

Review of: "The Effect of Fermentation on the Physicochemical Quality and the Presence and Levels of Pesticide Residue in Cow Milk"

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Potential competing interests: No potential competing interests to declare.

The Effect of Fermentation on the Physicochemical Quality

and the Presence and Levels of Pesticide Residue in Cow

Milk

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The authors monitored the physicochemical properties and pesticides in milk that was being fermented. The main aim is to investigate the effect of fermentation on the levels of pesticides in milk.

The study is relevant considering the dependence on cattle and its products for protein.

The study demonstrated that pH decreased with increasing fermentation period while the titratable acid in the milk increased with increasing fermentation period.

The TSS also decreased with increasing fermentation period.

The study was done over a 24-hour fermentation period.

The authors did not give the basis for restricting the fermentation period to only 24 hours.

Knowing the pH, acid, and TSS levels beyond 24 hours would have been interesting.

This would allow for the determination of the optimal fermentation period.

Essentially, the physicochemical parameters confirmed earlier studies' outcomes.

However, in the case of TSS, the study could have analysed the sugar content to confirm its transformation in the course of the fermentation period.

Assessing the level of pesticides in the milk is the most important part of the study.

It is good to know that pesticides could not be found in most of the milk samples.

The study detected chlorpyrifos above the recommended level.

The authors could have included a social experiment to determine the type of pesticides that are mostly used in the sampling area. This would.

The study could have analysed the level of pesticides in the milk before the fermentation process to determine the effect of fermentation on the level of pesticides.

In effect, the study has several unanswered questions that need further experiments to answer them.

1. What is the level of sugar before and after the fermentation period?
2. What are the various agro pesticides used in the area?
3. Where is the source of chlorpyrifos in the milk and how can this be minimized?
4. What is the level of chlorpyrifos in milk before the fermentation period?

I am convinced that if the authors take steps to address the issues I have raised, it will improve the manuscript tremendously.