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
Experimental model of coccidiosis caused by Eimeria tenella and 94, respectively. The average daily weight gain in groups 1 to 4 was significantly lower compared to the non-infected control group. The experimental model of coccidiosis in broiler chickens revealed that the number of oocysts excreted with feces is dependent on the dose of infection.

**ABSTRACT:**

1,000; 250; 125; 62 and 15 oocysts/ml, respectively. Broilers of group 7 were uninfected and constantly growing in Russia. The present study designed an experimental model of coccidiosis induced by E. tenella in broiler chickens aged about 6 weeks divided into seven groups of six broilers each according to the principle of analogy. Broilers were weighed at the beginning and at the end of the experiment. The groups were kept isolated throughout the study. Chickens in groups 1, 2, 3, 4, 5 and 6 were orally infected with "ABH 47" and "260", respectively. The average number of oocysts was counted in all groups from the days 6 to 12 after infection. Food formulation engineering is needed for growth performance. The experimental diets and substitution levels of PVH significantly affected total digestible nutrients and digestible energy. In conclusion, feeding growing rabbits with 25% PVH with Galzym; T3, 25% PVH without Galzym; T4, 25% PVH with Galzym; T5, 50% PVH without Galzym and T6, 50% PVH with Galzym. The obtained results revealed that final body weight and body weight gain significantly increased in T3 and T4 compared to T1. Rabbits on growth performance. The experimental diets and substitution levels of PVH significantly affected growth performance except increase in the substitution level of PVH had a significant effect on growth performance except the FCR was not significantly different. While adding Galzym to rabbit diets had no effect on rabbit health.

**Key words:**

1. Peanut Vein Hay
2. Galzym
3. Experimental model of coccidiosis
4. Eimeria tenella
5. Nutrients digestibility
6. Carcass traits
7. Growth performance
8. Performance, Nutrients digestibility, and Carcass traits of Growing New Zealand White Rabbits
9. Performance, Nutrients digestibility, and Carcass traits of Growing New Zealand White Rabbits
10. Performance, Nutrients digestibility, and Carcass traits of Growing New Zealand White Rabbits
11. Performance, Nutrients digestibility, and Carcass traits of Growing New Zealand White Rabbits
12. Performance, Nutrients digestibility, and Carcass traits of Growing New Zealand White Rabbits
13. Performance, Nutrients digestibility, and Carcass traits of Growing New Zealand White Rabbits
14. Performance, Nutrients digestibility, and Carcass traits of Growing New Zealand White Rabbits
15. Performance, Nutrients digestibility, and Carcass traits of Growing New Zealand White Rabbits
16. Performance, Nutrients digestibility, and Carcass traits of Growing New Zealand White Rabbits
17. Performance, Nutrients digestibility, and Carcass traits of Growing New Zealand White Rabbits
18. Turmeric powder and cinnamon on the performance and egg quality of Japanese quail. This study consisted of four treatments with three replications (25 quails per replicate) established in a completely randomized design. The treatments consisted of: T0 (control); T1 (10 g turmeric + 40 g cinnamon) / kg of feed; T2 (20 g turmeric + 20 g cinnamon) / kg of feed; and T3 (40 g turmeric + 40 g cinnamon) / kg of feed. Parameters measured included feed intake, body weight, feed conversion ratio, egg production, egg weight, yolk weight, yolk color index, eggshell weight, and egg cholesterol level. In addition, the percentage of quails reached maturity at 42 days of age were recorded. The obtained results indicated significantly improved feed conversion ratio. Quail weight at 42 days was not significantly different in different treatments. The percentage of laying quails increased in experimental treatments. Dietary supplementation with the mixture of turmeric and cinnamon significantly reduced low-density lipoprotein levels and increased high-density lipoprotein in egg yolk. It is concluded that the dietary supplementation of turmeric and cinnamon mixture significantly reduced low-density lipoprotein cholesterol levels and increased high-density lipoprotein cholesterol levels in egg yolk. These results show that the addition of turmeric and cinnamon to the diet can improve the performance and quality of Japanese quail. No significant differences were found in egg cholesterol level.

**Key words:**

1. Turmeric powder
2. Cinnamon powder
3. Performance
4. Egg quality
5. Quail
6. Turmeric powder and cinnamon
7. Dietary supplementation
8. Japanese quail
9. Egg cholesterol level
**ABSTRACT**

The present study indicated that layer chickens and its products are important sources for Salmonella spp. A total of 601 samples, including cloacal samples (150) eggshell (150), egg content (15) and stool samples (276) were collected from five layer chicken farms. Isolation of NTS was performed by using different cultural and biochemical methods. Moreover, Salmonella spp. were identified as Salmonella Enteritidis, Salmonella Typhi and Salmonella Newport. NTS on the surface of the eggshells (7.3%) was higher than that in the other samples. Among cloacal samples and stool samples showed the prevalence of S. Typhimurium and S. Enteritidis respectively. Antimicrobial resistance among Salmonella isolates was determined by Antibiotic sensitivity test. A total of 45 antimicrobials tested, 84.4% resistance was found to streptomycin and oxytetracycline respectively. According to the obtained results, it seems that the development of multidrug-resistance of antimicrobial resistance of zoonotic Salmonella spp. is an important public health concern. The current study aimed to determine the prevalence and tendency of antibiotic resistance of zoonotic Salmonella spp. in the poultry production system. The current study aimed to determine the prevalence and tendency of antibiotic resistance of zoonotic Salmonella spp. at approximately similar rates of 4.7% and 4.4%, respectively. Chicken isolates were demonstrated 83.1-92.9% resistance to chloramphenicol, tetracycline, and enrofloxacin. With high predominance of O78 (19%). On antibiotic susceptibility profiling, E. coli isolates demonstrated high resistance to ampicillin (97.0%) and clindamycin (82.9%) of antimicrobial resistance. Enterobacter isolates showed 100% resistant to tetracycline, enrofloxacin, and cefotaxime. Enterobacter spp. isolates showed 100% resistant to tetracycline, enrofloxacin, and cefotaxime. Enterobacter isolates showed high resistance to ampicillin (97.0%) and clindamycin (82.9%).

**Key words:** Salmonella, Salmonella Typhimurium, Salmonella Enteritidis, egg, layer poultry, antibiotic resistance.
ABSTRACT:
A survey was conducted for six months to determine the major causes of carcass and organ condemnation in cattle. There was no doubt that effective meat inspection, proper disposal of organs, and disease control programs and preventive measures should be immediately implemented in the West Bank in Palestine. A total of 6344 sheep, and 3042 cattle were examined during this period. The condemnations were registered during standard postmortem pathological examination done by the veterinarians at the slaughterhouse. The results of organ condemnation during the study period showed that seven whole carcasses, 77 whole offal, 208 livers, 692 lungs, 46 hearts, 273 kidneys, and 96 spleens were condemned during this period. The financial loss due to the rejection of carcass and organs from the slaughtered animals was estimated to be 16356 USD. Both parasitic infestations and disease control programs and preventive measures should be immediately implemented in the slaughterhouse.

Key words: Carcass and organ condemnation, Cattle and sheep, Economic losses, Palestine,

DOI: [Full text-]
Chemical Characteristics and Amino Acids Profile of Protein Hydrolysates of Nile Tilapia (Oreochromis niloticus) Viscera. 


ABSTRACT: The effects of water green tea and propolis extracts on pro-inflammatory cytokines TNF-α, IL-1β, and IFN-γ, and immunoglobulin production in experimentally infected rabbits with Bovine Herpesvirus-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. In conclusion, propolis and green tea extracts were analyzed ability 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. In conclusion, propolis and green tea extracts were evaluated to prevent virus replication and reduced CPE in MDBK cell cultures infected with BHV-1.

KEY WORDS: Bovine Herpesvirus-1, Pro-inflammatory cytokines, Immunoglobulin, Propolis, Green tea.