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Journal Name:	**Journal of Applied Life Sciences International**
Manuscript Number:	**Ms_JALSI_33595**
Title of the Manuscript:	**Changes in Amino Acid Profile of African Yam Bean (Sphenostylis sternocarpa): The Effect of Different Processing Methods.**
Type of the Article	**Original Research Article**

General guideline for 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 guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Editorial Comments

	Editor's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is ma*

		ndatory that authors should write his/her feedback here)
Compulsory REVISION comments	The manuscript needs professional English Editing Abstract The authors are requested to change the first sentences of the abstract to the followings The amino acid composition of raw and heat processing was analyzed by amino acid analyser. The patterns of 7 essential amino acids were reported in g per 100 g bean protein and the amino acid score were calculated and reported. The protein quality of the four products was predicted by calculating protein efficiency ratio. Page 2 Materials and methods Combine in one sentence !!! They were winnowed, and extraneous materials were removed. The cleaned seeds were divided into four portions of 150g each After the removal of extraneous particles and cleaning the seeds were divided into four equal portions of 150g each. One portion was left intact which served as control [CON]. Cooking practices included conventional cooking [COV-COK] by adding water to the 150 g beans at 2:1 (w/w ratio) and boiling in an open pot for 120 minutes. Microwave Cooking [Miw-COOK] was completed by adding water to the 150 g beans at 2:1(w/w ratio) in a glass ?porcelain pottery and placing in a microwave (Sonic 5mw-70017, Japan) for 8 -10 minutes. Roasting[ROAST] of 150 g beans was completed in an oven	

preheated to 150^{0}C for 20 minutes in the absence of moisture . The [COV-COK] and [MIW-COK] preparations were dried at 650C in an oven (Ocean Med., Mode DHG- 9053A, England) for 6h. The 4 bean preparations were ground electrically to fine flour to pass mesh sieves and saved in air tight containers for chemical analysis.

Nitrogen determination ?? The method should be written down and the conversion factor nitrogen to protein

2.2 **Amino Acid analysis**

Weighed samples (150 mg) were hydrolyzed in 6 normal hydrochloric acid in sealed ampoules ????under reflux???? for 16 hours???? 24 hours???. The acid hydrlyzate was neutralized to pH 7 with sodium hydroxide solution ????

The acid hydrolyzate was evaporated under vaccuo followed by washing with distilled water and the volume was brought to a constant volume. The amino acids were separated using amino acid analyzer ((Technicon Sequential Multisample (TSM), Technicon Instruments Cooperation, New York, USA).The details of the separating method was described [9]. 15 ??? AA were separated under this condition, while tryptophan was destroyed.

I assume that the operation and running of the analysis was not done in Nigeria. Such a fascinating machine is usually connected with software programs, sothat the calculation is done automatically.
Describing this naïve method of calculation by multiplying the weidth by half the height doesn't fit well when using such a valuable machine. It is much better to acknowledge the laboratory , where the analysis had been completed !!

cooking (Sonic 5mw-70017, Japan) for 810 minutes ?? Does the author means 8 – 10 minutes ??Tish should be checked.

Nitrogen determination should be mentioned under materials and methods and the conversion factor from nitrogen into protein .

Results

The results should be presented in the table in; in the order and the manner shown in the table

Table (1) Amino acid pattern of raw and thermally treated beans

Amino acid	CON	CONV-COK	MIWCOK	ROST	FAO/WHO Reference

					Pattern
	Amino acid g/100g bean protein				
Essentials	33.39	29.01	39.24	42.42	
Lysine	**6.82**	**5.88**	**6.65**	**6.49**	**5.8**
Methionine	**0.8**	**0.69**	**0.75**	**0.96**	**2.5**
Cystine	**1.52**	**1.24**	**1.31**	**1.31**	**3**
Total S- contg A A	**2.32**		**2.06**	**2.27**	**5.5**
Phenyl alanine	**3.78**	**3.34**	**3.52**	**3.19**	**6.3**
Tyrosine	**2.98**	**2.65**	**2.81**	**3.14**	**1.1**
total aromatic A A	**6.76**		**6.33**	**6.33**	**7.4**
Leucine	**6.69**	**6.16**	**6.51**	**6.86**	
isoleucine	**3.16**	**2.74**	**3**	**3.46**	
Valine	**4.01**	**3.25**	**3.01**	**4.32**	
Threonine	**3.63**	**3.06**	**3.29**	**4.09**	**3.4**
Non-Essentials	**44.86**	**38.86**	**41.4**	**46.18**	
Aspartic acid	**8.71**	**7.51**	**7.89**	**8.9**	**7.7**
Glutamic acid	**12.79**	**11.3**	**11.94**	**12.58**	
Alanine	**3.44**	**2.81**	**2.98**	**3.89**	
Proline	**3.59**	**3.01**	**3.01**	**4.17**	
Serine	**4.2**	**3.46**	**3.82**	**4.23**	
Glycine	**3.2**	**2.79**	**2.89**	**3.99**	
Arginine	**5.44**	**4.93**	**5.44**	**5.44**	**5.2**
Histidine	**3.49**	**3.05**	**3.43**	**2.98**	**2.8**
Essential/Total AA %	**42.7**	**42.74**	**42.69896**	**53.02**	

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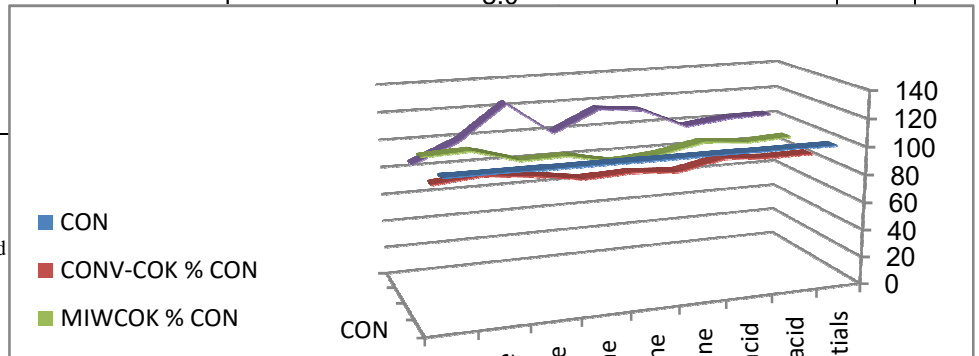
One table is enough for the article. The other tables should be deleted completely.
The authors should note that the results depend on the analyusis of just one sample with no statistical analysis.

The authors are recommended to present the deviation in the level of each amino acid after thermal treatment as a figure.
One figure will be dedicated for essential amino acid as % of the respective control.The second figure will be dedicated on non essential amino acids.

The authors should consult the literature and add two sentences from the literature on the effect of conventionalcooking,microwave cooking and roasting on selected amino acids. At least the effect of thermal treatment on the oxidation of cysteine should be mentioned.

Amino acid

	CON	CONV-COK % CON	MIWCOK % CON	ROST % CON	
Non-Essentials	100	86.62506	92.28712	102.945	Non-Essentials
Aspartic acid	100	86.22273	90.58553	102.184	Aspartic acid
Glutamic acid	100	88.35027	93.35418	98.359	Glutamic acid
Alanine	100			113.09	
Proline					



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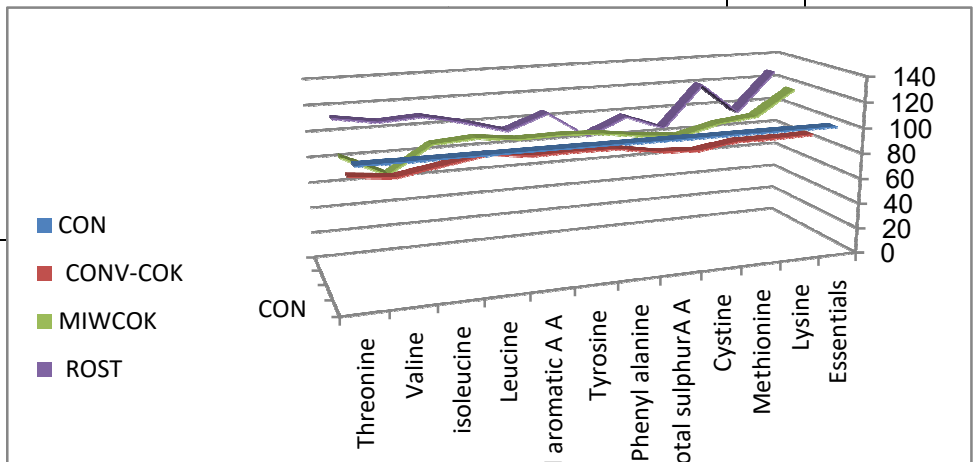
		0			56	
		1			10 0.7	
	Serine	0 0	82.380 95	90.95 238	14 3	Serine
		1			12 4.6	
	Glycine	0 0	87.187 5	90.31 25	87 5	Glycine
		1				
	Arginine	0 0	90.625	100	10 0	Arginine
		1			85. 38	
	Histidine	0 0	87.392 55	98.28 08	68 2	Histidine

Amino acid

	CON	CONV-COK	MIWCOK	ROST
Essentials	**100**	**86.882**	**117.5**	**127.0**



				3	202	44		
		Lysine	100	86.21701	97.507333	95.161299		
		Methionine	100	86.25	93.75	120		
		Cystine	100	81.57895	86.184421	86.184421		
		total sulphurA A	100	83.18966	88.7931	97.844833		
		Phenyl alanine	100	88.35979	93.121669	84.391533		
		Tyrosine	100	88.92617	94.2953	105.369 1		
		total aromatic A A	100	88.60947	93.639055	93.639055		
		Leucine	100	92.07773	97.309422	102.5411		
		isoleucine	100	86.70886	94.936771	109.49337		

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		Valine	**100**	**81.04738**	**75.062344**	**107.73077**	
		Threonine	**100**	**84.29752**	**90.633612**	**112.67222**	
Minor REVISION comments	The authors should read the comments of the reviewer and correct accordingly. If the authors are still beginners, they should consult the experience of a qualified colleague to go through the different section of the manuscript. The manner of presenting the amino acids in the tables denotes that the authors have no experience in the field and do not consult the international literature.						
Optional/General comments							

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