



**SDI Review Form 1.6**

Journal Name:	<a href="#">Journal of Scientific Research and Reports</a>
Manuscript Number:	Ms_JSRR_54516
Title of the Manuscript:	A COMPARATIVE STUDY OF THE EXTRACTION AND CHARACTERISATION OF OILS FROM Glycine max. L (SOYA BEAN SEED), Elaeis guineensis (PALM KERNEL SEED) AND Cocos nucifera (COCONUT)
Type of the Article	Original Research Article

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

	Reviewer's comment	Author's comments (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><b>Compulsory</b> REVISION comments</p>	<ul style="list-style-type: none"> <li>- The methodology of the Abstract should be a brief capture of the experimental methods used in the study, without necessarily stating specific quantities (This is done in the methodology chapter proper).</li> <li>- Abstract: Results – “The percentage oil yield from ethanol was 8.58%, 26.01% and 31.21% for soya bean, coconut and palm kernel respectively while that of n-Hexane was 14.69%, 31.85% and 45.28%.” This statement is vague and therefore may be misleading. It should read that “The percentage oil yields of ethanol extracts were 8.58%, 26.01% and 31.21% for soya bean, coconut and palm kernel respectively while that of n-Hexane extracts were 14.69%, 31.85% and 45.28%.”</li> <li>- Abstract: Results – “The seed oils extracted using n-Hexane had a clear yellowish colour, while those extracted with ethanol had a dark brown colour.” Is this statement really necessary if the significance of the observed colours is not stated?</li> <li>- Punctuations and grammar needs to be improved throughout the manuscript.</li> <li>- The author(s) should use uniform font and font size throughout the manuscript.</li> <li>- The title of the study is written as “ A comparative study of the extraction and characterization of oils from <i>Glycine Max. L</i> (Soya been seed), <i>Elaeis guineensis</i> (Palm kernel seed) and <i>Cocos nucifera</i> (Coconut)” but at the end of the introduction the author(s) state “ This study therefore, sought to provide a fair idea on a possible solvent replacement using ethanol which is available, has ability to extract oil from vegetable seeds and also affordable over hexane...”. While it is clear from the title that the study is comparative, the same title fails to mention that the study compares ethanol and hexane as extraction solvents. These two solvents need to be somehow included and fitted in the title as they are the core of the whole study itself.</li> <li>- Material and methods: Sub-section 2.1 – the approximate dates of sample collection need to be stated. Are the samples seasonal or sensitive to specific climatic conditions?</li> <li>- Materials and methods: Sub-section 2.2 – the extraction method used should be cited as should all the methods used in Sub section 2.3.</li> <li>- Sub-section 3.1 (line 1) reads “Comparing oil extracts in Fig.1, there were significant differences between mean yields from the solvents n-Hexane and Ethanol.” The author(s) CANNOT make such a statement because they did not perform any statistical analysis to determine statistical differences in their results.</li> <li>- ANOVA NEED TO BE PERFORMED TO COMPARE MEAN YIELD BETWEEN THE TWO EXTRACTION SOLVENTS (Ethanol and Hexane) FOR THE THREE SAMPLES. This is to test for differences between different the two treatments.</li> </ul>	



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	<ul style="list-style-type: none"> <li>- In Sub-section 3.2 (Sub-sub-sections 3.2.1-3.2.4) which is presumably the discussion, the author(s) try to explain their findings. However, there is minimal reference to published literature. The authors need to discuss why, as per their findings, hexane was extremely efficient during extraction when compared to ethanol. Since it is their argument that ethanol is a much more desirable extraction solvent, the authors need to explain and discuss how the low extraction efficiency of ethanol will be overcome. The author(s) need to discuss how their experimental approach could have been improved and should be improved for the future. Their experimental approach is very flat with very little done to compensate for both experimental and human error. Overall, their discussion needs a massive overhaul to justify the shortcomings of their experimental protocols while at the same time motivating the scientific integrity and relevance of their findings which is very difficult to understand from their manuscript in its current state.</li> <li>- The authors need to mention the frequency of both their biological and technical repeats. This is important for the validity of their findings.</li> </ul>	
<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments	<ul style="list-style-type: none"> <li>- A very well written introduction that draws relevance to the background of the samples therefore establishing some foundation of the need for this study.</li> <li>- This manuscript should only be published after the authors <u>HAVE</u> 1) performed statistical analysis. 2) Mentioned and given proof of both their biological and technical repeats 3). Have expanded their discussion to substantiate both their findings and experimental shortcomings. 3) Corrected punctuations and grammar throughout the manuscript.</li> </ul>	

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (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)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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