

# Calving Protocol



- Number of calving pens should be 3% of the total number of dairy cattle
- Pen size should be 8 to 20 m<sup>2</sup>
- Location of the pen should permit supervision
- A well-bedded, clean area with good footing with some kind of restraint other than a working chute is essential. A head catch with a hinged panel gate that is movable and allows sufficient space for the cow to lie down and for personnel to work behind the cow works well
- A source of running water and storage for instruments and supplies are important
- The pen must be accessible with a tractor or loader, this allows for easy moving of a sick cow and for cleaning out the calving pen

- Good ventilation and a fresh atmosphere are essential
- The calving pen must be dry, clean and disinfected, with a fresh layer of straw
- Put on clean clothes and clean boots before entering the pen
- Ensure fresh and clean drinking water and a good feed ration are offered to the cow
- Avoid stress. The cow will calve more easily if she retains contact with the rest of the group

- Moving cows from one area to a different one always causes stress
- Allow the animals time to adjust to the new environment to avoid stress around calving
- Try to move groups of animals into the calving area instead of individual animals

- Signs that a cow will calve within the next few days are:
  - Udder development
  - Enlargement and softening of vulva
  - Relaxation of pelvic ligaments (tail head appears to raise)
- Still, it can be helpful to have a list of due dates available
- Observe for signs of calving first thing in the morning, just before dark and every 2 to 4 hours in between

- Calving always entails the risk of infection, put hygiene first
- Start by thoroughly cleaning and disinfecting the rear of the cow
- This prevents infection of the calf, but also infection of the uterus
- Be sure to also disinfect any equipment, for the same reason

- About 50% of heifers and 70% of cows spontaneously deliver their calves without assistance
- Labour starts when the first water bag ruptures, followed by a temporary weakening or cessation of straining which resumes as the second water bag enters the birth channel
- The calf can live for about 8 to 10 hours in the uterus after rupture of the first water bag
- Allow cows 1 to 4 hours and heifers 2 to 6 hours once the first water bag is ruptured
- Some progress should occur during this time



**1** Ensure calving area is suitable for cows to calve

**2** Ensure hygiene in the pen and avoid stress

**3** Move cows to the calving area 3 to 4 weeks before due date

**4** Know which cows are expected to calve soon

**5** Clean the rear of the cow

**6** Allow the cow sufficient time to make progress



**12** Record calving difficulties

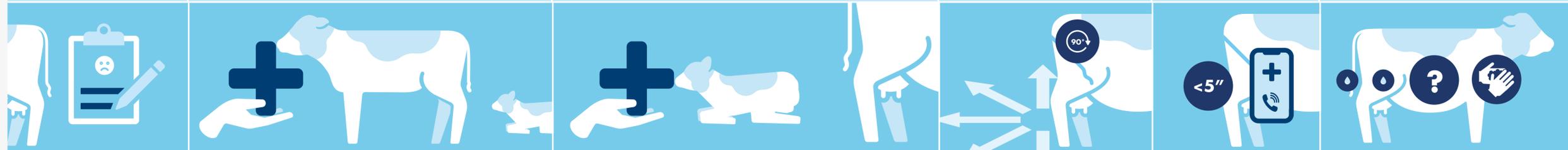
**11** Provide care required for the cow immediately after delivery

**10** Provide care required for the calf immediately after birth

**9** Assist the cow with the delivery if needed

**8** Decide if sufficient room exists to pull calf

**7** Interfere if no progress occurs



- If a cow has calving difficulties, it doesn't always mean it will have the same difficulties the year after, but it is important to pay extra attention to cows with a history of difficult calving in the past

- Leave the cow to rest for 5 to 10 minutes and then have her stand up. This brings the uterus back into position and frees any blocked nerves and blood vessels
- If the cow continues to strain, check if there is a second calf, otherwise the cow should be able to stand immediately
- Check the cow for birth canal tears
- Check the udder for availability of colostrum and mastitis
- Prepare a luke-warm solution of 20 litres of water and 1 kg of Farm-O-San Reviva and offer this to the cow immediately after calving
- Rinse the cow's rear end and vulva with cold water to reduce any swelling
- Fetal membranes (afterbirth) should be expelled normally in 1 to 8 hours; otherwise they are considered to be retained

- Once the calf is born, check if it is breathing
- If this is not the case, clean and tickle nostrils and dump cold water on the head
- If it is breathing properly, remove the calf from the cow immediately, this minimises the risk of infection via manure
- Rub the calf vigorously with straw to dry it, this promotes the breathing process and blood circulation, which helps the calf stand more quickly
- Rubbing the calf also stimulates initial evacuation of faeces and urine, and helps prevent them from cooling
- Most calves are on their feet within 60 to 90 minutes after birth
- If you prefer to have the cow lick the calf dry, position the calf in front of the cow, preferably separated by a feed rack. Whatever the situation, avoid the risk of the calf ingesting manure as much as possible
- Treat calf's navel with a disinfectant such as iodine or chlorhexidine, but do not pour any iodine tincture into the navel!
- ID the calf with ear tags
- Provide sufficient colostrum to the calf

- Ensure there is sufficient space behind the cow to work. Halter and tie the cow low to a post. Only pull when the cow is straining
- If a calf is presented head first, first pull in backward direction until the chest is born. After that, try to turn the calf 90° and pull a little bit in the direction of the tail
- If a calf is presented backwards, first try to turn the calf 90° and pull a little bit in the direction of the tail until the hips are born. After that, pull in backward direction

- If a calf is presented head first: calve can be pulled if one person is able to pull both pasterns 5 inches outside the vulva. In case this is not possible, call your veterinarian
- If a calf is presented backwards: calve can be pulled if one person can get both hocks to show at the vulva. In case this is not possible, call your veterinarian

- When no progress occurs after the appearance of the first and second water bag, examine birth canal after washing the cow and your arms
- The golden rules of obstetrics are cleanliness and lubrication. Properly assisting those expectant mothers with loving care will pay off in subsequent improved pregnancy outcomes
- Determine if calf is presenting head first or backwards and whether both legs are present and extended. If this is not the case, call your veterinarian