

Clean Milk Production, Management and Decent Work in Faisalabad, Pakistan

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Introduction

- Milk is important for Pakistan's national economy;
- 20% of milk comes from peri-(urban) producers.
- Solely sold as untreated raw milk, it is easily spoiled.

→ We aimed at determining factors influencing milk safety by analyzing pre- and post-milk production practices in view of standards of clean milk production.



Fig. 1: Dairy buffaloes roaming around at a dung disposal site

Methodology

- Survey of peri-urban dairy farmers in Faisalabad using a semi-structured questionnaire and snow-ball sampling.
- Interviews with 60 each semi-commercial small-scale (SCSS), commercial small-scale (CSS) and commercial large-scale (CLS) milk producing households (HH=180).



Fig. 2: Dairy buffalo with dirty body and udder ready for milking.

Results

- Target farmers had 10 ±7.1 years of dairy experience.
- They kept 12 ±9.4 female buffaloes and 12 ±7.1 cows.
- Monthly revenue from milk sale averaged 1200 €.
- Two-thirds of farms had traditional cow-sheds and 25% had modern barns.
- Farm-type differences ($p < 0.01$) existed in housing, drainage system and barn cleaning frequency (Fig 1).
- Flies and ticks were present in >80% farms but control measures in only 22%.
- Most animals (81%) had dirty bodies and udder (Fig. 2).
- Hair-clipping, hoof-trimming, udder washing and teat dipping was only practiced by 17%, 26%, 41% and 16% of farmers and differed between farm types ($p < 0.01$).
- About 70% of milkers didn't wash hands before milking, 89% didn't trim nails, only 3% wore a cap at milking.
- Few (21%) milk cans were disinfected; most milk (64%) stored in plastic containers (Fig. 3) without pre-filtration.
- Most farmers (76%) had no knowledge of farm hygiene, 62% had little / no knowledge of clean milk production, but differences ($p < 0.01$) existed between farm types.



Fig. 3: Variety of raw milk collection cans.

Conclusions

- Improved hygiene for milkers and dairy animals can easily improve milk safety in Pakistan's cities.
- Guidelines and training for effective measures are needed.