

### Review Form 3

Journal Name:	<a href="#">European Journal of Nutrition &amp; Food Safety</a>
Manuscript Number:	Ms_EJNFS_128143
Title of the Manuscript:	DEVELOPMENT AND ANALYSIS OF CARROT POWDER ENRICHED PASTA
Type of the Article	Original Research 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: 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>
<b>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.</b>	<p>This provides a commendable exploration of enhancing pasta's nutritional quality through the incorporation of carrot powder. The findings are particularly relevant in today's health-conscious environment, where consumers are increasingly seeking nutritious food options.</p> <p>The authors effectively highlight the growing popularity of pasta among younger demographics and the necessity to improve its nutritional profile. By demonstrating a significant increase in key nutritional components—such as protein, fiber, and essential minerals—in carrot powder enriched pastas, the study shows the potential of innovative food formulation to address dietary deficiencies.</p> <p>Moreover, the sensory evaluation results showing that the enriched pasta, particularly the CP1 formulation, achieved higher overall acceptability is an important insight. It indicates not only that nutritional enhancements can be made but also that these enhancements do not compromise the sensory qualities that consumers value.</p> <p>The findings on the storability of the enriched pasta over 60 days are also noteworthy. This aspect suggests practical applications in food preservation and marketing, potentially appealing to consumers looking for convenient yet healthy meal options.</p> <p>In conclusion, this study opens up exciting avenues for further research and development of fortified food products. It exemplifies the possibility of blending nutrition with culinary delights and equips consumers with healthier choices that align with modern dietary needs. The incorporation of carrot powder into pasta could serve as a model for developing other nutrient-enriched foods, addressing public health concerns related to dietary deficiencies effectively.</p>	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	<b>Yes</b>	

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<p><b>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.</b></p>	<p><b>Yes</b></p>	
<p><b>Is the manuscript scientifically, correct? Please write here.</b></p>	<p>Yes.</p>	
<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p>	<p>Not sufficient.            Jackson (1973): is not listed in the reference list. Please remove.            Author should cite the following articles in specific areas:            For example:  <b>To evident formulated products with bioactive compounds:</b>            Rahman, Md Naimur, Md Nahidul Islam, Md Manik Mia, Shahriar Hossen, Md Forshed Dewan, and Md Sultan Mahomud. "Fortification of set yoghurts with lemon peel powders: an approach to improve physicochemical, microbiological, textural and sensory properties." <i>Applied Food Research</i> 4, no. 1 (2024): 100386.            Mahomud, Md Sultan, Md Nahidul Islam, Diloar Hossen, Md Abdul Wazed, Sabina Yasmin, and Md Sazzat Hossain Sarker. "Innovative probiotic yogurt: Leveraging green banana peel for enhanced quality, functionality, and sensory attributes." <i>Heliyon</i> 10, no. 19 (2024).             Paul, Sree Krishna Kumar, Md Nahidul Islam, Md Forshed Dewan, Md Abdul Alim, and Raju Ahmmed. "Functional yogurt: An approach to enhance yogurt quality with peanut polyphenols." <i>Food Bioscience</i> 60 (2024): 104398.  <b>To evident the effect of extrusion parameters on physico-chemical properties:</b>            Cao, Xiaohuang, Md Nahidul Islam, Dandan Lu, Congying Han, Lei Wang, Mingxiong Tan, Yuan Chen, and Ning Xin. "Effects of barley seedling powder on rheological properties of dough and quality of steamed bread." <i>Food Science and Technology International</i> (2023): 10820132231188988.            Xiaohuang, Cao, Huang Qianqian, Yinghan Cong, Md Shofiul Azam, Md Ahiduzzaman, and Md Nahidul Islam. "Enhancement of the selected physico-chemical properties of steamed rice cake by the application of acetylated distarch adipate." <i>Journal of Food Measurement and Characterization</i> 16, no. 5 (2022): 3526-3536.            Cao, Xiaohuang, Md Nahidul Islam, Xin Ning, Zhihui Luo, and Lei Wang. "Effects of superheated steam processing on the physicochemical properties of sea rice bran." <i>Food Science and Technology International</i> 29, no. 2 (2023): 115-125.  <b>To evident the importance of carrot powder addition:</b>            Azam, Md Shofiul, Md Nahidul Islam, Md Wahiduzzaman, Mahabub Alam, and Akib Atique Khan Dhruvo. "Antiviral foods in the battle against viral infections: Understanding the molecular mechanism." <i>Food Science &amp; Nutrition</i> 11, no. 8 (2023): 4444-4459.  <b>To evident the use of additive in food processing:</b>            Dewan, Md Forshed, Md Nahidul Islam, and Md Shofiul Azam. "Food additives/preservatives and their implications for human health." In <i>Food Safety</i>, pp. 155-184. CRC Press, 2024.  <b>To discuss the formulation recipe:</b>            Ali, Aslam, Khokan Kumar Saha, Selim Choudhury, and Nahidul Islam. "Formulation, senso-chemical analysis and shelf-life study of biscuits using stevia leaf as the substitute for sugar." <i>Asian Journal of Dairy and Food Research</i> 41, no. 4 (2022): 424-430.            Hasan, Mehedi, Nahidul Islam, Amdadul Haque, and Mofazzal Hossain. "Formulation and senso-chemical evaluation of palmyrah palm (Borassus flabellifer L.) based value-added products." <i>Journal of Food Research</i> 11, no. 3 (2022): 36-46.  <b>To discuss the sensory evaluation:</b>            Ahiduzzaman, Md, Md Nahidul Islam, S. Fatema-Tuj Jannati, Md Aslam Ali, and Md Mofazzal Hossain. "Preserving jackfruit: unlocking year-round availability as industrial ingredient for value-added food products." <i>Journal of Agriculture and Food Research</i> 16 (2024): 101184.  <b>To discuss the effect of temperature on product quality:</b>            Cao, Xiaohuang, Wanxiu Xu, and Md Nahidul Islam. "Impact of different drying methods on physicochemical characteristics and nutritional compositions of bee larvae." <i>Drying Technology</i> 42, no. 6 (2024): 1037-1050.            Kumer, Nikhil, Md Nahidul Islam, Sharmin Akther, Md Suman Rana, Ataul Kabir, and Shafi Ahmed. "Onion flower stalks: Its physicochemical, bioactive, and antioxidant characteristics as affected by thermal processing." <i>Journal of Agriculture and Food Research</i> 16 (2024): 101219.</p>	

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<p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>Need to improve.</p>	
<p><b>Optional/General</b> comments</p>	<p><b>This should be removed</b>          "To bring out the objectives the present study entitles "<b>Development and analysis of carrot powder enriched pasta</b>" has been precisely described under the following headings and subheadings"</p> <ul style="list-style-type: none"> <li><b>I.</b> Raw materials</li> <li><b>II.</b> Carrot powder preparation</li> <li><b>III.</b> Preparation of Pasta</li> <li><b>IV.</b> Methods of analysis</li> <li><b>V.</b> Nutritional composition of raw materials</li> <li><b>VI.</b> Nutritional composition of developed pasta</li> <li><b>VII.</b> Sensory evaluation of developed pasta</li> <li><b>VIII.</b> Storability study of developed product</li> </ul> <p>Remove the sections as wrote I. II. III. ....</p> <p>2.2 Carrot powder preparation: Slice size? Moisture content of fresh and dried product? Which equipment was used for making powder?</p> <p>2.3 Pasta preparation: Provide the full recipe of pasta in a table.</p> <p><b>Please provide details of the methods: Suggestions are as follows</b></p> <p><b>Moisture:</b> Accurately weighed sample was placed in a pre-weighted porcelain crucible and heated to 105 °C for 24 h to ascertain its moisture content. The crucible was taken out of the oven after drying, allowed to cool in the desiccators and carefully weighed (Islam et al., 2019). Equation (1) was used to determine the moisture content of each sample:</p> $\text{Moisture content (\%)} = \frac{\text{Weight of Sample after drying (g)}}{\text{Weight of sample before drying (g)}} \times 100 \text{ -----}$ <p>Islam, Md Nahidul, Oliver Körner, Jakob Skov Pedersen, Jørn Nygaard Sørensen, and Merete Edelenbos. "Analyzing quality and modelling mass loss of onions during drying and storage." <i>Computers and electronics in agriculture</i> 164 (2019): 104865.</p> <p><b>Ash:</b> A known-weighed sample was placed in a pre-weighted porcelain and pre-heated to 100 °C on a gas burner to prevent the loss of the sample into a muffle furnace at high temperatures. The crucibles were then heated for 6 h at 550 °C in a muffle furnace (Chowdhury et al., 2023). After completely burning the samples, the crucibles were kept out, allowed to cool off for a couple of minutes, and then placed in a desiccator to cool off completely. Finally, the crucibles containing ash were weighed and carefully recorded. The ash content of each sample was determined using equation (2):</p> $\text{Ash content (\%)} = \frac{\text{Weight of Ash (g)}}{\text{Weight of Sample (g)}} \times 100 \cdot$ <p>Choudhury, Md Selim, Md Nahidul Islam, Md Momin Khan, Md Ahiduzzaman, Md Mahidul Islam Masum, and Md Aslam Ali. "Effect of extraction methods on physical and chemical properties and shelf life of black cumin (<i>Nigella sativa</i> L.) oil." <i>Journal of Agriculture and Food Research</i> 14 (2023): 100836.</p> <p><b>Crude Protein:</b> Protein content was determined using the Biuret method. A sample of 0.5 mL was taken inn three tubes and mixed with 2.5 mL of biuret reagent (CuSO<sub>4</sub>•5H<sub>2</sub>O c = 13.0 mmol<sup>-1</sup>, KNaC<sub>4</sub>H<sub>4</sub>O<sub>6</sub>•4H<sub>2</sub>O c = 32.0 mmol<sup>-1</sup>, NaOH c = 0.6 mmol<sup>-1</sup>) and allowed to sit for 30 minutes. The spectrophotometer was used to measure the absorbance at 540 nm before and after the biuret reaction. The blank contained H<sub>2</sub>O instead of the sample. A standard curve was prepared using egg albumin powder of 0.05%, 0.1%, 0.15% and 0.2% (Islam et al., 2010).</p>	

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	<p>Islam, M. N., M. Alam, M. Amin, and D. C. Roy. "Effect of sun drying on the composition and shelf life of Goat Meat (<i>Capra aegagrus hircus</i>)." <i>Bangladesh Research Publication Journal</i> 4, no. 2 (2010): 114-123.</p> <p><b>Crude Fiber:</b> Determination of crude fiber in the sample was carried out based on Alam et al. (2021) method. The fiber content was calculated by equation 3.</p> $\% \text{ Crude fiber} = \frac{\text{Loss of Weight}}{\text{Weight of sample}} \times 100$ <p>Alam, S., M. Ahiduzzaman, M. N. Islam, M. A. Haque, and M. A. M. Akanda. "Formulation and senso-chemical evaluation of aloe vera (<i>Aloe barbadensis</i> Miller) based value added beverages." <i>Annals of Bangladesh Agriculture</i> 25, no. 1 (2021): 43-54.</p> <p><b>Carbohydrate content was determined by difference. of what?</b> Please modify as</p> <p><b>Carbohydrate content:</b> Carbohydrate content in the pasta sample was estimated by the difference according to Cao et al. (2020). The percentage of protein, fat, fiber, ash and moisture was subtracted from 100 to give the percentage of carbohydrate of sample (Equation 4).</p> $\% \text{Carbohydrate} = \text{Total weight} - \text{Weight of (Moisture + Ash + Fat + Protein)}$ <p>Cao, Xiaohuang, Md Nahidul Islam, Wanxiu Xu, Jianping Chen, Bimal Chitrakar, Xuejing Jia, Xiaofei Liu, and Saiyi Zhong. "Energy consumption, colour, texture, antioxidants, odours, and taste qualities of litchi fruit dried by intermittent ohmic heating." <i>Foods</i> 9, no. 4 (2020): 425.</p> <p>Table 2 should be corrected as follows:</p> <p>Mean with different superscript (a, b, c, d, e) in the same row differ significantly (p&gt;0.05).</p> <p>The comparison should be among the columns between the treatments.</p> <p>Now this is not correct. For example in second row Ash (%)</p> <p>1.04d, 1.07b, 1.19b, 1.34b, 2.26a &gt;&gt; There is no c. You should carry out the analysis again.</p> <p>Same for table 1</p> <p>Crude protein (%)      10.62c, 4.48a &gt;&gt; There is no b.</p> <p>Correct it as: Mean with different superscript in the same row differ significantly (p&gt;0.05).</p> <p>Figure 4: Convert this to a spider plot.</p> <p><b>Please improve the introduction and discussion with the provided references.</b></p>	
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**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)	

**Reviewer Details:**

Name:	Nahidul Islam
Department, University & Country	Bangabandhu Sheikh Mujibur Rahman Agricultural University, Bangladesh