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Utilisation of High Acid Milk at Rural and Peri-Urban Milk Value Chain Systems in Nakuru County, Kenya

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Abstract

Developed acidity in milk results from microbial activity as it is being transported from farms to collection centres or stored under uncontrolled temperature. The resulting high acid milk is considered of low quality and rejected at the centres based on failed alcohol test. Milk rejection contributes to post-harvest losses at farm level which can be a significant amount of total production. The contribution of rejected milk to post-harvest losses is documented however its utilisation is not. This study therefore determined the utilisation of high acid milk that is rejected at collection centres. It sought knowledge on any products developed from this kind of milk as well as the products' processing steps. Using a semi-structured researcher administered questionnaire, Focus Group Discussions (FGDs), observation checklist and Key Informant Interviews (KIIs), data was collected from peri-urban and rural milk value chain systems, that is, Dundori and Olenguruone respectively in Nakuru County. Results reveal insufficiency of milk quality control at the collection centres therefore leading to disposing of high acid milk that can be utilised. It was noted that the most common quality control tests performed across the collection centres, were the alcohol test and lactometer test. Several volumes of milk failed these tests per month resulting to milk post-harvest losses. Frequency of milk rejection was higher during rainy season compared to the dry. Naturally fermented milk was the most common product developed from rejected high acid milk. Other farmers mentioned the disposal of this milk while others fed it to animals and/or sold it to neighbours. The study concludes that once safety and physico-chemical quality of high acid milk is determined, appropriate technologies for processing it can be developed. Minimal industrial (processing) infrastructure that can be accessed by small-scale processors can be used.

Keywords: Milk post-harvest losses, high acid milk, milk collection centres

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