

Milking Practices Adopted at Equipment Level under Individual and Community Milking System in Kolar, Karnataka

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ABSTRACT

The present study is aimed at assessing the milking practices adopted under Individual Milking System (IMS) and Community Milking System (CMS) at equipment level. Three Individual Milking Cooperative Societies (IMCS) and three Community Milking Cooperative Societies (CMCS) each from Bangarpet and Kolar taluks of Kolar district were randomly selected. Ten farmers from each IMCS and a supervisor from each CMCS were randomly collected. The objective of the study was to assess milking practices adopted under Individual and Community Milking System equipment level. Results from the study found that, in case of IMS, majority (68.34%) of farmers were using the stainless steel milking cans and rest 31.66 per cent were using plastic cans. Similarly 61.66 per cent of farmers were using scientific (semi opened mouth) milking can and remaining 38.34 per cent of farmers were using full open mouth can, with regard the practice of closing the milk container soon after milking got over 78.34 per cent of farmers were practicing and rest 21.66 per cent of farmers were not practicing. But in case of CMS, cent per cent of personnel of were using stainless steel, semi open mouth milking can (Scientific milking can) for milking, regarding the practice of closing the milk container soon after milking got over, cent per cent of the societies of CMS were adopting the practice. Many scientific milking practices are not following in IMS but in case of CMS almost all scientific milking practices are adopted.

Key words: Adopted, equipment level, Individual and Community Milking System, Kolar and Milking practices.

INTRODUCTION

The hygienic practice during milking is the most important steps in clean milk production. Clean milk production results in milk that is safe for human consumption, free from disease

producing microorganisms, holding high keeping quality, high commercial value and high quality base suitable for processing, resulting in high quality finished products.

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Milk needs to be protected from all possible sources of microbial contamination. Potential sources of contamination of milk are dung, water, utensils, soil, feed, air, milking equipment, animal and the milker. Contamination of milk can occur during storage and transport¹.

Kolar-Chikkaballapura District Co-operative Milk Producers Union Ltd., (KOMUL) has installed “Bulk Milk Coolers and Community Milking Machines” on pilot basis at society level in the year 2001 to get the quality milk required for ultra high temperature processing packed at Kolar dairy. With this Idea study was conducted to assess the milking practices adopted at equipment levels in Individual Milking System (IMS) and Community Milking System (CMS).

MATERIALS AND METHODS

Exploratory research design was adopted to formulate a problem for more precise investigation and to develop working hypothesis from an operational point of view. The Kolar district of Karnataka was purposefully selected as it has got both Individual milking system and community milking system. Three Individual Milking Cooperative Societies (IMCS) and three Community Milking Cooperative Societies (CMCS) each from Bangarpet and Kolar taluks of Kolar district were randomly selected. Ten respondents from each Individual Milking Society were randomly selected. Similarly a supervisor from each Community Milking Society was selected. Thus 60 respondents from Individual Milking Society and 6 respondents from Community Milking Society were selected. The interview schedule was developed in consultation with the subject matter specialists and data was collected on milking practices at equipment levels from farmers of IMS and CMS were statistically analyzed.

FINDINGS AND DISCUSSION

Milking Practices adopted in Individual Milking System at animal level are shown in Table 1, cent per cent of the respondents were

cleaning the milking cans before milking, among them 70.00 per cent of the farmers were cleaning the milking utensils with plain water and rest (30.00%) of respondents were using the detergent along with plain water.

Majority (68.34%) of farmers were using the stainless steel milking cans and rest 31.66 per cent were using plastic cans. Similarly 61.66 per cent of farmers were using scientific (semi opened mouth) milking can and remaining 38.34 per cent of farmers were using full open mouth can.

Regarding placing of the milking can in an inverted position on a drying rack after washing the milking cans, 75 per cent of farmers were not practicing. More than half (58.34%) of the farmers used the milking cans for storing water whereas 41.66 per cent were not utilizing the milking can for any other purpose than milking purpose. Most (86.66%) of the farmers were cleaning the milking can soon after dispatching the milk.

The results indicated a positive trend towards clean milk production but still there is enormous scope in educating the dairy farmers in other practices like proper drying of milking can after washing so that bacterial load of milk can be reduced.

These findings are in consonance with the findings of Rathore *et al.*², and not in line with the findings of Worku *et al.*³, who observed that majority (83.34%) households used traditional dairy containers.

Milking Practices adopted in Community Milking System at equipment level are shown in Table 2, all the personnel of community milking centres under the study were cleaning the milking machines and milking cans even before milking process started and after milking process got over and also were placing the milking cans in an inverted position on a drying rack after washing them.

Similarly regarding the type of milk container, cent per cent of personnel of community milking centers were using stainless steel, semi open mouth milking can (Scientific milking can) for milking but none of the personnel in all the community centres

were cleaning the teat cups of milk machine after every milking. Regarding the practice of closing the container soon after milking got over, cent per cent of the societies of CMS were adopting the practice

The results of the study indicated that, the personnel were aware and thus adopting all

most all hygienic practices at equipment level but were ignorant regarding cleaning of teat cups of milk machine after every milking, which also has greater impact on hygienic milk production, hence education has to be imparted in creating awareness regarding this practice among the respondents of CMS.

Table 1: Milking practices adopted in IMS at Equipment Level

Sl. No.	Milking practices	Respondents No. = 60	
		F	%
1	Cleaning the milking cans before milking		
	a. Yes	60	100.0
	b. Plain water	42	70.00
	c. Detergents	18	30.00
	d. No	00	00.00
2	Cleaning the milking cans after dispatching the milk		
	a. Yes	52	86.66
	b. Plain water	12	23.07
	c. Hot water	00	00.00
	d. Detergents	40	76.92
	e. Acids/Sanitizers	00	00.00
	f. No	08	13.34
3	Type of milk container		
	a. Iron	00	00.00
	b. Plastic	19	31.66
	c. Stainless steel	41	68.34
	d. Aluminium	00	00.00
4	Type of mouth of the milking container		
	a. Full open mouth can	23	38.34
	b. Scientific milking can	37	61.66
5	Using the milking can for some other purpose		
	a. Yes	35	58.34
	b. No	25	41.66
	Purpose		
	a. Storing water	35	100.0
6	Placing the milking cans in an inverted position on a drying rack		
	a. Yes	15	25.00
	b. No	45	75.00
7	Closing the container soon after milking gets over		
	a. Yes	47	78.34
	b. No	13	21.66

Table 2: Milking practices adopted in CMS at Equipment level

Sl. No.	Milking practices	Respondents No. = 6	
		F	%
1	Cleaning milking machines before milking process starts		
	a. Plain water	06	100.0
	b. Disinfectant	00	00.00
	c. Hot water	00	00.00
2	Cleaning teat cups after every milking		
	a. Yes	00	00.00
	b. No	06	100.0
3	Cleaning milking cans before milking process start		
	a. Plain water	06	100.0
	b. Detergent	00	00.00
	c. Hot water	00	00.00
4	Clean milking cans after milking process got over		
	a. Plain water	00	00.00
	b. Plain water along with detergent	06	100.0
	c. Hot water	00	00.00
5	Type of milk container		
	a. Iron	00	00.00
	b. Stainless steel	06	100.0
	c. Plastic	00	00.00
6	Type of mouth of the milking container		
	a. Semi mouth opened (Scientific milking can)	06	100.0
	b. Full mouth opened milking container	00	00.00
7	Closing milk container soon after milking got over		
	a. Yes	06	100.0
	b. No	00	00.00
8	Placing milking cans in an inverted position on a drying rack		
	a. Yes	06	100.0
	b. No	00	00.00
9	Cleaning milking machine after milking process got over		
	a. Yes	06	100.0
	b. Plain water	04	66.67
	c. Hot water	02	33.33
	d. No	00	00.00

CONCLUSION

More extension activities on clean milk production should be conducted to farmers of in IMS than CMS through which bacterial load of milk can be decreased so that shelf life of milk can be improved and also export of milk can be increased. The present system of payment is based on fat and SNF needs to be changed to payment based on bacteriological quality, so that highest standards of bacteriological quality of milk can be maintained.

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