

## **MILKING MANAGEMENT PRACTICES BY CROSSBRED MILK PRODUCERS IN RURAL AND URBAN AREAS OF YSR KADAPA DISTRICT**

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**Abstract:** A field survey was conducted with randomly selected crossbred cow milk producers through personal interview to study the Milking Management Practices followed by the milk producers in rural and urban areas of YSR Kadapa district, Andhra Pradesh. The study revealed that majority of farmers practiced wet hand milking and none of the farmers practiced machine method of milking. Maximum number of respondents adopted knuckling method at the starting of milking operations followed by stripping at the end of milking. None of the respondents practiced dipping of teats in antiseptic solution and straining of milk with muslin cloth. Cleaning of milk utensils was done with disinfectant by majority of the respondents. Before milking, majority of respondents washed their hands only with water and about 90.00% of the farmers only cleaned udder. Majority of the farmers (70.00%) were using pucca flooring in the animal houses. More than 50.00 per cent of the farmers were cleaning the animal sheds twice daily.

**Keywords:** Milking practices, clean milk production, Cross Bred Cows.

### **Introduction**

Andhra Pradesh is one of the major milk producing states of the country with annual production of 88.11 lakhs metric tonnes of milk production and occupies 6<sup>th</sup> position in the country in milk production with a bovine population of 20.2 million (19<sup>th</sup> livestock census, 2012). There is an immense scope to upgrade the quality of dairy production in the state of Andhra Pradesh through appropriate managerial interventions.

With growing awareness the consumers are becoming more conscious about the quality and safety of the food they consume. Manufacturing of good quality milk based products need production of quality and hygienic raw milk. To achieve this objective, the factors contributing to hygienic conditions and good animal husbandry practices at village level needs to be assessed. Quality management awareness about milk at the producer level enhances clean milk production and in turn leads to rural prosperity. Keeping these things in

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mind the present study was designed to gather information on milking management practices followed by the milk producers in rural and urban areas of YSR Kadapa district.

### **Materials and Methods**

A field survey was conducted in YSR Kadapa district Andhra Pradesh during February 2015 to August 2015. The district was divided into five divisions as per Animal Husbandry Department and they are Kadapa, Jammalamadugu, Pulivendala, Rajampeta and Raychoti. Two villages were selected randomly from rural and urban areas of each division. A total of 60 farmers were selected from five divisions of the district consisting of 30 farmers from the rural areas and 30 farmers from urban areas. Data pertaining to milking management practices followed by the crossbred milk producers was collected in a pre-tested interview schedule.

### **Results and Discussion**

The information regarding milking management practices followed by the milk producers in crossbred cows were presented in table 1.

It was observed that 100 per cent of respondents followed hand milking in both rural and urban areas of study and none of the respondent adopted machine method. It might not be easier for the farmers with lower herd size to purchase milking machines as machines are costlier. These findings were in agreement with Patbandha *et al.*, (2014). These results were in contrary to Bimalet *et al.*, (2013) who observed that 8.33 per cent of farmers were using machine milking in the Kottayam district of Kerala state where the literacy rate is high.

Majority of the farmers adopted wet hand milking in both rural (93.33%) and urban (100.00%) areas of study. These findings were in agreement with Patbandha *et al.*, (2014) and Sabapara *et al.*, (2015).

Though it is considered hygienic and scientific minimum per cent of farmers in rural (10.00%) and urban areas (16.67%) adopted full hand method of milking. Most (53.33%) of the farmers in rural areas and 30.00 per cent of the farmers in urban areas adopted knuckling as it was comfortable for the milkers as it is less painful to them. These results indicated that farmers were less aware about the scientific method of milking. These findings were in agreement with Kishore *et al.*, (2013), Patbandha *et al.*, (2014), Rathore *et al.*, (2010) and Sabapara *et al.*, (2015). However Jacob and Anu(2013) reported that 93.00% were practicing full hand method of milking in their study which indicated good knowledge of scientific milking.

None of the milk producer followed teat dipping at the end of milking in both rural and urban areas of study, though it is a good post milking practice to reduce the infection. The findings of Jacob and Anu (2013) and Patbandha *et al.*, (2014) were in agreement with the results of the present study where there is a scope for improving the knowledge of farmers by creating awareness regarding clean milk production through training programmes.

In the present study majority of respondents (76.67%) were not following the practice of straining milk which is a good practice to produce quality milk. All the farmers washed their hands in both rural and urban areas whereas low percentage of farmers was using disinfectant for washing of hands. The present results were similar with the findings of Rathore *et al.*, (2010), Sabapara *et al.*, (2015) and Shitole *et al.*, (2009) who reported that cleaning of milker hands were adopted by all farmers whereas Patbandha *et al.*, (2014) reported that 87.08 per cent of farmers washed their hands prior to milking for clean milk production. It was observed that most of the crossbred cow farmers (90.00%) were cleaning only udder of the animal in both rural and urban areas. These findings were similar to Gupta *et al.*, (2008), Rathore *et al.*, (2010) and Shitole *et al.*, (2009).

Before milking, 3.33 per cent of the respondents in rural areas and 10.00 per cent in urban areas followed cleaning only back of animal. These results were in contrary to findings of Patbandha *et al.*, (2014) who reported that 67.50 per cent farmers washed hind quarter or back of animals before milking.

Only a few per cent of farmers in both rural (6.67%) and urban (6.67%) areas cleaned entire animals in the study area. These results were nearly in agreement with Kishore *et al.*, (2013) who reported that washing of animals before milking was practiced by only 15.68 per cent farmers.

It was observed that majority of the respondents cleaned their utensils with disinfectant in both rural (76.67%) and urban (86.67%) areas of study. The results were nearly in agreement with Jacob and Anu (2013) who reported that most of the respondents in Palakkad district of Kerala were practicing cleaning of the utensils by using detergent (87.00%). It was further observed that cleaning of utensils with ash was done by 13.33 per cent farmers in rural areas and 3.33 per cent in urban areas. These findings were contrary to the findings of Rathore *et al.*, (2010) who reported that majority (56.50%) of the cattle keepers used sand and clean water for cleaning of milking utensils followed by ash and water (40.75%) and cleaning agent and water (2.75%).

Majority (70.00%) of the farmers were using pucca flooring in both rural and urban areas, while 30.00 per cent farmers were using kutcha flooring because of more availability of cheaper and non-slippery stone slabs in the area. This observation was in disagreement with findings of Rajiv *et al.*, (2004) who reported that majority of animal sheds with kutcha flooring in rural and urban areas.

It was observed that more than 50.00 per cent of the crossbred cow farmers in both the rural and urban study areas were cleaning the animal sheds twice daily whereas Gupta *et al.*, (2008) reported that nearly 70.00 per cent farmers cleaned the stalls once daily and the remaining households did it twice a day in nine agro-climatic zones of Rajasthan.

### **Conclusion**

Majority of farmers (96.67%) practiced wet hand milking and none of the farmer practiced machine milking. Maximum number of respondents adopted knuckling method of milking at starting of milking operations followed by stripping at the end of milking. None of the respondents practiced dipping of teats in antiseptic solution and straining of milk with muslin cloth. Cleaning of milk utensils was done with disinfectant by majority of the milk producers. Before milking of animals, washing of hands with only water was practiced by majority of milk producers in the study area. Most of the farmers were cleaning only udder of the animal. Majority of the farmers (70.00%) were using pucca flooring in the animal houses. More than 50.00 per cent of the farmers were cleaning the animal sheds twice daily.

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**Table 1. Milking management practices adopted by the crossbred cow milkproducers in YSR Kadapa district**

	<b>Milking Management Practices</b>		<b>Rural (N=30) %</b>	<b>Urban (N=30) %</b>	<b>Overall (N=60) %</b>
1	Method of milking	Hand method	100.00	100.00	100.00
		Machine method	0.00	0.00	0.00
	Type of milking (Wet/Dry hand)	Wet milking	93.33	100.00	96.67
		Dry milking	6.67	0.00	3.33
3	Method of hand milking	Stripping	36.67	53.33	45.00
		Full hand	10.00	16.67	13.33
		Knuckling	53.33	30.00	41.67
4	Labour for milking of animals	Familylabour	90.00	90.00	90.00
		Hiredlabour	10.00	10.00	10.00
5	Teat dips	Followed	0.00	0.00	0.00
		Not followed	100.00	100.00	100.00
6	Straining of milk	Practiced	23.33	23.33	23.33
		Not practiced	76.67	76.67	76.67
7	Hygiene of milk men (washing of hands)	Washed	93.33	86.67	90.00
		Not washed	0.00	0.00	0.00
		Disinfectant used	6.67	13.33	10.00
8	Cleaning of animals before milking	Entire animal	6.67	6.67	6.67
		Back of animal	3.33	10.00	6.67
		Only udder	90.00	83.33	86.67
9	Cleaning of milking utensils	Only water	10.00	10.00	10.00
		Disinfectant used	76.67	86.67	81.67
		Ash used	13.33	3.33	8.33
10	Floor type in animal shed	Kutchra	30.00	30.00	30.00
		Pucca	70.00	70.00	70.00
11	Cleaning of animal sheds	Once in a day	46.67	43.33	45.00
		Twice in a day	53.33	56.67	55.00
12	Calf suckling pattern of milk from teats	One teat	43.33	40.00	41.66
		Two teats	0.00	0.00	0.00
		Three teats	0.00	0.00	0.00
		Four teats (last milk)	56.67	60.00	58.33