Research Paper

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

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DOI: https://dx.doi.org/10.36380/scil.2020.wvj1
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-cerides, 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
The identified genomic regions are overlapped with previously reported QTL in key markers and candidate genes affecting lactose traits which facilitate the exploration of the (LP) and lactose yield (LY) in Egyptian buffalo. The phenotypic dataset included 60,318 monthly measures for LP and LY from 1481 animals. A total number of 114 animals with high and low traits, such as TPD52 and ZBTB10 on chromosome 15; AADAT and GALNTL6 on chromosome different cattle breeds. In addition, novel genomic loci were detected. The identified genomic nucleotide polymorphisms (SNPs) and candidate genes associated with lactose percentage deviated performance were selected for genotyping with Axiom Buffalo Genotyping 90K Array.

Key words: lactose, Egyptian buffalo, candidate genes, QTL, GWAS

DOI: 10.36380/scil.2020.wvj3

The role of glycogen in biological cycle of Trichinella spiralis. The energy sources of larva was 0.0786 ± 0.0023 μg. In the body of intestinal nematodes, 3 hours after infecting the same time period later, it reached to value of 0.0272 ± 0.0002 μg. In intestinal larvae will lose their invasion capacity.

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**ABSTRACT**

Bacterial oligodeoxynucleotide containing Cytosine Guanine motifs (CpG-ODN) has been widely 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-Adjuvanted Bacterin Against Salmonella Enteritidis bacterin in broiler chickens. Two hundreds one-day-old broiler chicks, divided into 5 groups were monitored for extra 10 days. Compared to the control groups included a group that was immunized with Salmonella Enteritidis bacterin adjuvanted with different doses of aluminum hydroxide (50µg, 100µg and 200µg). The intestinal colonization, cellular responses, mucosal and systemic immune responses of Salmonella infections in a wide range of vertebrate species was not recovered from the intestinal tract of vaccinated challenged groups. There was protection and improved survival rate of challenged chickens in the different aluminum hydroxide groups (P < 0.05). Also, cellular interactions were remarkably reduced in immunized chickens was measured at different intervals, until 42 days of age. The intestinal colonization, cellular responses, mucosal and systemic immune responses of Salmonella infection in broiler chickens.

**Key words:** Research Paper, effect of CpG ODN on Salmonella Enteritidis bacterin in broiler chickens.
Zeedan GSG, Mahmoud AH, Abdalhamed AM, Ghazy AA and Abd EL-Razik KhA. References extraction kits compared to novel modification method (Microwave extraction).

ABSTRACT

The disease surveillance, detection and differentiation of Ca PV in clinical and subclinical samples was achieved using DNA slandered extraction with RNA polymerase gene RP030 and real-time qPCR would be useful for initial confirmation of positive Ca PVs. PCR based RNA polymerase gene is suitable for differentiating between SPPV and GTPV; in one PCR run; without any post-processing steps. We collected eighty scabs from clinically affected animals (54 sheep and 26 goat) that were further isolation and propagation in embryonated-chicken eggs. The novel microwave method was done in 3 minutes only. The results of the current study confirmed that the suitability of the PCR-based RNA polymerase gene RP030 based Conventional PCR and real time qPCR in Sheep and Goat in Egypt. Stillbirth in pig has been studied worldwide, but, its situation in Vietnam has never been reported. Therefore, present study aimed to investigate effects of herd, parity, gestation length, a gestation length <114 days (OR=1.80, 95%CI=1.23-2.65), a birth litter size ≥9 (OR=1.87, 95%CI=1.24-2.63) and >4 (OR=1.81, 95%CI=1.24-2.63) were risk factors for stillbirth. This study indicated that stillbirth was common in Vietnam and it is an issue to be dealt with in swine farms in Vietnam.

MS concentrations of globulins, cholesterol, triglycerides, lipoproteins, albumin, creatinine, Na, K, Cl, Ca and inorganic-P were significantly higher than MS during the first trimester of pregnancy in cattle. 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 TP, albumin, globulins, cholesterol, triglycerides, HDL and LDL, creatinine, urea, Na, K, Cl, Ca and P in AF and MS during the first, second and third trimesters of pregnancy in cattle might be changed with gestation stages advanced. The levels of Na and Ca in the AF decreased as the gestation stage advanced while the K concentration increased. In conclusion, our results indicated an active placental transport for Ca and P. The TP, albumin, globulins, cholesterol, triglycerides, HDL and LDL, creatinine, urea, Na, K, Cl, Ca and P in AF and MS comparisons between biochemical analysis of cattle, sheep and goat and conventional PCR and real-time qPCR were examined for the presence of Ca PVs. The stillbirth rate was 5.2%. Multivariate logistic regression showed that parity 1 (OR=1.81, 95%CI=1.24-2.63) and >4 (OR=1.87, 95%CI=1.24-2.63) were risk factors for stillbirth. This study indicated that stillbirth was common in Vietnam and it is an issue to be dealt with in swine farms in Vietnam. Special attention should be paid to sows at parity 1, > 4, sows with a large birth litter size and sows with a long farrowing duration to reduce stillbirth. Since the use of highly prolific sows is increasing, stillbirth continues to be an issue to be dealt with in swine farms in Vietnam.
Using Feed Additives to Produce Functional Eggs in Fayoumi Hens. Dief Allah RA, Ali MN, EL-Manylawi MAF, Abass AO and Desouky A.


**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

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


**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 arloingi* 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 arloingi*, Goat Kids, Oxytetracycline, Treatment
This study was carried out to improve the freezability of buck semen using two different types of cryoprotectants supplemented with melatonin as antioxidant in cold and hot temperature of breeding season. Ejaculates from four mature Egyptian baladi bucks were pooled after selection and diluted in extender based on向前和向前 and two doses of melatonin (10^-6 M and 10^-3 M) were added. Semen quality, antioxidant defense capacity and transcriptional profile, which may maintain the post-thaw fertilizing ability of buck semen, were monitored. The activity of total antioxidant capacity (TAC) was significantly higher in samples supplemented with low dose of melatonin (10^-6 M) in addition to glycerol (74.4 versus 64.4) and DMSO (32.1 versus 22) compared to high dose (10^-3 M) in glycerol (75.1 versus 53.5) and DMSO (32.1 versus 22) in hot temperature. The same trend was found in samples cryopreserved with glycerol (75.1 versus 53.5) and DMSO (32.1 versus 22) in hot temperature. The activity of total antioxidant capacity (TAC) was significantly higher in samples supplemented with low dose of melatonin improved semen post-thaw fertilizing ability. 

**Key words:** Determination of the appropriate inoculum dose and incubation period of Cassava Leaf Meal and Tofu Dreg Mixture Fermented with Rhizopus oligosporus

Key words: Estrus synchronized and naturally mated. After parturition, one hundred and one kids (39 Baladi and 62 Shami) were followed for up to 30 days of their age. The overall mean birth weights of female kids of Baladi and Shami goats were 2.47 and 2.81 Kg, respectively. For male kids, birth weights were 3.40 and 3.99 Kg, respectively.