Review of: "Meta-Omics Analyses of Organic and Conventional Fermented Vegetables Reveal Differences in Health-Boosting Potential"

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Potential competing interests: No potential competing interests to declare.

Comments - further recommendations

I hope these comments are helpful.

General Comments

This study aims to investigate the microbiome composition and metabolome profiles of different fermented vegetables produced under these two production systems, to understand how regenerative and conventional farming practices impact the abundance of potentially probiotic microorganisms and metabolites of importance for human nutrition and health maintenance. **The article may be acceptable for publication after the authors made some revisions.**

- **Specific Comments**

1. **Abstract:** - The authors should re-arrange and re-write the abstract in the following order (Problem of research, aim of study, remarkable methodology, remarkable results, and significance of study).
2. **Introduction:** - The authors should support this section with many relevant bibliographies, such as:

- Molecular techniques reveal more secrets of fermented foods. Critical Reviews in Food Science and Nutrition (CRFSN), 60 (1): 11-32. DOI: 10.1080/10408398.2018.1506906.
- Traditionally fermented pickles: How does the microbial diversity associated with them contribute to their nutritional and health benefits? Journal of Functional Foods, 70, 103971. DOI: 10.1016/j.jff.2020.103971.

- Why Fermented Foods Are the Promising Food Trends in the Future? Current Research in Nutrition and Food Science, 10 (3): 827-829. DOI: 10.12944/CRNFSJ.10.3.1. Available from: https://bit.ly/3Fq6XE9.
- African fermented fish products in the scope of risks: a review. International Food Research Journal (IFRJ), 21 (2): 425-432.
- Revolution in Fermented Food: From Artisan Household Technology to Era of Biotechnology. In: Molecular Techniques in Food Biology: Safety, Biotechnology, Authenticity & Traceability. (Eds. A.F. El Sheikha, R.E. Levin, and J. Xu), John Wiley & Sons Ltd., Chichester, UK, pp. 241-260.
- Oriental Fermented Functional (Probiotic) Foods. In: Microorganisms and Fermentation of Traditional Foods. Food Biology Series. (Eds. R.C. Ray and D. Montet), Science Publishers Inc., CRC Press, Boca Raton, Florida, USA, pp. 283-311.
- African Fermented Foods: Historical Roots and Real Benefits. In: Microorganisms and Fermentation of Traditional Foods. Food Biology Series. (Eds. R.C. Ray and D. Montet), Science Publishers Inc., CRC Press, Boca Raton, Florida, USA, pp. 248-282.
- Fermented Fish and Fish Products: Snapshots on Culture and Health. In: Microorganisms and Fermentation of Traditional Foods. Food Biology Series. (Eds. R.C. Ray and D. Montet), Science Publishers Inc., CRC Press, Boca Raton, Florida, USA, pp. 188-222.
- The authors should clarify the aim and significance of this paper.

3. **Materials and Methods:** - The authors should provide many sections with relevant references.
4. **Figures:** - The authors should use high-resolution versions of figures.
5. **Conclusion:** - The authors should re-write this section and support it with recommendations and future perspectives.

Conclusions:

(a) Accepted without modifications __

(b) Accepted with minor changes __

(c) Acceptable if major changes are made √

(d) Rejected __