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.


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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 Buffalo

ABSTRACT

Genetic mechanisms that control lactose traits variation in Egyptian buffalo. Awad MAA, Abou-Bakr S, El-Regalaty H, El-Assal S.E-D and Abdel-Shafy H.

Genome-wide analysis was performed using a single marker regression. The GWAS revealed regions harbored many candidate genes with biological roles associated with milk production. 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

Key words: Candidate gene, Egyptian buffalo, Genome, Genomic loci, Lactose

DOI:

Growth Performance, Blood Metabolites and Gene Expression Analysis in Three Different Egyptian Sheep Breeds, in Relation to Age

Evaluation of Growth Performance, Blood Metabolites and Gene Expression Analysis in Three Different Egyptian Sheep Breeds, in Relation to Age. Jassiem Hussain Kh, AL-Farwachi MI and Dhahir Hassan S.

Measuring of physical body body measurements were observed in Ossimi breed. There was a non-significant inverse measurement, blood metabolites and GH, IGF-1 and Leptin genes in early ages is a good and measure of interaction between age and breed on plasma total protein

Key words: Blood metabolites, Egyptian breeds, Gene expression, Growth performance, Linear

DOI:

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

Key words: Bovine Respiratory Syncytial Virus, BRSV, Diagnosis, Genotyping, Isolation, Phylogenetic tree, Genetic characterization

DOI:
ABSTRACT
Capri Pox Virus (Ca PV) is the causative agent of important diseases in sheep and goat with 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 novel microwave method used to isolate high quality of DNA extracted from infected skin biopsy with SPPV and GPPV which infect sheep, goats, and cattle, respectively. A rapid diagnostic assay for Ca PV by using 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 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 were isolated in embryonated-chicken eggs. The positive CAMs showed Ca PV by using conventional PCR RNA polymerase gene RP030 and real-time qPCR would be useful for differentiating SPPV and GTPV from AGPT and CIE in CAM or in clinical samples without post-processing steps.

KEY WORDS:
(CIE), and conventional PCR and real-time qPCR were examined for the presence of Ca PVs.

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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, sows with a large birth litter size and long farrowing duration on stillbirth at sow level in swine farms in Vietnam. Special attention should be paid to sows at parity 1, > 4, sows with a 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.

ABSTRACT
The incidence of stillbirth at sow level was 47.9%, and 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=1.33-2.64), a gestation length <114 days (OR=1.80, 95%CI=1.23-2.65), a birth litter size ≥9 (OR=2.33, 95%CI=1.42-3.79) and a farrowing duration >22 hrs (OR=2.09, 95%CI=1.13-3.87) were factors associated with stillbirth at sow level in swine farms in Vietnam.
ABSTRACT

Lately, human have become more apprehensive for the health and their food relationship. Eggs considered a 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 to some human serious diseases.

The current study examines the hypothesis that the addition of an antioxidant such as CAX, SS, B, or their mixtures to the diet can produce functional eggs from Fayoumi hens at the 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 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 a lowering effect on yolk total cholesterol. This could lead to producing functional eggs which have positive effects on human health and are favorable for those suffering from heart syndromes.

Key words: Cholesterol, Fayoumi, Functional Egg, Total Antioxidant Capacity.
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 temperatures. Ejaculates from four mature Egyptian baladi bucks were pooled after breeding season. Semen was extended with Tris-fructose-citric containing egg yolk using glycerol and dimethyl sulfoxide supplemented with two doses of melatonin (10 mM/L) compared to high dose (100 mM/L) than high melatonin dose (0.16 M) in addition to melatonin (10 mM/L).

The results also demonstrated that CASA parameters (VAP and VCL) were significantly increased in low compared to high melatonin dose in glycerol based extender during cold and hot temperature. The activity of total antioxidant capacity (TAC) was significantly higher in samples supplemented with low dose of melatonin (10 mM/L) than high melatonin dose (0.16 M) in DMSO extender. CPT2, ATP5F1A and SOD2 genes were up regulated in glycerol based extender groups in cold temperature compared to other groups of this study. On the other hand, the gene expression profile and enzymatic activities of frozen buck sperm supplemented with melatonin in cold and hot temperatures with melatonin in cold and hot temperatures.

Keywords: Cryoprotectants, Melatonin, Antioxidants, Cryopreservation, Buck semen, Antioxidant defense capacity, Transcriptional profile.