The Effect of In Ovo Exposition to Ethanol Upon Osteogenesis of the Chicken Embryo.

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ABSTRACT

Excessive alcohol consumption by a pregnant woman may delay foetal development and may cause malformations. In this study, the model of the chicken embryo to demonstrate the teratogenic effect of ethanol (33%) on the chicken osteogenesis on the 10th day of embryonic development have been used. 49 fertilized eggs were used in present investigation. Hence, different doses of ethanol were injected into the chicken embryos at 33% (20, 40, 80μl) in the air space at gastrulation and, on the other hand, an equivalent amount of the mentioned doses of distilled water were injected into the control-group eggs which was done once in every two days in order to maintain a high concentration in the blood. Experiments were repeatedly and independently carried out for three times. The eggs were incubated in a humid incubator at the temperature of 37.7 °C and at 60-65% of humidity. On the 10th day of incubation, the embryos were taken out and fixed in formalin at 10%. After that, the eggs were sectioned at 5μm of thickness with a Leica micrtome and, then, stained with the Hematoxylin and eosin. Histological examination has revealed that the exposition of chicken embryos to ethanol (33%) delays the skeletal development in a dose-dependent manner by reducing the length of the cartilaginous proliferation zone and hypertrophic zone during the bone formation period. Furthermore, under the effect of ethanol, the cell proliferation activities were repressed. In conclusion, present results indicated that using ethanol to treat chicken embryos at early stages caused considerable malformations and a decreased in the embryo survival rate. The exposition to alcohol affects the chicken osteogenesis in a dose-dependent manner.

Keywords: Chicken embryo, Ethanol, Malformations, Osteogenesis, Teratogenic effect
Aflatoxin induces stress and increases mortality rate during infection in poultry, especially broiler chickens. A total of 120 chickens were divided into four groups, group A recent update: effects of aflatoxin in broiler chickens. DOI:

Recent Update: Effects Due to Aflatoxin in Broiler Chickens.

Keywords:

- Antibody
- Broiler
- Carcass and Growth
- Carcass evaluation
- Hematological parameters
- Metabolizable Energy (ME)
- Performance
- Performance and hematological
- Residue
- Effects of feeding different levels of Baker's yeast on performance and hematological parameters of Cobb 500 broilers were studied. Four nearly equal groups were created: control, 0.5%, 1.5% and 2.5% of total diet. The results showed that the performance and hematological parameters of the broilers fed with Baker's yeast were significantly better than the control group. The highest feed intake was recorded in broilers fed T4 rations during the starter phase, finisher phase and the entire experimental period. Feed conversion ratio of T4 and T3 groups was better than T2 and T1. T3 and T4 followed by T4. Baker's yeast can be an important feed additive, which can be included up to 2.5% of the total ration and improve the overall performance of broilers without compromising the quality of the meat.

Recent Update: Effects of Different Bedding Materials on the Hematological and Serum Biochemical Parameters of Broiler Chickens.

The aim of the present study was to determine the effect of different bedding materials on the hematological and serum biochemical parameters of broiler chickens. Six treatments with 3 replications for each treatment were administered to 56 broiler chickens from each replication for hematological and serum biochemical analysis. The results showed that bedding materials caused a significant difference in the hemoglobin content, white blood cell count and mean corpuscular volume. The highest net income, marginal rate of return and chicks' sale to feed cost were obtained for T3 group. The ME content of the rations during the starter and finisher phases were 48% and 3615 kcal/kg DM, respectively. Feed intake during the starter phase and entire trial period was lower for T4, whereas during the finisher phase in control diet group showed the highest feed intake than the other supplemental groups. The highest daily body weight gain was recorded in broilers fed T4 rations during the starter phase, finisher phase and the entire experimental period. Feed conversion ratio of T4 and T3 groups was better than T2 and T1. T3 and T4 followed by T4. Baker's yeast can be an important feed additive, which can be included up to 2.5% of the total ration and improve the overall performance of broilers without compromising the quality of the meat.

Conservation, Eastern Algeria, Epididymis, Local cocks, Post-mortem, Vas deferens.

Key words:

- Conservation
- Eastern Algeria
- Epididymis
- Local cocks
- Post-mortem
- Vas deferens.

Effect of Different Bedding Materials on the Hematological and Serum Biochemical Parameters of Broiler Chickens. DOI:

The characterization of post-mortem sperm of local chicken cocks in Eastern Algeria. The present aimed to investigate for the first time the characteristics and conservation of local chicken cock's sperm, and the effects of conservation in situ at different temperatures (2h and 24h at 20°C and after refrigeration at 4°C for 24h). The quality was significantly higher [Full text]

Recent Update: Effects of Aflatoxin in Broiler Chickens.

DOI:

Recent Update: Effects of Aflatoxin in Broiler Chickens.
inactivated Newcastle disease virus (NDV) vaccines genotype II or either non-vaccinated control. In addition, the other 3 groups have fed on free microalgae biomass balanced ration (W/W) of microalgae biomass and have variable vaccination schemes of live attenuated and weight. Using of microalgae collected from high rate algal ponds (HRAP) as a feed additive to broilers ration was studied. One hundred and twenty broiler chicks were divided into 6 groups of microalgae as a feed additive. The results showed that the microalgae have no hazard effect algae were found effective in maintaining animal growth performance, and in improving body function and body weight, they have similar effect with the free microalgae groups in normal with the same vaccination treatment. Furthermore, weight gain, antibody response, mortalities, deleterious effect on growth rate, weight gain, poultry viability and immune response. In

**ABSTRACT**

DOI:

Microalgae Biomass Application in Commercial Broilers Nutrition and Their Efficacy

Using microalgal biomass in animal diets has been studied recently. Many species of cultivated microalgae have been investigated for their potential as a feed additive in poultry production, with the aim of improving growth performance, enhancing immune response, and reducing the use of antibiotics. The present study was carried out to evaluate the effect of microalgae (S. natans, G. pulvinata, R. coriaria, P. granatum) on the growth performance, nutritional status, and immune response of broiler chickens. A total of 120 broiler chicks were divided into 4 groups of 30 birds each. Group 1 served as the control group, while groups 2, 3, and 4 were fed on diets supplemented with 0.5%, 1%, and 2% of microalgae biomass, respectively. The results showed that the microalgae biomass had no negative effect on growth performance, weight gain, mortality, and immune response, compared to the control group.

**Keywords:** Microalgae biomass, Immune response, Newcastle disease virus, Poultry feed.
ABSTRACT

Clostridium perfringens is the most important cause of enteritis in domestic animals, in chicken and turkey it well known as pathogen responsible for necrotic enteritis; hepatitis, and cholecystitis. The disease in turkey characterize by either severe form with high rate of mortalities or subclinical form of reduce growth rate and increase condemnation rate. The major factor responsible for pathogenicity of Clostridium perfringens was alpha toxin. The aim of present study was to prepare of Clostridium perfringens alpha Toxoid vaccine for controlling the necrotic enteritis disease. The vaccine was prepared at different doses depend on lethality of toxin (24, 48 and 96 Minimum Lethal Dose) for controlling necrotic enteritis disease. Antibody titer elicited by vaccination was measured by toxin neutralization test, ELISA, and challenge test. It revealed that antibody titer expressed by international antitoxin unit per ml was 7.4, 4.1 and 1.26 respectively according to the mentioned dose, and also the protection percent against challenge was 100% when vaccinated with either 48 or 96 Minimum Lethal Dose, while it gave 80% when vaccinated with 24 Minimum Lethal Dose. It concluded that use of Clostridium perfringens alpha Toxoid with recommended dose of 48 MLD able to protect turkey for 6 months.

Keywords: Alpha toxin, Clostridium perfringens, Turkey, Type A, Vaccine