Research Paper

Microclimate, Body Weight Uniformity, Body Temperature, and Footpad Dermatitis in Broiler Chickens Reared in Commercial Poultry Houses in Hot and Humid Tropical Climates.

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ABSTRACT: The present study was conducted to investigate the variations of microclimate variables along the length of commercial broiler houses and to determine the associations between microclimate variables and animal variables in broiler chickens. A routine rearing program involving 480,000 broiler chickens was conducted in 24 commercial broiler houses (with dimensions of 14×120×2.5 m, yielding 1,680 m² of rearing area per house). Of these, 6,000 chickens were randomly selected for outcome measurements. Microclimate variables (Ambient Temperature (AT), Relative Humidity (RH), Air Velocity (AV), heat index, effective temperature, and ammonia) and animal variables (body weight uniformity, body temperature, and Footpad Dermatitis (FPD)) were measured at 10 sections (12 m apart) from the proximal end to distal end along the length of each broiler house. Regression analysis was used to determine the pattern of each microclimate variable along the length of the broiler houses and to determine the associations between the microclimate variables and the animal variables. The results showed that AT, heat index, and ammonia linearly increased from the front end to the rear end of the houses. In contrast, RH linearly decreased from the front end to the rear end of the houses. The regression analysis revealed no significant association between any of the microclimate variables and the body weight uniformity. Increasing AT and AV were associated with increasing mean body temperature. Increasing AT was associated with decreasing FPD. However, increasing RH and AV were associated with increasing FPD. In conclusion, the microclimate variables had various trends along the length of broiler houses.

Key words: Body weight uniformity, Broiler house, Footpad dermatitis, Microclimate
The present study designed an experimental model of coccidiosis recorded in poultry farms with the free-range system. The share of such poultry farms is infected with Eimeria tenella compared to the non-infected control group. The experimental model of coccidiosis in broiler chickens was carried out using the McMaster technique. The average number of oocysts induced by infection in broilers of each group was 1,000; 250; 125; 62 and 15 oocysts/ml, respectively. Broilers of group 7 were uninfected and served as control. To determine the number of oocysts, all feces from the broilers of each group were collected. The average number of oocysts per gram of feces in broilers of the groups 1 to 6 was 4,080; 6,880; 1,780; 1,530; 662 and 15 oocysts/ml, respectively.

The use of herbal ingredients to improve poultry production is increasingly being explored. Experimental model, Oocysts, Eimeria tenella.


ABSTRACT

 Highly Pathogenic Avian Influenza (HPAI) H5N1 virus is widely circulated between poultry flocks in Egypt. The present study described the spatiotemporal dynamics of HPAI H5N1 in five Nile Delta governorates, Egypt (Dakhlia, Qalyobia, Sharkia, Gharbia, and Menofia) where adaptation of 2.2.1.2 endemic clade. The generalized estimating equation model revealed that a Delta, Egypt. Outbreak by about 6% and 4%, respectively. According to the obtained results, it seems that the equation model. The highest prevalence rate was recorded in Dakhlia and Qalyobia governorates, while Menofia governorate had the lowest one. From 2006 to 2009, the classic epidemiology and temporal patterns.

Epidemiological Study on Highly Pathogenic Avian Influenza H5N1 Virus with Modeling

The Impact of Climate Variability on Outbreak Occurrence in Some Governorates of Nile Delta, Egypt.

Prevalence of Multidrug Resistance Non-Typhoidal Enterobacteriaceae Isolated from Layer Farms and Humans in Egypt

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Diabetes, stool samples showed the prevalence of bacteremia, gastroenteritis, and focal infection. Poultry is one of the usual provenances for the non-typhoidal salmonellae (NTS) on the surface of the eggshells (7.3%) was higher than that in the other samples. Among pathogenic bacteria isolated from chicken cloacal samples and stool samples, the Enteritidis, Typhimurium, and Enterica were the predominant serotypes. Cholera, Pseudomonas aeruginosa, and Staphylococcus spp. (3.2%), Salmonellae (0.2%), and Proteus spp. (0.8%) were also isolated. Gentamicin (90.9%) and Kanamycin (87.3%) were the most active antibiotics against NTS. This study aimed to investigate the prevalence of pathogenic bacteria isolated from chicken cloacal samples and stool samples, and to determine their antibiotic susceptibility patterns. The study was performed on 290 broiler chickens, aged 30-35 days, by using different cultural and biochemical methods. Moreover, obtained isolates were identified and tested for the pathogenicity based on Congo red assay.

Antibiotic sensitivity, Egg, Layer poultry, Non-typhoidal:

Aeromonas, Clostridial, Enterobacter, Pseudomonas, Salmonella spp. showed 100% resistance to chloramphenicol and cefotaxime. Resistant patterns to multidrug resistance were assessed by using different cultural and biochemical methods. Multidrug-resistant isolates showed resistance to 12 or more antibiotics. The study revealed that Enteritidis, Typhimurium, and Enterica were the predominant serotypes isolated from chicken cloacal samples and stool samples. Cholera, Pseudomonas aeruginosa, and Staphylococcus spp. were isolated in addition to Salmonellae and Proteus spp. Gentamicin and Kanamycin were the most active antibiotics against NTS. This study highlighted the importance of targeting multidrug-resistant isolates and developing new antimicrobial strategies.

Key words: Highly Pathogenic Avian Influenza (HPAI) H5N1 virus, Nile Delta, Egypt, Multidrug resistance, Salmonellae, Enteritidis, Typhimurium, Enterica, NTS.

Activity of Aloe vera, Apium graveolens and Sauropus androgynus alcoholic extracts against methicillin-resistant Staphylococcus aureus (MRSA)
Promoted by: T.A. Pohorecký, R. Kravčík, A.D. Wijayanti and Y.P. Kristianingrum


Research on protein hydrolysate has been performed by using various types of enzymes in bovine worldwide.

Characterization included emphysema (84%), atelectasis (63%), and bronchiectasis (26%), detected. The study concluded that all lungs collected from stray cats showed pathological lesions such as bronchopneumonia (63%), granulomatous pneumonia (15%), and verminous pneumonia (15%).

Adaptation was characterized by hyperplasia of alveolar cells (52%), bronchial epithelium hyperplasia (31%) and fibroplasia (26%). Hemosiderosis and parasitic infestation were also observed.

From February to March 2013, 19 ailing cats were caught through animal rescue in Mosul city, Iraq. The present study was aimed to describe the pathological features of lung lesions in stray cats in Mosul city. The effects of commercial antiviral, propolis, and green tea extracts were evaluated against Bovine Herpesvirus-1 (BHV-1).

The十五 rabbits were divided accidentally into five groups. Groups 1, 2, and 3 were inoculated with BHV-1 virus 10^7 TCID50/250 ul in nostrils and received propolis ethanol, water green tea extracts and ACV respectively. Group 4 was inoculated with BHV-1 virus 10^7 TCID50/250 ul in nostrils and received propolis ethanol, water green tea extracts and ACV respectively. Group 5 was considered as control negative.

The effects of green tea extracts on pro-inflammatory cytokines TNF-α, IL-1, and immunoglobulin were studied in a laboratory model of infection using rabbits as an experimental model.

Chemical characteristics and amino acid profile of protein hydrolysates of Nile tilapia (Oreochromis niloticus) viscera were determined. The hydrolysates were prepared using Alcalase enzyme at a concentration of 1.5% (w/v), pH 7.9, and temperature of 55.80 °C for 1.5 h.

The fresh Nile tilapia viscera had a high protein content (62.81% ± 0.18) (dry basis). Furthermore, the defatting process reduced fat content from 57.81% ± 0.01 (dry basis) to 35.14% ± 0.02 (dry basis). Amino acid analysis showed that glutamine had the highest amino acid level in hydrolysates (5% ± 0.17) (dry basis). Nile tilapia protein hydrolysates indicated a high nutritional value which could be used as a source for fish feed protein.