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***Moringa oleifera* Leaf Meal and Differently Processed Seed Meal as Additive in Broiler Diets**

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Introduction

- Synthetic antibiotics such as tetracycline have accompanied problems: non-availability, high cost, resistance and residue in animal products, limiting their use in livestock production.
- This has necessitated the need for sourcing for herbal alternatives which could better replace synthetic antibiotics.
- *Moringa oleifera* is used in Nigeria for treating several kinds of ailments.
- Its seeds are rich in protein and used as sources of protein in broiler diet up to 5% without negative effects.

Objectives

- To investigate the effect of differently processed seed of *Moringa oleifera* and raw leaf meal as a replacement for synthetic antibiotic in broiler starters.

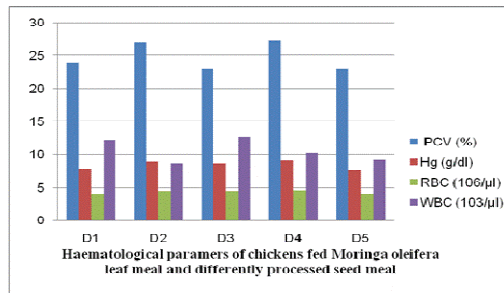
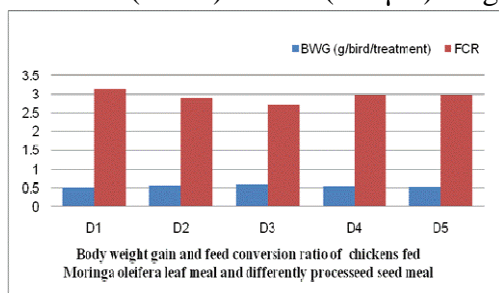
Methodology

- The study lasted for 28 days.
- There were 5 treatments: negative control (D1), positive control (D2), treatments 3, 4 and 5 (D3, D4 and D5) contained 0.25% raw air-dried *Moringa oleifera* seed meal, 0.25% cooked air-dried *Moringa oleifera* seed meal and 0.25% of raw air-dried *Moringa oleifera* leaf meal respectively.
- The design of the study was a completely randomised design.
- Each treatment had five replicates of 1-d old birds per replicate.
- Blood samples for haematological analysis were collected from three birds of similar weight per replicate.
- The study was conducted in Poultry Unit, Landmark University Teaching and Research Farm, Nigeria.
- Data were analysed using general linear model of analysis of variance.



Results

- The result of the study revealed that experimental diets compared well with the control diets.
- There were no significant differences across the treatments for all the parameters measured.
- Body weight gain (BWG) ranged between 0.51 ± 0.05 g/bird/treatment and 0.60 ± 0.02 g/bird/treatment.
- Feed conversion ratio ranged between 2.72 ± 0.11 and 3.14 ± 0.40 .
- Packed cell volume (PCV, %) ranged between 23.00 ± 0.01 and 27.33 ± 0.02 .
- Red blood cell (RBC) counts ($10^6/\mu\text{L}$) ranged between 3.30 ± 0.15 and 4.55 ± 0.08 .
- White blood cell (WBC) counts ($10^3/\mu\text{L}$) ranged between 8.67 ± 0.43 and 12.73 ± 0.02 .



Conclusion

- Inclusion of differently processed *Moringa oleifera* seed meal and raw moringa leaf meal at 0.25% level had no negative effect on the BWG, FCR and haematological parameters of broiler starters.