



EFFECTS OF FEEDING DESERT LOCUST MEAL (*SCHISTOCERCA GREGARIA*) ON PERFORMANCE AND HAEMATOLOGY OF BROILERS



University of Ibadan
Nigeria's Premier University

Adeyemo, G.O., and Longe, O.G.
Department of Animal Science, Faculty of Agriculture,
University of Ibadan, Ibadan, Nigeria.
gbemiadeyemo@yahoo.com

Tropentag, Germany

INTRODUCTION

- Locust and grasshoppers have been some of the greatest agricultural pests since civilization.
- The most voracious pests eating their own weight (2-3g) of vegetation daily (Alomenu, 1998)
- About \$275 million was spent on application of 15 million litres of pesticides in the locust plague of 1986-1989 (Symmons, 1992)
- The first in many years in the Sahel covering over 25.9 million hectares of land (Showler, 2002)
- However, locusts have beneficial effects as a source of protein in animal nutrition
- It has been reported that the locust, *Schistocerca gregaria* has 61.75% crude protein and 16.95% fat
- Therefore, locust could be a good source of cheaper protein compared to fishmeal in animal rations
- Many countries will be able to cut down expenses on pest control
- This study investigated the nutritional potentials of desert locust as a protein source in broiler chicken diets

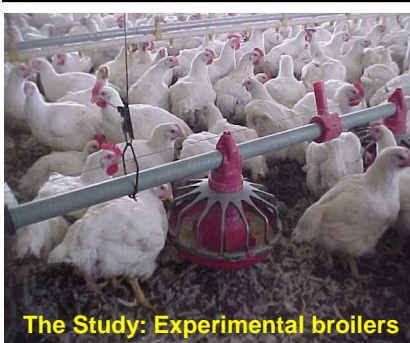


MATERIALS AND METHODS

- 96 day-old unsexed broiler chickens (Abor acre) distributed to four diets containing 0, 1.7, 3.4 and 6.8% desert locust meal the equivalent protein supplied as replacement for fishmeal in the control diet
- The proximate analyses of nutrients of locust meal and fed diets were carried out
- The birds were bled at day 28 for blood collection for haematological studies
- Data were analyzed using SAS methods
- Treatment means were separated using Duncan's multiple range test

RESULTS

- Proximate composition of locust meal for this study had a crude protein of 52.3% on dry matter basis
- The ether extract, crude fibre and Ash were 12.00, 19.00 and 10.00 percent respectively
- Results showed no significant differences ($p > 0.05$) among the treatment means
- The best Feed Conversion Ratio (FCR) was obtained from treatment 2 (1.94) for the starter phase when the locust meal was used to replace 50% protein contributed by fishmeal in diet
- No significant differences ($p > 0.05$) were observed for haematological indices examined



CONCLUSION

The result indicates that desert locust has great potential as a protein source in broiler diets Without causing any physiological disorder as reflected in the haematological analysis

REFERENCES

- Alomenu, H.S. (1998).** Current trend in African migratory locust plague prevention. *Outlook on Agriculture*. 14, 165-173.
- Showler A. T. (2002)** A summary of control strategies for the desert locust, *Schistocerca gregaria* (Forskål) *Agriculture, Ecosystems & Environment Volume 90, Issue 1*, June 2002, Pages 97-103
- Symmons P. (1992)** Strategies to combat the desert locust Crop protection ISSN 0261-2194 volume. 11:3, pp. 206-212

**Tropentag, October 7 – 9,
2008 Hohenheim, Stuttgart,
Germany.**