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.

Sohsuebngarm D, Kongpechr S and Sukon P.

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
Experimental Model of Coccidiosis Caused by Eimeria tenella


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; 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 experimental group were daily collected from the days 6 to 12 after infection. Counting was carried out using the McMaster technique. 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; 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 experimental group were daily collected from the days 6 to 12 after infection. Counting was carried out using the McMaster technique.
most cases were reported for the years 2006 to 2016. Moreover, this study explored the impact of climate variability in outbreaks occurrence using the statistical generalized estimating 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 clades had been evolved from classic clades after the vaccination pressure until 2010 resulted in raising the PR sharply. The stability of PR from 2012 to 2014 could be attributed to the adaptation of 2.2.1.2 endemic clade. The generalized estimating equation model revealed that a one-unit increase in maximum and minimum temperature decreased the risk of a poultry epidemic. In addition, β-hemolytic Staphylococcus spp. were successfully isolated from eggs. Enterobacter spp. (3.2%) and Salmonella spp. (1.2%) were isolated from eggs. Pseudomonas aeruginosa had 100% resistance to tetracycline and enrofloxacin. Also, streptococci isolates showed 100% resistance to clindamycin.

The present study was carried out to isolate and identify the bacterial agents involved in field cases of avian cellulitis in broiler chickens and also to examine isolated bacteria extensively drug-resistant and pan drug-resistant. The present study concluded that Enterobacter spp. are the most predominant pathogen involved in cellulitis, particularly O78 serotype. In addition, enterobacteria spp. isolates showed 100% resistant to tetracycline, enrofloxacin, and cefotaxime. Therefore, it is recommended to use antibiotic with high efficacy against Enterobacter spp. isolates.

Key words: Salmonella spp., Enterobacter spp., Staphylococcus spp., Antibiotic resistance, Avian cellulitis.

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Antibiotic Profile of Bacterial Species Isolated from Broiler Chickens with Cellulitis.


Key words: Salmonella spp., Enterobacter spp., Staphylococcus spp., Antibiotic resistance, Avian cellulitis.
Slaughterhouse survey was conducted for six months to determine the major causes of carcass and organ condemnation. The results of this slaughterhouse study showed that the parasitic infestations were the most common cause of condemnations in sheep, and bacterial diseases associated with anaerobic bacteria were the major cause of condemnations in cattle. Pathological examination done by the veterinarians at the slaughterhouse revealed that the condemnations were due to pathological lesions such as fatty change, incomplete bleeding, discoloration and tumors. The emphasis should be placed on effective meat inspection, proper disposal of organ condemnations, and standard animal husbandry health care to exclude zoonotic diseases and associated financial loss.

The incidence of organ condemnation and the financial loss due to these condemnations was estimated to be 16356 USD. Both parasitic infestations and bacterial diseases were associated with carcass condemnations and the financial loss due to these condemnations. A slaughterhouse associated with economic losses.

The aim of this study was to evaluate the causes of organ and carcass condemnations and their financial impact. The study indicated that effective meat inspection, proper disposal of organ condemnations, and standard animal husbandry health care to exclude zoonotic diseases and associated financial loss.
An research on protein hydrolysate has been performed by using various types of enzymes, such as Alcalase enzyme. The objective of this study was to determine the amino acid profile and composition of protein hydrolysates prepared from Nile tilapia viscera. Chemical characteristics and amino acid profile of Nile tilapia protein hydrolysates indicated a high nutritional value which could be met adult human nutritional needs.

**ABSTRACT:**


Stray cats are exposed to deleterious factors in the urban environment. The present study was aimed to describe the pathological features of lung lesions in stray cats in Mosul city, Iraq. From February to March 2013, 19 ailing cats were caught through animal control campaigns and euthanized. Necropsy and histopathologic findings were recorded for the lungs of all the captured cats. The results indicated lesions in all the lung samples. Pathomorphogical characterization included hyperplasia (31%) and fibroplasia (26%). Hemosiderosis and parasitic infestation were also detected. The study concluded that all lungs collected from stray cats showed pathological alterations. The results also reflected the presence of the pathogen agents and pollution in the environment of this area. The present study aimed to evaluate antiviral activities of Water Green Tea Extract (WGE) and Ethanol Propolis Extract (EPE) against BHV-1 virus comparing to commercial Acyclovir (ACV).

**ABSTRACT:**


The titer of the virus was determined by plating serial dilutions of the virus inoculum on 24-h-old Madin-Darby Bovine Kidney (MDBK) cell monolayers in 96-well plates. The infected cells were incubated for 7 days at 37 °C and then stained with 0.5% trypan blue in PBS. The number of plaques was counted under a light microscope.

**ABSTRACT:**

Zaaker GSG, Abd Ellah BK, Kabeil H, Abd El-Shakry S, Sarie PA, and Mahrous All (2019). The Effects of Green Tea and Propolis Extracts on pro-inflammatory cytokines TNF-α, IL-6, and Immunoglobulin Production in Experimentally infected rabbits.

**RESULTS:**

Table 1: The effect of green tea and propolis extracts on the expression of pro-inflammatory cytokines TNF-α, IL-6, and Immunoglobulin Production in experimentally infected rabbits.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>TNF-α (pg/mL)</th>
<th>IL-6 (pg/mL)</th>
<th>Immunoglobulin (µg/mL)</th>
</tr>
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<tr>
<td>Control</td>
<td>9.3 ± 1.2</td>
<td>7.5 ± 0.8</td>
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<tr>
<td>WGE</td>
<td>4.8 ± 0.5</td>
<td>3.5 ± 0.3</td>
<td>9.0 ± 0.9</td>
</tr>
<tr>
<td>EPE</td>
<td>3.2 ± 0.2</td>
<td>2.0 ± 0.1</td>
<td>7.5 ± 0.5</td>
</tr>
<tr>
<td>ACV</td>
<td>1.5 ± 0.1</td>
<td>0.5 ± 0.0</td>
<td>4.0 ± 0.3</td>
</tr>
</tbody>
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**DISCUSSION:**

The results of this study showed that green tea and propolis extracts were potent inhibitors of BHV-1, which showed 80% protection against this virus and were able to prevent virus replication and reduced CPE in MDBK cell cultures infected with BHV-1. The fifteen 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 without extracts or commercial drug. Group 5 was considered as control negative.

**RESULTS:**

Table 2: The effect of green tea and propolis extracts on the expression of pro-inflammatory cytokines TNF-α, IL-6, and Immunoglobulin Production in experimentally infected rabbits.

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