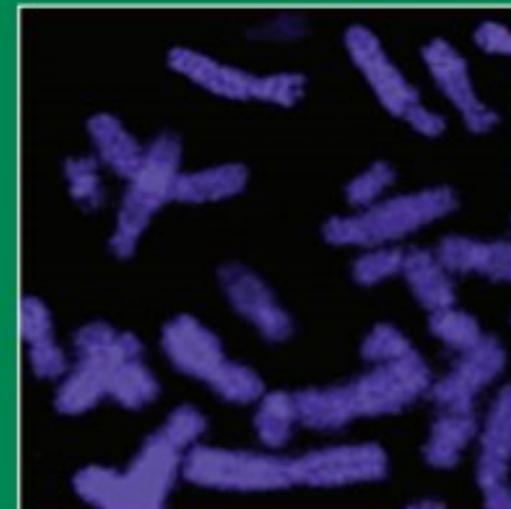


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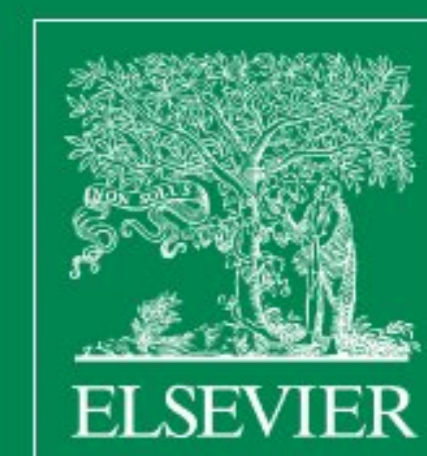
animal – science proceedings

The Challenge of Change
The New Normal?

Proceedings of the British Society of Animal Science
12th – 15th April 2021
On-line Virtual Conference



animal – science proceedings



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The Proceedings of the British Society of Animal Science constitutes summaries of papers to be presented at the Society's Annual Conference, BSAS 77th Annual Conference 2021 held virtually on 12th – 15th April 2021

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Subject areas can include aspects of Breeding and Genetics, Nutrition, Physiology and Functional Biology of Systems, Behaviour, Health and Welfare, Livestock Farming Systems and Product Quality. Due to the integrative nature of biological systems, animal science proceedings will welcome contributions on the translation of basic and strategic science into whole animal and whole system Productivity, on Product Quality and the relationship between products and human health, Food Security, the Environment including ecosystem services and agroecology, and Climate Change. Proceedings can involve research, extension studies, training and education as well as policy development. The conferences can be international or regional/ national.

Languages other than English are acceptable provided a means of wider dissemination is agreed.

animal – science proceedings is closely related to *animal* and *animal – open space* with the facility to publish main/ invited papers from the conferences in these journals.

Further information can be found here

Information for Conference Organisers

The animal family provides a package enabling conference organisers to publish main / invited papers in *animal* with abstracts in *animal – science proceedings*.

For further information and a guide for conference organisers please contact ansproceedings@bsas.org.uk



Welcome

The British Society of Animal Science (BSAS) aims to provide an opportunity for those with an interest in animals and animal science to exchange views, ideas and information. It is an energetic and active society with members from countries throughout the world. Today, as ever, the Society is the natural connecting point for all of those with an interest in animal science and related sectors. Its membership is drawn from research, education, advisory work, commerce and practical animal keeping.

At the conference the animal consortium of BSAS, EAAP and INRAE will launch the *animal* family of Gold Open Access journals, published by Elsevier.

- The well-established journal *animal* publishes the best, innovative and cutting-edge science that relates to animals (farmed or managed) used for animal production but now two other linked journals.
- *animal – science proceedings* (formerly Advances in Animal Biosciences) will publish high-quality conference, symposium and workshop proceedings on aspects of the life sciences. The BSAS conference is the first issue.
- *animal – open science* is a new publishing initiative of the consortium. The journal fully embraces Open Science. All relevant activities (research, extension, teaching) in the field of animal science that are well-carried out deserve to be published and contribute to enhanced knowledge. Scientific exchange and interactions with the authors on articles will be through a platform of post-prints commentaries rather than conventional peer review.

Further information can be found on www.animal-journal.eu

BSAS organises major scientific and specialist conferences on key issues facing the science related to animals.

If you would like to join or receive further information about the British Society of Animal Science please contact:

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Proceedings

of the British Society of Animal Science Annual conference 2021

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101. Effect of dietary probiotics on the growth performance of Cobb 500 broiler chickens

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Application: Probiotics are a possible alternative to antibiotics as growth promoters, without residual effect on chicken meat.

Introduction: There is growing interest in searching for alternatives to the use of antibiotics in poultry production as growth promoters. The use of antibiotics for growth promotion has been banned in the EU, UK and USA, but its use as a growth promoter has not been officially banned in many countries of the world including Nigeria. Probiotics are live microbial feed additives with beneficial properties like improvement in animal health and growth performance [1]. The effectiveness of probiotics used may be dependent on the species of microorganism, the form it was used either wet or dry, the dosage and the environment in which the birds are raised [2]. This study aims to evaluate the use of probiotics for growth promotion in broilers.

Materials and methods: The experiment was conducted at the Research Farm of the Federal University of Technology Minna, Niger State, Nigeria. One hundred Cobb 500 broiler chicks were used for the study. The chicks were weighed and randomly allotted to five treatments in a completely randomized design. This study was approved and followed the standard ethics of the animal production department of the university. The probiotics used contained 10^9 CFU/g of *Lactobacillus*. Treatment 1 served as the control without probiotics (0%) while treatments 2, 3, 4 and 5 were diets supplemented with 1.25 g (0.125%),

2.5 g (0.25%), 3.75 g (0.375%) and 5 g (0.5%) of probiotics per 1 kg of feed, respectively. The probiotics dosage for T2 was (1.25×10^8 CFU/kg); T3 (2.5×10^8 CFU/kg); T4 (3.75×10^8 CFU/kg) and T5 (5.0×10^8 CFU/kg). The birds were managed under a deep litter system and were fed iso-caloric and iso-nitrogenous diets with feed and water provided *ad libitum*. Broilers were weighed weekly, feed intake was measured daily, while feed conversion ratio was calculated from the data obtained. All data were subjected to the Analysis of Variance (ANOVA).

Results: The study conducted showed that the daily feed intake, daily weight gain, feed conversion and final live weight were not significantly ($P > 0.05$) affected by dietary treatments, notwithstanding, the probiotics did not negatively affect the broilers, since the effect did not differ from the control (Table 1).

Conclusion: Researchers using probiotics in poultry have reported variable results. The results obtained in this study not been significant may be indicative of the type of microbe used for the probiotics or the fact that the probiotics inclusion levels were low to produce any significant effect, possibly higher levels of probiotics may yield a significant effect on broiler growth performance. Further research may focus on comparing the use of different types of probiotics on broiler growth promotion.

References

- [1] Hernandez-Patlan D, Solis-Cruz B, Hargis BM, Guillermo T. In: Prebiotics and Probiotics – Potential Benefits in Nutrition and Health; 2019, p. 1–21.
- [2] Otutumi LK, Moraes Garcia ER, Gois MB, Loddi MM. In: Probiotic in Animals. Editor: Rigobelo EC. Rijeka: In Tech; 2012, p. 203–30.

Table 1
Effect of probiotics on growth performance of broilers.

Parameters	Treatments					SEM	P value
	T1	T2	T3	T4	T5		
Initial weight (g)	109.00	108.50	108.25	108.00	105.98	0.45	0.07
Final weight (g)	2202.20	2173.40	2191.60	2492.80	2180.80	54.90	0.11
Daily weight gain (g)	49.84	49.16	49.61	56.78	49.40	1.30	0.10
Daily feed intake (g)	98.46	98.65	98.89	97.37	97.54	0.32	0.22
Feed conversion ratio	1.98	2.01	2.00	1.74	1.98	0.04	0.06