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

Elbaz AM.
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.
Avian neoplastic diseases, including Marek's disease (MD), avian leukosis (AL), and reticuloendotheliosis (RE), are of economic importance in the chicken industry. However, it is difficult to differentiate MD from AL and RE by clinical signs and postmortem examination. Therefore, the present study aimed to classify the avian neoplastic diseases affecting commercial layer chickens in Nigeria using clinical history, postmortem examination, and histopathology. The age means of the affected layers were 20.6 weeks and 20.8 weeks in Kaduna and Plateau States, respectively. The average morbidity rates were 8.6% and 8.5% in Kaduna and Plateau States, respectively. The age, morbidity, and mortality rates in each of the affected farms were determined. The histopathological changes in the affected tissues were similar and characterized predominantly by the infiltration of lymphocytes, lymphoblasts, and macrophages. The patterns in Commercial Layer Chickens in Nigeria.


Acute Pain Responses of Pullets Subjected to Beak-trimming.


Antacid supplementation in drinking water


Evangelos E, Ghiattini F, Longo V, and Iezzi F. (2017) Antacid is a mixture of sodium bicarbonate, bicarbonate, and citric acid, which can last up to 72 hours. In the second experiment, 40 eight-week-old pullets were assigned to four groups; group A was the control, group B was treated with a vitamin supplement, group C was treated with acetaminophen, and group D was treated with vitamin supplement plus acetaminophen. After 24 hours, chickens were beak-trimmed using a manual cutter. The results revealed that 2 hours post-beak-trimming (PBT), the packed-cell volume of group A was significantly higher than that of group B at 2 and 6 hours PBT while total plasma protein level of group A was significantly lower than that of the group at 2 and 72 hours PBT. Furthermore, feed intake and body weight markedly decreased in the pullets debeaked with both methods until 72 hours PBT.


Evangelos E, Ghiattini F, Longo V, and Iezzi F. (2017) Antacid is a mixture of sodium bicarbonate, bicarbonate, and citric acid, which can last up to 72 hours. In the second experiment, 40 eight-week-old pullets were assigned to four groups; group A was the control, group B was treated with a vitamin supplement, group C was treated with acetaminophen, and group D was treated with vitamin supplement plus acetaminophen. After 24 hours, chickens were beak-trimmed using a manual cutter. The results revealed that 2 hours post-beak-trimming (PBT), the packed-cell volume of group A was significantly higher than that of group B at 2 and 6 hours PBT while total plasma protein level of group A was significantly lower than that of the group at 2 and 72 hours PBT. Furthermore, feed intake and body weight markedly decreased in the pullets debeaked with both methods until 72 hours PBT.


Evangelos E, Ghiattini F, Longo V, and Iezzi F. (2017) Antacid is a mixture of sodium bicarbonate, bicarbonate, and citric acid, which can last up to 72 hours. In the second experiment, 40 eight-week-old pullets were assigned to four groups; group A was the control, group B was treated with a vitamin supplement, group C was treated with acetaminophen, and group D was treated with vitamin supplement plus acetaminophen. After 24 hours, chickens were beak-trimmed using a manual cutter. The results revealed that 2 hours post-beak-trimming (PBT), the packed-cell volume of group A was significantly higher than that of group B at 2 and 6 hours PBT while total plasma protein level of group A was significantly lower than that of the group at 2 and 72 hours PBT. Furthermore, feed intake and body weight markedly decreased in the pullets debeaked with both methods until 72 hours PBT.
Effect of Egg Storage Length on Hatchability and Survival of Koekoek Chickens.
Molapo SM, Mahlehla M, Kompi PP, and Taoana M.

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, it 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.
Marek's disease (MD) is a lymphoproliferative and neuropathic disease of chickens, caused by the Marek's disease virus (MDV). The disease is of great concern for the poultry industry due to its economic impact and the potential for severe health issues in affected birds.

The study conducted in the Northwest Ethiopia aimed to estimate the sero-epidemiology of MDV and assess potential risk factors. A total of 768 serum samples from three zones were collected and assayed for MDV antibodies using the indirect enzyme-linked immunosorbent assay (ELISA). The results showed a high flock and chicken level of MDV, with a mixed-effect logistic regression analysis demonstrating significantly higher seroprevalence in local chickens (OR: 1.70, 95% CI: 1.26-2.28) compared to exotic chickens.

The study also assessed the potential risk factors contributing to the occurrence of MD. Factors such as the odds of seropositive for MD were found to be significantly increased in farmers who wore clothes and shoes (OR: 0.40, 95% CI: 0.27-0.58) compared to those managing chickens in buried systems. Furthermore, the Odds ratio for MD was decreased by 60% (95% CI: 0.39-0.80) in litter versus no litter farms. The number of farms where farmers were equipped with clothes and shoes (95% CI: 0.10-0.58) was significantly lower compared to those managing chickens in no litter systems.

In conclusion, the present study revealed a high flock and chicken level of MDV among chicken flocks in northwest Ethiopia, suggesting that intervention strategies should be employed to reduce the occurrence of MDV. This includes improving biosecurity practices and implementing better management practices to minimize the risk factors associated with the disease.
Coccidiosis is a disease found in poultry caused by parasitic protozoa, namely *E. tenella*, which may lead to high rates of morbidity and mortality. To prevent coccidiosis, vaccination is used. The difference in formalin concentration affected the amount of pathogenesis in terms of oocyst production. The present study was conducted using the *E. tenella* organism in chicks. Their feces were tested to observe oocysts production and clinical symptoms. The obtained data would be analyzed by the ANOVA statistical test.

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


**ABSTRACT:**

Newcastle disease (ND) is one of the important infectious diseases in the poultry industry. The traditional poultry markets have great potential in ND transmission. The ducks infected by the ND virus rarely show clinical symptoms, thus they can potentially spread the virus.

**METHODS:**

Cloacal swab samples were collected from ducks sold at a traditional live bird market center in East Java, Indonesia. The samples were then tested using a real-time PCR technique.

**RESULTS:**

Out of 100 pooled samples, there were three to nine positive results. The positive samples showed the presence of the ND virus.

**CONCLUSION:**

Based on the result of the current study, the traditional poultry markets have a potential to spread the ND virus. Therefore, there is a need for strict control measures to prevent the spread of the virus.

**REFERENCES:**


**ABSTRACT:**

The prevalence of respiratory infections in poultry farms in the North Coast of Egypt was investigated using a real-time PCR technique. The positive results were related to the ND and IB viruses, respectively, using real-time PCR.

**METHODS:**

A total of 89 poultry flocks were investigated for four major viral pathogens, namely avian influenza (AI) H9N2, AI H5 subtypes, Newcastle Disease (ND), and Infectious Bronchitis (IB) viruses. Real-time PCR was used to detect the presence of these viruses.

**RESULTS:**

Out of the 89 flocks, 22 were positive for AI H9N2 virus, 1 turkey + 1 duck + 7 broilers were positive for AI H5N8 virus, and 3 ducks were positive for ND virus. Partial sequencing for selected isolates was performed.

**CONCLUSION:**

The positive findings indicated that 22 out of 89 flocks were positive for AI H9N2 virus. The ND virus was isolated from three ducks, and the AI H5N8 virus was isolated from a turkey and 7 broilers. The positive findings suggest the need for strict control measures to prevent the spread of these viruses.
The present study aimed to estimate carcass characteristics of pure and crossbred guinea fowl (Numida meleagris) populations in Benin. The current study was carried out in Benin to meet consumer preferences.

**ABSTRACT:**

This work is licensed under a Creative Commons Attribution NonCommercial-NoDerivatives 4.0 International License.

**Keywords:** indigenous guinea fowl (Numida meleagris) populations in Benin, guinea fowl, captive rearing, guinea fowl carcass traits.

The results showed that the plumage coloration of indigenous guinea fowl in Benin was significantly diverse, but the most widespread plumage colors were pearl grey (30%), yellow-orange (24.8%), the eyes were predominantly black-white (67.1%). Grey-orange to black (29.5%), and cinnamon (9.8%) colorations were more represented on the shanks of guinea fowl. The most common beak colors were grey (64.9%) and black (29.5%), with wattles relatively dominated by red-white (59.4%) and white-red (30.5%). The average live weight of guinea fowl was 1.30 kg, with the highest average live weight of 1.40 kg ± 0.18 kg in the Sudanian zone. The mortality percentages were significantly different among the climatic zones, being the highest in the savanna zone (10.4%), followed by the Sudanian zone (6%) and the forest zone (4%).

**Keywords:** indigenous guinea fowl (Numida meleagris) populations in Benin, captive rearing, guinea fowl carcass traits.