



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	British Microbiology Research Journal
Manuscript Number:	Ms_BMRJ_23495
Title of the Manuscript:	Effects of fermentation and extrusion on the proximate and organoleptic properties of cowpea-plantain flour blends
Type of Article:	Original Research Articles

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
Line 1: Regarding to the parameters evaluated in this study, the term “nutritional properties” must be replaced by “chemical composition”. Even though nutritional properties are lie with chemical composition, the nutritional properties of foods is related to its aptitude to supply the nutrients after consumption. Several <i>in vivo</i> as well as <i>in vitro</i> methods are used for this purpose. For further details, refer to a nutritionist or an expert in nutrition science. Page 1 Lines 23 to 25: complete with the reference Page 1 line 28: remove “metric” and use an SI unit of volume or mass when expressing the quantity of plantain produced in Nigeria. Give reference for the data concerning losses. Page 1 line 34: ‘it contains low glycemic index carbohydrate’ give at least on reference for this assertion. Line 34 and 35: replace “great importance” by “nutritional importance” if the previous reference(s) is (are) completed. Bring out the nutritional importance of fermentation The interest of extrusion is not always explained. Is it to produce an easy to eat food? To develop certain specifics properties in which case they must be mentioned. Page 1 lines 55 to 60: remove from “Nutritional” to staple foods after the interest of extrusion have been justified. Page 2 line 70: attrition is the mark of equipment? Page 2 line 71: replace “25mm” by 0.25mm if the same sieve was use during the production of plantain and cowpea flour. In a flour, particles size are generally not greater than 1mm. the yield of production the both flours must be evaluated in methodology and the value obtained based on the fact that “About 6% of the raw material was retained” must be mentioned as first result. Page 2 line 77: remove “to prevent it from absorbing moisture, contamination as well as rodent infestation”. Fermentation and extrusion: The description of container and the conditions of fermentation must be mentioned in the methodology. Concerning extrusion, there are at least 3 parameters which can be under control. Temperature, speed of screw and feeding rate of the Brabender. The values of these parameters during the extrusion must be mentioned. Page 3 lines 85 and 86: Concerning the fermentation, it was carried out no samples before or after extrusion? Flour with 7.5% (75ml/1000g) of water cannot be consider as semi-solid medium. This water content is close to those of some dried products. In this condition it is difficult to talk about fermentation. Consult the range of water activity necessary for fermentation of for microbial activities. Page 3 lines 99 and 100: Bacteria and fungi population are evaluated using NA and PDA	Okay, thank. That will be corrected. Alright, reference will be included. Metric tonnes has been replaced with kilogram and reference has been added. Thanks, reference has been added. Thanks. Alright. The essence of extrusion is to know its effect on the proximate and sensory properties of the flour blends. Also, blended foods are usually precooked by extension so that less cooking time is required and to increase shelf life. Ok. Attrition mill is a general name of equipments used for grinding dried foods into smaller particles. Thanks, that error has been corrected. Ok. Alright. Information about the parameters of extrusion has been added. It is 70% of water. It was a mistake.



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respectively. Page 3 lines 100 and 101: Remove from organisms to techniques The methods used to identify the microbial species must be described (biochemical and morphological observations with more details: culture on specifics media...?) Page 3: describe the measurement of pH without calibration of pHmeter in methodology (manuscript) with reference. Also complete the description of samples collection in methodology. All the precisions concerning methodology in manuscript. Page 4: sensory evaluation, methods without 's' Page 4: precise the unit of TTA Regroup the results on chemical composition (ash, fat... contents) in one table. Page 12 lines 339 and 340: as mentioned previously, find other justification for the reduction of ash content during the fermentation in this study The effect of substitution rate of plantain flour by cowpea flour is almost absent in results and discussion. This must be evaluated using analysis of variance. Page 13 line 350: replace “-“ by “to” From the microorganism identified on the blends after fermentation, there is a high risk of intoxication trough this flour, the safety of the product should be guaranty before sensorial analysis.	Ok. Ok. That has been done, thanks. Correction has been made Thanks. The unit of TTA is percent lactic acid. The figures representing the chemical composition have been replaced with a table. The justification has been removed. From the result, it was discovered that the protein content increased with increase cowpea. Analysis of variance (ANOVA) was used to evaluate the significant differences. Ok. The microorganisms identified were isolated during fermentation and not after fermentation. Most of the microorganisms were destroyed during extrusion and drying. Evaluation of the safety of the product will be done in subsequent research.
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