

Review Form 3

Journal Name:	Journal of Advances in Biology & Biotechnology
Manuscript Number:	Ms_JABB_122730
Title of the Manuscript:	Genomic Innovations in Wheat (Triticum aestivum L.): A Comprehensive Review of Recent Developments and Future Directions
Type of the Article	Review Article

General guidelines for the 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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

Compulsory REVISION 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>
<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>This manuscript is a significant contribution to the scientific community as it provides a comprehensive synthesis of recent advances in wheat genomics and their application in breeding programs. By integrating diverse genomic approaches—such as GWAS, MAS, and QTL mapping—with emerging technologies like CRISPR/Cas9, it offers a detailed overview of how these tools are revolutionizing wheat improvement. The review not only highlights current achievements but also outlines future directions, which could drive further research and innovation in the field. The focus on both practical applications and theoretical advancements makes it a valuable resource for researchers and practitioners aiming to enhance wheat productivity and nutritional quality in the face of global challenges. I appreciate this manuscript for its thorough coverage and forward-looking perspective, which effectively bridges recent scientific developments with practical breeding applications. The clarity and organization of the review facilitate a deep understanding of complex topics, making it a useful reference for those involved in wheat genomics and breeding.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>Yes, the title "Genomic Innovations in Wheat (<i>Triticum aestivum</i> L.): A Comprehensive Review of Recent Developments and Future Directions" is suitable. It clearly reflects the manuscript's content, highlighting the focus on genomic advancements in wheat and the review's scope, including both recent developments and future perspectives. The inclusion of the scientific name ensures specificity, while the terms "comprehensive review" and "future directions" convey the manuscript's thoroughness and forward-looking approach.</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>The abstract of the article is comprehensive. It provides a clear overview of the current state of wheat genomics, detailing the integration of key genomic techniques such as GWAS, MAS, and QTL mapping. It also addresses the impact of these approaches on wheat biofortification and productivity. Furthermore, the abstract outlines future directions, including the integration of emerging technologies like CRISPR and advanced phenotyping. This breadth ensures that readers gain a thorough understanding of both the current advancements and potential future developments in the field.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The subsections and structure of the manuscript are appropriate. The organization of content into distinct sections—Introduction, Application of Genomics, QTL Mapping, Gene Cloning Methods, Future Perspectives, and Conclusion—provides a clear and logical progression through the topic. This structure supports a comprehensive review of the field and facilitates understanding of the subject matter.</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>The manuscript demonstrates scientific robustness and technical soundness through its detailed examination of recent advancements in wheat genomics and breeding techniques. It accurately describes the integration of various genomic tools such as GWAS, MAS, and QTL mapping, and their impact on enhancing wheat biofortification and productivity. The review is underpinned by current research and provides a thorough analysis of methodologies, supported by relevant references and recent data. The discussion of emerging technologies, like CRISPR and gene stacking, reflects an up-to-date understanding of the field, reinforcing the manuscript's credibility and relevance to ongoing scientific discourse.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. -</p>	<p>The references in the manuscript appear to be sufficient and relevant, covering foundational and recent developments in wheat genomics and breeding. They support the discussions on various genomic approaches and their applications. However, for a more comprehensive review, it might be beneficial to include additional recent studies or reviews that address the latest advancements in wheat genomics, such as those focusing on new techniques in genome editing or recent findings in wheat biofortification.</p>	

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Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?	The language and English quality of the article are generally suitable for scholarly communications. The manuscript is clear, with technical terms and concepts accurately used. However, there are areas where the writing could be tightened for clarity and conciseness. The manuscript effectively communicates complex ideas and recent developments in wheat genomics but may benefit from minor revisions to enhance readability and flow. Overall, it meets the standard for academic writing in its field.	
Optional/General 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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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