Research Paper

Molecular Analysis of *Coxiella Burnetii* by Isocitrate Dehydrogenase Gene Sequence-Based Typing and PCR-RFLP in Isfahan, Iran.

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ABSTRACT

In the recent years, considerable advances have been made in the detection and genotyping of *Coxiella burnetii*, the causative agent of Q fever. The selection of appropriate genotyping method has enabled description of the clonal diversity of *C. burnetii* around the word. Since, in the place of study, *C. burnetii* genotyping has not been done, the *icd* gene Restriction fragment length polymorphism (RFLP) and sequence-based typing for differentiation between the genomic detected *C. burnetii* from the various sources and compared the two methods is used. In a observational study, a total of 15 genomic positive cases of *C. burnetii* infection from different sources in Isfahan province (Central Iran) were enrolled and underwent two genotyping methods: the *icd* gene PCR-RFLP and *icd* gene sequence-based typing. The degree of similarity between the *icd* gene sequences was high (98.3-100%). In compare with *C. burnetii* Nine Mile *icd* gene sequence, the nucleotide sequences were different at 11 positions, which resulted in 7 differences in the amino acid sequences. After digesting the 370 bp amplified *icd* gene fragments all the samples indicated only one band of 370bp, while amplified *C. burnetii* Nine Mile strain *icd* gene were digested into two bands with sizes of 221bp and 149bp. The results of two genotyping methods matched together. Used methods in present study were cheaper and easier than new methods and they can used for detection of acute and chronic phases of...
infection. **Keywords**: *Coxiella burnetii*, Isocitrate dehydrogenase, Iran, Restriction fragment length polymorphism, Sequence-based typing

The Protective Role of Date Palm (*Phoenix Dactylifera* Seeds) against Aflatoxicosis in Broiler Chickens Regarding Carcass Characteristics, Hepatic and Renal Biochemical Function Tests and Histopathology.

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ABSTRACT

Harmful effects caused by aflatoxin (AF) directed researchers towards to find out new strategies for its control and detoxification increasing the safety of poultry feed. The aim of the present work was to study the protective role of date pits (Phoenix dactylifera) seeds against aflatoxicosis regarding carcass traits, biochemical function tests and histopathology of both liver and kidney in broiler chickens. 210 one-day old Arbor Acres broiler chicks were allotted into 7 equal groups as the first control (G1) supplemented by the basal diet, G2 had the basal diet with date pits supplementation 2%, G3 fed on the basal diet with date pits 4%, G4 was fed a basal diet containing 100µg aflatoxin/kg (100 ppb). G5 fed on a basal diet containing Hydrated Sodium Calcium Aluminum Silicates (HSCAS) 0.3% plus aflatoxin, (G6) fed a basal diet containing date pits 2% plus aflatoxin and finally G7 fed a basal diet containing date pits 4% plus aflatoxin. The aflatoxin supplemented to the broiler ration from first day to the end of experiment at 35 days. Aflatoxins supplementation significantly increased relative liver and small intestine weight, affect liver and kidney biochemical function tests and induced histopathological changes as fatty degeneration of hepatocytes, and interstitial nephritis with mononuclear cell infiltrations in both liver and kidney, respectively. However, addition of date pits (2% and 4%) and HSCAS (0.3%) to broiler's diet partially ameliorated these harmful effects of aflatoxins, indicating their protective effect against aflatoxicosis and this protection is dose-related. Addition of date palm seed (2% and 4%) gave a better results regarding carcass traits, biochemical parameters and histopathological examination of liver and kidney, finally concluding that date palm seed powder could be used as an effective feed additive to control aflatoxicosis in poultry with avoiding harmful effect of chemical mycotoxin binders (HSCAS).

Keywords: Aflatoxins, Broilers, Biochemical traits, Carcass characteristics, Date palm, Histopathological changes.
Keywords: Pseudomonas sp (53.48%). Those isolated bacteria indicated various resistance patterns against several antibiotics (55.03%), and Escherichia coli (76.74%).


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ABSTRACT

The objective of this study was to analyze the epidemiological occurrence of Peste des petits ruminants in sheep and goat during 2006-2017 in Palestine. Data were collected from the reports of world organization for animal health, submitted by the general directorate of animal health in Palestine. The appropriate data recording, improving owner awareness, expand the use of the Peste des petits ruminants vaccine and a systematic disease monitoring program are required to control the spread of the disease.

The incidence rate ranged from 1.78 to 14.36% with an average of 6.39% per year and per 104 animals. The average morbidity, morbidity and case fatality rate were 8.89%, 2.89%, and 33.57% respectively. Temporal analysis obtained that Peste des petits ruminants is enzootic in Palestine, reported in each year of the study period. The Peste des petits ruminants vaccination rate in Palestine was low and not well organized, ranged from 0.77-34.39% with an average rate of 9%. The appropriate data recording, improving owner awareness, expand the use of the Peste des petits ruminants vaccine and a systematic disease monitoring program are required to control the spread of the disease.

Keywords: Peste des petits ruminants, Sheep, Goat, Palestine, Peste des petits ruminants vaccination rate, Enzootic

Potency of Sansevieria masoniana Extract Against Antimicrobial Resistant Bacteria Isolated from Faeces of Pet – Reptile

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This study conducted to investigate the effects of dietary zeolite on egg production, egg quality, and hemoglobin production of the laying hens divided into six equal groups (30 hens/group). Hens of the T1, T2, and S2 groups showed significant decreases in total protein, globulin, glucose, and total antioxidant capacity compared to other treatments. Aldosterone hormone was significantly decreased in the hens of the T1, T2, and S2 compared to hens in the T, S, and S1 groups. Hens of the T1, T2, and S2 groups drank saline well water and fed basal diet containing 4% zeolite. Egg number and egg mass were significantly increased in the hens of the S2 group, hens drank saline well water and fed diet containing 4% zeolite. For productive performance and eggshell quality, drinking saline well water, addition of zeolite to laying hens' diets at levels 4% might improve the productive performance and eggshell quality. Hens of the T2 group drank tap water and fed diet containing 4% zeolite. The hemoglobin concentration increased significantly in the hens of the S compared to other treatments. Hens of the S group drank saline well water and fed basal diet. The hemoglobin concentration was significantly lower in the hens of the S compared to other treatments. Hens of the S group had significantly improved feed conversion compared to hens of the S group. Hens of the S group had significantly increased egg weight compared to other treatments. Egg weight significantly increased in the hens of the S2 group, hens drank saline well water and fed diet containing 4% zeolite.

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**ABSTRACT**

This study was conducted to investigate the effects of dietary zeolite on egg production, egg quality, and haemoglobin production of laying hens. The laying hens were divided into six equal groups (30 hens/group). The hens of the T1, T2, and S2 groups showed significant decreases in total protein, globulin, glucose, and total antioxidant capacity compared to other treatments. Aldosterone hormone was significantly decreased in the hens of the T1, T2, and S2 compared to hens in the T, S, and S1 groups. Hens of the T1, T2, and S2 groups drank saline well water and fed basal diet containing 4% zeolite. Egg number and egg mass were significantly increased in the hens of the S2 group, hens drank saline well water and fed diet containing 4% zeolite. For productive performance and eggshell quality, drinking saline well water, addition of zeolite to laying hens’ diets at levels 4% might improve the productive performance and eggshell quality. Hens of the T2 group drank tap water and fed diet containing 4% zeolite. The hemoglobin concentration increased significantly in the hens of the S compared to other treatments. Hens of the S group drank saline well water and fed basal diet. The hemoglobin concentration was significantly lower in the hens of the S compared to other treatments. Hens of the S group had significantly improved feed conversion compared to hens of the S group. Hens of the S group had significantly increased egg weight compared to other treatments. Egg weight significantly increased in the hens of the S2 group, hens drank saline well water and fed diet containing 4% zeolite.
A Review on the Role of Lipid in Selected Apicomplexan, Anaerobic, Kinetoplastid and Intestinal Parasitic Infections.

Mechanism to mobilize lipid

Lipid droplets

Parasites from each group

PROBIOTICS

Potential Ameliorative Effect of Bee's Honey on Experimentally Induced Melamine Formaldehyde Toxicty in Male Albino Rats

- Melamine 0.5 g
- Melamine 3000 ppm
- Melamine 5000 ppm

5 Male albino rats
5 Male albino rats
5 Male albino rats

No remarkable toxic effects
Reduced toxic effects

MOHAMMED SADEK BACHENE, SORAYA TEMIM, HASSINA AINBAZ ASMA

Eimeria magna

The epidemiological situation of rabbit coccidiosis in Medea province must be taken into account. A total of 11 rabbits were used for the study. The sample was subjected to oocyst counting and isolation. The results showed that Eimeria magna was the most prevalent species (P<0.0001). Eleven rabbit sera were tested against rabbit coccidiosis than colistin and trimethoprim association (P< 0.0001, prevalence of...