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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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
Buffalo. (LP) and lactose yield (LY) in Egyptian buffalo. The phenotypic dataset included 60,318 monthly
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
traits, such as TPD52 and ZBTB10 on chromosome 15; AADAT and GALNTL6 on chromosome
3 and COL8A1 and PLOD2 on chromosome 1. Our findings provide the basis to uncover the
measures for LP and LY from 1481 animals. A total number of 114 animals with high and low
World Vet. J.
Genome-wide analysis was performed using a single marker regression. The GWAS revealed
genetic mechanisms that control lactose traits variation in Egyptian buffalo.

Performance, Blood Metabolites and Gene Expression Analysis in Egyptian Sheep Breeds, in

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

Sidor EA and Andreyanov ON (2020). The Role of Glycogen in Biological Cycle of Trichinella spiralis

Candidate Genes Associated with Milk Lactose in Egyptian Buffalos. World Vet. J. 10(3): 35-42. DOI:
In conclusion, the presented Salmonella immunized chickens was measured at different intervals, until 42 days of age. Enteritidis was not recovered from the intestinal tract of vaccinated challenged groups. There Enteritidis bacterin in broiler chickens. Two hundreds one-day-old broiler chicks, divided into 5 the dose-dependent Enteritidis bacterin adjuvanted with aluminum hydroxide and a non-immunized group. Also ABSTRACT protection and improved survival rate of challenged chickens Salmonella was a significant dose-dependent immunostimulatory adjuvant effect of Cpg-ODN on the level Salmonella Salmonella Salmonella groups, were used in this study. First three groups were immunized with CpG ODN


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 54 sheep and 3 positive with percentage 12.5% in 26 goats. Although, AGPT and CIE gave references extraction kits compared to novel modification method (Microwave extraction). The which infect sheep, goats, and cattle, respectively. A rapid diagnostic assay for Ca PV by using qPCR, RPO30, Sheep pox virus (SPPV), and Goat Pox virus (GTPV) was developed and used to differentiate the causative agent of clinical samples, infected skin biopsy, and Chorio-Allantoic Membrane (CAM) from 10-days-old embryonated-chicken eggs. The novel microwave method used to isolate high quality of DNA extracted from infected skin biopsy with SPPV and GPPV sheep and goats in different governorates in 2017 during outbreaks in Egypt using 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 disease surveillance, detection and differentiation of Ca PV in clinical and subclinical samples for management and treatments of outbreaks. The present study aimed to detect and identify disease surveillance, detection and differentiation of Ca PV in clinical and subclinical samples.

**Key words:** 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 for management and treatments of outbreaks. The present study aimed to detect and identify disease surveillance, detection and differentiation of Ca PV in clinical and subclinical samples.

**Research Paper**

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, birth litter size and farrowing duration on stillbirth at sow level in swine farms in Vietnam. Data was collected from 1174 litters of 1174 Landrace x Yorkshire crossbred sows in 16 farms in the North of Vietnam. Potential risk factors for stillbirth were identified by using logistic regression. This study indicated that stillbirth was common 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.

**Key words:** Stillbirth in pig, Vietnam, Swine farms, Risk factors, Parity, Gestation length, Birth litter size, Farrowing duration.

**Research Paper**

Comparison between Biochemical Analysis of Cattle Amniotic Fluid and Maternal Serum during Pregnancy.

The present study aimed to compare the biochemical components including Total Protein (TP), creatinine, urea, sodium (Na), potassium (K), chloride (Cl), calcium (Ca) and inorganic-P in AF and MS.

**Key words:** Comparison, Biochemical Analysis, Cattle Amniotic Fluid, Maternal Serum, Pregnancy.
Using Feed Additives to Produce Functional Eggs in Fayoumi Hens.

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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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SDS-PAGE Profile Analysis of SeM-like Protein of Streptococcus equi subspecies equi.

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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

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Evaluation of The Efficacy of Oxytetracycline on Experimentally Induced Caprine Coccidiosis Due to Eimeria arloingi Infection.

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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
This study was carried out to improve the freezability of buck semen using two different types of cryoprotectants. Semen was extended with Tris-fructose-citric containing egg yolk using glycerol and Dimethyl Sulfoxide (DMSO) as cryoprotectants. The effect of melatonin supplementation on semen quality was also evaluated.

The results showed that cryopreservation with glycerol-based extender improved the sperm motility and viability compared to DMSO-based extender. The activity of total antioxidant capacity (TAC) was significantly higher in samples supplemented with low dose of melatonin (0.04 mM/L) than high melatonin dose (0.16 mM/L).

NFE2L2 gene was up-regulated in groups cryopreserved with DMSO in hot temperature, while Motility, Transcript abundance of antioxidant enzymes increased in low compared to high melatonin dose in glycerol based extender during cold and hot temperature.

Therefore, it could be concluded that the glycerol cryoprotectant is more suitable for preservation of buck semen in hot temperature, while melatonin supplementation is beneficial for improving semen quality in cold and hot temperatures.

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