

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

Inga Ciprovica<sup>1</sup>

<sup>1</sup> Latvian University of Agriculture

Potential competing interests: No potential competing interests to declare.

The authors have undertaken an interesting topic, but the manuscript requires significant revisions (material and methods section, results, and conclusions).

My objections are:

1. There is insufficient description of the collection of raw milk samples. I would like to emphasise that the samples used in the study are not fresh (pH below 6).
2. The fermentation process is described in a very simplified way; the fermentation temperature is not clear. I would like to think that it was not quite 20C. There is a lack of information on the microbiota of raw milk or reference to studies on the microbiota of raw milk by other researchers in Ghana.
3. The usefulness of the tests chosen is not clear. Why was milk found to have a soluble solids content that is not typical? The colour results of milk should also be analysed in the context of the microbiota composition.
4. Please clarify the milk acidity data and measurement units.
5. It is not clear from the methodology which pesticide residues were detected; Tables 2 and 3 do not shed light on the actual situation. Are these data from all 33 samples? Considering the information given by the authors in the Introduction, one has to assume that they expected a higher content of the different pesticide residues in the analysed samples. Please note that the milk samples were acidic according to the pH data (is this related to the ability of certain lactic acid bacteria to degrade pesticides?)
6. The information on pesticide degradation by bacteria is very poorly presented. Please clarify the information by identifying specific genera or species which can degrade pesticides, and hypothesise whether such representatives might be present in the samples.
7. The article needs to be cleaned up and strengthened; it is not acceptable for publication in its present form.
8. Comments and suggestions are incorporated into the manuscript.