

Review Form 3

Journal Name:	Journal of Scientific Research and Reports
Manuscript Number:	Ms_JSRR_128990
Title of the Manuscript:	Effect of Physical and Chemical Extraction Methods on Yield of Chayote (<i>Sechium edule</i>) Tuber Starch
Type of the Article	A report from a scientific study

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PART 1: Comments

	Reviewer's comment	Author's Feedback (<i>Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here</i>)
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	The study extends literature and enhances the visibility of a lesser-known starch produced from <i>Sechium edule</i> tuber, adding value to the products. The study also characterizes the starch obtained for commercial utilization.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title is absolutely suitable	

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<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>Starch plays a crucial role in the food, pharmaceutical, and textile industries. Research on lesser-known starch sources like chayote tuber starch provides insights into their possible advantages over conventional sources such as maize, potato, and cassava starches. This study investigates the effect of physical and chemical extraction methods on the yield of starch from chayote (<i>Sechium edule</i>) tubers. Fresh chayote tubers were subjected to physical (water-based) and chemical (NaOH and Na₂S₂O₅) extraction methods. The yields of starch from these methods were calculated and statistically analyzed using ANOVA. Results revealed that the physical method produced the highest yield (21.62%), comparable to yields from chemical methods using Na₂S₂O₅ (0.01%) and NaOH (0.5%). The findings suggest that the extraction method significantly influences starch yield, with moderate concentrations of NaOH and Na₂S₂O₅ being effective for optimizing yield.</p>	
<p>Is the manuscript scientifically correct? Please write here.</p>	<p>Yes, it is. All the known scientific processes are were duly followed in the study and the report writing.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>(Neeraj et al., 2021), was cited in the text but does not appear in the reference lists.</p> <p>You may want to look at: Salleh, K. M., Hashim, R., Sulaiman, O., Hiziroglu, S., Wan Nadhari, W. N. A., Abd Karim, N., ... & Ang, L. Z. P. (2015). Evaluation of properties of starch-based adhesives and particleboard manufactured from them. <i>Journal of Adhesion Science and Technology</i>, 29(4), 319-336. https://doi.org/10.1080/01694243.2014.987362</p>	
<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Absolutely</p>	
<p>Optional/General comments</p>	<p>This is a great study conducted but the results were not compared to any internationally acceptable standards. Consider comparing the result to standards. This section of the paper: Jemenez, et al. (2007) reported a chayote tuber starch yield of 136 g/kg tuber fresh weight (13.6%), similar to that for potatoes (140 g/kg or 14.0% of fresh weight). Hernandez-Uribe et al. (2011) reported a yield of Mexican chayote tuber starch at 0.55 kg/kg (55%) with 89.1% purity”, must be rewritten to enhance understanding. There is no consistency in the units used.</p> <p>Figure 2 should indicate standard error bars which will enhance the Critical Difference (CD) in the percentage starch yield in each treatment.</p>	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

<p>Name:</p>	<p>Prosper Mensah</p>
<p>Department, University & Country</p>	<p>Council for Scientific and Industrial Research, Ghana</p>