Post Harhest Losses and risk factors along the rural and peri urban dairy sub value chains of Nakuru County, Kenya.

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RELOAD
REDUCING LOSSES ADDING VALUE

Objectives

Milk postharvest losses (PHL) from spoilage microorganisms can occur from the farm to processing. This study quantified PHL and their associated risk factors to inform management intervention.

Conclusion

PHL were highest at the farm (15-20%) and during transportation (16-30%) in both rural and peri-urban value chains. Risks of losses at the farm are majorly the udder, hands of milking personnel and containers.

Methodology

Research tools ; Questionnaire, Observation checklist, microbial analysis (Total Viable Counts (TVC), Coliform counts. Losses determined Using KEBS standards for raw milk (TVC> 6.3CFU/ml). Value chain nodes were nested within locations.

RESULTS

Raw milk losses along rural and peri urban sub value chains

Rural Losses **Peri –urban losses**

Farms

15%

20%

Transportation

16%

30%

Collection center

8%

7%

Table 1: Regression coefficients of risk factors versus farm gate milk

RISK FACTORS	RURAL		PERI URBAN	
	TVC	CC	TVC	CC
Constant	4.84	5.34	3.29	4.46
Udder	2.73*	0.83	0.87	0.58
Hands	2.63*	1.46*	1.15	0.36
Container	0.18	0.74	1.19	0.04
Bulk tank	0.05	0.16	1.51*	0.31
Water source	0.12	0.88*	0.6	0.16

Values followed by * contribute significantly to microbial type highlighted in the farm gate milk (TVC- Total viable Counts, CC- coliform counts).

Recommendations

Improved milk handling hygiene practices are required at all the value chain nodes. Introduction of a cold value chain is required immediately after milk harvesting.

Reference

Gurmessa T., 2015, Microbiological quality and impact of hygiene practices on raw cow's milk obtained from pastoralists and market. Global Journal of Food Science and Technology 2: 153-158.

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