

Review Form 1.6

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_89792
Title of the Manuscript:	Synthesis and Characterization of a Novel Maize Cob Based Nanocellulose
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:

(<https://www.journalijpss.com/index.php/IJPSS/editorial-policy>)

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PART 1: Review Comments

	<u>Reviewer's comment</u>	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	<p>The article entitled Ms_IJPSS_89792 “Synthesis and Characterization of a Novel Maize Cob Based Nanocellulose”. The authors tried their best to extract Nano cellulose (NC) from Maize cob, using Acid hydrolysis process. The extracted NC was characterized using PSA for particle size, FT-IR for functional groups, SEM and TEM for getting the morphology of NC. The result showed that, the synthesized NC was with a particle size of 213.5nm and a zeta potential of -34.5mV. The FT-IR analysis showed that the functional groups stretching at C-O, C=O, S=O with a wavenumber of 1216cm⁻¹, 1737cm⁻¹, 1365cm⁻¹ in NC. The XRD analysis clearly depicts peak around 2θ = 15.80, 22.03, 26.69, 40.44 which shows the structure of cellulose. The SEM and TEM image confirmed the acid hydrolysis process, fiber defibrillation Cellulose and Nanocellulose formation.</p> <p>There are many grammatical errors. The author should want to remove these all mistakes in their manuscript and follow the format of the prestigious <i>International Journal of Plant & Soil Science</i> for possible acceptance and publication in the respective journal.</p> <p><u>Comments to Authors</u></p> <ul style="list-style-type: none">➤ Write complete names of all characterization techniques in the abstract section.➤ Keywords; write them in alphabetical order.➤ Mentioned purity of all chemicals.➤ Fig.6. is not clear. Revise it with clear length and diameter.➤ Fig-6. d) Cellulose, Remove it. It makes confusion.➤ Fig.7. has the same problem. Make it clear.➤ Fig.7. TEM. Is not clear. The amount of NC is so much in the solvent sample, showing agglomeration.➤ Write complete name before abbreviation of every subheading. <p>Cite the following references</p> <ul style="list-style-type: none">❖ https://doi.org/10.1007/s10904-021-01942-1❖ https://doi.org/10.1007/s10924-021-02045-1❖ https://doi.org/10.1515/polyeng-2019-0255❖ https://doi.org/10.1088/2053-1591/ab4df6	
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		

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)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	

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