EVALUATING THE INFLUENCE OF LAGENARIA BREVIFLORA FRUIT EXTRACT ON GROWTH PERFORMANCE, HEMATOLOGICAL PARAMETERS, AND SERUM BIOCHEMISTRY IN BROILER CHICKENS

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BACKGROUND OF THE STUDY

- The poultry industry has become an important economic activity in Nigeria; however, [illegible] diseases [illegible] has posed a major challenge to survival of poultry birds [illegible] threatening food security in many parts of the country (Dosunmu and [illegible], [illegible]).
- The fruit of *Lagenaria breviflora* [illegible] The fruit extract of the plant has been used [illegible] in broiler birds (Opowoye, 2023).
- Previous studies have been conducted [illegible] laying birds focused on the effect on laying performance (Adeleye et al., 2017), histology and biochemical (Adeleye et al., 2016) as well as phytochemical analysis (Adeyemi et al., 2017); however the dosage concentration and frequency of administration [illegible].
- [illegible] 300g and 500g of *Lagenaria breviflora* [illegible]

AIM OF THE STUDY

Impact of *Lagenaria breviflora* fruit extract (LBFE) administration on broiler chicken growth performance, haematology and serum biochemistry.

MATERIALS AND METHODS

[illegible]

EXPERIMENTAL DESIGN

The experiment was laid out in a Completely Randomized Design. The birds were randomly distributed into 3 treatments;

Treatment	Level of Administration
T1	5% oxytetracycline hydrochloride at a dosage of 1g per 4 litres of drinking water
T2	300 g of LBFE/litre for 3days/week
T3	500 g of LBFE/litre for 3days/week

MATERIALS AND METHODS

- [illegible]

[illegible]

- [illegible]

[illegible]

- [illegible]

[illegible]

- [illegible]

$$\text{Total feed intake } (g) = \frac{\text{Total feed given } (g) - \text{Total feed leftover } (g)}{\text{Total number of birds}}$$

$$\text{Total water intake } (l) = \frac{\text{Total water given } (l) - \text{Total water leftover } (l)}{\text{Total number of birds}}$$

$$\text{Total weight gain } (g) = \frac{\text{Final weight } (g) - \text{Initial weight } (g)}{\text{Total number of birds}}$$

- Statistical analysis

Data obtained were subjected to [illegible] Analysis of Variance in a Completely Randomized Design. Significant differences among treatment means were separated using Duncan's Multiple Range Test [illegible]

RESULTS

Table 1: Effects of frequency of administration of *Lagenaria breviflora* fruit extract (LBFE) on growth performance of broiler chickens at starter phase

Parameters	T1	T2	T3	SEM	P-value
Initial weight (g)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Final weight (g)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Weight gain (g)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Daily weight gain (g)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Daily feed intake (g)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Feed Conversion Ratio	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Daily water intake per bird (ml)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Table 2: Effects of frequency of administration of *Lagenaria breviflora* fruit extract (LBFE) on growth performance of broiler chickens at finisher phase

Parameters	T1	T2	T3	SEM	P-value
Final weight (g)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Weight gain (g)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Daily weight gain (g)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Feed intake (g)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Daily feed intake (g)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Feed Conversion Ratio	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Daily water intake per bird (ml)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mortality (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Table 3: Effects of frequency of administration of *Lagenaria breviflora* fruit extract on haematological parameters of broiler chickens at starter phase

Parameters	T1	T2	T3	SEM	P-value
Packed Cell Volume (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
WBC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
RBC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Heterophils (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lymphocytes (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Monocytes (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eosinophils (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Basophils (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Heterophil/lymphocyte ratio	[illegible]	[illegible]	[illegible]		

[illegible]

Table 4: Effects of frequency of administration of *Lagenaria breviflora* fruit extract on haematological parameters of broiler chickens at finisher phase

Parameters	T1	T2	T3	SEM	P-value
Packed Cell Volume (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
White Blood Cell	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Red Blood Cell	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Heterophils (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Lymphocytes (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Monocytes (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Eosinophils (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Basophils (%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Heterophil: lymphocyte	[illegible]	[illegible]	[illegible]		

[illegible]

Table 5: Effects of frequency of administration of *Lagenaria breviflora* fruit extract on serum biochemical parameters of broiler chickens at starter phase

Parameters	T1	T2	T3	SEM	P-value
[illegible] (mg/dl)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Creatinine (mg/dl)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AST (U/l)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ALT (U/l)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Table 6: Effects of frequency of administration of *Lagenaria breviflora* fruit extract on serum biochemical parameters of broiler chickens at finisher phase

Parameters	T1	T2	T3	SEM	P-value
Uric acid (mg/dl)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Creatinine (mg/dl)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AST (U/l)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ALT (U/l)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

CONCLUSION

300g and 500g/Litre of water administered *Lagenaria breviflora* could serve as replacement for synthetic antibiotics with no adverse effect on the broiler chicken growth performance, hematological indices, and serum biochemistry.

ACKNOWLEDGEMENT

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SELECTED REFERENCES

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
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