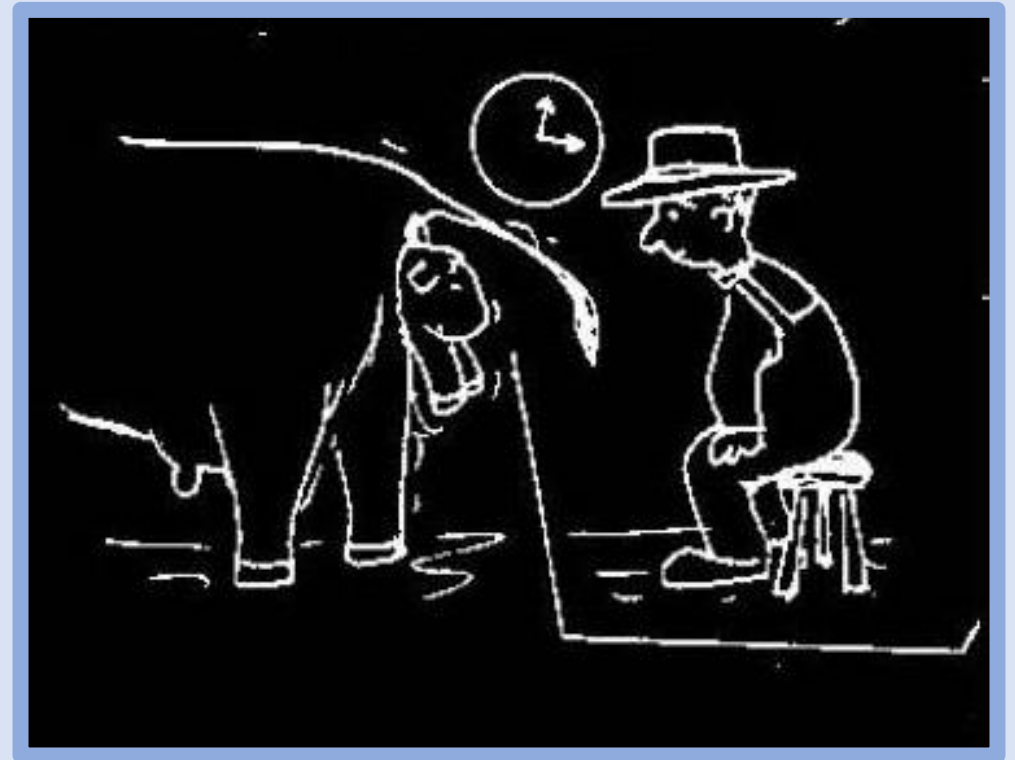


CALVING PROCESS

Level 2

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)



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

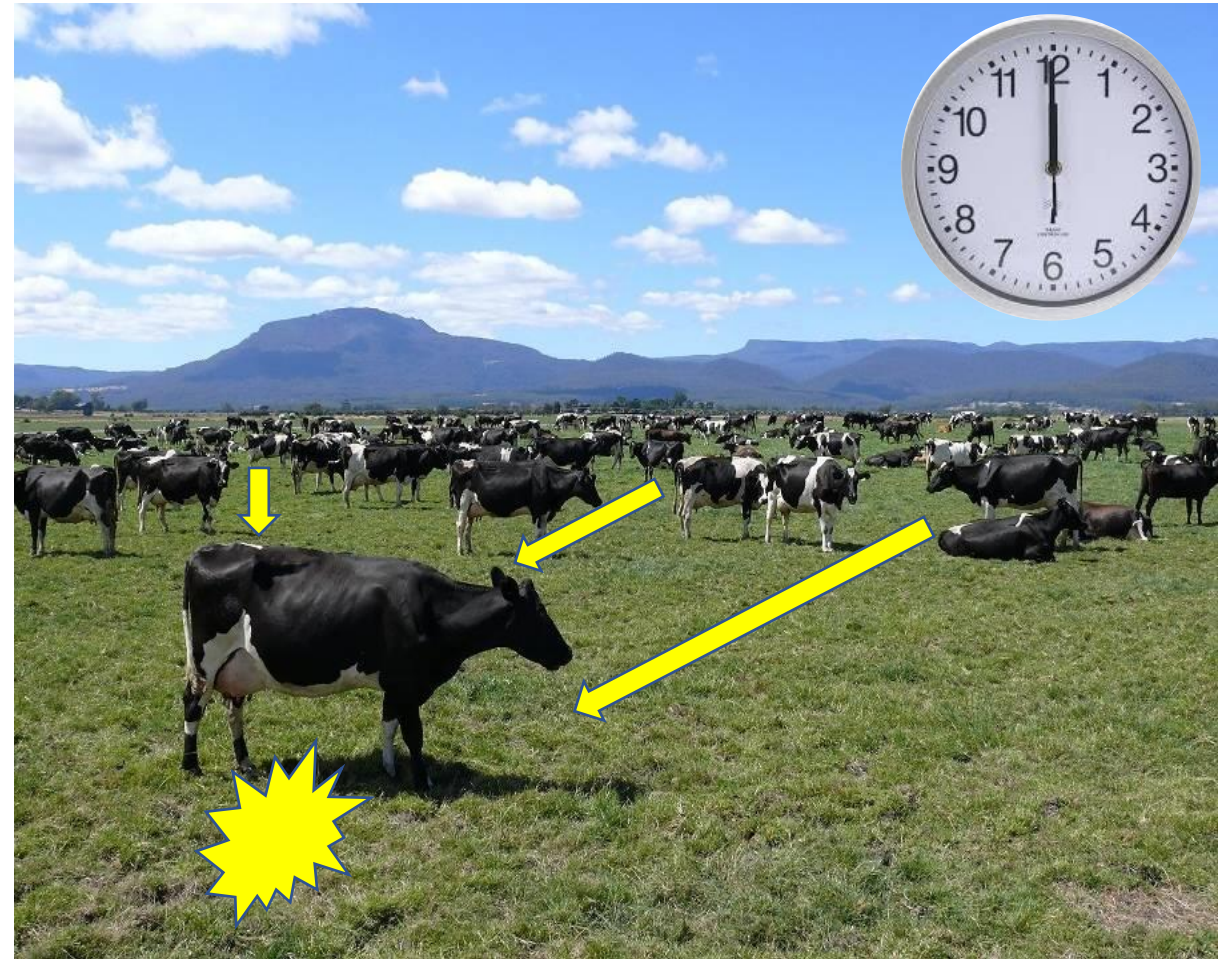
- Stage 1 is when the cow is getting ready to calve. This stage takes 3 to 6 hours in adult cows; while first calving heifers, it lasts up to 12 hours
- The cow in labour will;
 - Separate herself from the herd
 - Start raising tail and swishing regularly
 - Start (mild) kicking and licking of the belly
 - 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, which 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

3.2 Stage 1: Tail raising

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

Stage **1**



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

3.3 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

3.4 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

3.4.1 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

3.5 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

3.6 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.
- 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 Stage 2: Presentation of the Calf

- 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

Stage **2**



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

4.2 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**



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**



Cow eating placenta

- END -