Research Paper

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 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
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.
became necessary because of some bacteria resistant against several antibiotics. This study colonisation of both resistant and susceptible isolated bacteria was 62.5 mg/mL. This study (48.83%), (76.74%), Pseudomonas sp the reptile communities in Surabaya on February 2018 until January 2019. The faeces obtained method, and SM extract using minimum inhibitory concentration test. The isolated bacteria were from the faeces of pet-reptile. A total of 129 fresh faecal samples were collected from 72 snakes, 43 lizards and 14 tortoises. The isolation was conducted using the Micro ID antibiotics
Reptile plays an essential role in human life and act as a reservoir of pathogenic bacteria. It system. All the isolated bacteria were tested against several antibiotics using disc diffusion proved that SM extract potential to inhibit the colonisation of the isolated bacteria from faeces of Escherichia coli
Proteus sp
Isolated from Faeces of Pet – Reptile.
Kurnianto A, Puspitasari, Widyaningrum LY, Widiyono I and Prakoso YA.


Potency of Sansevieria masoniana Extract Against Antimicrobial Resistant Bacteria Isolated from Faeces of Pet – Reptile
Presented by: A Rumianto, Puspitasari, LY Widyaningrum, Ikhwan Widjyono, YA Pekone

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 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 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 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


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DOI:

The The purpose of study was to evaluate the influence of hairline crack eggs on hatchery research Paper

ssf6; ssf1 for the hairline crack eggs while lowest blasting was found for AP27 due to young eggs. The shell of the eggs is essential in providing the shape of an egg and ensuring the safe


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Effect of Zeolite Dietary Supplementation on Physiological Responses and Production of Laying Hens

Emam KRS, Toraih HM, Hassan AM, El-Far AA, Morsy AS and Ahmed NA.

ABSTRACT

This study conducted to investigate the effects of dietary zeolite on egg production, egg quality and blood parameters. Sixty cross bread (New Zealand White, NZW X California), six weeks of age with live body weight ranging from 729.20 to 738.30g were divided to five experimental groups. The 1st group (S), hens drank saline well water and fed basal diet. The 2nd group (S1), hens drank saline well water and fed diet containing 2% zeolite. The 3rd group (T), hens drank tap water and fed basal diet. The 4th group (T1), hens drank tap water and fed diet containing 4% zeolite. The 5th group (T2), hens drank tap water and fed diet containing 6% zeolite. The 6th group (S2), hens drank saline well water and fed diet containing 4% zeolite. Egg number and egg mass were significant increase in the T1, T2 and S2 compared to hens in 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 decreased shell thickness compared to other treatments. In conclusion, under drinking saline well water, addition of zeolite to laying hens' diets at levels 4% might improve egg production, egg quality and blood parameters.

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Hematological parameters, Laying hens, Productive performance, Saline water, Zeolite.

Influence of Early Heat Shock Exposure on Physiological Responses and Reproduction of Rabbits Under Hot Desert Conditions

Sakr OG, Mousa BH, Emam KRS, Morsy AS and Ahmed NA.

ABSTRACT

This study aimed to apply early heat shock exposure programs for releasing HSP70 gene expression which may help rabbits to cope with heat stress. Hi-Plus 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 12:00 - 15:00 for three successive days). Rabbits of T2, T3, T4, T5 and T6 were exposed to heat shock at 3, 25, 60, 3+25 and 3+25+60 days of age, respectively. HSP70 expression and tri-iodothyronine hormone in the rabbits of T2, T3, T4, T5 and T6 were significantly increased. HSP70 expression was significantly decreased in the rabbits of T1. Heat shock at 36±1 °C for 3 hours from 12:00 - 15:00 for three successive days was stressful for the rabbits. Red blood cells count, packed cell volume and hemoglobin concentration increased in the rabbits of T2, T3 and T4. Total protein and globulin concentrations increased in the rabbits of T2, T3 and T4. Rectal and fur temperatures, respiration rate, alanine transaminase, corticosterone hormone and antibody titers were significantly increased in the rabbits of T1, T2, T3, T4, T5 and T6. HSP70 expression and tri-iodothyronine hormone in the rabbits of T2, T3, T4, T5 and T6 were significantly increased. In conclusion, applying heat shock exposure programs of rabbits especially T3 and T4 were effective in heat stress. Applying heat shock exposure programs of rabbits especially T3 and T4 were effective in releasing HSP70 gene expression which may help rabbits to cope with heat stress.

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Saccharomyces cerevisiae yeast treatment and replacement level of OP. Best economic efficiency observed with 10%UOP 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 12:00 - 15:00 for three successive days). Rabbits of T2, T3, T4, T5 and T6 were exposed to heat shock at 3, 25, 60, 3+25 and 3+25+60 days of age, respectively. HSP70 expression and tri-iodothyronine hormone in the rabbits of T2, T3, T4, T5 and T6 were significantly increased. HSP70 expression was significantly decreased in the rabbits of T1. Heat shock at 36±1 °C for 3 hours from 12:00 - 15:00 for three successive days was stressful for the rabbits. Red blood cells count, packed cell volume and hemoglobin concentration increased in the rabbits of T2, T3 and T4. Total protein and globulin concentrations increased in the rabbits of T2, T3 and T4. Rectal and fur temperatures, respiration rate, alanine transaminase, corticosterone hormone and antibody titers were significantly increased in the rabbits of T1, T2, T3, T4, T5 and T6. HSP70 expression and tri-iodothyronine hormone in the rabbits of T2, T3, T4, T5 and T6 were significantly increased. In conclusion, applying heat shock exposure programs of rabbits especially T3 and T4 were effective in heat stress. Applying heat shock exposure programs of rabbits especially T3 and T4 were effective in releasing HSP70 gene expression which may help rabbits to cope with heat stress.

Influence of Treated Orange Pulp on Growth Performance, Nutrients Digestibility and Plasma Constituents of Rabbits

Abd Elmonem Suliman M, Rushdy Eltanani R and Fathy Abdel-Mawla L.

ABSTRACT

Sixty cross bread (New Zealand White, NZW X California), six weeks of age with live body weight ranging from 729.20 to 738.30g were divided to five experimental groups. The 2nd group (S), hens drank saline well water and fed basal diet. The 3rd group (T), hens drank tap water and fed diet containing 4% zeolite. The 4th group (T1), hens drank tap water and fed diet containing 6% zeolite. The 5th group (T2), hens drank tap water and fed diet containing 8% zeolite. Experimental design and feeding trial of growing New Zealand White rabbits (8-14 weeks of age) fed treated orange pulp by Saccharomyces cerevisiae yeast treatment didn't effect on digestibility and nutritive value of growing rabbits. Best economic efficiency observed with 10%UOP 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 12:00 - 15:00 for three successive days). Rabbits of T2, T3, T4, T5 and T6 were exposed to heat shock at 3, 25, 60, 3+25 and 3+25+60 days of age, respectively. HSP70 expression and tri-iodothyronine hormone in the rabbits of T2, T3, T4, T5 and T6 were significantly increased. HSP70 expression was significantly decreased in the rabbits of T1. Heat shock at 36±1 °C for 3 hours from 12:00 - 15:00 for three successive days was stressful for the rabbits. Red blood cells count, packed cell volume and hemoglobin concentration increased in the rabbits of T2, T3 and T4. Total protein and globulin concentrations increased in the rabbits of T2, T3 and T4. Rectal and fur temperatures, respiration rate, alanine transaminase, corticosterone hormone and antibody titers were significantly increased in the rabbits of T1, T2, T3, T4, T5 and T6. HSP70 expression and tri-iodothyronine hormone in the rabbits of T2, T3, T4, T5 and T6 were significantly increased. In conclusion, applying heat shock exposure programs of rabbits especially T3 and T4 were effective in heat stress. Applying heat shock exposure programs of rabbits especially T3 and T4 were effective in releasing HSP70 gene expression which may help rabbits to cope with heat stress.
PREVALENCE OF RABBIT COCCIDIA IN MEDEA PROVINCE, ALGERIA

Mohamed Sadek Bachene, Soraya Temm, Hasseni AmrAziz Asma

Eimeria's prevalence was assessed in Medea province, Algeria. A total of 414 faecal samples were collected from 50 farms in six regions. The results showed that the highest prevalence was observed in females (40%), followed by males (36%). The Eimeria species identified were Eimeria magna, Eimeria acervulina, and Eimeria brunetti. The prevalence varied across regions, with the highest in Oran (46.8%) and the lowest in Médéa (36%). In breeding rabbits, females were more infected, whereas in adult rabbits, males were more affected. The implications of these findings are discussed in terms of livestock health and management in the region.