

Milk production and the udder

The main purpose of the milk is to feed the young. A good milking animal can produce more milk than her young need

How milk is made

The udder of the cow and buffalo has four quarters, each quarter having a teat. In the sheep and goat the udder is divided into two with two teats.

Milk is produced in the udder from nutrients in the blood which flows through the vessels (tubes) in each quarter. The greater the amount of blood passing through the udder the greater the amount of milk which is produced. The milk is released as the teat is sucked or squeezed.

Milking by hand will take from 5 to 10 minutes. The udder should be emptied at each milking and this will stimulate the udder to develop more milk. Always milk the animal quietly. A good time to milk is in the morning before the animal goes out to graze and in the evening. Always milk at the same time each day.

Differences in milk yields

Milk yields will vary for different reasons:

- Some types or breeds of animals produce more milk than others.
- Milk production will be greater after the birth .
- Extra good feed, minerals and a lot of water are needed by the animal in milk in order to produce milk.
- Milk production improves when the animal gives birth in the rainy season when there is a lot of feed available.
- Talking, singing or whistling to the sheep, cow, goat or buffalo as it is being milked makes it relax and the milk is let down better.
- Some individuals naturally give more milk than others. These individuals should be selected for breeding

Infection of the udder (mastitis)

A good udder is essential for milk production. If the udder is injured or infected milk production can stop.

Infection of the udder is called mastitis and is caused by bacteria. Mastitis can be recognized by:

- The milk is not clean, the color is different and there may be lumps in the milk
- The udder is hot, painful and swollen.

- The skin of the teats is cracked.
- The animal may stop eating.

More than one quarter of the udder may be infected. The mastitis may be caused by bacteria which is infectious and spreads to other animals. Goat milk must be closely looked at for signs of mastitis because the milk may not show a noticeable change in color.

To stop mastitis or to reduce the chances of it occurring the following steps should be taken:

- The hands of the milker should always be clean.
- The udder should be washed with warm water and dried before the animal is milked.
- Any animal with mastitis (or other disease) should always be milked last.
- Treatment of mastitis will be successful if it is started early.

To treat mastitis the udder should be bathed with warm water. The bad milk in the udder should then be removed using a clean teat catheter or by hand milking. This is carried out at least twice a day until the udder returns to normal.

A treatment which is now preferred is to bathe the affected quarter with cold water. The udder is then dried and massaged. This is repeated morning and night until the udder returns to normal.

You can give an injection of antibiotic in cases of severe mastitis.

Ways of using milk

The milk of cattle, goats, sheep and buffalo are different but all contain fat, protein, vitamins and minerals and are of great value as food for humans. Milk can be used to make cream, butter, ghee, yoghurt and cheeses as well as other forms of food.

Although milk is a good food it can carry diseases. It can also become infected with bacteria from the person who milked the animal or by dirt from the animal. Whoever drinks the milk can then become infected.

If milk is kept it will become sour and unfit to drink. If milk has to be stored for use during the day it should be boiled every 4 to 5 hours and kept in a clean covered container. If milk is to be kept overnight it should be boiled and put in its clean, covered container in a cool place out of reach of cats, rodents and insects. It should be boiled again in the morning before it is used. To prevent disease being spread by milk:

- Only use milk from healthy animals.
- Wash and dry the animal's udder before milking, thoroughly wash the hands before milking.
- Always throw away the first squeezes of milk from the udder as this may contain bacteria.
- Boil the milk before drinking it.
- Store milk in clean vessels in which water has been boiled or which have been washed out with hot water.