

INSTRUCTIONS HAND MILKING TECHNO & HYGIENE (Level 3)

Topic	Training & information Content
7.1	Instructions hand milking techno & hygiene
7.2	Instructions machine milking good practise & ...
7.3	Problems during milking
7.4	Scoring of teat condition
7.5	Milk production recording
7.6	Calculation of costs hand vs machine milking
7.7	Which milking parlour to choose
7.8	Testing and maintenance of milking machines
7.9	Milking and cleaning routine in milking parlours
7.10	Storage and cooling of milk on farm



1. You will learn about (learning objectives):

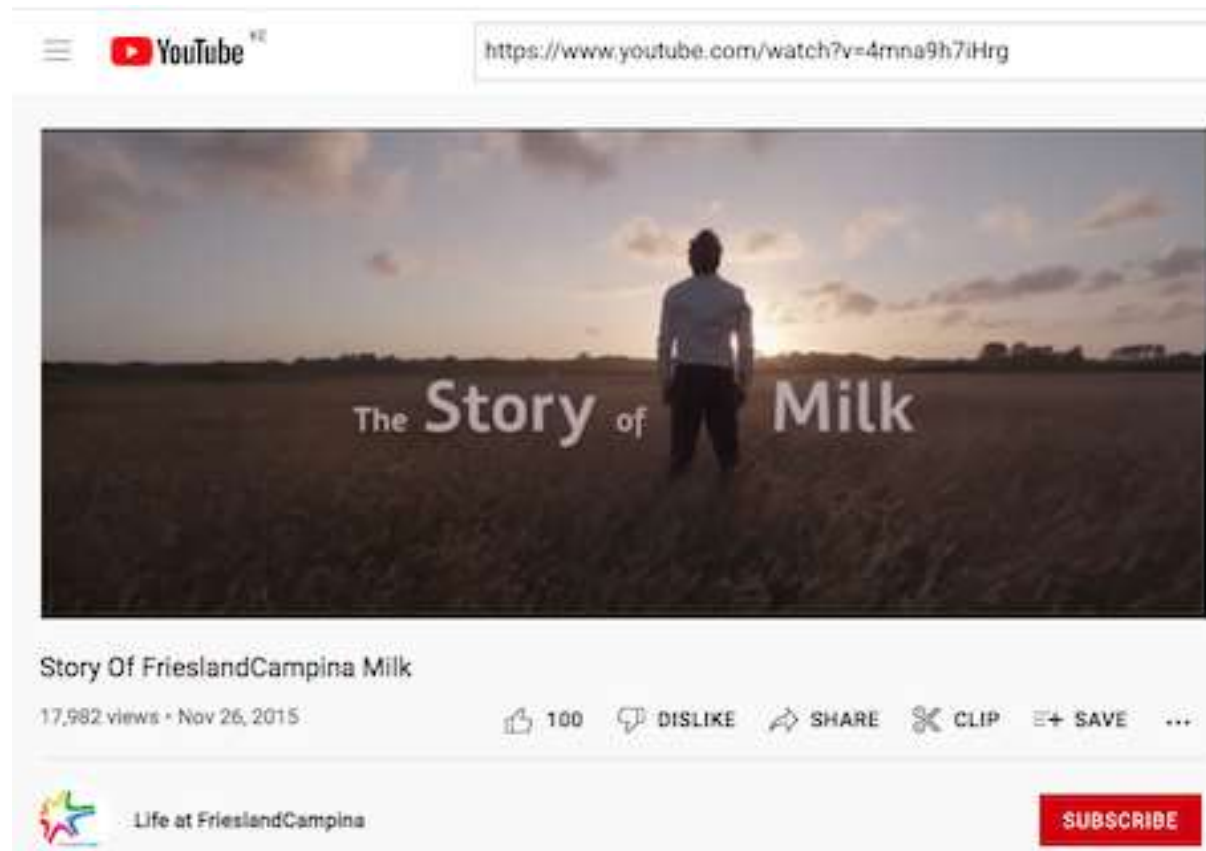
- Personal hygiene before milking
- Preparation for hand milking
- Pre- and post- milking tips



2. Background

‘The story of milk’

Watch video: <https://www.youtube.com/watch?v=4mna9h7iHrg>



The image shows a screenshot of a YouTube video player. At the top, the YouTube logo is visible on the left, and the video URL 'https://www.youtube.com/watch?v=4mna9h7iHrg' is displayed in a search bar on the right. The video player itself shows a person standing in a field at sunset, with the text 'The Story of Milk' overlaid in white. Below the video, the title 'Story Of FrieslandCampina Milk' is shown, along with '17,982 views • Nov 26, 2015'. Interaction buttons for 'Like' (100), 'Dislike', 'Share', 'Clip', 'Save', and a menu icon are present. At the bottom, the channel name 'Life at FrieslandCampina' is shown next to a colorful logo, and a red 'SUBSCRIBE' button is on the right.

3. Personal hygiene

Before “hand” milking starts.



Be aware of hygiene.



It starts with personal hygiene.



To assure.



That the end product (milk) is of high quality.



4. Condition of hands before milking



Some hands are not appropriate for hand milking, even after washing.

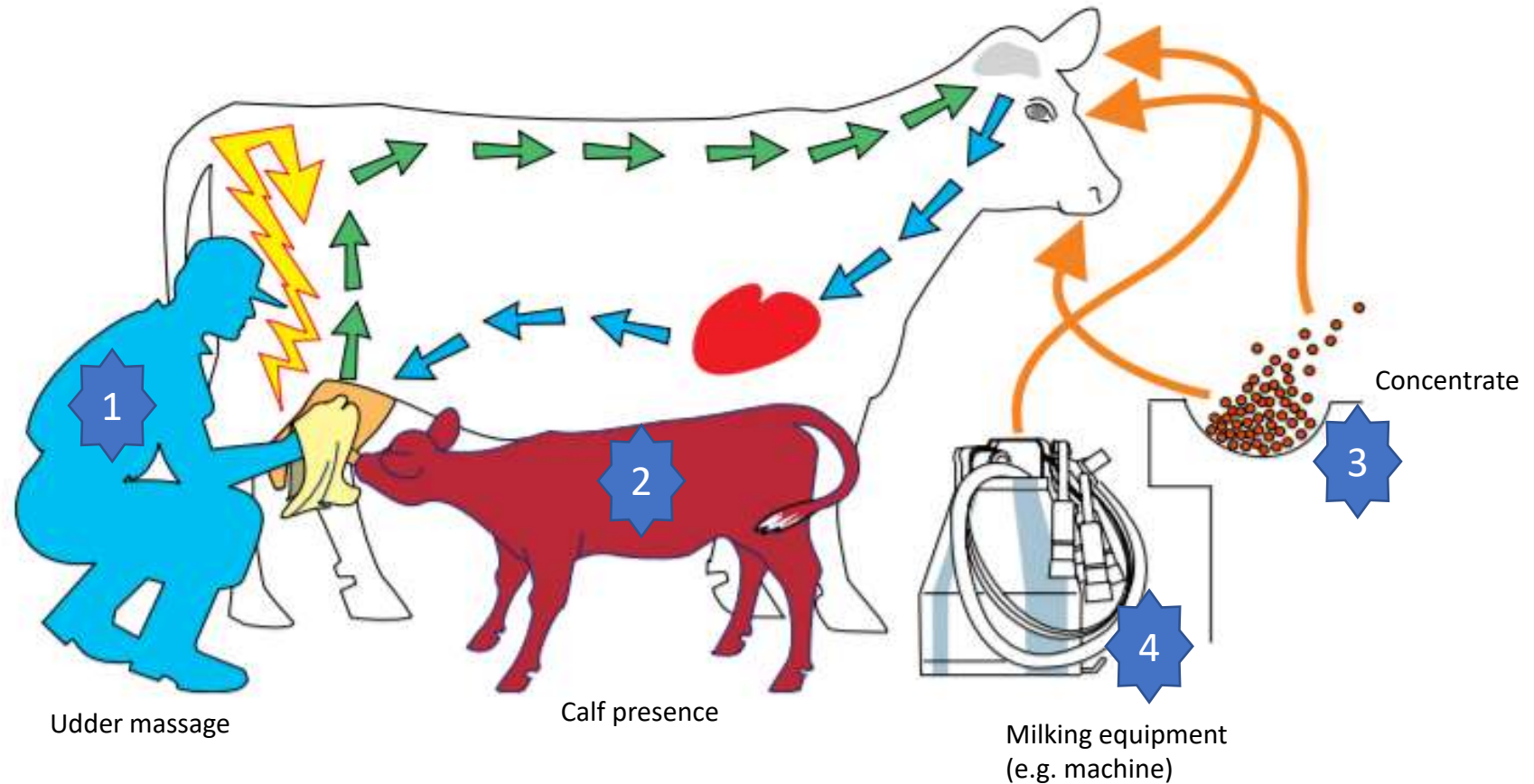


Hands must be clean and disinfected before milking starts.



5. Preparation for hand milking

- Before you start milking the cow, its important to prepare/inform the cow.
- When udder massage starts or when calf is near and/or concentrate is given, most usually hormone production starts, followed by easy milk let down.

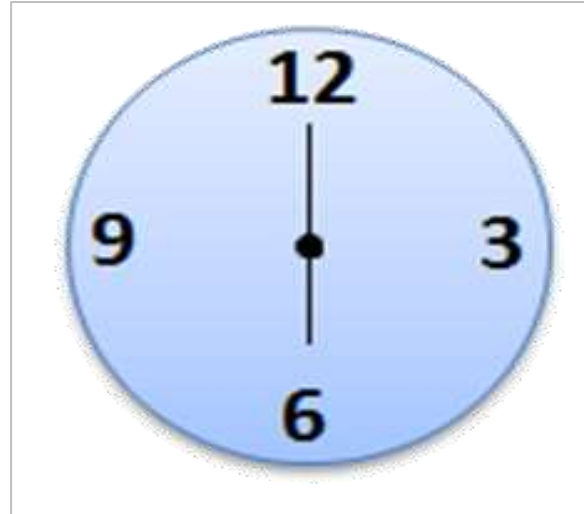


6. Important notes for hand milking

- To optimize the qualitative and quantitative results of hand milking means that a milker always must do the same things, in the same order and at the same moment. If you deviate from these, it will be immediately noticeable due to a lesser amount of milk. For example;



To optimize milk let down some breeds (Girolando) need to have the calf nearby.



Regular milking (12 hours interval) will give more milk (quantity).



Cows always like to be milked by the same person.

7. Pre-milking tips



Pre dipping is an extra insurance for good quality.



Udder clipping (shaving) makes it a lot easier to clean the udder.



7.1 Pre-milking tips: Clean and dry



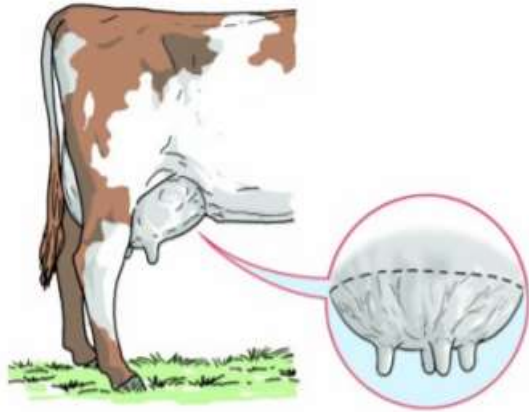
- 1; Dry paper towel.
- 2; Remove (wipe) the pre-dip disinfectant.
- 3; For each teat use a clean/dry towel.

7.2 Pre-milking tips: Clean and dry Cont'd...

The one and only example how to prepare a cow before she get's milked in case of dirty udder. Soap water and dry towel's makes the udder ready and well prepared for milking.

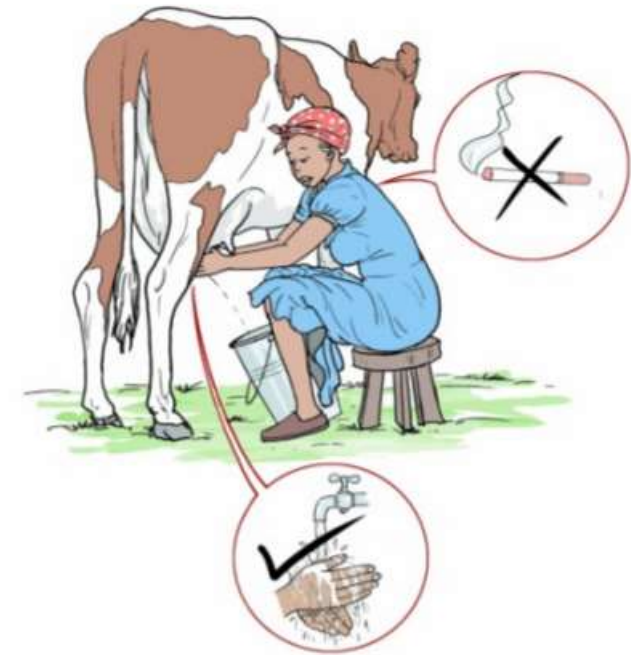


8. Summary of Hygiene practices



Wash the udder and teats when necessary, if there is no dirt use a dry towel only.

- Look at the correct position of the milker and milk bucket.
- Milker has protected her hair and is wearing clean clothes.
- The milker is using clean (washed) hands when milking.
- Smoking and eating while milking is “NOT DONE”.



9. Hand milking technique: How to hold the teat



1; Grasp the teat with your thumb and first finger.

9.1 How to hold the teat Cont'd...



2; In order, close the second and the third finger and the milk will squirt out.

9.2 How to hold the teat Cont'd...



3; Close the little finger and squeeze the teat with whole hand.

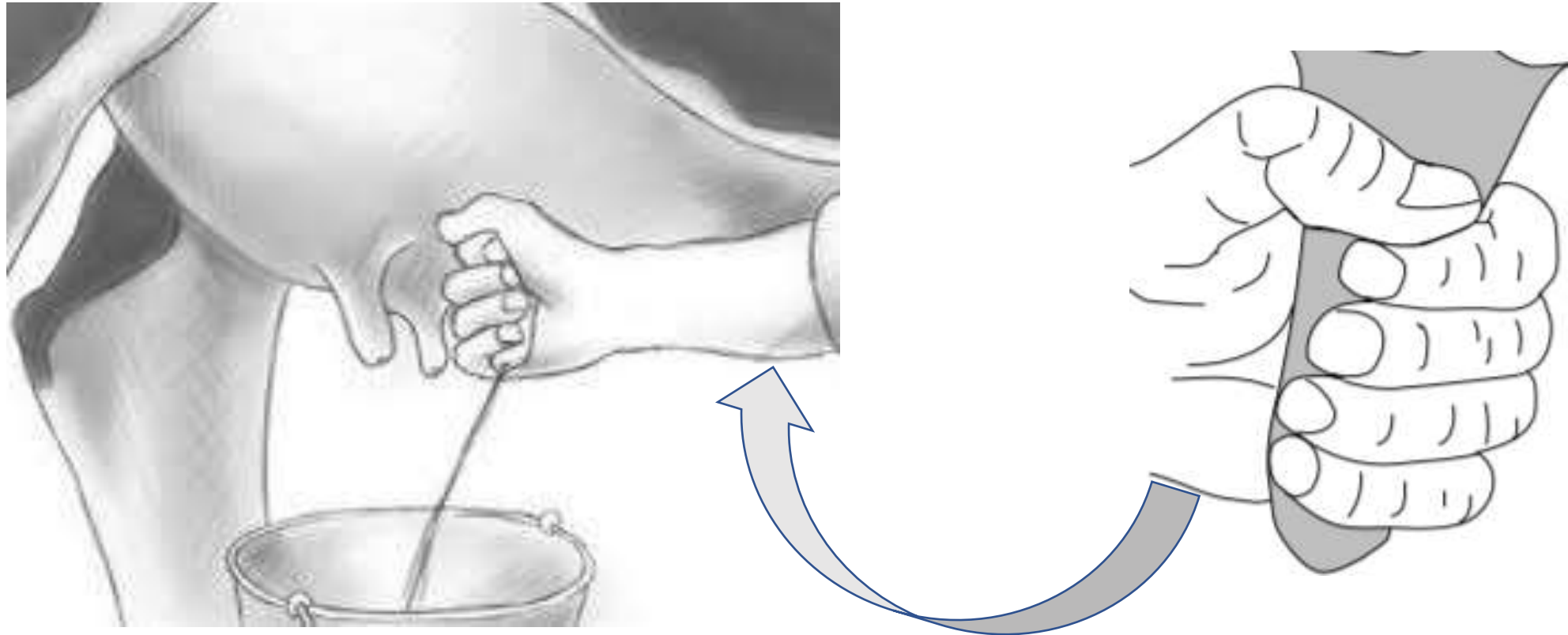
9.3 How to hold the teat Cont'd...



4; Release the teat so that the teat will be filled with milk again. Repeat till the quarter is empty.

9.4 How to hold the teat for milk let down

- The technique of milking is crucial for the milk let down and for long term milk quality/udder health.

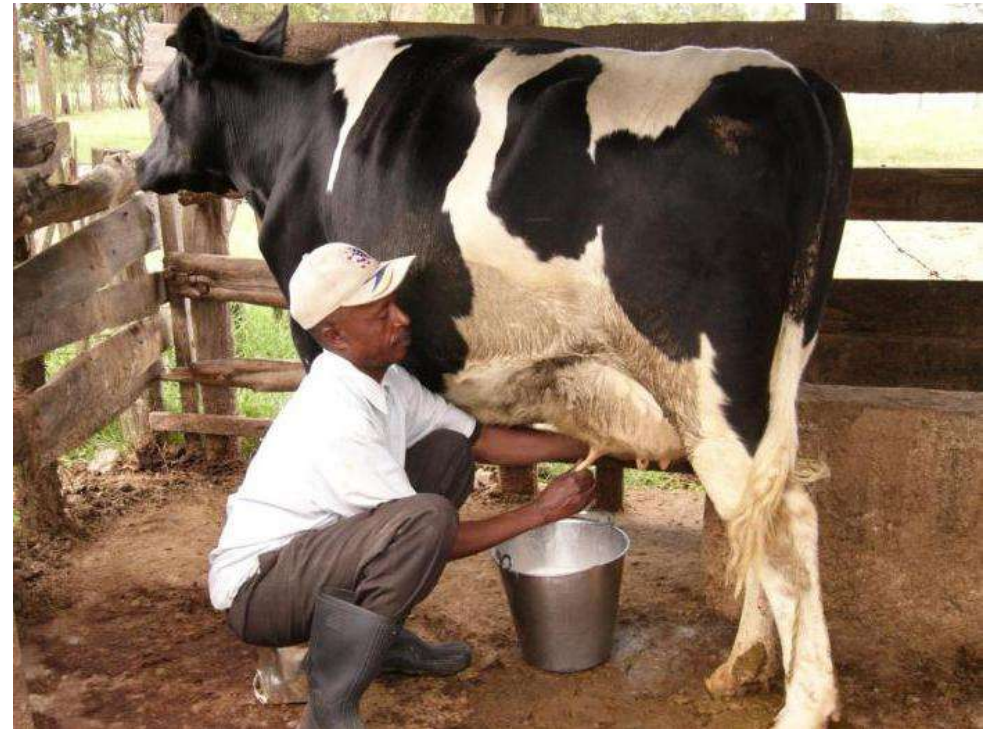


10. Holding the bucket

- Holding the bucket to avoid/prevent the cow from kicking the “full” bucket of milk.



The farmer squeezes the bucket in between his knees.



Bucket with milk is just standing underneath the udder, when cow makes one little step she will kick the bucket.

11. Stripping the teat

- Pulling the teats causes pain and on the long term may damage the teat canal. On the very long term it may cause mastitis.



11.1 Stripping the teat Cont'd: Long teats

- In case of (very) long teats full hand milking is even more important, some people start stripping when teats are getting (too)long.



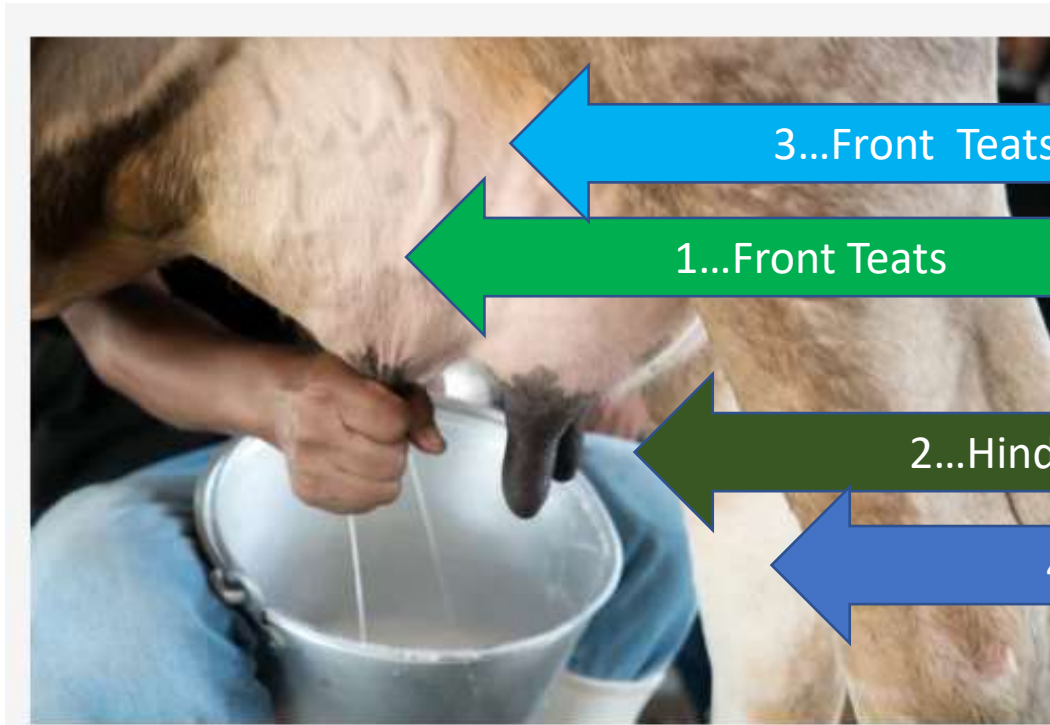
11.2 Stripping the teat Cont'd: Full hand milking



Full hand milking is the most convenient milking method for the cow as well as the farmer.

12. Summary of the milking procedure

The milking procedure in four steps



1. Empty the two front quarters thoroughly.
2. Move to the rear quarters.
3. Check the two front quarters again!
4. Finally check rear quarters.

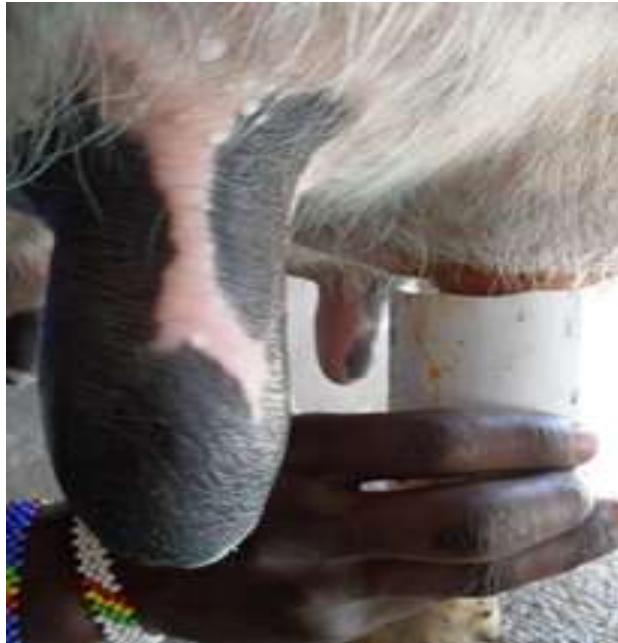
13. Complete milking

- When the milker is able to “milk” a huge layer of foam, it means that the cow is milked fast and with a proper technique.



14. Post/After milking tips: Disinfect & Prevent

- After a cow has been milked it is important that she doesn't lay down somewhere within 30 minutes.
- A healthy teat (also the disinfected ones) will need approximately 30 minutes to get closed. When teats are closed, the cow (udder) is less sensitive to several types of mastitis.



Disinfect by dipping



It is important that the cow does not lay down within 30 minutes

15. Mastitis

- Mastitis can occur when there is;
 - No Food.
 - No Water.
 - Poor Hygiene.
 - Poor Comfort.
- Mastitis occur especially during the rainy periods. It is important to keep cows away from mud and dirt after she is milked.
- E. Coli bacteria can cause mastitis easily and if not treated in time, death may follow.



16. Milking techniques



1

One teat stripping, one teat good milking technique.



2

Good position, Dirty clothes, Get the last milk out of front teat



3

Excellent technique.

16. Milking techniques



1

One teat stripping, one teat good milking technique.



2

Good position, Dirty clothes, Get the last milk out of front teat



3

Excellent technique.

16.1 Milking techniques Cont'd...

Lets take a look how hand milking is being practised.

Watch video:

<https://www.youtube.com/watch?v=fhabl9vtb4U>



The image is a screenshot of a YouTube video player. At the top, the browser address bar shows the URL 'youtube.com/watch?v=fhabl9vtb4U'. Below the address bar is the YouTube logo and a search bar containing the text 'hand milking technique'. The main content area features a diagram of a hand milking technique. A pink teat is shown with milk dripping from it. A brown hand is shown holding the base of the teat. Below the diagram, a text box reads: 'For milking by hand: - Take hold of the base of the teat.' Below the diagram, the video title is '02: Good milking practice I - Hand milking'. Below the title, the video has '69,942 views • Oct 31, 2019'. Below the views, there are icons for '655' likes, 'DISLIKE', 'SHARE', 'CLIP', 'SAVE', and a menu icon. At the bottom of the video player, there is a logo for 'Interactive Content - The University of Edinburgh' and a red 'SUBSCRIBE' button.

17. Take home messages/Summary

1. Personal hygiene of the milker has a huge impact on milk quality.
2. Personal hygiene can easily be the reason of mastitis transmission.
3. All the equipment used before/during and after hand milking need to be clean and disinfected properly.
4. The milking technique is highly responsible for the level of milk production (quantity).

Remember: Everything mentioned in previous slides is emphasized on quality and quantity!

