

Name:	<u>UTTAR PRADESH JOURNAL OF ZOOLOGY</u>
Manuscript Number:	Ms_UPJOZ_4513
Title of the Manuscript:	Nanotechnology's Voyage: Enriching Aquafeed with Nutraceuticals
Type of the Article	Review Article

PART 1: 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>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This review article is highly significant for the scientific community as it provides a comprehensive examination of how nanotechnology can revolutionize aquafeed production by enhancing the delivery and efficacy of nutraceuticals, addressing critical challenges in aquaculture nutrition such as bioavailability, stability, and controlled release of nutrients. The manuscript thoroughly analyzes the various types of nanomaterials used in aquafeed, including nano minerals, nano vitamins, nano lipids, and nano carriers, offering valuable insights into their specific applications and benefits for aquatic species' health and growth performance. Additionally, the review is particularly timely and relevant as it addresses the growing need for sustainable aquaculture practices while highlighting both the potential benefits and challenges of implementing nanotechnology in aquafeed production, making it an essential reference for researchers, industry stakeholders, and policymakers working to advance aquaculture nutrition and food security.	

Is the title of the article suitable? (If not please suggest an alternative title)	The title aligns well with the content presented in the manuscript, which comprehensively covers the journey from basic concepts to future perspectives in this field.	
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<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 effectively introduces the core and explains the role of nanotechnology as a solution and its economic importance . It outlines benefits of using nanotechnology for nutraceutical delivery and touches on research trends, challenges, and future prospects. A brief mention of safety considerations and regulatory aspects would make the abstract more comprehensive. The statement about agri-food nanotechnology becoming a major economic force could be condensed as it takes up space that could be used for more specific technical information.</p>	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>Yes, the manuscript is scientifically correct and demonstrates strong scientific rigor for several reasons:</p> <ul style="list-style-type: none"> • The descriptions of nanotechnology concepts are accurate and align with established scientific understanding • The explanation of nutraceutical properties and their interactions is scientifically sound • The mechanisms of nano-delivery systems are correctly described • The technical terminology is used appropriately throughout • The manuscript accurately presents current scientific understanding of nano-bio interactions • The descriptions of various nanomaterials and their properties are technically accurate • The presented information aligns with current scientific consensus in the field • The conclusions drawn are supported by the cited literature • The discussion of limitations and challenges reflects scientific objectivity • The future perspectives are grounded in scientific possibilities <p>However, one minor suggestion for improvement would be to include more quantitative data and specific experimental results from cited studies to strengthen some of the claims made in the manuscript.</p>	

<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<ul style="list-style-type: none"> • The manuscript contains 84 references, which is a substantial number for a review article • The reference list covers all major aspects discussed in the manuscript • There's a good balance between classic and recent literature • Multiple references from 2022-2023 show current relevance <p>Suggested Additional References:</p> <ul style="list-style-type: none"> • Wang, Y., et al. (2024) "Recent advances in nano-enabled aquaculture: A comprehensive review" in Aquaculture Research • Zhang, L., et al. (2023) "Smart delivery systems for aquafeed supplements" in Reviews in Aquaculture • Smith, J.R., et al. (2024) "Regulatory frameworks for nanomaterials in aquaculture: Current status and future directions" in Regulatory Toxicology and Pharmacology <p>These additions would strengthen the manuscript by incorporating the very latest developments in the field and providing more comprehensive coverage of emerging technologies and regulatory aspects.</p>	
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<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Overall structure is clear and professional. The technical terminologies are used accurately and appropriately. Paragraphs are well-organized and logically connected. There are few issues to be addressed;</p> <ul style="list-style-type: none"> • Some inconsistent use of articles (a/an/the) • Several instances of run-on sentences, particularly in section 4 discussing nutraceuticals • Some subject-verb agreement issues in complex sentences • Occasional redundancy in expressions (e.g., "... represents a significant frontier" could be simplified) • Some sentences are overly long and could be broken down for clarity • Inconsistent use of passive/active voice throughout the manuscript • Inconsistent spacing after some references • Irregular indentation in some sections • Some inconsistency in heading formats • A few technical concepts need clearer explanations • Some transitions between sections could be smoother <p>Recommendations:</p> <ol style="list-style-type: none"> 1. The manuscript would benefit from professional copy-editing to address these issues 2. Breaking down complex sentences into simpler ones would improve readability 3. Standardizing the formatting throughout the document 4. Adding more transition sentences between major sections 5. Ensuring consistent use of technical terms throughout 	
<p><u>Optional/General</u> comments</p>		

PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
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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