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 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.

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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.
ABSTRACT

Proteus sp, Enterococcus sp, the reptile communities in Surabaya on February 2018 until January 2019. The faeces obtained (53.48%). Those isolated bacteria indicated various resistance patterns against several antibiotics. This study aimed to evaluate the potency of SM extract using minimum inhibitory concentration test. The isolated bacteria were tested against several antibiotics using disc diffusion method, and SM extract using minimum inhibitory concentration test. The isolated bacteria were proved that SM extract potential to inhibit the colonisation of the isolated bacteria from faeces of pet-reptile. A total of 129 fresh faecal samples were collected from Escherichia coli (76.74%), Pseudomonas sp (48.83%), and Salmonella enteritidis (32.55%).


Saneto STAALKAT Alpha 125 Machine number JB 11786. The eggs were collected from SSF6; SSF1 for the hairline crack eggs while lowest blasting was found for AP27 due to young age with good quality eggshell. On simple hatch debris analysis, the highest 1st week mortality, infertile, contaminated eggs and 3rd week mortality were found for hairline crack eggs as compared normal eggs of same flocks. The highest blasting of dead in the shell for normal and hairline crack eggs. The highest hatchability (49.07 ± 0.51b) was found for normal eggs in SSF5 flock compared to normal eggs for SSF5 flock. The water loss, chick yield and culling chicks percentage were also significantly better for normal eggs compared to hairline crack eggs. The highest mortality, feed intake, weight gain and FCR. The hairline crack eggs are the source of contamination. Such kinds of eggs should not be used for incubation.


The The purpose of study was to evaluate the influence of hairline crack eggs on hatchery parameters and later life of chicks. The study was conducted from October to December 2018 at Chakri hatchery Salman Poultry Pvt. Ltd Pakistan to evaluate the outcomes of hairline crack eggs. The cracks eggs like hairline crack eggs were detected by simple visual and physical examination. The eggs with hairline crack were compared with normal eggs for hatchability, candling, putrification/blasting and dead in the shell. Significant difference was found for hatchability, candling, blasting/putrification and dead in the shell. The chicks from normal eggs were also significantly better than chicks from hairline crack eggs. The highest hatchability (49.07 ± 0.51b) and lowest candling (9.98 ± 0.064a) for hairline crack eggs were found for AP27 due to young age with good quality eggshell. The water loss, chick yield and culling chicks percentage were also significantly better for normal eggs compared to hairline crack eggs. The highest blasting of dead in the shell was found highest for SSF6 f, SSF1. The dead in the shell was found highest for hairline crack eggs of young flocks due to a better quality of eggs. The shell of the eggs is essential in providing the shape of an egg and ensuring the safe source of contamination. Such kinds of eggs should not be used for incubation.

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ABSTRACT

Peste des petits ruminants is enzootic in Palestine, reported in each year of the study period. The 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 veterinary services and animal health between 2005 and 2017. The study indicated that 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 veterinary services and animal health between 2005 and 2017. The study indicated that 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%.


Research Paper

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


Potential of Sansevieria masoniana against isolated Aeromonas hydrophila Google Scholar


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

This study was conducted to investigate the effects of dietary zeolite on egg production, egg quality, and physiological responses of laying hens. The experiment was divided into six equal groups (30 hens/group). 1

- Group T: hens drank tap water and fed diet containing 2% zeolite.
- Group T1: hens drank tap water and fed diet containing 4% zeolite.
- Group T2: hens drank tap water and fed diet containing 6% zeolite.
- Group T3: hens drank tap water and fed diet containing 8% zeolite.
- Group S: hens drank saline well water and fed diet containing 2% zeolite.
- Group S1: hens drank saline well water and fed diet containing 4% zeolite.
- Group S2: hens drank saline well water and fed diet containing 6% zeolite.

Comparisons were made between the groups to determine the effects of different levels of zeolite supplementation.

- **Egg Production**: Egg weight significantly increased in the hens of S compared to them in T, T1, and T2 groups. Egg number and egg mass were significant increase in the hens of S2 compared with hens in T and S groups.
- **Eggshell Quality**: The eggshell thickness was significantly decreased shell thickness compared to other treatments. Aldosterone hormone was significantly decreased in the hens of S compared to other treatments.
- **Physiological Responses**: Alanine transaminase, aspartic transaminase, and creatinine were significantly increased in the hens of S group compared to other treatments. Serum glucose was significantly lower in the hens of S compared to other treatments.
- **Hematological Parameters**: 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 T1, T2, T3, T4, T5, and T6.
- **Liver Function**: Liver function was significantly affected by experimental diets, with the 5%TOP group showing the best performance in terms of feed conversion ratio.
- **Economic Efficiency**: The 5%TOP group showed the highest feed conversion ratio, indicating improved efficiency.

**Keywords**: Egg production, egg quality, physiological responses, laying hens, zeolite, saline water, laying hen, productive performance, eggshell quality.
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