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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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 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
Determination of Potential Candidate Genes Associated with Milk Lactose in Egyptian Awad MAA, Abou-Bakr S, El-Regalaty H, El-Assal S.E-D and Abdel-Shafy H.  

**ABSTRACT**  

Genetic mechanisms that control lactose traits variation in Egyptian buffalo. Key words: Genome-wide analysis was performed using a single marker regression. The GWAS revealed nucleotide polymorphisms (SNPs) and candidate genes associated with lactose percentage.


Sidor EA and Andreyanov ON. 2020. The Role of Glycogen in Biological Cycle of Trichinella spiralis. Key words: World Vet. J. 12-17, 2020; pii:S232245682000005-10

Muhammad A., and Shikanai-Taylor, K. 2020. Bovine Respiratory Syncytial Virus (BRSV) is one of the worldwide distributed infectious agents responsible for diversified clinical disease in cattle populations which causes considerable economic loss due to its negative effects on health and production. In this study, 450 nasal samples were collected from cattle in Nineveh province, Iraq. Molecular diagnosis using nested RT-PCR and phylogenetic analysis of BRSV using specific primers in the PCR technique. The local isolate was submitted in GenBank under the accession number MN129181 Mosul isolate. The phylogenetic tree of local isolates of BRSV was constructed to determine the genetic relationship between the local isolates and the prototype strain (A1 strain of BRSV). The results indicated a 37.31% prevalence rate of BRSV using PCR technique. This study emphasizes the importance of BRSV in Iraq, supports the implementation of control strategies, and further epidemiological studies are needed to determine the prevalence and genetic diversity of BRSV in different regions of Iraq.
ABSTRACT

The present study was aimed to detect FMDV by Polymerase Chain Reaction (RT-PCR) as well as Real-Time Reverse Transcriptase Polymerase Chain Reaction (rRT-PCR) generated results in less than 6 h and this is an important feature when definitive diagnosis of FMD is needed. Two hundred and sixty four suspected cattle and buffaloes samples and saliva, as well as 86 coagulated and uncoagulated blood samples, were collected from 64 and 22 suspected cattle and buffaloes respectively in different governorates in Egypt, during August to December 2017. Serum samples were examined by 3ABC-ELISA for FMDV serotype A, O and SAT2. Results showed that 54 samples positive for FMDV different serotypes while FMDV serotype differentiation in saliva and blood samples was done by different tests. The rRT-PCR provided an accurate and rapid laboratory diagnosis of FMDV in cattle and buffaloes.


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ABSTRACT

Sheep Poxvirus (SPPV), Goat Poxvirus (GTPV) and Lumpy Skin Disease Virus (LSDV) are three members of the Capripox virus genus of Poxviridae family, which infect sheep, goats, and cattle, respectively. A rapid diagnostic assay for Ca PV by using PCR based RNA polymerase gene RP030 gene and the real-time qPCR showed 15 positive with percentage 27.77% which are useful for disease surveillance, detection and differentiation of Ca PV in clinical and subclinical samples in 54 sheep and 3 positive with percentage 12.5% in 26 goats. Although, AGPT and CIE gave lower result than molecular methods, they gave 11 and 13 positive samples from 54 sheep and 2 and 3 positive samples from 26 goats respectively, however they are useful for management and treatments of outbreaks. The present study aimed to detect and identify Ca PVs in natural, infected scabs biopsy samples, which were collected from Chorio-Allantoic-Membranes (CAM) from 10-days-old embryonated-chicken eggs. DNA extraction from clinical samples and positive CAM with pox lesions using DNA slandered references extraction kits compared to novel modification method (Microwave extraction). The conventional PCR RNA polymerase gene RP030 gene based and Real-Time qPCR would be useful for early confirmation of positive Ca PVs in low-income countries. PCR based RNA polymerase gene RP030 gene is suitable for differentiating between SPPV and GTPV; in one PCR run; without any post-processing steps.

Key words: Sheep Poxvirus, Goat Poxvirus, Lumpy Skin Disease Virus, PCR, Real-Time qPCR, Conventional PCR.
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 contribute 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.

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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 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
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ABSTRACT

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 (75.1 versus 53.5) and (32.1 versus 22) in hot temperature. Types of motility as well as velocity, enzymatic activity and expression profile of selected genes were measured. The results revealed that the progressive motility percentage was significantly higher in samples supplemented with low dose of melatonin (10^{-6} M) compared to high dose (10^{-3} M) based extender in cold season supplemented with low dose of melatonin improved semen quality, antioxidant defense capacity and transcriptional profile, which may maintain the post-thaw fertilizing ability of buck semen.

Key words: Antioxidant enzymes, Bucks, Melatonin, Motility, Transcript abundance

ABSTRACT

The present study was conducted to determine the appropriate inoculum dose and incubation period of cassava leaf meal and tofu dreg mixture fermented with Rhizopus oligosporus. The experimental results showed that there was no interaction between the inoculum dose and incubation period for the mixture of Cassava Leaf Meal (CLM) and Tofu Dreg (TD) fermented with Rhizopus oligosporus was 10% at each incubation period. In the meanwhile, the appropriate incubation period was 3 days for each inoculum dose. Protein (CP).

Key words: Fermentation, Inoculum dose, Incubation time, Cassava leaf meal, Tofu Dreg Mixture Fermented with Rhizopus oligosporus

ABSTRACT

The current study was conducted to determine the appropriate inoculum dose and incubation period of cassava leaf fermentation in the reduction of DM, OM, crude fat, and CF and also increased the CP. The best inoculum dose effect was at 10%. The incubation period had a significant reduction in the DM, OM, crude fat, and CF and also increased the CP. The best inoculum dose effect was at 10%. The incubation period had a significant reduction in the DM, OM, crude fat, and CF and also increased the CP. The best inoculum dose effect was at 10%.

Key words: Determination of the appropriate inoculum dose and incubation period of cassava leaf meal and tofu dreg mixture fermented with Rhizopus oligosporus

ABSTRACT

The potential of cassava leaf meal (CLM) and tofu dreg mixture fermented with Rhizopus oligosporus was evaluated for the changes in Dry Matter (DM), Organic Matter (OM), crude fat, Crude Fiber (CF), and Crude Protein (CP).

Key words: Protein (CP).