Practical Exercise 10

Milking of dairy animals

Objective: *To study different methods of milking of dairy animals along with their hygienic measure*

There are mainly 2 types of milking system followed in farms.

- Hand milking system
- Machine milking system

Milking of dairy animals is by and large, done manually by hand milking. However modern dairy farms have switched over to machine milking.

Hand milking

Materials required

- Clean water
- Body brush
- Cotton rope for tying legs
- Enamel bucket
- Milk recording register
- Healthy cow

- Chlorine solution
- Strip cup

Procedure

- Clean the utensils and milking room at least 2 hour before actual milking.
- Wash the animals, especially hindquarters, before bringing them to milking barn.
- Tie the animal securely at its milking place and offer the concentrate.
- Apply milkman's knot (only to cows), wash the udder and teats with the towel soaked in disinfectant solution of chlorine and wipe with a clean duster.
- Massage the udder and teats till led down occurs.
- Take few stripping from each quarter in the strip cup and check for mastitis.
- Hold the diagonal teats and milk with full hand method of milking (Figure)
- Milk quickly, completely and silently.
- In case of small teats, use stripping method of milking (Figure)
- Pick up the milking bucket, un-tie the animal, weight the milk and record the quantity of milk produced against the animal number.
- Transfer the milk to milk can through a strainer/muslin cloth and store at a cool place till its disposal.

Figure 10.1. Full hand milking/fisting

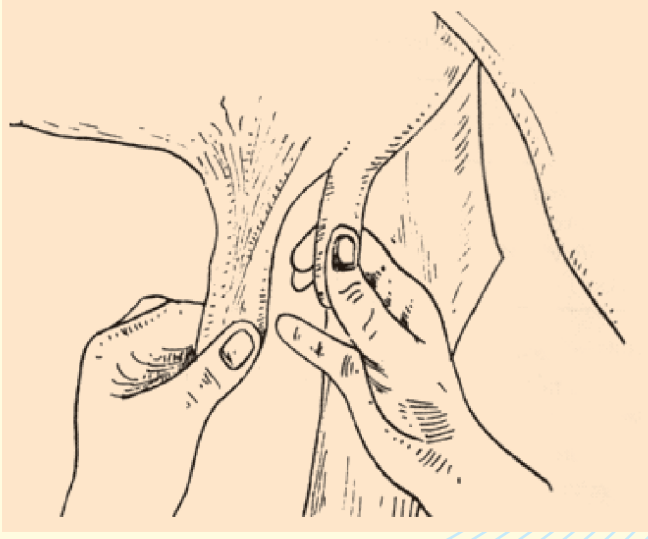

Figure 10.2. Stripping method of milking

Observation

1. Date
2. Animal number
3. Breed
4. Time
5. Quantity of milk drawn
6. Time taken for milking

Machine milking

Modern milking machine was invented by William Murchland of scottLand in 1889. In India, machine milking was first introduced during early 20th century by the Britishers at M/S Tara Devi Farms near Shimla. Modern milking machine are known as double milking machine as they use alternate negative and atmospheric pressure in a double chambered teat cup assembly. The main component of a milking machine are :

1) Vacuum pump assembly
2) Pulsator
3) Milk claw or cluster comprising of a central metallic shell and an inner rubber liner
4) Milk can

Materials required

- Milking machine
- Healthy cow
- Clean water
- Body brush
- Cotton rope for tying legs
- Milk recording register
- Healthy cow

Procedure

- Tie the animal after cleaning and wiping its udder and teats, and offer concentrate.
- Turn the milking machine on and check the vacuum pressure. It should be between 380 – 400 mm Hg for cattle and buffaloes.
- Apply the teat cups to the respective teats and see whether they are in correct position.
- Stand quietly near the animal till milking is in progress.
- When the milk flow ceases, remove the cluster by breaking its vacuum supply.
- Weigh and record the milk produced.
- Dip the teat of animal in anti-septic solution.
- Untie the animal.

Observation

1. Date
2. Animal number
3. Breed
4. Time
5. Quantity of milk drawn
6. Time taken for complete milking

STUDY QUESTIONS

1) Why is it essential to wash the animal before milking ?
2) Why is the tail tied along with legs during milking ?
3) Why disinfectant solution is used for wiping udder and teats ?
4) What are the advantages of machine milking over hand milking ?