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.


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
genetic mechanisms that control lactose traits variation in Egyptian buffalo. Deviated performance were selected for genotyping with Axiom Buffalo Genotyping 90K Array. Genome-wide analysis was performed using a single marker regression. The GWAS revealed nucleotide polymorphisms (SNPs) and candidate genes associated with lactose percentage regions harbored many candidate genes with biological roles associated with milk production (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 were used to infect laboratory mice. The invasive capacity of larvae will lose their invasion capacity. Maximum concentration of glycogen was recorded 4 months post-infection (0.0930 ± 0.0024 μg/ larva). Glycogen concentration during the life cycle of was investigated. The purpose of this study was to investigate the quantitative changes in glycogen concentration during the life cycle of . The viability of depend on the glycogen content. When the glycogen concentration in the parasite is insufficient, development was extremely important in the first hours of the helminth's residing in the host's. To determine the invasive properties of larvae, the animals were euthanized at different time periods from the start of the experiment. The amount of glycogen in a post-infection, after infection, the amount of glycogen in a larva was 0.0786 ± 0.0023 μg. In the body of intestinal nematodes, 3 hours after infecting the , the glycogen concentration was 0.0272 ± 0.0002 μg. In intestinal same time period later, it reached to value of 0.0272 ± 0.0002 μg. In the small intestine of rats for 24 hours, the glycogen was not detected. The role of glycogen in biological cycle of was studied. The content of glycogen in during the infection period was measured. The concentration of glycogen in was recorded at different time points. The concentration of glycogen in at a dose of 5 muscle larvae/gram of body weight. The animals were euthanized at different time periods after infection. The concentration of glycogen in at different points was recorded. The concentration of glycogen in was also measured. The concentration of glycogen in was recorded at different time points. The concentration of glycogen in was recorded at different time points.
ABSTRACT

Salmonella enterica serovar Enteritidis infections in a wide range of vertebrate species. The objective of this study was to measure the effect of CpG ODN on the level of secretory IgA and the induced mucosal responses. The 200-CpG ODN group showed the significant immunostimulatory effect of CpG-ODN and its effect on the groups were monitored for extra 10 days. Compared to the control groups, were used in this study. First three groups were immunized with the Salmonella Enteritidis bacterin (50µg, 100µg and 200µg). The control groups included a group that was immunized with the Salmonella Enteritidis fresh bacterial culture (1.2x10^8 CFU/ml). The survival rates and the pathological changes of challenged chickens in the different groups were measured at different intervals, until 42 days of age.

At two weeks post-immunization, 20 chicks from each group were orally challenged by the dose-dependent IMMUNOSTIMULATORY ADJUVANT EFFECT OF CPG-ODN ON THE LEVEL OF SECRETORY IGA AND THE INDUCED MUCOSAL RESPONSES.

ABSTRACT

The population of Sunda porcupine (Hystrix javanica) declines each year since it is rarely found in nature. The present study aimed to obtain information about the distribution of carbohydrate residues in the immature and mature testes of Sunda porcupine. The distribution profile and function of carbohydrate residues in testes were studied in the immature and mature stages of Sunda porcupine. The population of Sunda porcupine (Hystrix javanica) declines each year since it is rarely found in nature. The present study aimed to obtain information about the distribution of carbohydrate residues in the immature and mature testes of Sunda porcupine. The distribution profile and function of carbohydrate residues in testes were studied in the immature and mature stages of Sunda porcupine.

To cite this paper:


DOI: https://dx.doi.org/10.36380/scil.2020.wvj66


DOI: https://dx.doi.org/10.36380/scil.2020.wvj66


Foot and Mouth Disease (FMD) is highly contagious disease affected cloven-hoofed animals. Real-Time Polymerase Chain Reaction (RT-PCR) as well as Real-Time Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) demonstrated the current situation of circulation FMDV type A, O, and SAT2 serotypes in cattle and buffaloes in different governorates of Egypt. The diagnostic results required in a short timescale during emergencies. Also, this study aimed to detect FMDV by different tests. The rRT-PCR provided an accurate and rapid laboratory diagnosis of FMDV porotypes were identified by rRT-PCR in suspected cattle and buffaloes samples to FMDV serotype A, O and SAT2 and results showed positive results of tissue samples from buffaloes examined by RT-PCR were 9 (40.09 %), 4 (16.66%), 3 (12.50%), and 2 (8.33%) respectively. Also, the positive results of tissues biopsy of cattle were 18 (28.12%), 12 (18.75%), 3 (4.68 %) and 4 (6.25%). Also, the positive results of tissues biopsy of cattle were 18 (28.12%), 12 (18.75%), 3 (4.68 %) and 4 (6.25%).

To cite this paper: Zayed GG, Mahmoud AH, Abou El-Ela AM and Khalaf MIH (2020). Diagnosis of Foot and Mouth Disease in Cattle and Buffaloes in Different Governorates of Egypt. World Vet. J., 10 (1): 43-52.

DOI: https://dx.doi.org/10.36380/scil.2020.wvj8

To cite this paper: Zayed GG, Mahmoud AH, Abou El-Ela AM and Khalaf MIH (2020). Diagnosis of Foot and Mouth Disease in Cattle and Buffaloes in Different Governorates of Egypt. World Vet. J., 10 (1): 43-52.

DOI: https://dx.doi.org/10.36380/scil.2020.wvj8

To cite this paper: Zayed GG, Mahmoud AH, Abou El-Ela AM and Khalaf MIH (2020). Diagnosis of Foot and Mouth Disease in Cattle and Buffaloes in Different Governorates of Egypt. World Vet. J., 10 (1): 43-52.
Capri Pox Virus (Ca PV) is the causative agent of important diseases in sheep and goat with differentiating 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 vaccinated in Chorio-Allantoic-Membranes (CAM) from 10-days-old embryonated-chicken eggs. The positive CAM showed pock lesions, which were observed with a thickening of the membrane after 2-3 passages post samples inoculation, and harvested positive CAMs, which used to isolate high quality of DNA extracted from infected skin biopsy with SPPV and GPPV post-processing steps.

DNA extraction from clinical samples and positive CAM with pox lesions using DNA slandered gene RP030 gene and real-time-PCR considered sensitive, rapid, and reliable methods for further isolation and propagation in embryonated-chicken eggs. The novel microwave method was determined by Agar Gel Precipitation Test (AGPT) , Counter Immune Electrophoresis (CIE), and conventional PCR and real time qPCR were examined for the presences of Ca PVs.

DNA extraction by Microwave methods

Skin biopsy samples

RT-qPCR

c-PCR

To cite this paper: Essawi WM, Mostafa DIA and El Shorbagy AIA. Comparison between Biochemical Analysis of Cattle Amniotic Fluid and Maternal Serum during the First, Second and Third Trimesters of Pregnancy in Cattle. World Vet. J. 2020; pii:S232245682000009-10.

To cite this paper: Zeedan GSG, Mahmoud AH, Abdalhamed AM, Ghazy AA and Abd EL-Razik KhA. Rapid Detection and Differentiation between Sheep Pox and Goat Pox Viruses by Real-Time qPCR and Conventional PCR in Sheep and Goat. World Vet. J. 2020; pii:S232245682000010-10.

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.

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.

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.

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
Antioxidant enzymes, Bucks, Melatonin, Motility, Transcript abundance

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.