

Review Form 3

Journal Name:	Journal of Advances in Biology & Biotechnology
Manuscript Number:	Ms_JABB_122248
Title of the Manuscript:	Processing and health benefits of underutilized foxtail and barnyard millet for development of functional bakery products
Type of the Article	

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>The manuscript entitled "Processing and health benefits of underutilized foxtail and barnyard millet for development of functional bakery products" encompasses the studies related to foxtail and barnyard millet applications in functional foods. The manuscript contains the information related to chemical composition, dietary benefits and applications of millets in bakery foods. In present form, the manuscript lacks the information about types of foods, functional foods, balanced diet and role of millets in diet, modification of millet components for improving the quality of bakery products and others etc. The detail of chemical and nutritional compositions of millets should be elaborated and more recent references should be cited. The manuscript in present form is full of grammatical and typographical errors, inadequate phases and citation of proper references. I have following comments to improve the quality of the manuscript-</p> <ol style="list-style-type: none"> 1. Millets are grown in India, producing 17.26 million metric tonnes.....has been added in article. The resent data of 2023 should be added published in official publication with reference. 2. All types of millets with their scientific names should be added. The varies of foxtail and barnyard millet should be added with their chemical composition. 3. Per hectare, grains yield was 400-800 kg and straw 1000-2000 kg.....cite the reference. 4. Known for its short growth period and resilience to drought, heat, and waterlogging, barnyard millet yields 700-800 kg of grains and 1-1.5 tonnes of straw per acre (Hegde and Linge Gowda, 1989).... Add recent reference 5. Research worldwide highlights the nutritional and medicinal benefits of whole grains in managing non-communicable diseases and promoting health.....cite reference. 6. Foxtail millet (<i>Setaria italica</i>) is called Italian, German, Chinese, Hungarian, dwarf, gigantic, and Siberian.....rephrase 7. Pale yellow to orange, crimson, brown, and black were among the seed's many colours. The foxtail millet thousand kernel weighs 2 g.... check grammatically 8. Foxtail millet has a low amino acid score and is lacking in lysine, similar to maize. Leucine and methionine levels can reach 100% in some types. More easily absorbed than maize starch include foxtail, proso and barnyard starches.cite reference 9. Significant reduction in ash content was recorded after dehulling.....have you studied. Explain 10. Starch, protein, vitamins.... hypolipidemic effects... cite reference 11. Linoleic, oleic, palmitic, stearic, and linolenic acids were the primary fatty acids... check it 12. Nutraceuticals properties of barnyard millet... check it 	

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	<p>13. Millets have some potential for therapeutic nutrition, although this potential has not yet been fully realised...Many papers have been published related to therapeutic efficacy and modifications of millets components. Kindly refer following papers and may cite at appropriate places in manuscript-</p> <p>Impact of Cross-Linking on the Physicochemical and Physiological Characteristics of Barnyard Millet (<i>Echinochloa frumentacea</i>) Grains Starch. Starch. 2024:2300285. https://doi.org/10.1002/star.202300285</p> <p>Efficiency of phosphorylated mandua starch in matrix tablet for targeted release of mesalamine in colon. Journal of Drug Delivery Science & Technology. Volume 81, March 2023, 10425. https://doi.org/10.1016/j.jddst.2023.104251</p> <p>Functional and tableting properties of alkali-isolated and STTP modified Barnyard Millet (<i>Echinochloa esculenta</i>) starch. ACS Omega. 2023, 8, 30294–30305. DOI 10.1021/acsomega.3c03158.</p> <p>Sustainable, highly foldable, eco -friendly films from Mandua starch derivative. Sustainable Energy Technologies and Assessments. 53, 102398. https://doi.org/10.1016/j.seta.2022.102398</p> <p>Improvement in digestion resistibility of mandua starch (<i>Eleusine coracana</i>) after crosslinking with epichlorohydrin. ACS Omega. 7, 31, 27334–27346. https://doi.org/10.1021/acsomega.2c02327</p> <p>Chemical Composition of Finger Millet Grains in accordance to Geographical Distribution and Potential in Nutraceutical and Pharmaceutical Development In. Climate change, water availability and food security: impacts and sustainable development. Dr. Vidhi Tyagi & Dr. Aprana Sharma. Meerut Security Press, Mohakampur, Meerut. Pp.21-32. ISBN: 978-93-5426-998-1.</p> <p>Barnyard Millet Varieties of Uttarakhand: Nutritional Status and Prospectives in Drug Delivery. In. Climate change, water availability and food security: impacts and sustainable development. Dr. Vidhi Tyagi & Dr. Aprana Sharma. Meerut Security Press, Mohakampur, Meerut. (2021). Pp.46-54. ISBN: 978-93-5426-998-1.</p> <p>Chemical composition of Jhingora (Indian barnyard millet) varieties cultivated in Uttarakhand and their uses. In. Climate change, water availability and food security : impacts and sustainable development. Dr. Vidhi Tyagi & Dr. Aprana Sharma. Meerut Security Press, Mohakampur, Meerut. (2021). Pp.46-54. ISBN: 978-93-5426-998-1.</p> <p>14. Result revealed that composition of flour did not. Significantly effect on yield and textural properties i.e. softness of cake.... Check grammatically</p> <p>15. peach DF.... Add full name</p> <p>16. Khatri <i>et al.</i> (2020) developed muffins with Palmyra sprout flour. In comparison to normal whole wheat flour's (0.52 %) 5.08 % crude fibre content, palmyra sprout flour (SF) had 5.08 %.. check it</p> <p>17. RTE cuisines... add full form</p> <p>18. 52 mg Trolox equivalents g⁻¹ dry weight of oxygen radical absorption capacity (ORAC) are found in blanched, dehydrated, and crushed ASP.....check it</p> <p>19. Current research helped make millet-based bread items to enhance millet use and produce healthful daily-consumption products.... Check it</p> <p>20. The sensory panel liked millet cakes and would buy them regularly. Cake carbohydrate, fat, and ash improved significantly....check it</p> <p>21. PMF boosted a* and lowered L* and b* in cookies.... Explain</p>	
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	<p>22. Celiac disease patients can eat the GF muffins after immunochemical testing... cite reference</p> <p>23. Physico-sensory and texture profile analysis (TPA) was performed on CMPJ and cane sugar (APFS) muffins...check it</p> <p>24. Phoenix dactylifera l... check the nomenclature</p> <p>25. Shelf life studies of millet-based bakery products....check it</p> <p>26. In conclusion, the data of published works have been added without reference. It should be omitted from conclusion and this section should be re-written for highlighting the findings of the study along with future prospective.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>		
<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>Are subsections and structure of the manuscript appropriate?</p>		
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>		
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>		
<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p><u>Optional/General</u> comments</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>	

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Reviewer Details:

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