

## Review of: "Valorization of palm oil wastes into oyster mushrooms (Pleurotus HK-37) and biogas production"

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Potential competing interests: No potential competing interests to declare.

The authors' approach of utilizing oil palm wastes (considered as oil palm biomass) as a substrate for mushroom cultivation and subsequently using the spent mushroom for biogas production is commendable. The background and methodology are quite comprehensive.

However, the scope of the work appears to be somewhat broad, encompassing the entire process from oil palm waste to mushroom cultivation and then using the spent waste for biogas production. This breadth may result in a lack of focus, depth, and may make it challenging for readers to fully appreciate the novelty of the research. The current presentation seems rather brief and superficial, particularly in the sections discussing mushroom cultivation and biogas production. Additionally, there appears to be a deficiency in the inclusion of relevant variables and in-depth analyses to support the scientific explanations in the discussion section.

To improve the overall impact and clarity of the research, I would suggest that the author consider splitting the work into two separate publications. The first paper could concentrate on mushroom cultivation from oil palm waste, with an emphasis on introducing more variables and testing parameters, along with detailed statistical analyses. This approach would allow for a more comprehensive exploration of this aspect of the research.

Subsequently, a second paper could be dedicated solely to biogas production using the spent mushroom substrate, delving deeply into this phase of the study. This division would enable a more focused and in-depth examination of each stage of the process, ultimately enhancing the impact and clarity of the research findings.

Thank you and all the best!