

Prospects of hygienic milk production, collection, processing and marketing combating malnutrition in Bangladesh: Short Communication

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A hot climate country like Bangladesh suffers a lot for the deterioration and spoilage issues of raw liquid milk almost around the year. Naturally, raw milk may carry harmful bacteria as Salmonella, E. coli, Listeria, Mycobacterium tuberculosis, etc. which are responsible for various types of food borne diseases. These harmful bacteria can seriously affect the health of anyone who drinks raw milk, or eats foods made from raw milk. Thus we may make raw milk safe after using pasteurization technology. Dairying in Bangladesh is generally characterized by small scale, widely dispersed and unorganized milk animal holders, low productivity, lack of assured year-round remunerative producer price for raw milk, inadequate basic infrastructure for provision of production inputs, services and above all lack of professional management practices. According to DLS/2018 report, year round raw liquid milk requirement is 15.04 million metric tons, production is 9.41 million metric tons (62.56% of requirement) and deficit is 5.63 million metric tons (37.43% of requirement) in Bangladesh. Our motto goes to the nutrition thrust people for availing the required quantity of fresh milk covering the said shortages. The per capita consumption of liquid milk is only 128 ml/day beyond the requirement 250 ml/day. In Bangladesh about 15 branded milk processing organizations are producing only 0.5 million metric tons pasteurized milk and selling in the capital city Dhaka and other big cities where state controlled organization Milk Vita playing a pioneering role for combating malnutrition through consuming pasteurized liquid milk in Bangladesh. Nowadays, a huge consumer awareness are booming in Bangladesh for drinking hygienically sound pasteurized milk instead of raw milk by which actually the nutrition thrust people are engaging themselves for combating malnutrition.

As the food creation chain turns out to be progressively mind boggling today, unhygienic work conditions and dangers of tainting keep on plaguing the business. Milk is one part that has a helpless time span of usability and is generally powerless to corruption and development of microorganisms if legitimate cleanliness rehearses are not kept up. The dairy items planned for human utilization must be liberated from unsafe microorganisms, for example, Salmonella, Campylobacter jejuni, Listeria monocytogenes, Yersinia enterocolitica, and so on. These organisms can cause genuine infirmities, especially in older, pregnant ladies, kids and people who are immuno-bargained.

The pollution of dairy items can happen by means of different

sources, for example, unhygienic creation and capacity procedures, handlers and hardware, condition, and bundling materials. To deflect the dangers related with helpless gauges of sanitation common in the journal business, it has gotten basic for dairy homesteads and creation units to remain consistent with GMP, GHP and HACCP rules. Importance of Maintaining Good Hygiene in Dairy Plants

Milk is a perishable food product and easily falls prey to microbial contamination & increased pH levels. This causes dairy products to diminish in quality and taste if proper hygiene measures are not taken in manufacturing and storage conditions.

Maintaining good hygiene is crucial for the dairy industry to:

- Minimise or forestall defilement caused because of section of microorganisms and microscopic organisms from unhygienic draining strategies, hardware, milk contact surfaces, handlers, stockpiling or bundling conditions
- Ensure best expectations of sanitation and improved consistence with administrative practices characterized for the dairy business
- Provide just highest caliber and safe dairy items for end purchasers

Key Hygiene Practices for the Dairy Industry
Outlined here are important guidelines to maintain high levels of hygiene across all steps of dairy production.

1. Milk Production Hygiene

Bleeding edge computerized milk creation methods are quick supplanting manual draining procedures in first rate dairy ranches. In any case, appropriate cleanliness preparing ought to be conferred to everybody engaged with the draining procedure in light of the fact that the two essential defilement sources here are hardware utilized and handlers.

Uphold prevalent cleanliness principles in the draining procedure using current hardware and progressed draining checking measures

- Prevent sully through mastitis by legitimate utilization of the draining apparatus and staying away from over draining
- In-profundity preparing is imperative to help keep up most elevated levels of work force cleanliness

2. Dairy Plant Hygiene

Successful cleaning and sanitisation assume a vital job in safeguarding obligatory cleanliness measures in dairy handling

plants. Plant cleanliness ordinarily involves three sections – Processing cleanliness, Equipment cleanliness and Personnel cleanliness.

Lack of information relating to gear taking care of or working of apparatuses is one of the key reasons causing bacterial pollution in milk and other dairy items. To forestall this, it is significant to bestow appropriate preparing and guarantee routine observing of the types of gear's working execution. Ointment sullyng ought to likewise be forestalled.

- Not holding fast to gear cleaning and sanitisation gauges can likewise result into sullyng through destructive substances, for example, milk deposits, allergens, microorganisms or compound buildups. Along these lines, exhaustive cleaning and cleansing of hardware ought to be attempted after milk handling
- Only non-destructive, industry-affirmed cleansers and disinfectants ought to be utilized
- Maintain ideal seepage framework in the handling zone and guarantee bountiful water flexibly for successful cleaning
- Using programmed would washer be able to can help forestall milk surface tainting
- The plant floor ought to be worked from Kota or Mandara tiles, while the dock ought to be secured with Iron Grid tiles. Guarantee normal scouring and cleaning of the floor for ideal cleanliness
- Maintaining great individual cleanliness is likewise imperative to create top notch, sans contaminant dairy items. Individuals working in the plant unit ought to encasethemselves in clean &sterilisedworkwear, including face masks, hair caps and gloves. Reinforced safety boots or shoes should also be used.
- Refrain wearing jewellery or cosmetics inside the production facility

4. Dairy Waste Water Hygiene

Lack of proper measures to manage dairy waste water is a primary cause of unhygienic work conditions and spreading of contaminants through various sources. At the same time, most dairy farms and production plants do not have sufficient supply of clean & impurity-free water for rigorous cleaning and sanitisation purposes. To maintain proper hygiene and stay compliant to regulatory standards, it is important for dairy plants to implement effective measures for treating dairy waste water. Some of these methods are Aerobic Treatment, Biological Filtration and Activated Sludge.

Conclusion

Hygiene is one of the key parameters ensuring quality and credibility of any dairy farm or production facility. To comply with industry best practices and ensure highest levels of food safety to end consumers, it is imperative to maintain key hygiene standards and monitor performance.