



SDI Review Form 1.6

PART 1:

Journal Name:	Physical Review & Research International
Manuscript Number:	MS: 2012 PRRI 2609
Title of the Manuscript:	Biodiesel Production from Tigernut (<i>Cyperus esculentus</i>) Oil and Characterization of its Blend with Petro-diesel

General guideline for Peer Review process is available in this link:

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

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



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PART 2: Review Comments

	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)
<u>Compulsory</u> REVISION comments	<ol style="list-style-type: none"> 1. The author may want to revise the third sentence of the abstract to remove the repetition of catalyst. 2. The third to the last sentence starting with 'their' should be revised to state what the 'their' is. 3. Ensure that petrol diesel or petrol-diesel use should be the same throughout the paper. 4. The last sentence in the abstract: 'Therefore, the blends will be suited to engines not specifically designed for biodiesel use', should be revised to correct the notion that the blends tested are suited basically for engines not specifically designed for biodiesel use. I suppose the blends will equally be suited for engines designed for D100 and the petro-diesel and biodiesel blends 5. Lines 23/24, the words global risk is vague. The risk intended should be clearly specified, if the starting statement in the introduction is not the authors' the reference should be specified. 6. Line 24, change had to has. 7. Line 34, change '3live stock food' to livestock feed. 8. Line 24, Florida mentioned in the list, is it a country or just a State in US, if the latter, it should be state as Florida, US. 9. Ensure a clear paragraphing of the text, as required by 	



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	<p>the Journal.</p> <p>10. Line 40, 'have exploited', will have explored be better if you meant investigated?</p> <p>11. Line 41, change 'soy bean' to soybean.</p> <p>12. Line 42, you may want to change the first sentence to: 'however, the availability of these raw materials varies from country to country.</p> <p>13. Line 44, is, 'it is not a staple food', suffice or adding the widely consumed is necessary? In which case, state the reference place, where is not widely consumed.</p> <p>14. Line 45, change crop to crops.</p> <p>15. Line 45, come clear on what you meant by the strategy.</p> <p>16. Line 48, what sort of milk is produced from tiger nut? 'etc' may not be needed in the sentence.</p> <p>17. Line 48, 'used for numerous...', change to 'used for other numerous purposes aside consumption as food'.</p> <p>18. Line 49, the authors may want to reverse the words order: 'effectively serve' to 'serve effectively'.</p> <p>19. Line 66, change equipment to equipments.</p> <p>20. Line 67 to 71 is too long a sentence. From line 69, break the sentence into two, that is, 'diesel. The study aimed to determine...'</p> <p>21. Lines 79 and 80, the specifications of the reagents – percentage of purity – is more important than the maker (brand), should mentioning the makers at all be considered essential.</p> <p>22. Line 100, to totally dry up, change to: to dry up completely. What method was used to measure the</p>	
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	<p>moisture content of the dried oil, or is the total dryness being speculated?</p> <p>23. Line 137-138, The author should explain in specific why the calorific value, carbohydrate and fat content makes the tiger nut tuber good feedstock for biofuels production.</p> <p>24. Line 143, change 'nut' to tuber.</p> <p>25. Line 144-145, elucidate further why the odour and colour makes the oil favourable for biodiesel production. What do these properties add for meeting the ASTM or other standards for biodiesel?</p> <p>26. Line 153, specify the high yielding ones.</p> <p>27. Line 166, specify the standard you referred to.</p> <p>28. Line 171, specify the lower values – viscosity.</p> <p>29. Line 179, the adulteration referred to, is this to indicate the purity of the tiger nut biodiesel or the intentional act of adding unwanted chemical to fuel?</p> <p>30. Line 182, the reference to guideline on classification was not cited and not fully stated. The author should state how referencing the US guideline is useful for the study, considering it was undertaken in Nigeria, and the study is meant to promoting biodiesel as alternative fuel in Nigeria. Can the US guideline be an inspiration for such guidelines in the case of Nigeria and other aspiring biofuel countries?</p> <p>31. Line 183/184, what reasons will the authors offer for why the flash points for B30 and B40 are not good blends for use. The author should further elucidate on the assertion about these blends and in comparison to other blends they consider having better flash points.</p>	
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	Is there a procedural or innate physiochemical characteristic of the blend informing this result, if yes, what can be done to achieve improved flash points?	
<u>Minor</u> REVISION comments	<ol style="list-style-type: none"> Line 107, the authors may want to change the initial parenthesis (% FFA) to –% FFA – or merge up the two, using a comma: (% FFA, as oleic). 	
<u>Optional/General</u> comments	<ol style="list-style-type: none"> Tie the conclusion to specific countries, rather than the blanket tropical countries, or give example. Check the citation of et al. within the text and ensure compliance to guideline, possibly just stating et al. (2000), will suffice without the comma. The Acronym – ASTM –, specify the full meaning in the first instance where it is mentioned in the paper. 	

Reviewer Details:

Name:	Anonymous Reviewer
Department, University & Country	