

Udder Health in Dairy Cows: An Economic Importance

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Introduction

Dairy cows are important in agricultural sector as it supports the dairy farmers in livelihood. Maintaining a good udder health helps in continuous milk production which in turn helps in improved productivity of the dairy cows.

Maintaining hygienic practices

The major affection of the udder in cows is mastitis. The affections of the udder may contribute through the unhygienic environment, contaminated utensils used for milking and milker's hand hygiene during milking. Environmental contamination of udder through pathogens spreading of infection by bacteria such as streptococcal, staphylococcus and E.coli. Immediate attention to clinical cases of mastitis caused by pathogens should be treated with appropriate antibiotic therapy based on the antibiotic sensitivity from the milk samples collected from the affected udder.

Steps to be taken by farmers to avoid environmental cause of mastitis:

- Periodical cleaning of the cattle shed.
- Dung and urine defecated by the cows should be cleaned immediately.
- Collected dung from the cattle shed can be disposed appropriately or can be utilised as manure.
- Bathing/cleaning of the animal should be carried out before starting milking session.
- Udder and teat should be cleaned with mild antiseptic solutions such as KMnO_4 solution.
- Dry the udder and teat before milking.
- The utensils used for the should be cleaned with milk soap and dried well before use.
- The milking personnel should maintain personal hygiene by hand washing and dried hand.
- Always healthy animal should be milked first and followed by diseased cows.

- Milk from the diseased cows should not be mixed to normal milk.
- The colour, consistency, pH of the normal milk should be examined for each cow.
- Udder/Teat wounds, warts, pox lesions should be treated immediately without delay.

The milking practices followed by the farmers in most of the Indian conditions is by knuckling method. The disadvantage of knuckling method of milking causes injury to the internal teat canal and increased chances of teat fibrosis. The other causes of mastitis are faulty milking practices which lead to teat fibrosis (teat obstructions). Teat obstructions will hinder in the normal flow of milk from the udder parenchyma to teat canal. To avoid occurrence of teat fibrosis full hand milking method or stripping method of milking can be advised to the farmers.

Appropriate nutrition

Proper nutrition to the dairy cows will contribute to the general and udder health. Nutritional requirements of the dairy cows will vary according to the various stages such as lactation, pregnancy and dry periods. Adequate nutrition will impact on the defence mechanism of the udder health. Ratio of concentrate and roughages have to be assessed and can be provided with easily available feeds.

Most dairy farmers allow the dairy cows in free grazing. Cows in such conditions will meet only low energy feeds. Marginal farmers may cultivate green fodders in small quantity, which can be utilised for feeding of their own cows.

Dry period

Continuous milking may also end-up in reduced quantity or poor milk production from the udder parenchyma. Stopping of the milk at the dry period will increase the mammary gland involution, which helps cows' welfare.

- Cessation of the milk has to be carried in continuous and slow process.
- From twice milking to once a day milking will have gradual change over.
- Gradual milk cessation can also be brought by providing limited energy and nutrition feeding.

Methods of udder health maintenance in large dairy farms

- Large scale dairy farming may involve technically improved methods of cleaning of shed, maintenance of health chart of individual cows, milk production and sales of milk.
- Large scale dairy farm shall plan for a head-to-head housing or tail-to-tail housing.
- The type of housing will play a major role in the easy maintenance of the shed.
- Cleaning of the manger regularly and providing clean drinking water is at most important.
- Providing good and clean bedding material will be helpful to maintain the comfortness of the dairy cows.

- Heat stress less type of pakha house or concrete house with adequate sun light and air flow is most necessary.
- The milking in large farms can be carried out with milking machine.
- Use of milking machine will provide easy way of milking of large-scale dairy cows and also will provide hygienic environment.
- Teat fibrosis or obstruction by knuckling method can be avoided by machine milking.
- Regular sanitization of the milking machine with non-corrosive detergents or soaps is essential and should be dried and cleaned before using.