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

Nokhodian Z, Khalili M, Ataei B, Feizi A, Moradi A, Rostami S and Yaran M.

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.

Abdel-Sattar WM, Sadek KM, Elbestawy AR and Mourad DM.

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.
ABSTRACT
Potency of Sansevieria masoniana Extract against Antimicrobial Resistant Bacteria Isolated from Faeces of Pet – Reptile


Sansevieria masoniana (SM) leaf extract potential to inhibit the colonisation of the isolated bacteria from faeces of reptile communities in Surabaya on February 2018 until January 2019. The faeces obtained from 72 snakes, 43 lizards and 14 tortoises. The isolation was conducted using the Micro ID system.

All the isolated bacteria were tested against several antibiotics using disc diffusion method, and SM extract using minimum inhibitory concentration test. The isolated bacteria were identified as Escherichia coli, Salmonella enterica arizonae, Enterobacter cloacae, Pseudomonas sp, and Proteus sp. The minimum concentration of SM extracts that potential to inhibit the colonisation of both resistant and susceptible isolated bacteria was 62.5 mg/mL. This study proved that SM extract potential to inhibit the colonisation of the isolated bacteria from faeces of pet-reptile.

Keywords: Antibiotic, Pet – reptile, Reservoir, Resistance, Sansevieria masoniana.
Effect of Zeolite Dietary Supplementation on Physiological Responses and Production of Laying Hens Drinking Saline Well Water in South Sinai.

**ABSTRACT**

This study conducted to investigate the effects of dietary zeolite on egg production, egg quality, and blood constituents of hens under drinking saline well water. 180 hens were randomly divided into six equal groups (30 hens / group). 1

Group (S), hens drank saline well water and fed basal diet. 5

Group (T1), hens drank tap water and fed diet containing 5% zeolite. 6

Group (T2), hens drank tap water and fed diet containing 2% zeolite. 7

Group (S1), hens drank saline well water and fed diet containing 2% zeolite. 8

Group (S2), hens drank saline well water and fed diet containing 4% zeolite. 9

Egg number and egg mass were significant increase water and fed diet containing 2% zeolite. The 3

Red blood cells and hemoglobin were significant lower in the hens of S compared to other treatments. Hens of S group showed significant decrease in total protein, globulin, glucose and total antioxidant capacity concentrations as compared to the hens of T and T2 groups. Alanine transaminase, aspartic transaminase and creatinine were significantly increased in the hens of S group compared with hens in T and S1 groups. The 4

This study conducted to investigate the effects of dietary zeolite on egg production, egg quality and some blood constituents of rabbits. New Zealand White (NZW), New Zealand White × Californian, male rabbits, one-day old were randomly divided into six equal treatments (20 rabbits / treatment), namely T1, T2, T3, T4, T5 and T6. T1 served as control. The rabbits of second, third, fourth, fifth and sixth treatments were exposed to heat shock (36±1 °C for 3 hours from second day of age). In conclusion, applying heat shock exposure programs of rabbits especially T3 treatment, might increase HSP70 gene expression, this led to enhance immunity responses and production under severe heat stress conditions.
A Review on the Role of Lipid in Selected Apicomplexan, Anaerobic, Kinetoplastid and Intestinal Parasitic Infections.

**ABSTRACT**

Lipids are a diverse class of biomolecules that play a major role as energy source, membrane component, and secondary metabolites. They are involved in different aspects of innate signaling and antigen presentation. Parasites are able to remodel/metabolize host lipids during the overall pathogenesis of parasitic infections. In the case of apicomplexan, the host-pathogen interactions like cell signaling and immunity are facilitated through lipid exchange. As a source of eicosanoid precursors, lipids were observed during the attachment, invasion and other stages of parasitic infection. So lipids play a considerable role as growth promoter, increasing virulence, and empowering pathogenesis and used to subvert host metabolism as ways of immune evasion.

**Keywords:** World Vet. J., Infection, Lipid, Parasitic, Role

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**PREVALENCE OF RABBIT COCCIDIA IN MEDEA PROVINCE, ALGERIA**

Mohamed Sadik Bachene, Soraya Temim, Hassina Aimouaz Asma

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Mohamed Sadik Bachene, Soraya Temim, Hassina Aimouaz, Asma

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

**ABSTRACT**

Melamine is considered as one of the urea derivatives. Recently it is added to feed stuffs for the gain of lambs as much as live body weight and milk production of ewes. The present study aimed to evaluate the impacts of probiotic mixtures as a biological feed additive to sheep rations, may improve weaning weight and daily milk yield. A total number of 100 Barki ewes were randomly assigned and divided into five equal groups (20 each). During pregnancy and lactation stages, MPL and MPP groups recorded significantly increase in ewes body weight. The conception and lambing rates were tended to differ between all groups treated only with melamine. Microscopically, various pathological changes in kidneys, liver, lung, heart and intestine were also demonstrated. The severity of these changes varied among the groups, but the number of lambs born alive was significantly higher in MPP groups. The birth and weaning weights as well as average daily gain increased (P<0.05) in MPL and MPP groups. The milk yield tended to increase in MPP then MPL groups. The birth and weaning weights as well as average daily gain increased (P<0.05) in MPL and MPP groups.

**Keywords:** World Vet. J., Melamine, Vital assets toxicity, Bee’s honey, White albino rats