Research Paper

Impact of Thyme Oil and Lactobacillus acidophilus as Natural Growth Promoters on Performance, Blood Parameters and Immune Status in Growing Rabbits.

El-kaiaty AM, El-Moghazy GM, El-Manylawi MAF and Abdel-Mageed MGY.


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Present study was conducted to evaluate the effect of thyme oil and *lactobacillus acidophilus* (supplement) as growth promoters in rabbit. 72 weaned V-Line male rabbits were randomly allocated into 4 equal groups. The first group (G1) was without any additives and consider as control group. The second group (G2) treated with the addition of *lactobacillus acidophilus* in drinking water in a concentration of $10^8$ cfu/ml. The third group (G3) treated with the addition of thyme oil in drinking water in a concentration of 1 ml/ liter. The fourth group (G4) treated with the addition of both *lactobacillus acidophilus* and thyme oil in drinking water in a concentration of $10^8$ cfu/ml plus 1ml/L, respectively. The obtained results showed that, all treatments had significant improvement effects on the measured parameters (performance characteristics, cecum characteristics, RBCs, WBCs, kidney function, trigly-serides, total cholesterol, sheep RBC’s titer, liver antioxidant markers and hormones markers) when compared to the control group. The live body weight of G3 and G4 groups were higher (2116 and 2058 g) than those found in G2 and G1 groups (1958 and 1850 g) respectively. In addition, the body weight gain of G3 and G4 groups were higher (1364 and 1307 g) than those found in G2 and G1 groups (1207 and 1100 g). Moreover, the daily weight gain of G3 and G4 groups were higher (32.49 and 31.13 g/d) than those found in G2 and G1 groups (28.74 and 26.19 g/d). In addition, feed conversion ratio of G3 and G4 groups were higher (3.41 and 3.61) than those found in G2 and G1 groups (3.66 and 4.67). While G4, G2 and G3 groups had a significant enrichment effect on the intestinal beneficial bacteria. In conclusion, in present experiment inclusion thyme oil and/or *lactobacillus acidophilus* in the drinking water that stimulated body weight gain and increased feed conversion rate, and can be used as growth promoters in rabbit nutrition successfully without notable side effects on growing rabbits. Furthermore, it showed a significant positive effect on the physiology for treatment groups G3, G4 and G2 respectively compared to the control group.

**Key words:** Immunity, *Lactobacillus acidophilus*, Performance, Probiotic, Rabbit, Thyme oil
Determination of Potential Candidate Genes Associated with Milk Lactose in Egyptian Buffalo

Key words: World Vet. J.

deviated performance were selected for genotyping with Axiom Buffalo Genotyping 90K Array.

The identified genomic regions are overlapped with previously reported QTL in regions harbored many candidate genes with biological roles associated with milk production traits, such as TPD52 and ZBTB10 on chromosome 15; AADAT and GALNTL6 on chromosome 32 significant and seven suggestive SNPs for LP, however; only two suggestive SNPs were different cattle breeds. In addition, novel genomic loci were detected. The identified genomic regions included many key markers and candidate genes affecting lactose traits which facilitate the exploration of the

ABSTRACT

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DOI:


Trichinella spiralis was passaged on laboratory rodents under the vivarium conditions. Sixty-nine white rats (350 g each) were infected with T. spiralis isolates. The invasive capacity of the larvae was determined at different time periods from the start of the experiment. The larvae will lose their invasion capacity.

The Role of Glycogen in Biological Cycle of Trichinella spiralis.

The content of glycogen in Trichinella spiralis in white rats during the infection period

Sider EA and Andreyamn OR (2020). The role of glycogen in biological cycle of Trichinella spiralis


Molecular and Phylogenic Analysis of Bovine Respiratory Syncytial Virus in Nineveh province, Iraq. Molecular diagnosis using nested RT-PCR and phylogenetic analysis of swab samples were collected from cows with different ages and breeds in different areas across

Bovine respiratory syncytial virus, Cattle, PCR, Phylogenic analysis.

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ABSTRACT

The intestinal colonization, cellular responses, mucosal and systemic immune responses of Salmonella enterica serovar Enteritidis in Broiler Chickens. Two hundreds one-day-old broiler chicks, divided into 5 groups, were used in this study. First three groups were immunized with Salmonella enterica serovar Enteritidis bacterin adjuvanted with aluminum hydroxide and a non-immunized group. The intestinal colonization, cellular interactions, mucosal and systemic immune responses were seen in the liver and intestine of 200-CpG ODN treated group. In conclusion, the presented findings have shown the significant immunostimulatory effect of CpG-ODN and its effect on the dose-dependent effect of CpG ODN on infection in broiler chickens.


Key words: Salmonella, serovar Enteritidis fresh bacterial culture (1.2x10⁶ CFU/mL), immunized chickens was measured at different intervals, until 42 days of age.

Bacterial oligodeoxynucleotide containing Cytosine Guanine motifs (CpG-ODN) has been reported to induce immunostimulatory activity against a variety of bacterial, viral, and protozoan infections in a wide range of vertebrate species. The objective of this study was to investigate the immunomodulatory effect of CpG-ODN on infection in broiler chickens. Two hundreds one-day-old broiler chicks, divided into 5 groups, were used in this study. First three groups were immunized with Salmonella enterica serovar Enteritidis bacterin adjuvanted with aluminum hydroxide and a non-immunized group. The intestinal colonization, cellular interactions, mucosal and systemic immune responses were seen in the liver and intestine of 200-CpG ODN treated group. In conclusion, the presented findings have shown the significant immunostimulatory effect of CpG-ODN and its effect on the dose-dependent effect of CpG ODN on infection in broiler chickens.


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The current study confirmed that the suitability of the PCR-based RNA polymerase gene RP030 for management and treatments of outbreaks. The present study aimed to detect and identify Capri Pox Virus (Ca PV) by using differentiating SPPV and GTPV from AGPT and CIE in CAM or in clinical samples without further isolation and propagation in embryonated-chicken eggs. The novel microwave method used to isolate high quality of DNA extracted from infected skin biopsy with SPPV and GPPV was shown to be efficient. The levels of Na and Ca in the AF were significantly higher than the AF during the first trimester. At delivery, the concentrations of cholesterol, triglycerides, and creatinine in the AF were lower than those in the MS or FS. The concentrations of Ca and inorganic-P in the FS were lower than those in the MS or FS. The concentrations of Na, K, Cl, Ca and inorganic-P were significantly higher than the AF during the first trimester. The MS concentrations of globulins, cholesterol, triglycerides, lipoproteins, albumin, globulins, cholesterol, triglycerides, High and Low-Density Lipoproteins (HDL and LDL), creatinine, urea, Na, K, Cl, Ca and inorganic-P were significantly higher than the AF during the first, second, and third trimesters of pregnancy.

**ABSTRACT**

The AMs were collected from 1174 litters of 1174 Landrace x Yorkshire crossbred sows in 16 farms in the north and central regions of Vietnam. Data was recorded on the parity, gestation length, birth litter size, and farrowing duration on stillbirth at sow level in swine farms in Vietnam. Data was also collected on the number of piglets born alive, stillbirths, and newborn deaths. The data was analyzed using logistic regression models. The results indicated that stillbirth was common in Vietnam and was associated with several risk factors, including parity (OR=1.05, 95%CI=1.05-2.09), gestation length <114 days (OR=1.80, 95%CI=1.23-2.65), birth litter size ≥9 piglets (OR=1.64, 95%CI=1.04-2.61), and a farrowing duration ≥5 hours (OR=1.48, 95%CI=1.04-2.09). The study also suggested that the use of highly prolific sows may increase the risk of stillbirth.
Research Paper

Using Feed Additives to Produce Functional Eggs in Fayoumi Hens.
Dief Allah RA, Ali MN, EL-Manylawi MAF, Abass AO and Desouky A.
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ABSTRACT

Lately human have become more apprehensive for the health and their food relationship. Egg considered cheap source of animal protein. Eggs are rich in various essential nutrients that contribute to the quality of human diet. But its cholesterol can contributes with some human serious disease. The current study examines the hypothesis that assumed addition of antioxidant such as CAX, SS, B or their mixtures to the diet can produce functional egg from Fayoumi hens at late phase of egg production. A number of 168 Fayoumi hens (46 weeks of age) were randomly assigned into 8 dietary groups as follows: Basal diet alone or with CAX (6 ppm), SS (0.5 g/kg), B (1 g/kg), CAX+SS, CAX+B, SS+B, and CAX+SS+B separately. Forty eight eggs (6 per each group) were analyzed for estimating cholesterol and total antioxidant capacity. Egg of hens fed a combination of CAX+SS+B which had the best total antioxidant capacity value, while the CAX group recorded the best lowest cholesterol value compared to other groups (P < 0.05). It could be concluded that basal diet supplemented with CAX, SS, B alone or with mixture of them may have lowering effect on yolk total cholesterol. This could lead to produce functional eggs which have positive effects on human health and favorable for those suffering from heart syndromes.

Key words: Cholesterol, Fayoumi, Functional Egg, Total Antioxidant Capacity

Research Paper

SDS-PAGE Profile Analysis of SeM-like Protein of Streptococcus equi subspecies equi.
Abdelmageed ShMEl, El-Shafii SElA and El Jakee JKAH.
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ABSTRACT

S. equi subspecies equi, causing strangles in equine, is characterized by comprising a major virulence factor called M like protein or SeM protein. This study aimed to extract SeM protein from local S. equi strain in Egypt and to detect its antigenic components. After centrifugation, the native 58 kilo Dalton (kDa) SeM protein was detected both in the supernatant and sediment of the prepared extract. With modification by more centrifugation, the formed supernatants were separated and fractionated using SDS-PAGE with silver nitrate staining, which led to the appearance of a band at Molecular Weight (MW) 70.9 kDa. in SeM1, the presence of 7 bands at MW of 105, 87.8, 70.9, 61.1, 44, 37.9 and 18.4 in SeM2; 5 bands at MW 70.9, 58.9, 37.2, 29.8 and 18.3kDa in SeM3 and 4 bands at MW of 72.0, 58.6, 29.8 and 18.0 kDa in SeM4. This study suggested that a further modification of SeM extraction revealed the presence of heterogeneous complex fragments of SeM.

Key words: SeM protein, SDS-PAGE, Strangles, Streptococcus equi subspecies equi

Research Paper

Evaluation of The Efficacy of Oxytetracycline on Experimentally Induced Caprine Coccidiosis Due to Eimeria arloingi Infection.
Mikail HG, Saidu SNA and Mamman M.
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ABSTRACT

Coccidiosis is a protozoan disease caused by members of the genus Eimeria that affect domestic animal species. The current study was aimed at evaluating the effect of oxytetracycline administration on experimental caprine coccidiosis. Sixteen red Sokoto goat kids divided into four groups (A to D) of four goat kids each, were used for the study. Groups A, B and C were infected by oral inoculation with two ml containing 1.5 ×10^3 sporulated oocysts of Eimeria arlongi per animal, while group D was the neutral control group. Group A was treated with 10 % oxytetracycline intramuscularly daily for five days. Group B was treated with Sulfadimidine 33.3% subcutaneously daily for five days and group C served as an infected untreated group. Fecal oocysts per gram count was conducted during the experiment. The present result showed a significant decrease (P ≤ 0.05) in fecal oocysts load in the treated groups. Neither schizonts nor merozoites were detected in the intestinal smear of kid treated with oxytetracycline but were detected in the intestinal smear of infected untreated goat kid. Cystic degenerative changes were seen in the intestinal glandular cells of the infected untreated goat kid. Conclusively, the current finding suggests that oxytetracycline can effectively be used in treating caprine coccidiosis.

Key words: Coccidiosis, Caprine, Eimeria arlongi, Goat Kids, Oxytetracycline, Treatment
Determination of the Appropriate Inoculum Dose and Incubation Period of Cassava Leaf Meal and Tofu Dreg Mixture Fermented with Rhizopus oligosporus

The inoculum dose (6, 8, and 10%), and the incubation period of the fermentation (2, 3, 4, and 5 days), with 4 replications.

The appropriate inoculum dose to ferment CLM and TD mixture with R. oligosporus was 10% at each incubation period. In the meantime, the appropriate incubation period was 3 days for each inoculum dose.


Quantitative real-time PCR analysis for gene expression profile