

Review of: "Recycling of Waste Bamboo (*Bambusa vulgaris*) into Value-Added Platform Chemicals: Bioethanol and Bioethylene"

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Potential competing interests: No potential competing interests to declare.

INTRODUCTION

- i. Include the present uses of bamboo.
- ii. Include the features/characteristics of the bamboo that qualify it as an alternative.
- iii. The aim and objectives of the research should be clearly presented.

LITERATURE REVIEW

- i. ... renewable resources in the form of lignocellulose. This statement should be redacted to convey the actual message.
- ii. Define FMCG at the first mention.
- iii. ... favor abundance..... This statement should be redacted.
- iv. Italicize the botanical name.
- v. The best time to harvest the bamboo should be included, and the percent cellulose at this stage highlighted.
- vi. The grades of chemicals (commercial or analytical & % purity) should be included.
- vii. The fermentation conditions should be included – temperature, pH.
- viii.

METHODOLOGY

- The source of bamboo should be well presented, e.g., 'Abandoned bamboo stems at the premises of the church were used.'
- How was the bamboo cut (manual or machined?) and to what size were they cut?
- It is pertinent to mention the actual part of the bamboo used.

- Include the steps followed between the treatment with NaOH and H₂O₂.
- Figure 5 does not show dilute NaOH.
- Figure 6: What pretreatment is shown here?
- What step preceded the addition of cellulase? Was the broth cooled prior to this step? If yes, to what temperature? Was there a dilution?
- Explain more on why the yeast was added and not just to speed the fermentation process.
- Include the dosage and fermentation conditions of temperature and pH.
- Only the equations for calculating the yield and percent purity should feature in the methodology section, not the derived values.
- For the dehydration step, was it the authors' method? If not, the reference(s) should be cited.

RESULTS

- a. Tables 1 and 2 should be presented together for better comparison.
- b. Discussion should incorporate a comparison of the bio-ethanol produced and conventional ethanol and bio-ethanol from other sources.

CONCLUSION

- Bio-ethylene production was not included in the methodology; hence, a conclusion cannot be drawn on it.
- The conclusion should be based on the results obtained, and it should also be in tandem with the set objectives of the research.