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 world. 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.

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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 in Palestine during 2005-2017. Data were collected from the annual agricultural census released by the Palestinian central bureau of statistics and the reports of world organization for animal health, submitted by the general directorate of veterinary services and animal health between 2005 and 2017. The study indicated that Peste des petits ruminants is enzootic in Palestine, reported in each year of the study period. 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 more epizootic in the dry season between April and August with a significant peak on June. 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:** Epidemiology, Goat, Palestine, Peste des petits ruminants, Sheep

ABSTRACT

This study aimed to apply early heat shock exposure programs for releasing HSP70 gene expression to improve production of rabbits reared under hot desert conditions at Egypt. 120 Rabbits under Hot Desert Conditions.


ABSTRACT

he rabbits of T2, T3 and T4. Total protein and globulin concentrations increased in the levels and overall mortality rate significantly decreased in the rabbits exposed to heat shock programs. In conclusion, applying heat shock exposure programs of rabbits especially T3 showed an increase in total antioxidant capacity when compared to the rabbits of T1.

Keywords:

Heat stress, HSP70, Physiological responses, Productive and reproductive

Antibiotic, Pet - reptile, Reservoir, Resistance, Sansevieria masoniana.
Prevalence of Rabbit Coccidia in Medea Province, Algeria. 

ABSTRACT

The current study examined the epidemiological situation of rabbit coccidiosis in Medea province, North of Algeria. A total of 414 faecal samples were collected from 50 farms in six regions of the province. Each faecal sample included 8 rabbits. The overall prevalence of coccidial infections was 47.6% (197/414). Eimeria's identified microscopically. The most prevalent species were E. media (47.3%) and E. maxima (47.6%). Sulfonamides showed a better protection against rabbit coccidiosis than colistin and trimethoprim association (P< 0.0001, prevalence of 41.1% vs. 36.3% respectively). These results indicated that the prevalence of coccidiosis is high in the T1, T2 and S2 compared to the T, S and S1 groups. Hens of T1, T2 and S2 groups had significantly improved feed conversion compared to hens of S group. Hens of S group had significantly improved egg production (total number of eggs, egg number and egg mass) compared to hens of S1 group. Egg number and egg mass were significant increased in the hens of S group compared to hens in T and T2 groups. Egg weight significantly increased in the hens of S group compared to hens in T, T1 and T2 groups.

Keywords: Coccidiosis, Rabbit, Sulfonamides, Colistin, Trimethoprim, Epidemiological situation.
This work is designed to explore the beneficial effect of bee's honey to alleviate the harmful effect induced by melamine toxicity and to show the potential ameliorative effect of bee's honey on experimental melamine toxicity. Melamine is considered as one of urea derivatives. Recently it is added to feed stuffs for industrial purposes (falsely elevate its protein contents), however addition of melamine resulted in marked oxidative stress and toxic effect on different body organs, especially the urinary system. In this work seven animal groups (five rats for each), treated rats showed marked oxidative, biochemical, hematological changes as well as pathological alterations in vital assets especially liver and urinary system. As distension of the urinary bladder, crystals deposition and stone formation were detected with variable degrees in treated rats. These findings assured that, marked antioxidant and ameliorative effect of bee's honey successfully reduced the noxious effect of melamine on different body organs.

Keywords: melamine, vital assets toxicity, bee's honey, white albino rats.