**ABSTRACT**

Wild plants for reasons of cost, availability and accessibility have been exploited in

Africa in order to bring solution to numerous nutrition and health challenges of man. *Moringa oleifera* is believed to be one of the numerous plants being exploited as a protein-rich feed ingredient comparable to Full-Fat Soyabean (FFS) for poultry. This experiment was designed to investigate the amino acids and fatty acids profiles of processed *Moringa Oleifera* Seed Meal (MOSM) as alternative protein source.

*Moringa oleifera* seeds were harvested, cleaned ,and soaked in water (200g/litre) for 1(T2) ,2 (T3) ,and 3(T4) hours while the un-soaked seeds served as the control (T1). The seeds were drained, dried, and milled into fine powder for chemical analysis of amino acids(histidine,isoleucine,leucine,lysine,.methiaonine,alanine,

valine,threonine,serine and trypotan) using Ninhydrin chemical reaction and fatty-acids (oleic,palmitic,stearic,lautric,linoleic,linolenic,behenic,mystric,erucic and palmitoleic acids) profiles using the spectrophotometric determination in a completely randomized design experiment. Data were analysed using descriptive analysis and ANOVA at p=0.05.

Three hours water-soaked *Moringa oleifera* seed (T4) obtained the highest amino-acids values which was significantly different (p< 0.05) from other treatments but lower on fatty-acids profile which was significantly different (p<0.05) from others while the un-soaked obtained the highest fatty acids values and two hours water-soaked was at the middle.

From results in this study, it was observed that *Moringa oleifera* seed can add value to plant origin when soaked at three hours inclusion level , thereby improve the well-being of consumers in respect to their health status and can be used as protein source when fed to livestocks.

KEY WORDS : *Moringa* *oleifera* , Amino acids , Fatty acids , protein source .

WORD COUNTS: 252

**UNIVERSITY OF IBADAN**

**FACULTY OF AGRICULTURE AND FORESTRY**

**REGISTRATION OF TITLE OF DISSERTATION**

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**FIELD OF STUDY:** Animal Nutrition

**DEGREE IN VIEW:** Ph.D.

**DATE OF FIRST REGISTRATION**

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**PROPOSED TITLE OF DISSERTATION: UTILISATION OF *Moringa oleifera* SEED MEAL AS ALTERNATIVE PROTEIN SOURCE IN THE DIETS OF BROILER CHICKENS**

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**THE EXAMINATION:** To be determined

**SUPERVISOR:** Dr. O. A. Abu

**COMMENTS OF THE HEAD**

**OF DEPARTMENT:** Recommended for approval

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O . J . Babayemi

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**COMMENTS OF THE DEAN/** Approved at the Faculty Postgraduate

**SUB-DEAN (POSTGRADUATE):**  Committee Meeting ………………………….

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