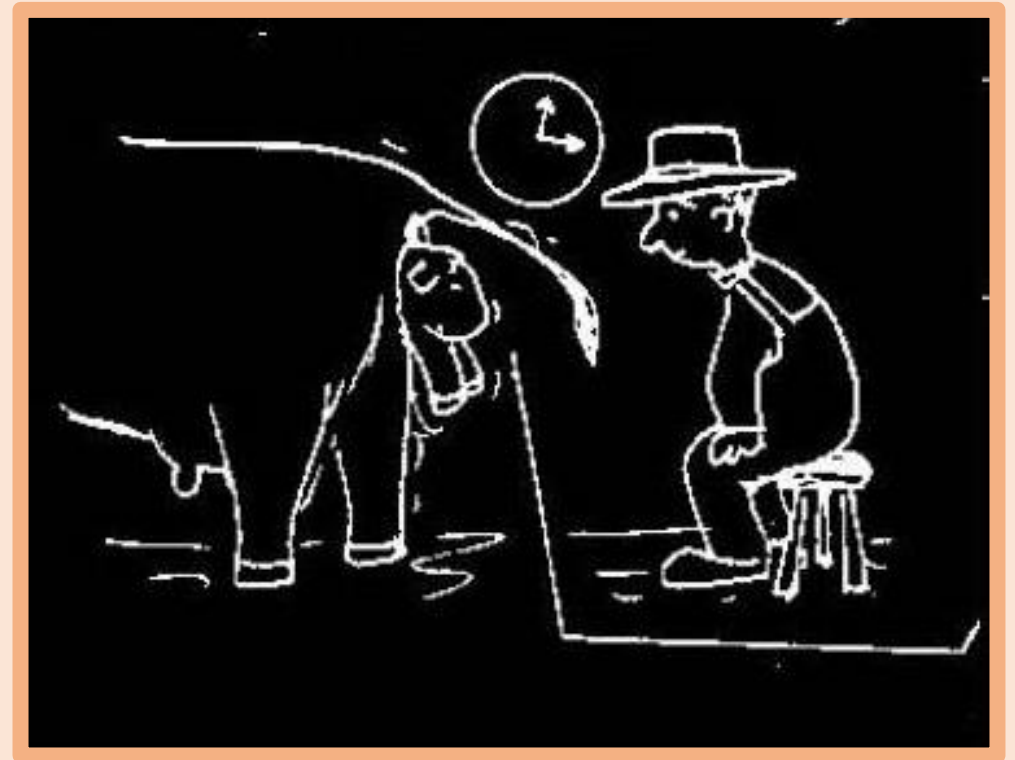


CALVING PROCESS

Level 3

Topic	Training & information Content
6.1.1	The calving process
6.1.2	Use of equipment around calving
6.1.3	Care of cow and calf after calving
6.1.4	Colostrum management
6.2	Milk (replacer) feeding schedule
6.3	From birth to weaning
6.4	Disease and health management
6.5	Handling of calves after difficult birth
6.6	Young stock rearing info and Key Performance Indicators



1. You will learn about (learning objectives):

- ❑ The three stages of Calving process from start to end:
 - Stage 1
 - Stage 2
 - Stage 3



2. Introduction

- The Calving process can be divided into three stages;

Stage 1: Preparation for calving (3-6 hours in cows, up to 12 hours in heifers)

Stage 2: Birth of the calf (30 minutes in older cows, up to 4 hours in heifers)

Stage 3: Expulsion of the fetal membranes (2 hours up to 12 hours)

- It is only when stage 3 is complete that the calving process is finished.



3. Calving Process: Stage 1 (3 – 12 hours)

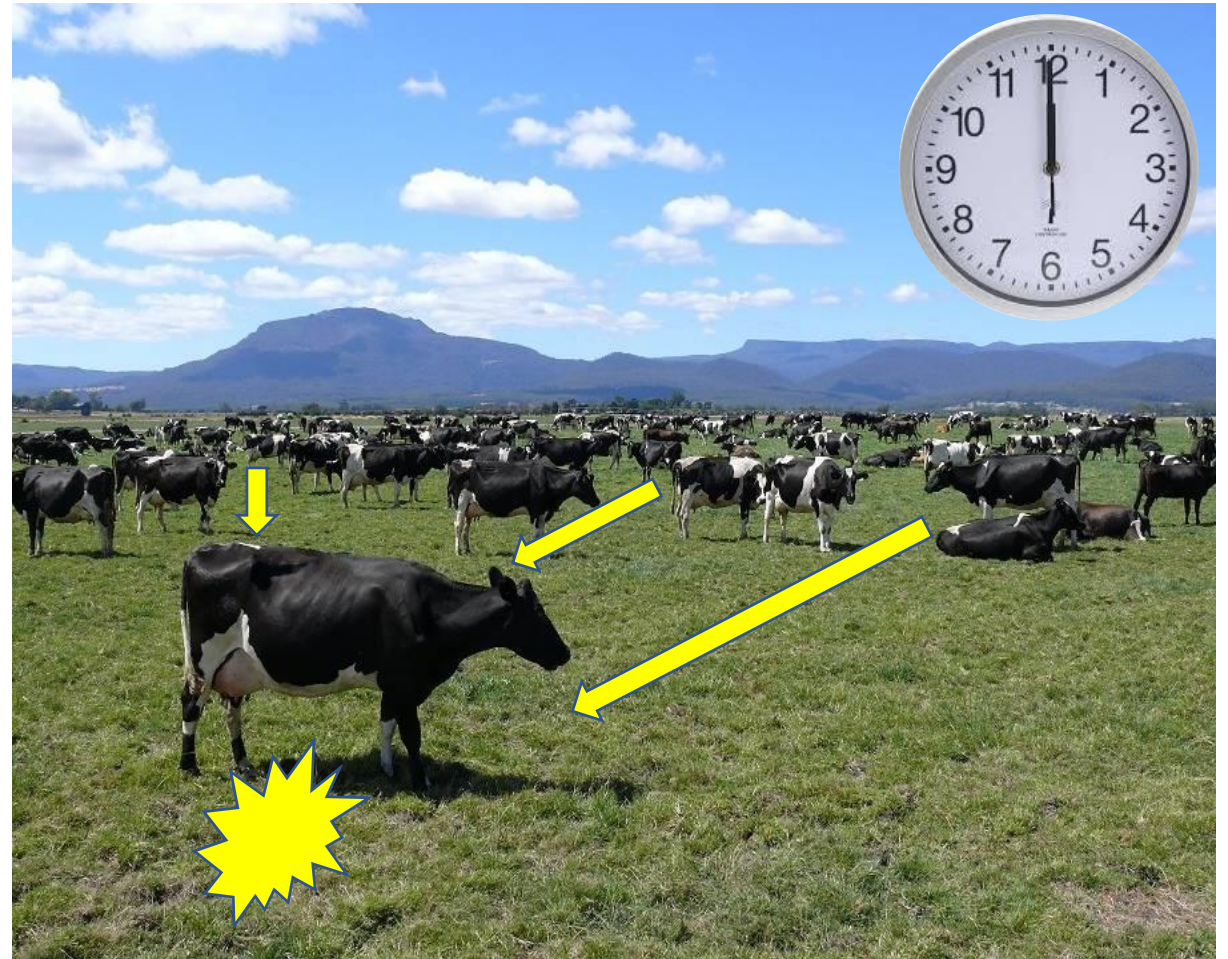
- Stage 1 is when the cow is getting ready to calve
- This stage takes 3 to 6 hours in adult cows; while first calving heifers, it lasts up to 12 hours
- The cow in labour will;
 - Separate herself from the herd
 - Start raising tail and swishing regularly
 - Start (mild) kicking and licking of the belly
 - Be continuously lying down and getting up
 - Show an arched back i.e. final preparation for labor
 - Present the water bag
 - Remove traces



Incalf heifer

3.1 Stage 1: Cow separation

- The cow separates herself from the herd in case they are in the field
- The field is the most favorite area for parturition
- In case of “controlled” calving, it is recommended to separate the cow from the herd 1-2 days before expected calving



Cow separation

3.1.2 Stage 1: Cow separation Cont'd...

- First calving heifers particularly are advised to be separated because of higher chances of experiencing calving difficulty (dystocia)
- There is therefore greater chance of having to provide assistance to heifers during calving
- Tip: Make sure that during separation the animal is always in direct eye/ear contact with previous herd mates



Cow/heifer separation

3.2 Stage 1: Tail raising

- Observation of the cows close to calving is a continuous process
- It is however better to stay away from the animals as long as it is not necessary

Stage **1**

- Tail raising is one of the first signs of calving from a cow whose parturition process has started



Tail raising

3.3 Stage 1: Kicking and licking of belly

- The kicking and licking behavior is a sort of contacting sign that the calf is moving inside. The calf decides when it wants to be born.

Stage **1**



Kicking and licking at her side

3.4 Stage 1: Continuously lying down and getting up

- This behavior means that the calf slowly by slowly moves into the birth way

Stage **1**

- Usually about 30 minutes before abdominal contractions start, the calf goes into birth way. Inside the cow's birth way there are several receptors signaling the cow to push the calf out



Continuously lying down and getting up

3.5 Stage 1: Arched Back

- The arched back (in a normal calving process) is a sign that the abdominal contractions have started, by this time the contractions become stronger

Stage **1**



An arched back shows the cow is restless and in preparation for labor

3.5.1 Stage 1: Visible abdominal contractions

- Now the contractions are more visible and audible. Close observation is needed to monitor the progress

Stage **1**

- During this stage it is not known yet what the position of the calf really is



Visible abdominal contractions

3.6 Stage 1: Water bag

- After contractions have started the waterbag is the first part that becomes visible
- The waterbag will slowly by slowly stretch the birth way; when it is out the waterbag will break spontaneously.

Stage **1**

Wach this video:

<https://www.youtube.com/watch?v=1Mtxft-8Pk4>



Water bag protruding

3.7 Stage 1: Remove traces

- Some cows will stand up after the waterbag has broken and will try to remove the traces of the upcoming birth. This is a natural habit to keep predators away from the newborn calf.

Stage **1**



Remove traces

4. Calving Process: Stage 2 (30 minutes – 4 hours)

- In older cows, this stage may go very fast, but in first calving heifers' it can easily last 4 hours.
- It is very important to keep observing and monitoring the cow's progress
- At stage 2, the cervix is fully dilated, and the calf has entered the birth way. Because of some discomfort, the cow will go up and down for a while before hard contractions follow.



Amniotic bag

4.1 Calving Process: Stage 2 Cont'd...

Tip: Collect some of the amniotic fluid and put it on top of the roughage after the cow has calved, it will help to increase feed intake.



4.2 Stage 2: Presentation of the Calf

- Soon after the strong labor has started, we will know about the progress and the position of the calf

Stage **2**

- When the front legs are visible with the dew claws pointing down, and soon after the calf's tongue and head, everything is fine so far

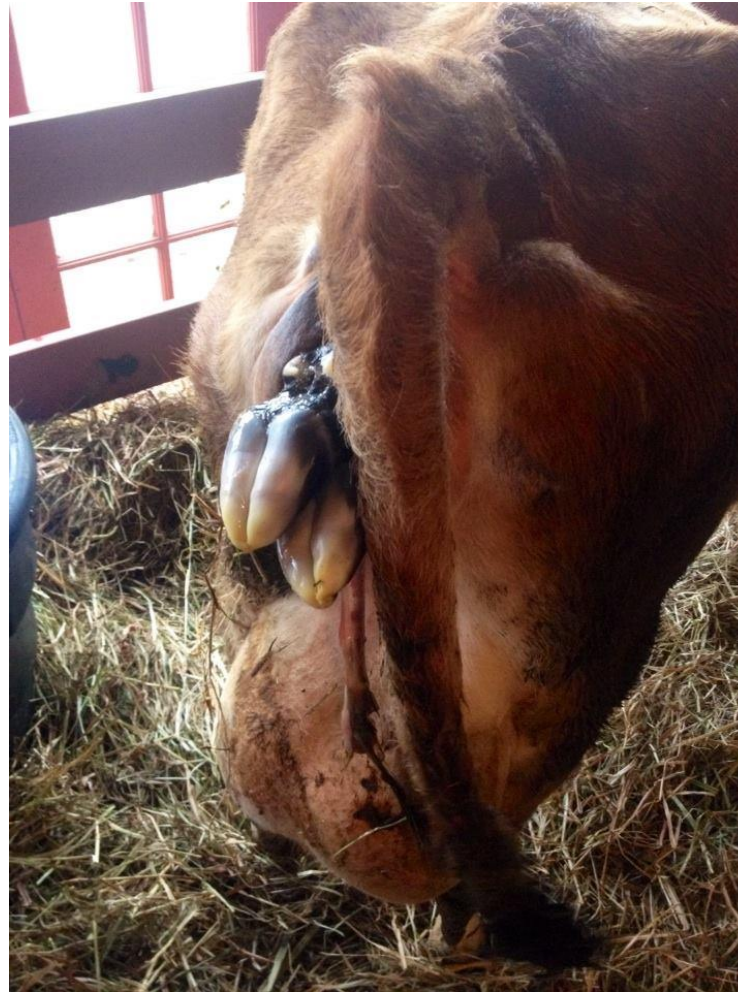


Follow the progress; if in 30 minutes consecutively the same picture is observed, then its time for further examination

4.2.1 Stage 2:

Presentation of the Calf Cont'd...

- Both cows in this picture are in trouble; the calf is presented backwards (5% of birth cases)
- Stay alert, if calving process doesn't proceed, the calf may die
- It is time to assist the cow.



4.3 Stage 2: Near the end

- Calving process should be completed easily

Always be alert !!!!

- The Calf is at risk of suffocation if the bladder is not punctured in time
- The calving process must always be closely monitored to avoid unnecessary problems
- Many problems arise from the nonchalance of the farmer



Calving process near completion

4.4 Stage 2: Calf is born

- The Calf is now born and stage 2 is completed
- Cow will stand up immediately and lick the calf intensively

Stage **2**

- Tip: During this natural process its important to keep an eye on the cow. Some are very aggressive “lickers” that they may damage the navel cord. This could either cause bleeding or the navel becomes more sensitive to infections.



5. Calving process: Stage 3 (1-12 hours)

- Stage 3 of the calving process is completed as soon as the placenta is off. Most usually it comes off within 6-8 hours

Stage **3**

- Some cows will eat their placenta. It is a natural behavior mainly to remove the traces that might attract predators.



Cow eating placenta

- END -