Journal Name:	Asian Journal of Research in Biosciences
Manuscript Number:	**Ms_AJORIB_1780**
Title of the Manuscript:	**Selection on Litter Size at Birth and Correlated Responses in Pre-weaning Litter Traits of Heterogeneous Rabbits in Southern Nigeria.**
Type of the Article	

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PART 1: 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)*
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 manuscript is significant for the scientific community as it provides valuable insights into the genetic improvement strategies for rabbit breeding, specifically focusing on litter size at birth and pre-weaning traits. By investigating the effects of mass selection in a real-world setting, this study contributes to our understanding of how selective breeding can impact productivity and animal welfare in heterogeneous rabbit populations. Moreover, the findings highlight the potential limitations of mass selection and suggest alternative strategies like crossbreeding, which can help refine and optimize breeding programs. This research not only advances knowledge in animal genetics but also offers practical implications for improving agricultural practices and addressing protein deficiency in regions like Southern Nigeria.	
Is the title of the article suitable? (If not please suggest an alternative title)	The current title, "Selection on Litter Size at Birth and Correlated Responses in Pre-weaning Litter Traits of Heterogeneous Rabbits in Southern Nigeria," is quite detailed and informative. It captures the main focus of the study and its geographical context well. However, it could be slightly streamlined for clarity and impact. Here are a couple of alternative title suggestions: "Improving Litter Size and Pre-weaning Traits in Heterogeneous Rabbits through Mass Selection in Southern Nigeria" "Evaluating Mass Selection Effects on Litter and Pre-weaning Traits in Southern Nigerian Rabbits" These alternatives maintain the key elements of the study while aiming for a more concise and engaging presentation.	

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.	Revised Abstract: Abstract: Mass selection to improve litter size at birth in rabbits aims to bridge the protein deficiency gap and increase income for rabbit farmers. This study investigates the effect of mass selection on litter size at birth and its correlated responses in pre-weaning litter traits in mongrel rabbits. One hundred and five female rabbits from a total of one hundred and ninety-six (91 males and 105 females) progeny generated from a mating scheme involving eighteen bucks and forty-eight dams constituted the experimental animals. The selection criterion was litter size at birth (LSB). Animals were housed in three-tier hutches and fed a concentrate diet containing 15.81% protein, 2480 kcal energy, and 8.22% fiber in the morning, and green forages in the evening. Mass selection was performed on the criterion across three generations (FS, F1, and F2). A nested design was employed where dams were nested within sires. Pre-weaning litter traits studied included litter birth weight (LBW), kits birth weight (KBW), and number of kits born alive (NBA). Statistical analysis revealed that LSB did not significantly evolve with selection ($p>0.05$), although numerical improvements were observed. Sire and dam effects were also non-significant. LSB values were 4.46±0.14, 4.48±0.15, 4.50±0.11, and 4.51±0.18 kits in FS, F1, F2, and F3 respectively. Realized selection responses per generation were 0.02, 0.02, and 0.01 in FS, F1, and F2 respectively. The correlated changes in pre-weaning traits were non-significant ($p>0.05$) but showed numerical improvements in LBW and NBA, with a reduction in KBW across the generations. This study concludes that mass selection on litter size at birth (LSB) did not significantly improve the trait or the correlated pre-weaning traits. Alternative genetic improvement strategies, such as crossbreeding, may be more effective. Key words: Selection, Heterogeneous, Rabbits, Litter	
Is the manuscript scientifically, correct? Please write here.	The manuscript appears to be scientifically sound based on the information provided in the text. Here are some key points supporting its scientific correctness: 1. **Objective and Rationale**: The study addresses a relevant and important objective—improving litter size at birth in rabbits, which is critical for protein supply and farmer income. The rationale is clearly stated, grounding the study in a practical context. 2. **Methodology**: The use of mass selection and a nested design for studying litter traits is appropriate for the study's goals. The detailed description of housing, feeding, and experimental setup ensures reproducibility. However, it would be beneficial to include more specific details on the statistical methods used for data analysis. 3. **Data and Results**: The results are presented clearly, with appropriate statistical analysis. The study acknowledges the lack of significant improvement in litter size and pre-weaning traits, which is important for scientific integrity. The numerical data provided supports the conclusions drawn. 4. **Conclusions and Recommendations**: The study's conclusion that mass selection did not significantly improve the target traits is supported by the data. The recommendation to consider alternative genetic improvement strategies, such as crossbreeding, is logical and based on the study's findings. To ensure the manuscript's scientific rigor, it would be valuable to: • Include a more detailed description of the statistical analysis methods. • Discuss potential limitations of the study and suggest areas for further research. Overall, the study contributes valuable insights into rabbit breeding practices and offers practical recommendations for improving genetic traits, which can be beneficial for both the scientific community and local agriculture.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references you've included are relevant and provide a good foundation for your study. However, it would be beneficial to include more recent studies to ensure the most up-to-date information is being considered. Here are a few additional references that might be useful: 1. **Xie, K., Ning, C., Yang, A., Zhang, Q., Wang, D., & Fan, X. (2024).** Resequencing Analyses Revealed Genetic Diversity and Selection Signatures during Rabbit Breeding and Improvement. *Genes, 15*(4), 433. https://doi.org/10.3390/genes15040433 2. **Helal, M., Sameh, J., Gharib, S., Merghany, R. M., Bozhilova-Sakova, M., & Ragab, M. (2024).** Candidate genes associated with reproductive traits in rabbits. *Tropical Animal Health and Production, 56*(94). https://doi.org/10.1007/s11250-024-03938-8 3. **Ballan, M., Bovo, S., Schiavo, G., Schiavitto, M., Negrini, R., & Fontanesi, L. (2022).** Genomic diversity and signatures of selection in meat and fancy rabbit breeds based on high-density marker data. *Genetics Selection Evolution, 54*(3). https://doi.org/10.1186/s12711-022-00696-9 These references cover recent advancements in genetic diversity, selection signatures, and candidate genes associated with reproductive traits in rabbits, which could provide additional context and support for your study.	
Is the language/English quality of the article suitable for scholarly communications?	NO. it has a lot of grammar and native misconceptions.	
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?	*(If yes, Kindly please write down the ethical issues here in details)*	

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