



SDI Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_36256
Title of the Manuscript:	Testing the Ideal Protein Concept in Broiler Starter Phase (0-28 Days) using Low-Protein Diets Supplemented with the Most Limiting Essential Amino Acids
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.

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(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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)
Compulsory REVISION comments	The section on Sourcing of Feed-Grade Amino Acids should be deleted. Because amino acids have been supplemented in animal feeds for so long, no description or standard of purity is needed. Table 1 should be deleted. Provide a reference in the text. Table 2. There is a serious problem with the design of this experiment. The amounts of amino acids supplemented to Diets 2-6 are the same. In addition, these amounts are much higher than are required in broiler starter diets. It is not possible to test the concept of ideal protein with these diets. Only enough of the essential amino acids should be added to meet the chicken's requirement. As the protein content of the diet is decreased, the amount of amino acid supplement needs to increase to maintain a constant amino acid content of the diet. Also, as the protein content of the diet is decreased, additional amino acids become limiting and need to be supplemented.	I commend your academic contributions to the reviewed paper. However, the section on sourcing of amino acids may be necessary because the potency/nutritional efficiency of amino acids as feed supplements has always been a controversial issue just like the use of enzymes in animal feeds. The issue of manufacturer, purity, N content, shelf life have recurrently been debated in feed technology. It may be necessary to confirm these debatable issues by detailing the amino acid compositions to validate its potency etc. Table 1 is a summary of the approved NRC (1994) amino acids requirements which is necessary to prove the various levels of inclusion of the 4 most limiting amino acids in the experimental design. Table 2 indicates that the amino acids supplementations are the same. The design of the experiment is to ensure that amino acids requirements are met in Diets 2-6 while reducing the crude protein (CP) levels. It is easier to monitor the efficiency of the amino acids supplementation when only one FACTOR is varied. In this case, only CP level is varied while amino acids requirements for the most limiting essential amino acids are ensured to be normal (NRC, 1994). In essence, any variation/s in the investigated parameters of the experimental birds is as a result of the variation in the CP level that reduced by 3% from Diet 2 to Diet 3, another 3% reduction from Diet 3 to Diet 4 until the minimum CP level of 11% in Diet 6. Therefore, there is no need to increase the amino acids supplementation since the amino acids are already in the required quantities with or without CP manipulation.
Minor REVISION comments		
Optional/General comments		Additional materials and methods are included in the Materials and Methods Section for better clarity of the study.