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 ration 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/µL) ranged between 3.30±0.15 and 4.55±0.08.
• White blood cell (WBC) counts (10^3/µL) 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.