



Clean Milk Production: A Guide For Farmer

Dr. Anish Koul* & Dr. Manisha**

Assistant Professor*, Luvas Haryana**

Research Scholar, Icar-Ndri, Karnal, Haryana

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A significant role in national economy and socio-economic development of the country is played by dairy industry. This industry is an important source of employment in country especially in the rural India. One of the major challenges of this industry is to increase the milk production in order to meet the needs and wants of the growing population because milk, which is a complete food is also a key element in household security. Moreover, milk is the basic needed item of many dairy products like curd, ghee, ice-cream, lassi etc. Under such conditions, the maintenance of high-quality milk production under hygienic conditions at farms generally located in rural places in India and then bringing it hygienically to milk plants is a super challenging job. Clean milk is generally defined as “milk drawn from the udder of healthy animals, which is collected in clean dry milking pails and free from extraneous matters like dust, dirt, flies, hay, manure etc. Clean milk has a normal composition, possess a natural milk flavor with low bacterial count and is safe for human consumption”. Quality of milk is not an option but an obligation and thus ‘*quality of milk*’ has been placed superior to the ‘*quantity of milk*’.

There are some strategies for clean milk production can be: -

1. **Hygienic Practices:** Farmers must be encouraged to maintain hygienic practices which include
 - a. Washing the udder and teats with lukewarm potassium permanganate solution and then wipe it with clean towel.
 - b. Screen animals for mastitis by employing “strip cup” method and if animal is found sick, don’t take the milk.
 - c. Discard few drops of milk from the udder before collecting the milk.
 - d. Milk man should be free from infectious diseases. He/ She should cut his/her nails regularly, wash hands and legs before milking. He/ She should also wear head gear and mask.



- e. Milker should avoid smoking, chewing tobacco or pan masala etc. before and during milking.
2. **Animal Health Management:** Regular veterinary check-ups, vaccination programs, quarantine of the sick and new animals to herd etc. will ensure good health of the animals. With this, proper nutrition will also keep animals' disease free.
3. **Infrastructure Development:** Clean and well-ventilated sheds, proper drainage systems, hygienic milk parlors and store rooms, easily cleanable floors etc. will also facilitate clean milk production.
4. **Milk Handling:**
 - (a) For filtering the milk, use white filter cloth and filter immediately after milking. Disinfect, wash and dry the filter cloth after use.
 - (b) Store milk in cool and dry place and ensure that the room does not have any other chemicals and should be lockable.
 - (c) Deliver milk to market as soon as possible and avoid hot periods of the day i.e., deliver milk early in the morning or in the evening.
5. **Utensils:** Use utensils preferably aluminum or stainless steel. Cans and buckets used in milking should be made of metal. After use, scrub the utensil with brush using hot water mixed with a detergent. Store utensils on dry rack upside down after use.
6. **Quality Assurance Programs:** Implementation of quality assurance programs that involve regular testing of milk for contaminants and adherence to quality standards. Providing support to farmers in obtaining certifications such as FSSAI (Food Safety and Standard Authority of India) certification can encourage farmers to strictly follow the steps for clean milk production.
7. **Training And Education:** Training sessions and workshops will educate farmers about best practices in dairy farming, including hygienic milking techniques, animal health management and proper storage of milk will help farmers and dairymen to learn new techniques and practices for clean milk production.
8. **Community Engagement:** Foster community involvement and cooperation among dairy farmers to collectively address issues related to clean milk production. For sharing knowledge and resources among milk producers, dairy cooperatives or self-help groups can be formed for long term results.
9. **Promotion of Technology:** Appropriate technology solutions such as milking machines, bulk milk coolers and milk testing equipment can improve efficiency and hygiene in milk production processes.



10. **Market Linkages:** Facilitating market linkages for rural dairy farmers to ensure fair prices for their produce will encourage farmers to produce clean milk.

By implementing these strategies and practices, rural India can enhance clean milk production, which not only improves the livelihoods of dairy farmers but also ensures the availability of safe and nutritious milk for consumers.