Review of: "Biological Components in Cucumbers (Cucumis Sativus L.): Implications for Pickle Manufacturing and Health Benefits in Fresh and Processed Varieties"

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Potential competing interests: No potential competing interests to declare.

COMMENTS

General comments:

The work carried out in the manuscript is interesting and aimed at the **Biological Components in Cucumbers (Cucumis Sativus L.): Implications for Pickle Manufacturing and Health Benefits in Fresh and Processed Varieties.** Better connect your research findings to previous works published in related journals. The innovation and the importance of this work should be clearly highlighted in the abstract, introduction, and conclusions. Please work on this and prove to us why this work is valuable. Would you explicitly specify the novelty of your work? What progress against the most recent state-of-the-art similar studies was made? Please also remove ANY lumped references. Please define each of them separately to avoid inappropriate citations.

Detailed comments:

Title: Should be upgraded by much more attractive, informative and concise for reader, please revise it for better understanding.

Abstract:

In the abstract, please indicate the achievements from your study that are relevant to the journal's scope. Please revise the abstract with more concise and details on the related experiment to stand out the originality of this study. Why you did not mentioned the important characterization techniques in the abstract section? The authors should include the challenges and future prospect of this work in abstract for better understanding otherwise it is much more confusing to the reader indeed. Please check it out very carefully.

Keyword: The keyword should be arrange alphabetically.

Introduction:

The literature review needs more updating with works to have a clear and concise state-of-the-art analysis. This should clearly show the knowledge gaps identified and link them to the paper's goals. The introduction section could be better

organized. While the general introduction is acceptable, the state-of-the-art review is very difficult to understand, and no specific thoughts can be inferred. Author must provide a table and compare current work with others. The major defect of this study is that the debate or argument needs to be clearly stated. There is no sufficient discussion about the bad impact of conventional/synthetic foods or processfoods on human health system and environment I found into your introduction, but it must be included. Additionally the number of reference into this particular section is too low especially in some cases author mentioned some valuable information but did not provide the actual reference which is also confusing to me and should not be acceptable also.

In addition, the introduction should clearly state the research questions and targets first.

Then answer several questions:

Why is the topic important (or why do you study it)?

What are the research questions?

What has been studied?

What are your contributions?

Why is it important to propose this particular method?

You may see these articles and follow the revised versions. The relevant references may be of interest to the author according to the below:

https://doi.org/10.1016/j.jiec.2023.07.048

https://doi.org/10.1016/j.enmm.2023.100797

https://doi.org/10.1080/03067319.2022.2039647

https://doi.org/10.1016/j.sajce.2023.12.005

doi: 10.11648/j.ijfet.20180202.12

DOI: 10.4172/2155-6199.1000485

https://doi.org/10.1016/j.heliyon.2023.e16628

doi:10.4028/www.scientific.net/NHC.23.24

Please eliminate the use of redundant words, e.g., recently, respectively, therefore, in addition, additionally, furthermore. Please revise all similar cases, as removing these term(s) would not significantly affect the sentence's meaning. This will keep the manuscript as concise as possible. Please check ALL. Avoid beginning or ending a sentence with one or a few words; they are usually redundant. Kindly revise all. Also, don't forget to remove pronouns like **I, We, Our**, etc., which you used more and more throughout the manuscripts. Why do you use 1.0 as the section number? Please revise all similar

cases throughout the MS to make them standard and acceptable.

Remove **Figure 1** from the introduction section and place it in the experimental section.

Nutritive Composition

Upgrade Table 1, provide sufficient references for Table 1, and Fig. 1; you could provide a flow diagram for pickle production rather than the existing photos for better understanding. It is too confusing to me.

Pickle Production

Revise this section by providing a flow diagram along with mechanisms and relevant references for better clarity. This should not be very wordy.

Health Benefits

This section is not well cited. Please revise it to improve the quality of this MS.

Conclusions:

Your conclusion section is extremely poor in quality. Revise it by providing much more concise and precise information. Please make sure your conclusions section underscores the scientific value added of your paper and the applicability of your findings/results. Highlight the novelty of your study. You should revise it carefully by pointing out the remaining problems and questions and by indicating future directions. I emphasize again that the English language should be revised.

References:

Please check the reference section carefully and correct any inconsistencies. Also, please update this section with recent references as per journal requirements. Most of your references have no valid DOI number or proper URL link, which should be included properly.

Please provide a graphical abstract as well as highlights for better understanding of your work by readers.

In its current form, it could not be accepted for publication in this prestigious journal, and my decision is major revision.