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
ABSTRACT

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 considered 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, triglycerides, 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
Genome-wide analysis was performed using a single marker regression. The GWAS revealed 32 significant and seven suggestive SNPs for LP, however; only two suggestive SNPs were identified for LY. The identified genomic regions are overlapped with previously reported QTL in traits, such as TPD52 and ZBTB10 on chromosome 15; AADAT and GALNTL6 on chromosome 32. Regions harbored many candidate genes with biological roles associated with milk production genetic mechanisms that control lactose traits variation in Egyptian buffalo.

**Key words:**

- Milk lactose
- Egyptian buffalo
- Genomic regions
- Candidate genes
- Genetic mechanisms
- Lactose traits
- Variation in Egyptian buffalo

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**ABSTRACT**

nucleotide polymorphisms (SNPs) and candidate genes associated with lactose percentage measures for LP and LY from 1481 animals. A total number of 114 animals with high and low changes in glycogen concentration during the life cycle of Trichinella spiralis at a dose of 5 muscle larvae/gram of body weight. The animals were euthanized at different periods. Glycogen viability of larvae will lose their invasion capacity. Glycogen in the nematodes was calculated according to the quantitative method for determining Trichinella spiralis larvae. Energy sources of Trichinella spiralis larvae, laboratory rats were not fed a day before infection. Adult nematodes were isolated from muscle larvae were isolated by artificial fermenting meat mince in gastric juice. To determine the glycogen concentration in muscular larva was 0.0054 ± 0.0027 μg/ larva on day 21, 0.0136 ± 0.0049 μg/ larva on day 35, and 0.0786 ± 0.0023 μg. In the body of intestinal nematodes, the glycogen concentration in muscular larva was 0.0054 ± 0.0027 μg/ larva on day 21, 0.0136 ± 0.0049 μg/ larva on day 35, and 0.0786 ± 0.0023 μg. In intestinal glycogen, 3 hours after infecting the small intestine of laboratory rats at 3, 6 and 24 hours post-infection. The nematodes were glycogen concentration in muscular larva was 0.0054 ± 0.0027 μg/ larva on day 21, 0.0136 ± 0.0049 μg/ larva on day 35, and 0.0786 ± 0.0023 μg. In intestinal glycogen, 3 hours after infecting the small intestine of laboratory rats at 3, 6 and 24 hours post-infection. The nematodes were glycogen concentration in muscular larva was 0.0054 ± 0.0027 μg/ larva on day 21, 0.0136 ± 0.0049 μg/ larva on day 35, and 0.0786 ± 0.0023 μg. In intestinal glycogen, 3 hours after infecting the small intestine of laboratory rats at 3, 6 and 24 hours post-infection. The nematodes were glycogen concentration in muscular larva was 0.0054 ± 0.0027 μg/ larva on day 21, 0.0136 ± 0.0049 μg/ larva on day 35, and 0.0786 ± 0.0023 μg. In intestinal glycogen, 3 hours after infecting the small intestine of laboratory rats at 3, 6 and 24 hours post-infection. The nematodes were glycogen concentration in muscular larva was 0.0054 ± 0.0027 μg/ larva on day 21, 0.0136 ± 0.0049 μg/ larva on day 35, and 0.0786 ± 0.0023 μg. In intestinal glycogen, 3 hours after infecting the small intestine of laboratory rats at 3, 6 and 24 hours post-infection. The nematodes were glycogen concentration in muscular larva was 0.0054 ± 0.0027 μg/ larva on day 21, 0.0136 ± 0.0049 μg/ larva on day 35, and 0.0786 ± 0.0023 μg. In intestinal glycogen, 3 hours after infecting the small intestine of laboratory rats at 3, 6 and 24 hours post-infection. The nematodes were glycogen concentration in muscular larva was 0.0054 ± 0.0027 μg/ larva on day 21, 0.0136 ± 0.0049 μg/ larva on day 35, and 0.0786 ± 0.0023 μg. In intestinal glycogen, 3 hours after infecting the small intestine of laboratory rats at 3, 6 and 24 hours post-infection. The nematodes were glycogen concentration in muscular larva was 0.0054 ± 0.0027 μg/ larva on day 21, 0.0136 ± 0.0049 μg/ larva on day 35, and 0.0786 ± 0.0023 μg.
Crossref Metadata

Enteritidis bacterin (50µg, 100µg and 200µg). The control groups included a group that was immunized with Bacterial oligodeoxynucleotide containing Cytosine Guanine motifs (CpG-ODN) has been Salmonella Enteritidis. There was no recovery from the intestinal tract of vaccinated challenged groups. Immunization with Enteritidis bacterin in broiler chickens. Two hundreds one-day-old broiler chicks, divided into 5 groups, were immunized with Enteritidis bacterin adjuvanted with aluminum hydroxide and a non-immunized group. Also, cellular interactions were remarkably reduced in the liver and intestine of CpG ODN-treated chickens. No inflammatory cellular infiltrations were seen in the liver and intestine of 200-CpG ODN treated group. In conclusion, the presented study demonstrated the current situation of circulation FMDV type A, O, and SAT2 serotypes in cattle and buffaloes in Egypt. The intestinal colonization, cellular responses, mucosal and systemic immune responses of chickens were measured at different intervals, until 42 days of age. Also reported to induce immunostimulatory activity against a variety of bacterial, viral, and protozoan infections in broiler chickens.


Key words: Mature Sunda Porcupine (Hystrix javanica agglutinin (SJA), and Wheat germ agglutinin (WGA). Data were analyzed with descriptive and semi-quantitative method. Lectin histochemical staining with LCA, PHA-L, PSA, Sophora japonica agglutinin (SJA), and N-acetylglucosamine residues contained in immature and mature of Sunda porcupine's testes and to discuss its possible role in the development and maturation of Leydig and Sertoli cells. Mature Sunda Porcupine (Hystrix javanica) testes showed a strong positive reaction to the LCA, SJA, PSA, and WGA which indicated the presence of alpha-D-mannose and alpha-D-glucose, N-acetylgalactosamine, mannose, and N-acetylglucosamine residues on the maturation process of early spermatid to the late spermatid. These results can be used as basic data to be implemented in the conservation of the species.


The present study was aimed to detect FMDV by different serological and molecular methods in cattle and buffaloes for providing an accurate and rapid laboratory diagnosis of FMDV. Serum samples were examined by 3ABC-ELISA for differentiating between infected and non-infected animals. While tissues biopsies and un-coagulated blood samples were examined by Sandwich ELISA, Reverse Transcriptase Polymerase Chain Reaction (rRT-PCR). FMDV porotypes were identified by rRT-PCR in that 54 samples positive for FMDV different serotypes while FMDV serotype differentiation in samples and saliva, as well as 86 coagulated and uncoagulated blood samples, were collected during August to December 2017. The rRT-PCR generated results in less than 6 h and this is an important feature when definitive diagnosis is needed. 86 samples of tongue epithelium biopsies, fluid vesicles and un-coagulated blood were collected from 64 and 22 suspected cattle and buffaloes respectively in different governorates in Egypt, to confirm the laboratory diagnosis of FMDV. 3ABC-ELISA was a significant dose-dependent immunostimulatory adjuvant effect of CPG-ODN on the level of antibodies. The highest IgA response followed by 100-CpG ODN group then the 50-CpG ODN and the control group. 86 samples of tongue epithelium biopsies, fluid vesicles and un-coagulated blood were collected from 64 and 22 suspected cattle and buffaloes respectively in different governorates in Egypt, to confirm the laboratory diagnosis of FMDV. The sensitivity and specificity of FMDV diagnosis by rRT-PCR was 98.75% and 99.92% respectively. 86 coagulated and uncoagulated blood samples were examined by Sandwich ELISA.

To cite this paper: Zedan GGG, Mahmoud AH, Abdahamed AM and Khattaj MH (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

Crossref Metadata

Zeedan GSG, Mahmoud AH, Abdalhamed AM, Ghazy AA and Abd EL-Razik KhA. PCR based RPO30 gene and the real-time qPCR showed 15 positive with percentage 27.77%

DNA extraction from clinical samples and positive CAM with pox lesions using DNA slandered differentiating SPPV and GTPV from AGPT and CIE in CAM or in clinical samples without Capri Pox Virus (Ca PV) is the causative agent of important diseases in sheep and goat with gene is suitable for differentiating between SPPV and GTPV; in one PCR run; without any 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

Skin biopsy samples

DNA extraction by Microwave methods

RT-qPCR

c-PCR

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

World Vet. J.

Stillbirth in pig has been studied worldwide, but, its situation in Vietnam has never been issue to be dealt with in swine farms in Vietnam.

Hoai Nam N and Sukon P.

ABSTRACT

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Research Paper

The incidence of stillbirth at sow level was 47.9%, and the stillbirth rate was 5.2%. Multivariate

Risk Factors Associated with Stillbirth in Swine Farms in Vietnam.

DOI:


95%CI=1.33-2.64), a gestation length <114 days (OR=1.80, 95%CI=1.23-2.65), a birth litter size ≥9

short gestation, 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.

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

DOI: https://dx.doi.org/10.36380/scil.2020.wvj12

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

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

DOI: https://dx.doi.org/10.36380/scil.2020.wvj13

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

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

DOI: https://dx.doi.org/10.36380/scil.2020.wvj14

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
Gene Expression Profile and Enzymatic Activities of Frozen Buck Sperm Supplemented with Melatonin in Cold and Hot Temperatures.

World Vet. J.

Determination of the Appropriate Inoculum Dose and Incubation Period of Cassava Leaf Meal and Tofu Dreg Mixture Fermented with Rhizopus oligosporus

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

To cite this paper: Dessouki ShM, Ashour G, El-Gayar M, El-Azzazi FE, Kodi E and Ghanem N. (2020). Gene Expression Profile and Enzymatic Activities of Frozen Buck Sperms Supplemented with Melatonin in Cold and Hot Temperatures. World Vet. J. 118-124

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