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.


Effect of Egg Storage Length on Hatchability and Survival of Koekoek Chickens.

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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.

The Effect of Substitution of Fish Meal by Maggot Meal (Hermetia Illucens L) on the Relative Length of Digestive Tract, Histomorphology of Small Intestines, and the Percentage of Carcass Parts in Native Chickens.

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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.

Keywords: Carcass parts, Digestive tract, Histomorphology, Maggot meal, Native chicken.

The Effects of Mixed Vitamins, Minerals, Fatty Acids and Amino Acids Supplementation into Drinking Water on Broiler Chickens' Performance and Carcass Traits.


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ABSTRACT:

The present study was conducted to evaluate the effects of different levels of the feed supplement containing minerals, fatty acids, vitamins, and amino acids added to drinking water on broiler chickens' performance and carcass traits. A total of 100 one-day-old Cobb 707 (mean weight 46.7 g) were randomly assigned into four treatments, including control group (C), C + 2.25 ml/L Viterna Plus (V1), C + 2.50 ml/L Viterna Plus (V2), and C + 2.75 ml/L Viterna Plus (V3). Each treatment group contained 5 replicates of 5 birds in each (25 birds per treatment). Birds were maintained for 28 days. The results suggested that feed supplement at 2.50 ml/L could successfully improve final body weight, performance index, and carcass weight.
Marek's disease (MD) is a lymphoproliferative and neuropathic disease of chickens, caused by alphaherpesviruses. The outbreak of diseases is the main factor affecting poultry production in the world. The present study aimed to analyze the effect of progesterone hormone injection on the egg production, fertility, hatchability, and luteinizing hormone profile of progesterone hormone injected to Arabic Gold Chicken (Gallus turcicus). Progesterone injection led to no significant effect on the egg weight, shape index, fertility, embryo viability, hatchability, and chick mortality. The production and reproduction performance of chicken depends on their management systems. In this study, a high flock and chicken level of MDV was demonstrated, with an overall seroprevalence of 59.11%. The mixed-effect logistic regression analysis of variance followed with Duncan’s Multiple Range Test as a post hoc test for the hormone concentration in blood plasma. A total number of 60 Arabic Gold chickens aged 26-weeks were divided into three groups based on injected hormone concentration (P₀, P₀.3, and P₀.5). The egg production peak and luteinizing hormone concentration significantly varied between the groups. The P₀ group was able to reach its peak production (82.9%) at week 29, while the P₀.3 and P₀.5 groups reached their peak at week 26 (78.9%). In addition, it was found that the P₀.3 group produced a soft-shelled egg and double egg yolk. Progesterone injection led to no significant effect on the egg weight, shape index, fertility, embryo viability, hatchability, and chick mortality. This study aimed to assess biosecurity practices in poultry farms in three regions of Cameroon: Centre, Littoral, and West. The implementation of biosecurity measures in poultry farms is essential to reduce the risk of disease outbreaks and provides good quality chicken products for human consumption. The study was carried out using a structured questionnaire on 90 randomly selected poultry farms. Most of the farmers were men (85%) with deep litter (77.8%), and 13 in the West were aware of biosecurity measures. The biosecurity score (BS) of surveyed farms varies, with chickens per farm not significantly influencing BS, while the farm category could significantly affect it. The outbreak of diseases correlated with BS, showing a tendency of increase in the risk of disease outbreaks and providing good quality chicken products for human consumption. The study results indicated that the biosecurity in chicken farming should be encouraged by extension of training to the farmers to support the efficient production of chickens by respecting biosecurity that drastically reduces the risk of disease outbreaks. This study underlines the fact that biosecurity practices and characteristics of poultry farms in three regions of Cameroon are essential to reduce the outbreak of diseases with increasing BS.
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 Potentials in the Pathogenic Attenuation of Eimeria tenella based on Oocyst Productions

ABSTRACT:
Newcastle disease (ND) is one of the important infectious diseases in the poultry industry, which may lead to high economic losses. In the current study, 100 pooled samples were collected from ducks sold at traditional livestock market centers in a county of North Coast in Indonesia. There were three to nine ducks infected by the ND virus. Hemagglutination and hemagglutination inhibition tests were performed on the collected samples. The ND virus was isolated from one duck sample for identification and characterization. Based on the result of the current study, out of 100 pooled samples, there were three to nine ducks infected by the ND virus. These infected ducks could potentially spread the ND virus to other ducks and poultry in the region.

Keywords: ND virus, Newcastle disease, ducks, traditional livestock market centers, Indonesia.
The present study aimed to investigate the effects of different light colors on hatchability, Incubation, Light color, Marker gene expression, Turkey. Incubate Turkey fertile eggs for 25 days. Upregulating the expression of muscle growth marker genes: - Significant increase of scientific and commercial hatchability. - Significant increase of hatching weight.


Orounladji BM, Tozo SK, and Chrysostome CAAM. "ABSTRACT: The present study aimed to estimate carcass characteristics of pure and crossbred guinea fowl populations of indigenous guinea fowl in Benin. The results showed that the plumage coloration of indigenous guinea fowl in Benin can guide farmers to select specific phenotypes. The phenotypic biodiversity observed in the indigenous guinea fowl populations of Benin can be used to produce three purebred (P×P), crossbred (P×O), and indigenous guinea fowl (O×O) for the benefit of the farmer."


Abd El Naby WSH, Basha HA, Ibrahim SE, and Abo-Samaha MI. "Non-hatched non pipped turkey chicks. Incubation of turkey eggs under red or blue LED light could improve hatchability via upregulating the expression of muscle growth marker genes."


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