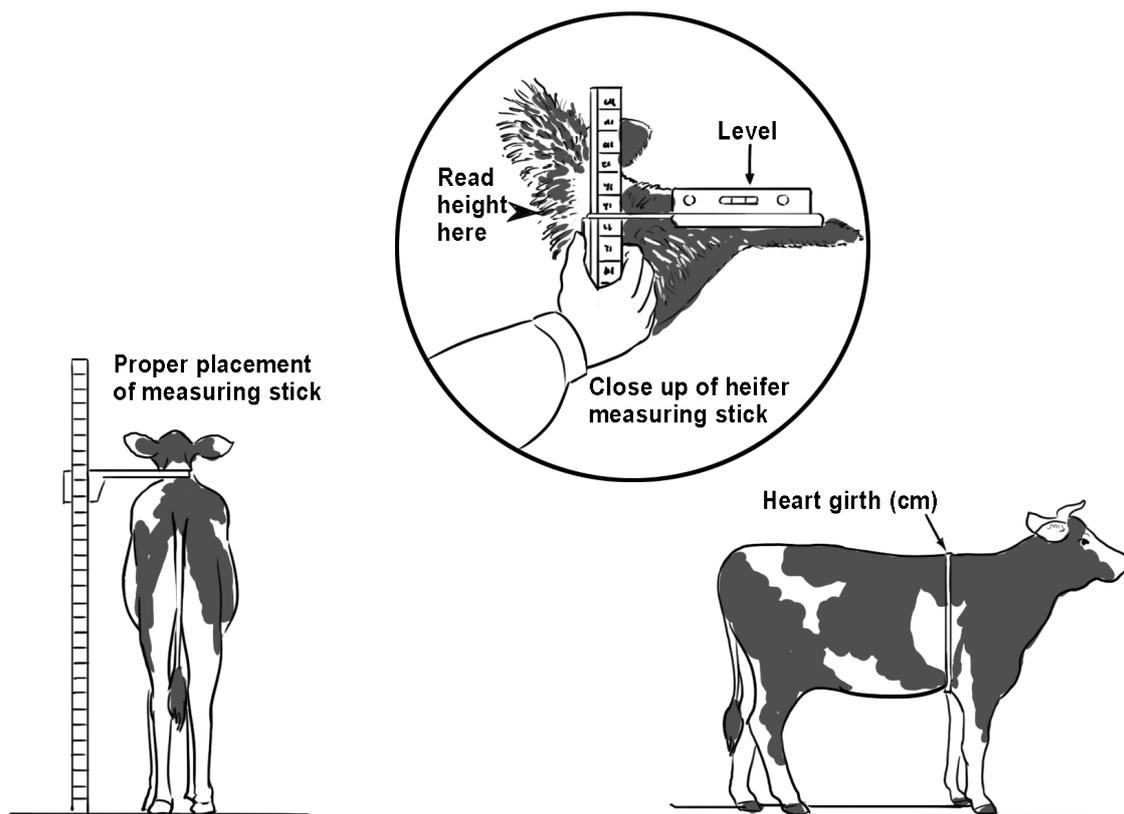
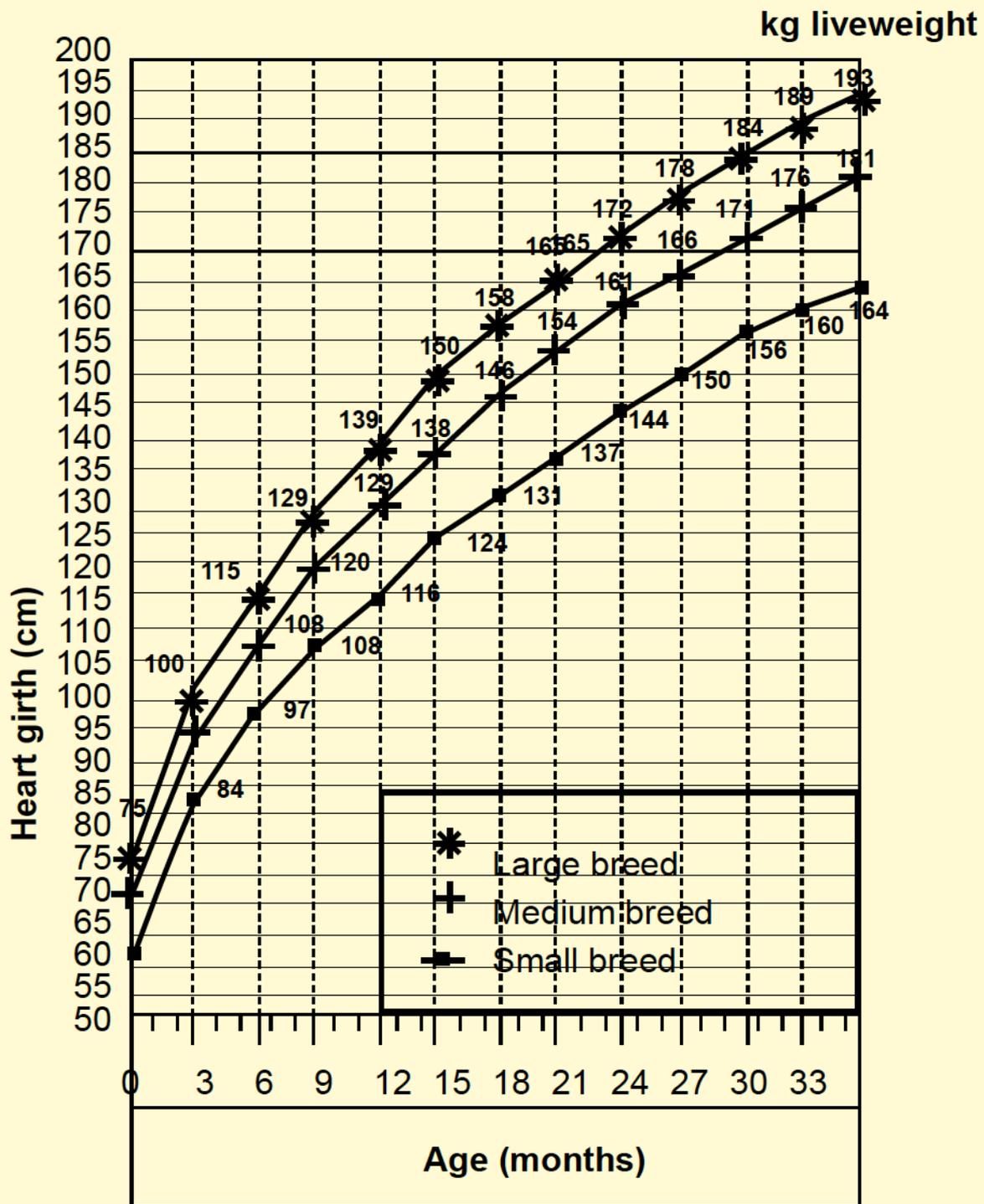


Figure 7: Measuring the height of the heifer and estimating the weight based on heart girth. Or download the e-weight app on your smartphone that helps you to calculate live weight from heart girth measurements.



Scan here



KARI/MoA/... Farmer..... Location..... Group.....
 Calf..... Breed: L/M/S..... Sex: F/M..... Birth date..... Dates: Sold/Died..... Breeding.....
 Heart girth at birth..... cm; at sale..... cm; at death..... cm; at breeding..... cm..... cm..... cm.....

Table 1: Heifer growth chart.