



# INFLUENCE OF MILK HANDLING CONTAINERS ON RAW MILK SHELF LIFE



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## OBJECTIVE

To compare shelf life of raw milk stored in plastic, stainless steel, mazzi and aluminum containers.

This responds to high milk rejection cases for milk in plastic containers, which farmers and milk traders use against the recommended mazzi cans (food grade milk containers), aluminum cans or stainless steel cans.

## THE MESSAGE

Milk quality deteriorates faster for milk handled in plastic containers than when in stainless steel, mazzi and aluminum containers.

The resulting post-harvest losses can be avoided through education and promotion of use of food grade milk containers



Mazzi can

## METHODOLOGY

A litre of milk was stored in each of the four milk handling containers and transported from the farm to the laboratory.

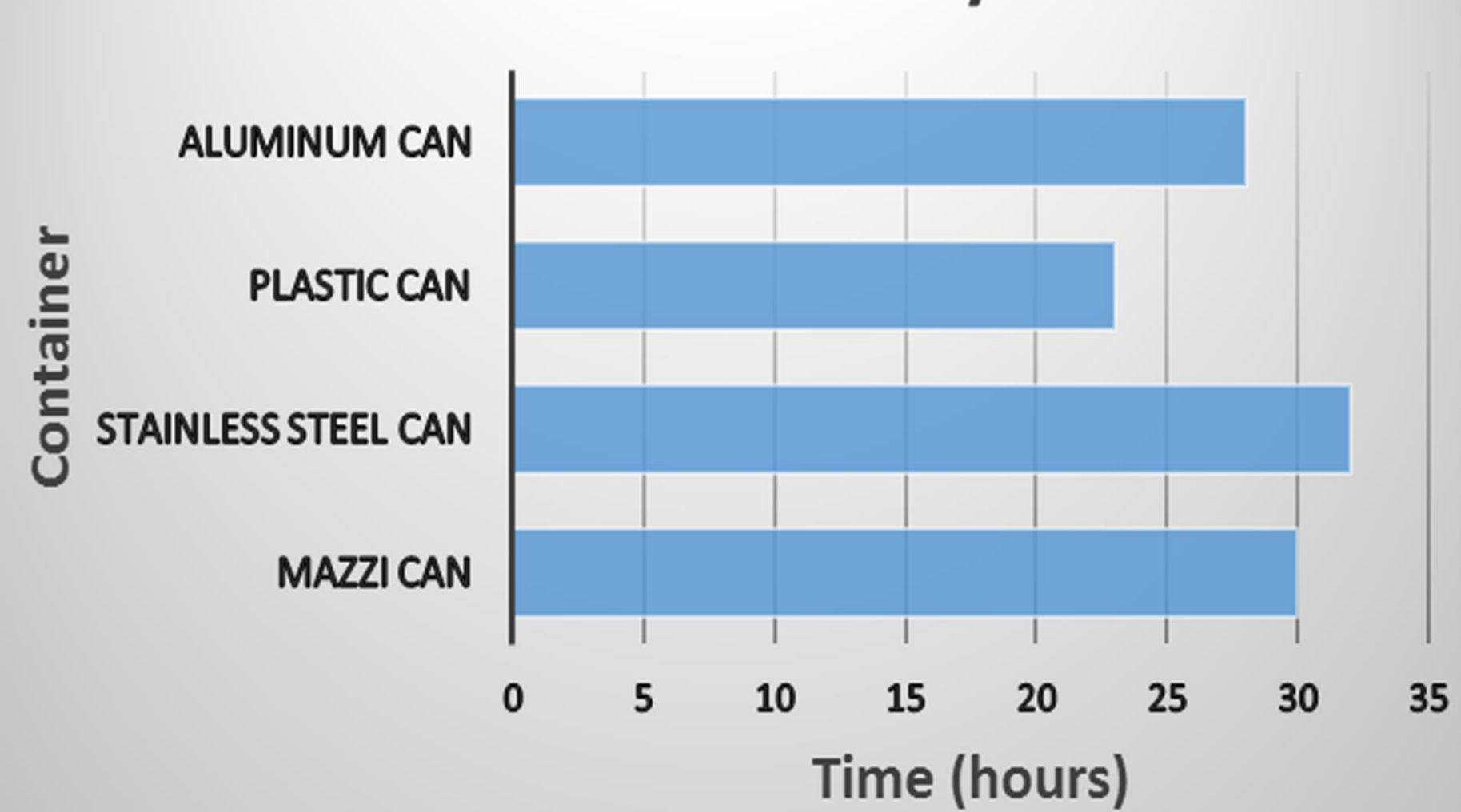
Containers were labeled then milk in each container monitored for developed acidity through titration, stability to 72% alcohol and the rate of resazurin dye reduction until the milk quality failed.



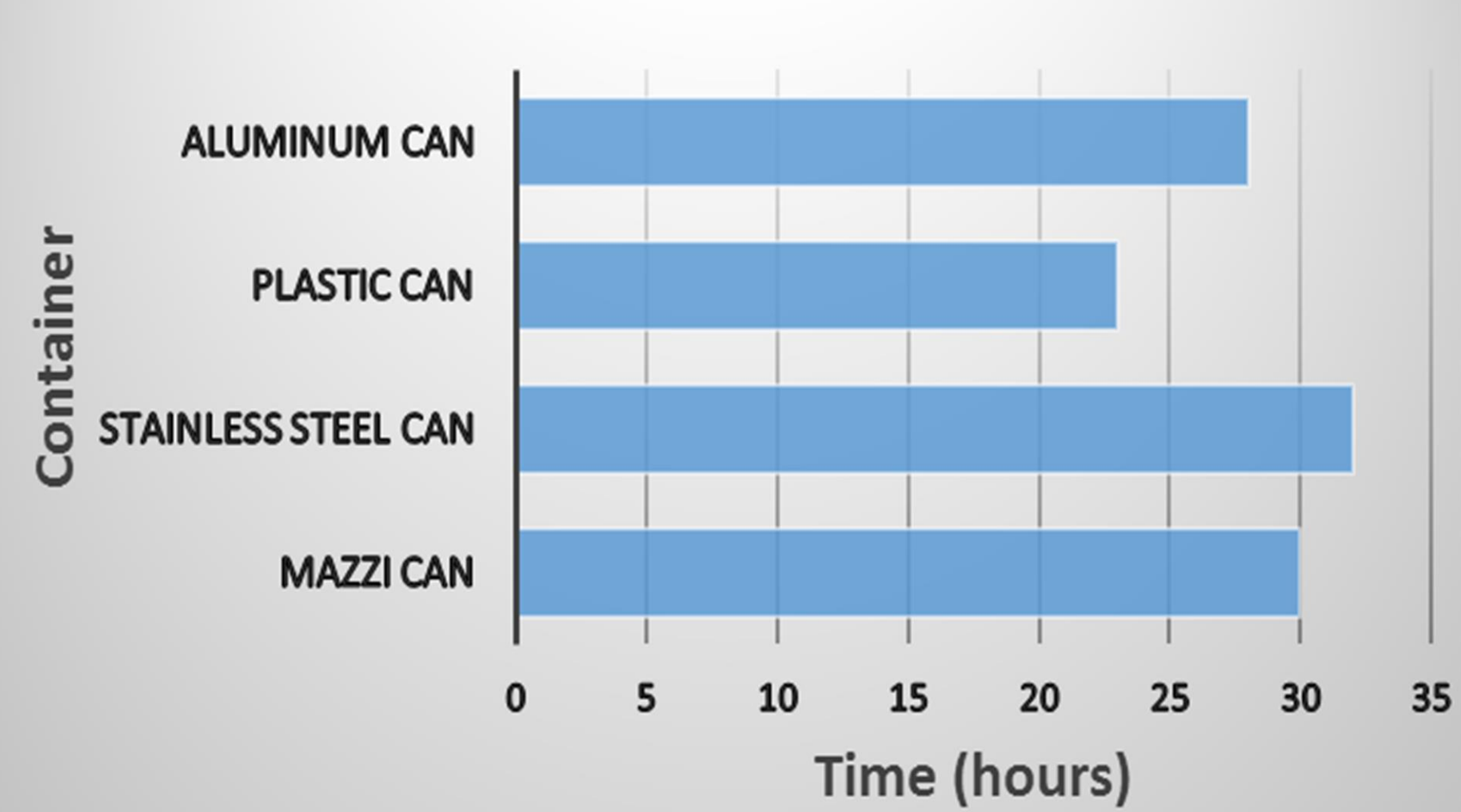
## RESULTS

Milk in the plastic container failed the titratable acidity, alcohol test and resazurin tests in less than 24 hours. The milk in the mazzi, stainless steel and aluminum cans failed the three tests after 30, 32 and 28 hours respectively.

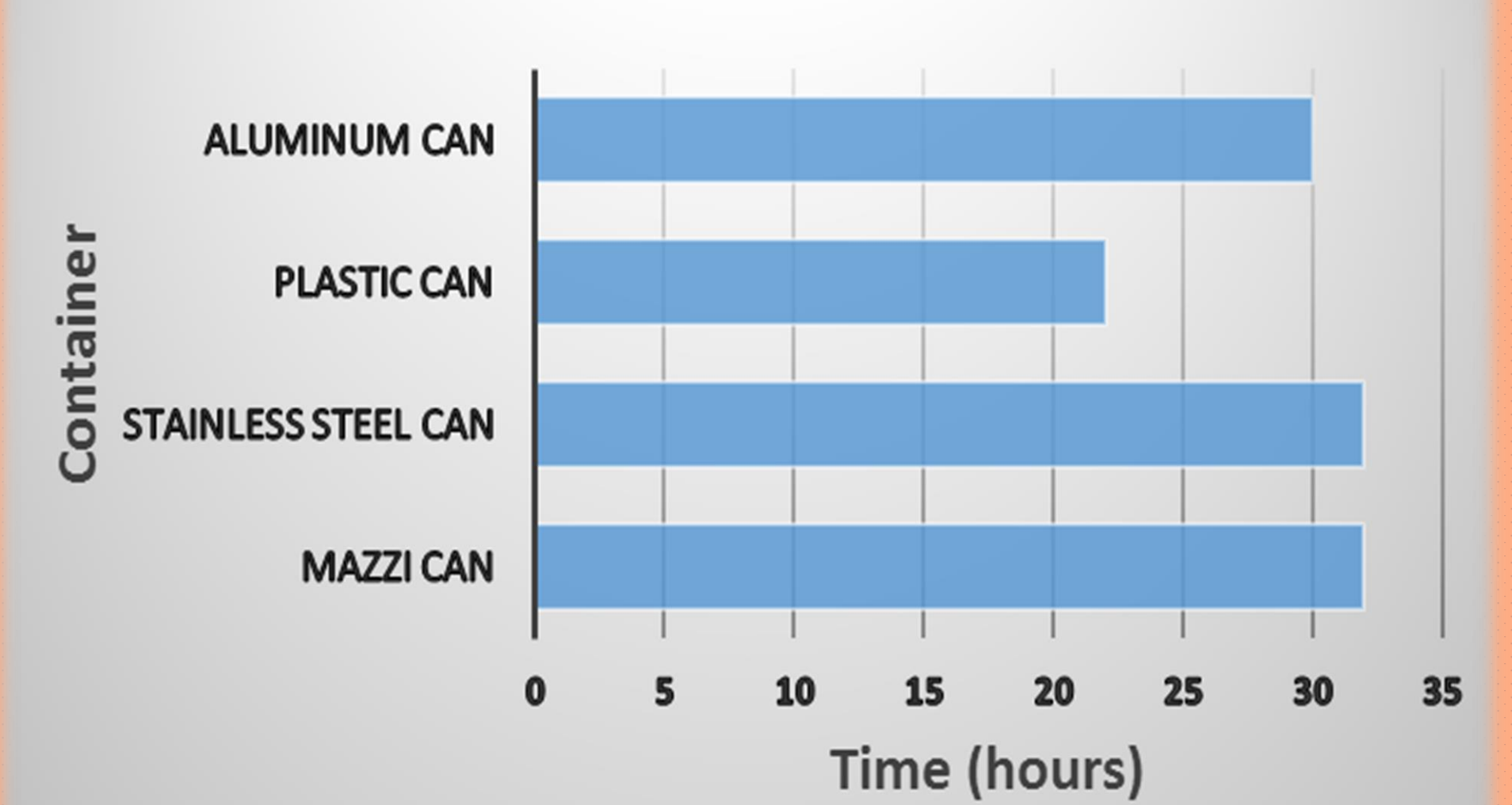
Titratable acidity



Alcohol test



Resazurin test



## REFERENCE

Wafula NW, Matofari JW, Nduko JM and Lamuka P (2016). Effectiveness of the sanitation regimes used by dairy actors to control microbial contamination of plastic jerry cans' surfaces. *International Journal of Food Contamination*, 3:9 DOI: <http://dx.doi.org/10.1186/s40550-016-0032-8>

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