Research Paper

Effects of Diet Containing Fermented Canola Meal on Performance, Blood Parameters and Gut Health of Broiler Chickens.

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ABSTRACT: The current research aimed to study the effects of the fermented canola meal (Lactobacillus) diet on productive performance, blood parameters, and gut health of broiler chickens under high ambient temperature conditions. A total number of 320 (Ross-308) one-day-old broiler chickens were allocated randomly into four experimental groups for 42 days. Four experimental groups with four types of diet, including the control group (CON) received basal diet, and three other experimental groups were supplemented with 20% of the canola meal (CM), 20% fermented canola meal (FCM), and 20% canola meal with probiotic (PCM). The chickens that fed FCM presented improvement in live body weight, feed conversion ratio, and higher nutrient digestibility, compared to CM and PCM groups. Serum glucose, total protein, albumin, and aspartate aminotransferase (AST) of levels of chickens fed by FCM were higher than chickens fed CM and PCM, while there was a decrease in cholesterol. Fermented canola meal resulted in some noticeable beneficial changes in the cecum microflora communities through increasing the population of Lactobacillus spp. and decreasing the Escherichia coli and improved its morphology by increasing villus height. The results indicated that the fermentation of canola meal has enhanced performance, nutrient digestibility, and gut health, which allow using greater amounts of fermented canola meal as a replacement of soybeans meal in the broiler diet.

Keywords: Broiler, Canola meal, Fermentation, Gut health, Performance, Serum parameter.
Antacid is a mixture of sodium bicarbonate, bicarbonate, and citric acid, which can neutralize stomach acidity and may stabilize the pH of post-mortem carcass and meat. Therefore, the present study aimed to investigate the carcass and meat quality of broiler chickens.
ABSTRACT:

Chicken production plays a major role in the livelihood of rural people due to the provision of eggs and meat which are high sources of protein. This calls for sustainable production of chickens through strategies aimed at improving the hatchability of eggs and survival of chickens. Therefore, the present study was conducted to determine the effect of egg storage length on egg hatchability and survival of the Koekoek chickens. A total number of 270 eggs were divided into three treatment groups, and the eggs of each group were stored for 3, 7, and 11 days before incubation. Each treatment consisted of three replicates. The General Linear Model procedure was used to analyze the data. The eggs that were stored for three days before incubation had a higher hatching percentage, compared to those that were stored for 7 and 11 days before incubation. Storing eggs for few days before incubation resulted in reduced embryonic mortality rate and lower mortality of chickens during the first seven days after hatching. Based on these results, is recommended that Koekoek chicken eggs should be stored for three days before incubation to maximize hatchability and survival of chickens before the age of seven days.

Keywords:

Eggs, Storage, Embryo mortality, Hatchability, Koekoek chicken.

ABSTRACT:

The development of the digestive tract organs is closely related to the increased body weight growth in chickens. The present study aimed to determine the effect of using maggot meal as an antibacterial and protein source of fish meal substitution in diets on the relative length of the digestive tract organs, small intestine histomorphology, and the percentage of the native chicken carcass. A total of 140 one-day-old chickens were randomly assigned to one of the five treatments according to a completely randomized design with four replications for each treatment. The treatments included P0 (basal diet + 15% fish meal + 0% maggot meal), P1 (basal diet + 11.25% fish meal + 3.75% maggot meal), P2 (basal diet + 7.5% fish meal + 7.5% maggot meal), P3 (basal diet + 3.75% fish meal + 11.25% maggot meal), and P4 (basal diet + 0% fish meal + 15% maggot meal). The results showed that the use of maggot meal in P3 had a significant effect on the relative length of the digestive tract organs, small intestine histomorphology, and the percentage of the native chicken carcass. Based on these results, it is recommended that maggot meal can be used as a viable alternative to fish meal in chicken feed.

Keywords:

Carcass parts, Digestive tract, Histomorphology, Maggot meal, Native chicken.
Marek's disease (MD) is a lymphoproliferative and neuropathic disease of *Gallus turcicus* (Gold chickens). Progesterone injection led to no significant effect on the egg production peak and luteinizing hormone concentration.

**ABSTRACT:**

The present study aimed to analyze the effect of progesterone hormone injection on the poultry production phase of Arabic Gold chicken. The study was conducted using a completely randomized design and the effect on hen day production two and six weeks after injection. The P hormone injected to Arabic Gold Chicken (P. Arz. vet. med. 2014; 64: 106) was able to reach its peak production (82.9%) at week 29, while the P hormone injection had a significant impact on egg production and caused varying egg production peak and luteinizing hormone concentration.

**Results:**

The results presented that progesterone hormone injection had a significant effect on hen day production phase of Arabic Gold chicken had a significant effect on egg production and caused varying egg production peak and luteinizing hormone concentration.

**Conclusion:**

The implementation of biosecurity measures in poultry farms is essential to reduce the outbreak of diseases correlated with BS, showing a tendency of increase in the outbreak of diseases with increasing BS. This study underlines the fact that biosecurity practices in Cameroon have not been well implemented by chicken farmers. This leads to the need for increased biosecurity practices in chicken farming.
Etiology of Respiratory Diseases of Poultry Farms in North Coast

Isolation and Identification of Newcastle Disease Virus from Ducks Sold at Traditional Livestock Market Center in Indonesia.


Formalin Potential in the Pathogenic Attenuation of Eimeria tenella based on Oocyst Productions.

Formalin soaking with a concentration of 1.2% was the difference in formalin concentration affected the amount of peak with the most significant amount. Formaldehyde may lead to high rates of morbidity and mortality. To prevent coccidiosis, vaccination is alive. The current research was an experimental study aimed to determine the formalin potential in attenuation of E. tenella in broiler chickens.
The present study aimed to estimate carcass characteristics of pure and crossbred indigenous guinea fowl from three climatic zones (Sudanian, Sudano-Guinean, and Guinean) of Benin. Each guinea fowl population had abundant plumage colors (1-Hill: 0.69) in all climatic zones. The phenotypic biodiversity observed in the guinea fowl populations can guide farmers to select specific phenotypes to meet consumer preferences.

Keywords: Morphobiometric Characteristics and Biodiversity of Indigenous Guinea Fowl.

Morphobiometric Measurements

- Shank length: 1.27 ± 0.24 kg
- Shank diameter: 1.33 ± 0.28 kg
- Wingspan: 1.34 kg

Principal Component Analysis indicated that three distinct groups of guinea fowl can be formed based on morphobiometric measurements were significantly higher in males. The live weights of guinea fowl in the three climatic zones were as follows:

- Sudanian zone: 1.1 ± 0.2 kg
- Sudano-Guinean zone: 1.27 ± 0.24 kg
- Guinean zone: 1.33 ± 0.28 kg

The highest weight of guinea fowl was 1.34 kg in males which was 4.38% heavier than females. All the measured traits showed a significant increase with increasing age. These results support the different potential for local guinea fowl populations in Benin to meet consumer needs.

Incubation Effects

- Red and blue light during the incubation of turkey eggs can improve hatchability and expression of muscle growth marker genes (Myogenin, MyoD1, and FGF2) of pectoralis muscle in hatched and non-hatched non-pipped Black Bronze turkey chicks. A total of 1500 hatching Black Bronze turkey eggs were subjected to a direct phenotypic description, biometric measurements, and histopathological examination of the liver infected by L2 Toxocara vitulorum. The infection caused changes in histopathological features of broiler chickens. This infection resulted in various types of diseases in humans. Chickens are one of the most commonly infected species. The study aimed to analyze the description of larval infection caused by Toxocara vitulorum. The potential for the transmission of these diseases was analyzed through the epidemiological examination of 28 broiler chickens aged 14 days. Samples were taken from the liver and were grouped in accordance with observations of the 1, 2, 3, 7, 14, and 21 days after the infection. The larvae were given to the samples. The results showed that exposure to infection over a long period of time can worsen liver cell and other organ damages as well as increasing the potential for the transmission of the disease. The research contributed to the understanding of the epidemiology of Toxocara vitulorum and the potential for the transmission of these diseases.