

**Review Form 1.7**

Journal Name:	Asian Journal of Research in Animal and Veterinary Sciences
Manuscript Number:	Ms_AJRAVS_116926
Title of the Manuscript:	Sorption Isotherm of products from turkey cuts
Type of the Article	Original Research Article

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PART 1: Review Comments

	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><b>Compulsory</b> REVISION comments</p> <p>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</p> <p>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</p> <p>3. <b>Is the abstract of the article comprehensive?</b></p> <p>4. <b>Are subsections and structure of the manuscript appropriate?</b></p> <p>5. <b>Do you think the manuscript is scientifically correct?</b></p> <p>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p><b>Abstract:</b></p> <p>The abstract you provided is quite informative and provides a good overview of the study. However, here are two suggestions that could improve the text:</p> <ol style="list-style-type: none"><li>1. Clarify the Context: The abstract could benefit from a clearer explanation of the context.</li><li>2. Improve Result Presentation: The presentation of the results could be improved. Include specific numerical values for water activity and monolayer moisture content to provide clearer quantitative insights into the stability differences between the marinated and processed turkey products. Clarify the implications of water activity levels in relation to microbial growth to strengthen the conclusion about the shelf stability and safety of the turkey meat products.</li></ol> <p><b>Introduction:</b></p> <ol style="list-style-type: none"><li>1. Clarify the specific methodologies employed in each sorption isotherm investigation to enhance reproducibility and comparability across studies.</li><li>2. Consider incorporating references to previous research on similar meat products to contextualize the significance of the current study within the broader scientific literature.</li><li>3. Emphasize the potential practical implications of the findings for food industry professionals, such as specific recommendations for optimizing storage conditions or marination techniques.</li><li>4. Ensure consistency in terminology and formatting throughout the introduction to enhance readability and professional presentation.</li><li>5. Provide a brief overview of the limitations or potential challenges associated with conducting sorption isotherm studies on meat products, acknowledging areas for future research or methodological refinement.</li></ol> <p><b>Material &amp; Methods:</b></p> <ol style="list-style-type: none"><li>1. Standardize the preparation procedures across all turkey products to ensure consistency and comparability in the results.</li><li>2. Consider conducting sensory evaluations alongside the sorption isotherm measurements to correlate changes in moisture content with perceived quality attributes.</li><li>3. Provide justification for the choice of specific ingredients and marination methods, emphasizing their potential impact on the sorption characteristics of the turkey products.</li><li>4. Include details on sample size and randomization techniques employed to enhance the robustness of the experimental design.</li><li>5. Discuss potential sources of error or variability in the sorption isotherm measurements and outline steps taken to minimize their influence on the results.</li><li>6. Clarify the units used in the equations for better understanding and reproducibility of the calculations (e.g., specify whether weights are in grams or kilograms).</li><li>7. Include a brief explanation of the variables in the equations to aid readers in understanding the calculations, particularly for those less familiar with moisture sorption terminology.</li><li>8. Consider providing a concise overview of the GAB equations and their significance in determining water activity and monolayer moisture, highlighting their relevance to the study's objectives.</li></ol> <p><b>Result and Discussion:</b></p>	

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	<div>1. Clarification: In the first paragraph, you mentioned that the fitness curve ranged from 0.833 to 0.902 across the four turkey meat products. It would be helpful to clarify what the fitness curve represents in this context.</div> <div>2. Contextualization: When discussing the results, consider providing more context or background information. For example, why is it significant that soy-sauce marinated turkey breast jerky had the lowest water activity? How does this impact the product's quality, safety, or shelf-life?</div> <div>3. Interpretation of Results: Expand on the interpretation of the results. For instance, what do the differences in water activity and monolayer moisture between the different turkey meat products imply? How might these differences impact the product's quality or shelf-life?</div> <div>4. References: Ensure that all the references are correctly cited and correspond to the correct sources. This will help readers who want to delve deeper into the topic.</div> <div>5. Elaborate on the implications of the observed differences in water activity and monolayer moisture among the turkey meat products, particularly in relation to their potential shelf life and storage requirements.</div> <div>6. Provide insights into the practical applications of the sorption isotherm results for food manufacturers, such as informing packaging and storage conditions to maintain product quality and safety.</div> <div>7. Discuss the significance of the Type II sorption isotherm observed in the turkey meat products, highlighting its relevance for understanding moisture absorption kinetics and predicting product stability over time.</div> <div>8. Consider including discussions on the sensory attributes and consumer preferences associated with the different turkey meat products, linking these observations to the moisture sorption characteristics reported.</div> <div>9. Expand on the potential implications of using vinegar-based marinades for turkey meat preservation, discussing their effectiveness in mitigating microbial risks and enhancing consumer safety in the context of increasing poultry consumption trends.</div> <div>Conclusion:</div> <div>1. Summarize the key findings regarding the distinct absorption properties of the turkey meat products and their implications for product quality and shelf life.</div> <div>2. Highlight the importance of continued research to further explore the factors influencing the absorption behaviour of these products, such as variations in processing methods and environmental conditions.</div> <div>3. Emphasize the potential applications of the acquired knowledge in optimizing production processes and enhancing the overall quality and stability of turkey meat snacks.</div> <div>4. Encourage future investigations into specific factors affecting sorption behavior, such as pore dimensions, temperature variations, and the effects of different marination, frying, and drying techniques.</div> <div>5. Conclude by reiterating the significance of the study's findings in providing valuable insights into moisture management in turkey meat products, with implications for both industry practices and consumer satisfaction.</div>	
<div>Minor REVISION comments</div> <div>1. Is language/English quality of the article suitable for scholarly communications?</div>	Need to improve	
<div>Optional/General comments</div>	The language quality of the article requires improvement to meet the standards of scholarly communication. Proper formatting of the manuscript is essential, and attention to language precision and clarity is needed to enhance readability and professionalism.	

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**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <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>
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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