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 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

[Full text- PDF ] [XML] [Google Scholar] [Crossref Metadata]
World Vet. J. 2020; pii:S232245682000005-10

Molecular and Phylogenic Analysis of Bovine Respiratory Syncytial Virus in Nineveh Governorate, Iraq


DOI: https://dx.doi.org/10.36380/scil.2020.wvj2

Candidate gene, Egyptian buffalo, Genome, Genomic loci, Lactose

Bioassay test; Glycogen; Nematode; Parasitic helminth

Bovine respiratory syncytial virus, Cattle, PCR, Phylogenic analysis.

Figure 1. Scapular zone (D) dissected anterior in the 0.2 mm bone marrow dashed line.

Figure 2. A. The content of glycogen in Trichinella spiralis in white rats during the infection period

Figure 3. Measured glycogen concentration in Trichinella spiralis larvae in different periods of infection

Figure 4. Flowchart of genotyping using autosomal buffalo genotyping array.


DOI: https://dx.doi.org/10.36380/scil.2020.wvj2
sheep and goats in different governorates in 2017 during outbreaks in Egypt using 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 conventional PCR RNA polymerase gene RP030 gene based and Real-Time qPCR fluorescent PCR based RPO30 gene and the real-time qPCR showed 15 positive with percentage 27.77% were determined by Agar Gel Precipitation Test (AGPT) , Counter Immune Electrophoresis Research Paper Key words: were vaccinated in Chorio-Allantoic-Membranes (CAM) from 10-days-old embryonated-chicken conventional PCR RNA polymerase gene RP030 and real-time qPCR would be useful for Rapid Detection and Differentiation between Sheep Pox and Goat Pox Viruses by differentiating SPPV and GTPV from AGPT and CIE in CAM or in clinical samples without 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 disease surveillance, detection and differentiation of Ca PV in clinical and subclinical samples in goats were 1 and 2 from 26 scab biopsy samples respectively, however they are useful for references extraction kits compared to novel modification method (Microwave extraction). The early confirmation of positive Ca PVs in low-income countries. PCR based RNA polymerase Real-Time qPCR and Conventional PCR in Sheep and Goat in Egypt. DOI: https://dx.doi.org/10.36380/scil.2020.wvj11

Comparing between Biochemical Analysis of Cattle Amniotic Fluid and Maternal Serum Components during Pregnancy in Cows, including Total Protein (TP), albumin, globulins, cholesterol, triglycerides, High and Low-Density Lipoproteins (HDL and LDL), creatinine, urea, Na, K, Cl, Ca and inorganic-P were significantly higher than the AF during the first trimester. At delivery, the concentrations of cholesterol, triglycerides, and creatinine in the AF decreased as the gestation stage advanced while the K concentration increased. In conclusion, the TP, albumin, globulins, cholesterol, triglycerides, HDL and LDL, creatinine, urea, Na, K, Cl, Ca and P in AF and MS Components during Pregnancy. ABSTRACT The present study aimed to compare the biochemical components including Total Protein (TP), albumin, globulins, cholesterol, triglycerides, High and Low-Density Lipoproteins (HDL and LDL), creatinine, urea, Na, K, Cl, Ca and P in AF and MS during the first, second and third trimesters of pregnancy in cattle and Fetal Serum (FS) at birth. At birth AF, MS and FS were collected. Maternal blood samples and gravid uteri were collected after accidental abortion in a herd of 205 Holstein-Friesian cows on a dairy farm in Vietnam during 2016. The incidence of stillbirth at sow level was 47.9%, and the stillbirth rate was 5.2%. Multivariate 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=2.21, 95%CI=1.26-3.86), a parity > 4 (OR=1.64, 95%CI=1.05-2.61) and a farrowing duration ≥5 hours (OR=1.48, 95%CI=1.05-2.09) were risk factors for stillbirth. This study indicated that stillbirth was common reduce stillbirth. Since the use of highly prolific sows is increasing, stillbirth continues to be an 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 sows with a long farrowing duration to Special attention should be paid to sows at parity 1, > 4, sows with a birth litter size and farrowing duration on stillbirth at sow level in swine farms in Vietnam. Data World Vet. J. Key words: Odds ratios for piglet stillbirth of different risk factors


To cite this paper: Hoai Nam N and Sukon P. (2020). 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 sows with a long farrowing duration to Special attention should be paid to sows at parity 1, > 4, sows with a birth litter size and farrowing duration on stillbirth at sow level in swine farms in Vietnam. Data World Vet. J. 10(1): 54-74

To cite this paper: Essawi WM, Mostafa DIA and El Shorbagy AIA. (2020). Components Between Biochemical Analysis of Cattle Amniotic Fluid and Maternal Serum Components during Pregnancy in Cows, Including Total Protein (TP), Albumin, Globulins, Cholesterol, Triglycerides, High and Low-Density Lipoproteins (HDL and LDL), Creatinine, Urea, Na, K, Cl, Ca and Inorganic-P in the First Trimester. World Vet. J. 10(1): 67-73

ABSTRACT

Lately, humans have become more apprehensive about their health and food relationship. Eggs are considered a cheap source of animal protein and are rich in various essential nutrients that contribute to the quality of human diet. However, their cholesterol content can contribute to some human serious diseases. The current study examined the hypothesis that the addition of antioxidants 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 group of 168 Fayoumi hens (46 weeks of age) were randomly assigned into eight 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 production decreased compared to control group in CAX, SS, B, CAX + SS, CAX + B, SS + B, and CAX + SS + B groups. The total cholesterol content of egg yolk was found to be significantly lower in the CAX group compared to other groups (P < 0.05). The CAX + SS + B group had the highest total antioxidant capacity value. It could be concluded that basal diet supplemented with CAX, SS, or B alone or in mixture may have a lowering effect on yolk total cholesterol. This could lead to the production of functional eggs which have positive effects on human health and may be favorable for those suffering from heart syndromes.

Key words: Cholesterol, Fayoumi, Functional Egg, Total Antioxidant Capacity
Gene Expression Profile and Enzymatic Activities of Frozen Buck Sperm Supplemented with Melatonin

Previous study demonstrated that the cryopreserved semen samples supplemented with low (0.49 mM/L) NFE2L2 gene was up-regulated in groups cryopreserved with DMSO in hot temperature compared with all other experimental groups. Therefore, it could be concluded that the glycerol based extender groups in cold temperature compared to other groups of this study. On the other hand, the breeding season. Ejaculates from four mature Egyptian baladi bucks were pooled after collection. Semen was extended with Tris-fructose-citric containing egg yolk using glycerol and DMSO cryoprotectants supplemented with melatonin as antioxidant in cold and hot temperature of breeding season. 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 cryopreserved with glycerol (75.1 versus 53.5) and DMSO (32.1 versus 22) in hot temperature. CPT2, ATP5F1A and SOD2 genes were up regulated in glycerol based extender in cold season supplemented with low dose of melatonin improved semen quality, antioxidant defense capacity and transcriptional profile, which may maintain the stability of spermatozoa during cryopreservation.

Key words: Gene expression, Enzymatic activities, Melatonin, Cows' semen, Cryopreservation.

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

The present study was conducted to determine the appropriate inoculum dose and incubation period of fermentations. However, the interaction was occurred between inoculum dose and incubation period in the results. This experiment was carried out in a completely randomized design in a 3 x 4 factorial arrangement with 4 replications. The first factor was the inoculum dose (6, 8 and 10%). The second factor was the incubation period of fermentation was at 3 days. The results indicated that the best inoculum dose effect was at 10% at each incubation period. The incubation period had a significant effect on dry matter and organic matter of fermentation. The inoculum dose significantly decreased the dry matter, organic matter and crude fiber and increased the crude protein of fermentation. The inoculum dose of 10% and incubation period of 3 days were the appropriate inoculum dose to ferment CLM and TD mixture with R. oligosporus.

Key words: Rhizopus oligosporus, Inoculum dose, Incubation time, Fermentation.